

STATE OF WASHINGTON
DEPARTMENT OF HEALTH
Olympia, Washington 98504

RECEIVED

By CERTIFICATE OF NEED PROGRAM at 10:13 am, Dec 31, 2020

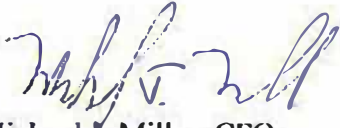
CN21-40

WASHINGTON STATE CERTIFICATE OF NEED PROGRAM
RCW 70.38 AND WAC 246-310

APPLICATION FOR CERTIFICATE OF NEED
HOSPICE PROJECTS
(excludes amendments)

Certificate of Need applications must be submitted with a fee in accordance with the instructions on page 2 of this form.

Application is made for a Certificate of Need in accordance with provisions in Revised Code of Washington (RCW) 70.38 and Washington Administrative Code (WAC) 246-310 adopted by the Washington State Department of Health. I hereby certify that the statements made in this application are correct to the best of my knowledge and belief.

Signature and Title of Responsible Officer:  Michael J. Miller, CFO Date: 12/30/2020	Person To Whom Questions Regarding This Application Should Be Directed: Jamie Brown, Vice President Eden/EmpRes Home Services 4601 NE 77 th Ave. Suite 300 Vancouver, WA 98662 Telephone Number: 360-798-8298
Legal Name of Applicant: EmpRes Healthcare Group, Inc.. for Eden Hospice at King County, LLC Address of Applicant: 4601 NE 77 th Ave., Ste. 300 Vancouver, WA 98662 Telephone Number: 360-892-6628	Type of Project (check all that apply): <input checked="" type="checkbox"/> New Agency <input type="checkbox"/> Existing Medicare Certified/Medicaid Eligible Agency Expanding into Different County <input type="checkbox"/> Existing Licensed-Only Hospice Agency to Bccome Medicare Certified/Medicaid Eligible
Project Summary: EmpRes Healthcare Group, Inc., through Eden Hospice at King County, LLC, intends to operate a Medicare certified and Medicaid eligible Hospice Agency serving King County. Estimated capital expenditure: \$0	

Eden Hospice at King County, LLC

Certificate of Need Application

**Proposing to Operate a Medicare Certified and
Medicaid Eligible Hospice Agency in King
County**

December 2020

Table of Contents

Executive Summary.....	4
Applicant Description.....	8
Project Description	13
Project Rationale	18
A. Need	18
B. Financial Feasibility	29
C. Structure and Process (Quality) of Care.....	36
D. Cost Containment.....	48

Figures

Figure 1. Patient Origin Study.....	10
-------------------------------------	----

Tables

Table 1: Eden Hospice Medical Director, Projected FTE % and Compensation.....	12
Table 2: Estimated Eden Hospital at King County Project Schedule	
Table 3: Eden Hospice Agency Provided and Contracted Services.....	14

Method 1: Application of the Department of Health Hospice Need Methodology (Provisional)

Table 4: King County Hospice Admissions and Deaths 3-Year Average by Age Group	19
Table 5: Deaths in King County by Age Cohort and 3-Year Average	19
Table 6: King County Average and Projected Deaths 2019 - 2021 by Age Cohort	20
Table 7: Potential King County Hospice Volume, 2019-2021 By Age Group.....	20
Table 8: King County Admissions & Patient Days Unmet Need, 2019-2021	20
Table 9: King County Unmet Need Based on Patient Days, 2019-2021.....	21
Table 10: King County Unmet Need Based on Average Daily Census, 2019-2021	21
Table 11: King County Unmet Need for Hospice Agencies, 2022	21
Table 12: Comparison of Dual Eligible Admission Rate: King County and National	
Table 13: Dual Eligible Percent of Medicare Beneficiaries and Health Care Expenditures	
Table 14: Comparison of Medicare Payments to King County Hospitals in Last 30 Days of Life	
Table 15: Providence CN 19-44 Hospice Cost Savings Analysis	
Table 16: King County Population Mix by Age, Gender and Ethnicity	
Table 17: Eden Hospital at King County Utilization Forecast, 2021 – 2024.....	
Table 18: Eden Hospital at King County Provisional Diagnostic Mix , 2021 – 2024	25
Table 19: Eden King Hospice Expected Payer Mix Percent.....	34
Table 20: King County Dual Eligible Admit Rates Compared to National Rates per 1,000	42

Table 21: Capital Expenditure Estimate Table	
Table 22: Eden King Hospice Expected Payer Mix Percent	34
Table 23: Eden Hospital at King County Staff / Patient Ratio	36
Table 24: Comparative Staff : Patient Ratios on Recently Approved Hospice Agencies	37
Table 25: Alternative Analysis: Access to Hospice Services	41
Table 26: Alternative Analysis: Improved Health Outcome Hospice... ..	42
Table 27: Alternative Analysis: Quality of Care.....	42
Table 28: Alternative Analysis: Healthcare Cost Control – Patient and Payer.....	49
Table 29: Alternative Analysis: Operating Efficiencies	49
Table 30: Alternative Analysis: Impact on King County Hospices	41

Exhibits

- Exhibit 1. Percent Age 5 and Older King County Residents who speak English Less than Well by Ethnic Cohort
- Exhibit 2. Leading Causes of Death: King County 2011 - 2015
- Exhibit 3. Unmet Medical Needs (Adults) Average from 2011 - 2015

Appendix

Appendix 1: Check to DOH – Sent Under Separate Cover

Appendix 2: Letter of Intent

Appendix 3: Business Associate, Management & Operating Agreement & SOA Eden HPS

Appendix 4: Organizational Structure of EmpRes

Appendix 5: Letter of Financial Commitment

Appendix 6: Lease Agreement

Appendix 7: 2018 NHPCO Facts Figures

Appendix 8: List of EmpRes/Eden Skilled Nursing Facilities, Hospice, Home Health and Care Agencies

Appendix 9: Medical Director Contract

Appendix 10: Medical Director Job Description

Appendix 11: Single Line Drawings of Hospice – Home Health Co-Location

Appendix 12: Eden Hospice at King County, LLC Pro Forma

Appendix 13: EmpRes Healthcare Group Inc. Pro Forma

- Without Eden Hospice at King County
- With Eden Hospice at King County

Appendix 14: Admissions Criteria Process (Intake Policy & Non-discrimination),

Appendix 15: Admissions and Charity Care or Financial Assistance Policy, and Discharge Policy

Appendix 16: Charity Care Policy

Appendix 17: Volunteer Services Policy

Appendix 18: Employee Recruitment, Training and Development Policy

Appendix 19: Quality Assessment and Improvement Program

Appendix 20: DOH 2019-2020 Hospice Numeric Need Methodology

Appendix 21: BLANK

Appendix 22: BLANK

Appendix 23: King County Health Needs Assessment 2018-2019

Appendix 24: Melanoma Survival and Costs

Appendix 25: Half of Older Americans Seen in Emergency Department in Last Month of Life

Appendix 26: Length of Stay and Perception of Too Late Referral

Appendix 27: Washington State Hospice Cost, Quality and Outcome Studies

Appendix 28: EmpRes Healthcare Group Audited Financial Statement 2018-2019

Appendix 29: Integrating Care for Beneficiaries of Medicare and Medicaid: A White Paper

Appendix 30: Washingtonians are Less Religious Than Ever, Gallup Poll Finds

Appendix 31: Maintaining Dignity

Appendix 32: The Facts on LGBT Aging & Stonewall Generation Confronts Old Age

EDEN HOSPICE AT KING COUNTY, LLC CON EXECUTIVE SUMMARY

Eden Hospice at King County, LLC requests certificate of need (CoN) approval to establish a Medicare- certified and Medicaid hospice agency in King County to meet Department of Health findings on Need identified in the department's 2020 hospice need methodology posted in in October 2020 identifies a need for 3 new hospice agencies.¹ There are currently 9 hospice agencies that have received approval to serve King County residents. Each hospice agency has designed its program and outreach efforts to address current and future hospice need in King County. Future hospice need is projected to be 63 patients in 2020, 338 patients in 2021 and 613 patients in 2022 as calculated in Step 5 of the State methodology.

Despite ongoing efforts by existing King hospice providers, King County hospice admission rates are 5% below the nationwide rate for non-dual (Medicare only) eligible hospice patients and over 18% below the nationwide rate for dual- eligible (Medicare and Medicaid) hospice patients. Addressing the large disparity in access and utilization of hospice services in King County among low income, dual-eligible Medicare patients would add nearly 200 King County hospice patients and add a 33- patient average daily census using 2020 hospice data.

Eden has a plan and a strategy to address current unmet need as well as increasing hospice service access through outreach to the dual-eligible Medicare population through collaborative and augmented, culturally competent services to hospice patients, along with their families and friends, who are currently underserved. To reduce disparity for the dual-eligible population requires outreach through existing agencies and providers who also other cohorts with significant access barriers including:

- Medicaid population
- Dual-eligible and low income, Medicare population,
- Black and African American populations
- Hispanic populations
- Veterans
- LGBTQ population

Each of these population cohorts have socio-economic characteristics that lead to health disparity and access barriers resulting in lower utilization of hospice services. Additionally, each target population cohort is entitled to hospice services that are culturally sensitive, respectful and competent.

This strategy of increasing hospice utilization to underserved King County residents will not only improve the quality of life for patients facing death and for their families and friends who will grieve their loss, but it will:

- Reduce healthcare costs
- Meet the DSHS LTSS Dual-Eligibility service goals and Washington's Triple Aim for healthcare services

¹ The hospice rules were recently updated in October 2018 in a response to requests from existing hospice agencies as well as new applicants. During the course of the rulemaking, the Department modeled the numeric methodology for stakeholders, including the capacity adjustments. Newly revised WAC 246-310-290 had a number of organizational and structural changes. However, the language that is now in WAC 246-310-290(7)(b) was not newly added in 2018, but already existed in former WAC 246-310-290(1)(c)(ii). Nor did newly revised WAC 246- 310-290 fundamentally change the calculation of the numeric need methodology. The updated rule merely creates additional steps out of the existing process in the old rule, providing greater transparency to the process. The department's use of default values in calculating current capacity is not an error or miscalculation. The department concluded that adopting a new interpretation of WAC 246-310-290 without any change in rule or other directive, is inconsistent with the department's past practices, its modeling of the methodology during rulemaking, and the language of the rule itself.

- Minimize or eliminate any short-term adverse financial impact on existing hospice agencies with the addition of Eden Hospital at King County

Eden Hospital at King County will continue Eden's hospice commitment in the CoN approved Eden Hospice at Whatcom County to eliminate critical end-of-life obstacles to hospice care for King County residents who are committed to exercising control over their end-of-life options through providing hospice services that are consistent with the Washington State Death with Dignity statute.

Eden Hospice at King County, LLC is wholly owned by EmpRes Healthcare Group, Inc. EmpRes is a 100% employee-owned organization with well-established roots in King County. It currently has approximately 79 operating units in Washington State and regionally including nursing homes, assisted living facilities, home health agencies, home care agencies and Medicare certified hospice agencies. In 2019, Eden Home Health of King County, LLC, EmpRes was certified to serve Medicare and Medicaid home health patients. EmpRes also operates four skilled nursing homes within King County and was approved this year to operate its first community hospice agency in Washington State in Whatcom County joining the 3 other hospices operated by EmpRes in Arizona and Nevada.

Returning to the overview of the barriers to hospice care for King County residents, Eden first acknowledges the years of ongoing efforts by all of the hospices serving King County that have increased the percentage of non-dual, conventional Medicare hospice admission rate per 1,000 Medicare deaths to over 95% of the national average for this hospice cohort but as noted much work is needed to address the hospice need for the dual-eligible Medicare hospice cohort whose utilization is only 87% of the national dual-eligible rate. In addition, in King County the dual eligible admission rate per 1,000 Medicare deaths is less than 86% on the non-dual, conventional Medicare rate.

Barriers to hospice care that cause healthcare access disparity and unmet need are many and range from complex medical conditions with very short life expectancies to medical conditions with much longer terminal prognoses. The resistance by healthcare providers, patients and their families to address the end of life and move from active treatment to accepting the terminal prognosis and move to hospice care is significant. Eden's approach to increase hospice utilization in terms of both admission rates and the length of hospice care to national rates as a minimum and leadership levels can best be addressed by a laser focus on outreach to providers serving the populations with disparity in access as previously described. Outreach will be followed up by culturally sensitive and respectful service delivery plans for these population cohorts as well as recruitment, training and support of the Eden hospice staff to achieve the goals that we have for this project. Finally, Eden will measure its results using OASIS data set. OASIS reports:

- Outcome-Based Quality Monitoring (OBQM) Potentially Avoidable Events Report and Patient Listing.
- Outcome-Based Quality Improvement (OBQI) Outcome Report.
- Error Summary Report.
- Utilizes the results of Quality Assurance Performance Improvement (QAPI), patient safety and risk reduction activities.
- Management of change and Quality Assurance Performance Improvement (QAPI) supports both safety and quality through the Agency.

In short, current healthcare disparity has led to lower utilization by persons of color, low income, Veterans, children and persons who self-identify as being LGBTQ population. **If Eden Hospice at King County is unsuccessful in garnering approval, King County will lose an opportunity to meet the Washington State Healthcare Triple Aim of Better Health, Better Healthcare and Improved Healthcare Cost Control as well as the additional aim for achieving health equity committed to by King County Hospitals for a Healthier Community Collaborative of 11 hospital systems and Public Health – Seattle and King County.**

Need: Eden Hospice at King County, LLC will serve Medicare and Medicaid patients as well as having a charity care policy that is consistent with most Washington State hospitals to serve indigent patients. The State methodology shows a baseline need for 3 additional hospices based on an unmet need for 613 admissions at or 38,394 days of care at an average length of stay of 62.66 days of care. As noted before, attaining health equity of access in King County through targeted outreach would add an additional 33-patient census. Correcting the substantial overstatement of hospice capacity for Wesley Homes of a 29-patient census in 2018 (See Appendix 20). would actually result in a need for 4 additional hospices rather than 3 new hospices.

Financial Feasibility: EmpRes healthcare facilities are already in King County which minimizes start-up and continuing overhead associated with an independent solo operation thus reducing breakeven levels. Eden Hospice at King County, LLC will share space with EmpRes Home Health King County, LLC. For example, there is no capital expenditure associated with the project because there is a sufficient supply of desk phone/computer setups and the field clinicians have company-issued cell phone and table from our equipment inventory. That inventory is sufficient to support the addition of King hospice staff. The co-shared office location is already wired with secure IT infrastructure. Thus, there is no need for an additional capital expenditure. Provision of working capital is provided through no-interest capital contributions from EmpRes with the source of capital contributions being cash generated from operations backed up by a \$40 million line of credit commitment. Eden Hospital at King County will also initiate supportive ancillary care relationships with vendors currently under contract with Eden Home Health King County, as well as with vendor relationships being developed for the Eden Hospice at Whatcom County agency.

Structure and Process of Care: As an established provider in the community, Eden Hospice will carry out targeted outreach with federally qualified health centers, lead agencies in the DSHS health come project, community agencies focused on serving Veterans, Hispanic communities and the LGBTQ population and with local hospital, physicians, skilled nursing facilities and other providers that Eden Home Health of King County is current working with to ensure continuity of care while avoiding fragmentation of care. Eden Hospice will leverage its existing community relationships, within King County and add respite options and other relationships necessary to support the hospice patient and family members throughout the course of care and during the period of bereavement following death of the patient.

Cost Containment: Hospice care reduces health care expenditures. Appendix 27 provides the most recent quarterly report of the Washington Department of Social a & Health Services (DSHA) Fee for Service Dual Eligible project that seeks to reduce overall Washington Medicaid costs. As of September 2020, 37% of the state dual eligible program is enrolled in the State Health Home program. In the fourth Demonstration Year (2017) that included King County and Snohomish County, Medicare savings were over \$55 million with total Medicare savings over the 4-year

period of \$166.8 million (Appendix 27).² Medicaid savings have not yet been calculated by the Centers for Medicaid and Medicare Services.

Reducing disparity in utilization through outreach to special populations, primarily the dual eligible Medicare and Medicaid population will increase the number of King County hospice patients receiving hospice care and minimize or eliminate any adverse financial impact on existing providers. In fact as disparity is reduced through targeted outreach efforts by Eden, the current outreach efforts of other hospice providers and outreach by lead agencies in the DSHS health home demonstration project will increase hospice utilization for all hospices beyond the current hospice admissions per 1,000 death rate as modestly, continuing to increase average length of stay for hospice patients.

Regardless of whether the average daily census need is 30, 35 or 40, there are internal cost containment opportunities related with co-location of services. First, in this co-location, minor equipment and remodeling costs can be eliminated as previously noted. Co-location with the home health agency also optimizes the existing relationships between physicians in the community and the hospice service. External cost containment can also be achieved with higher hospice utilization levels due to reduced hospital related costs. As noted in Table 15, a Providence Hospice study showed that Washington State could save over \$99 million annually if patients received 5 weeks of hospice care versus no hospice care.³

² Edith G. Walsh, PhD. REPORT FOR WASHINGTON MANAGED FEE-FOR-SERVICE (MFFS) FINAL DEMONSTRATION YEAR 3 AND PRELIMINARY DEMONSTRATION YEAR 4 MEDICARE SAVINGS ESTIMATES: MEDICARE-MEDICAID FINANCIAL ALIGNMENT INITIATIVE, ES-2

³ CN 19-44. Providence Health and Services Hospice Application. Page 53

APPLICANT DESCRIPTION

1. Provide the legal name(s) of applicant(s).

Note: The term "applicant" for this purpose is defined as any person or individual with a ten percent or greater financial interest in a partnership or corporation or other comparable legal entity that engage in any undertaking which is subject to review under provisions of [WAC 246-310-010\(6\)](#).

This application is submitted by EmpRes Healthcare Group, Inc which owns s 100% of EmpRes Home Health and Hospice, LLC, which in turn owns 100% of Eden Hospice at King County. If a Certificate of Need is issued for this project, the department will issue an In Home Service license to Eden Hospice at King County, LLC. For this review, references to the applicant will identify “Eden Hospice at King County, LLC” as the applicant.

2. Identify the type of ownership (public, private, corporation, non-profit, etc.).

The applicant recognized by the Program is EmpRes Healthcare Group, Inc. The UBI for EmpRes Healthcare Group, Inc. Eden Hospice at King County will be a limited liability company and an application for this designation is in process. The UBI for Eden Hospice at King County is 604-693-901.

3. Provide the name, title, address, telephone number, and email address of the contact person for this application.

Jamie Brown, Vice President of Home Services
EmpRes Healthcare Group, Inc.
4601 NE 77th Ave., Ste. 300
Vancouver, WA 98662
360-798-8298
jbrown3@eden-health.com

4. Provide the name, title, address, telephone number, and email address of the consultant authorized to speak on your behalf related to the screening of this application (if any).

Robert McGuirk, Principal
RMC Consulting
1606 NE 60th Ave.
Portland, OR 97213
503-287-4045
rmconsulting1@qwestoffice.net

5. Identify the corporate structure and related parties. Attach a chart showing organizational relationship to related parties.

Please see Appendix 4 for an organization chart showing the organization relationship to related parties.

- 6. Provide a general description and address of each facility owned and/or operated by applicant (include out-of-state facilities, if any).**

Please see Appendix 8 for a list of the existing organizations.

PROJECT DESCRIPTION

1. Provide the name and address of the existing facility

Eden Home Health of King County, LLC
733 7th Ave, Suite 110
Kirkland, WA 98033

2. If an existing Medicare and Medicaid certified hospice agency, explain if/how this proposed project will be operated in conjunction with the existing agency.

Not Applicable

3. Provide the name and address of the proposed facility

Eden Hospice at King County, LLC will be co-located with Eden Home Health of King County, LLC.

Eden Hospice at King County, LLC
733 7th Ave, Suite 110
Kirkland, WA 98033

4. Provide a detailed description of the project

Overview

As noted by rule, a hospice must be primarily engaged in providing the following care and services and must do so in a manner that is consistent with accepted standards of practice:

- Nursing services.
- Medical social services.
- Physician services.
- Counseling services, including spiritual counseling, dietary counseling, and bereavement counseling
- Hospice aide, volunteer, and homemaker services.
- Physical therapy, occupational therapy, and speech-language pathology services.
- Short-term inpatient care.
- Medical supplies (including drugs and biologicals) and medical appliances.

a. General description of types of patients to be served by the project.

The proposed hospice will serve King County patients requiring end-of-life care and support and those who have elected to avail themselves of the Medicare hospice, Medicaid or private plans that are similar in organization, benefits, and payment arrangement.

b. List the equipment proposed for the project:

No additional equipment is proposed for the project.

c. Provide drawings of proposed project

Please see Appendix 11 for a single line drawing that shows the current configuration of the office space of the EmpRes Home Health of King County, LLC., which will also house the Eden Hospice at King County, LLC agency Office space for the proposed hospice is 788 net square feet. Net and gross area are the same for the proposed office space.

Patient care

The care of the hospice patient does not take place in the hospital setting but in the patient's home. Since EmpRes Home Health of King County LLC already cares for a large number of hospice- eligible patients, it is expected that the initial home visits will be undertaken by EmpRes Home Health of King County, LLC staff who are currently working with the same terminally-ill patients in their homes who will be electing the Medicare hospice option.

Construction

No new construction is required.

Project Completion

Based on WAC 246-310- 010(13) 1 initiation of hospice services will represent project completion on or before January 1, 2022.

Planning Horizon

The third full year of operation will be 2024.

d. Relationship of this project to the long-range business plan and long- range financial plan (if any).

Our Values and Beliefs

Hospice is medical care with an emphasis on pain management and symptom relief for patients with life-limiting illnesses, as well as emotional and spiritual support for patients and those who love and care for them. Eden believes that choosing hospice does not mean that patients or their families and caregivers give up on life. Our Eden multidisciplinary team understands the complexity of issues and feelings that surround hospice care and end of life. Our care process is designed to *maximize* our patient's quality of life and support the patient's and caregivers' ability to be in control of end-of-life decision making. Our caregivers can provide 24-7 on-call support, clinical and skilled care, as well as spiritual and emotional counseling continuing through the bereavement process. Eden believes that through effective and compassionate care our patients can approach the end of life with dignity and comfort.

Symptom Management

Eden Hospice understands that the experience of someone diagnosed with end stage cardiac disease is very different than that of someone with cancer or pulmonary disease. That's why Eden offers symptom management to control symptoms and promote comfort. No matter what the disease or diagnosis, Eden believes in improving the quality of life when quantity is limited. Eden will also provide supportive therapies such as music therapy and animal-assisted therapy to improve the quality of life for our patients. These services are provided through the Volunteer component of the Eden hospice programs.

Our medical directors focus on symptom management and will work with the patients' attending physicians to order appropriate medications. Our philosophy embraces the idea of relieving pain and other symptoms so that patients are in control of their own comfort. Our goal is to make a patient as comfortable as possible.

Supplies & Equipment

Hospice home care medical equipment can dramatically improve the quality of life of those with life-limiting illnesses. Eden Hospice will manage the ordering and delivery process of the necessary equipment. Medical equipment can:

- Improve Mobility
- Make breathing easier
- Improve quality of sleep and help reduce pain

Eden Hospice will provide patients with the supplies and medical equipment related to the hospice diagnosis, including:

- Respiratory equipment including oxygen and CPAP, BIPAP and nebulizers
- Walkers
- Crutches
- Wheelchairs

Respite Care

Eden believes in supporting both the patient and the caregiver team. Respite care is provided to the patient when family/caregivers need time away. Patients are placed in a contracted facility for a length of time in accordance with plan benefits (typically up to 5 days). The contracted facility will provide care with the hospice interdisciplinary members to continue making visits and maintain emergency/crisis availability.

Respite care for your caregiver may help prevent:

- Burn-out
- Depression
- Stress, Illness, and Reduced Immunity due to Lack of Sleep

Bereavement Services

Bereavement care is an essential component of hospice care that includes anticipating grief

reactions and providing ongoing support for the bereaved for a year or more after the patient has passed. Grieving and mourning are normal. Patients, families and caregivers may experience grief as a mental, physical, social, or emotional reaction. Mental reactions can include anger, guilt, anxiety, sadness, and despair. Physical reactions can include sleeping problems, changes in appetite, physical problems, or illness. Eden Hospice is committed to providing information, counseling, and resources for any reaction that may be experienced.

Eden believes that each person takes their own journey through grief and healing. Allowing patients, families and caregivers to open-up to the idea that not every person experiences and deals with the loss of a loved one in the same way. As there are many cultural and or religious practices supported in communities to help those facing loss, understand that there is no “one way” or “one plan” that can work for everybody.

Hospice bereavement programs focus on:

- Helping family members understand and move forward in the grief process by enabling their expression of thoughts and feelings and helping them identify or develop healthy coping strategies.
- Helping families problem-solve around adjustment issues.
- Providing guidance about decision-making.
- Addressing social and spiritual concerns.
- Assisting survivors to adapt to an environment without the deceased.

Volunteers

Eden Hospice recognizes that employees, patients, family members and caregivers live in a web of community-based relationships and one choice that most hospice patients elect is to remain in that community. Eden Hospice volunteers facilitate that supportive network of community relationships. Eden Hospice volunteers are drawn to volunteer work for a variety of reasons. Our volunteers have various ages, professions, and life experiences. They have a true desire to give their time to individuals dealing with a life-limiting illness. Volunteers are fully vetted through a background check.

Hospice volunteers assist with a number of helpful and meaningful activities and support the overall outreach to the community about the benefits of hospice. See below for a complete list of what volunteers can and cannot do. Our volunteers are never asked to do something they are not comfortable doing.

Hospice volunteers can:

- Play cards and games.
- Watch movies or television.
- Help with light errands.
- Help with light housekeeping and meal preparation.
- Support patient interests, such as music or crafting.
- Provide animal therapy.
- Provide music therapy.
- Read aloud.
- Write letters.
- Do office work, such as data entry, mailings, answer phone calls, etc.
- Provide respite care to family members and/or caregivers.
- Offer companionship and support.
- Offer a calm and peaceful presence by being comforting and supportive.

Volunteers do not substitute for the needed specialized services provided by an experienced, trained and often licensed professional staff. Per the rules of Medicare participation, hospice volunteers may not:

1. Offer feeding assistance.
2. Transfer or transport patients.
3. Give medications.
4. Assist with personal care.
5. Provide counseling services or offer advice.

At Eden Hospice, we are committed to providing information, counseling, and resources. Our support groups can help manage the everyday care and emotional challenges of caring for a dying loved one. Our team of professionals and volunteers address the emotional, social, and spiritual needs of patients and those who love and care for them.

Our Plan for King County

As noted in the Executive Summary and throughout the application, King County residents have experienced limited access to hospice services. Of particular importance in King County is that several of the hospices operating in King County have institutional constraints in addressing the Death with Dignity statute in Washington or effectively restrict access based on health plan coverage. The national literature and local experience or perceptions create barriers to access among terminally ill patients and their families concerned about a loss of control in how a patient and family will address dying. Choice also includes many other aspects such as acceptance of differing lifestyles and life experiences. Eden Hospice will be co-located with EmpRes Home Health and its referral sources that offer new pathways of outreach to inform patients and families about the benefits of hospice and to facilitate their decisions to select the hospice option when it can provide the most benefit.

Eden Hospital at King County has four goals tailored to the unique needs and circumstances in the King County service area to address barriers and resulting access disparity to support increasing hospice admissions and ALOS in hospice care.

1. Eden will develop hospice services to ensure integration of hospice services with general healthcare and social services that focus on increasing admissions and ALOS of hospice stay and the care experience for the dying patient and the patient's and all of the patient's caregivers through working with the Department of Social and Health Services (DSHS) Long Term Services Support Dual Eligible Demonstration Project, the Medicaid Apple Program and the Bi-Partisan Policy Center's Integrating Care for Medicare and Medicaid eligible beneficiaries.
2. Eden will target outreach activities to dual-eligible Medicare-Medicaid beneficiaries to reduce disparity in low-income populations access by direct outreach to federally qualified health centers such as Sea Mar as well as the fee for service Apple program and the DSHS integration project and other Medical Care Organizations serving King County including United Health Care Community Plan and Molina.

In 2018, approximately 85% of the nearly 60 million Medicare beneficiaries qualified for Medicare on the basis of age. The remaining 15% were eligible based on disability. Dual-eligible individuals tend to have poorer health and functional status than those eligible for Medicare only. According to the

Medicare-Medicaid Coordination Office (MMCO, 41% have at least one mental health diagnosis, 49% receive LTSS and 60% have multiple 9 chronic conditions. The average dual-eligible individual has six chronic conditions, while all other Medicare beneficiaries average only four. Dual-eligible individuals have greater limitations in ADLs than non-dual eligible individuals. In 2016, 26% of dual-eligible individuals had limitations in one to two ADLs, compared to 18% of non-dual eligible individuals and 28% had limitations in three to six ADLs, compared to 9% of non-dual-eligible individuals.⁴

Given the severity of illness and disabilities, per-capita spending on dual-eligible individuals is more than three times higher than for Medicare-only beneficiaries.⁴² The average annual spending per dual-eligible individual in 2013 was approximately \$29,238.⁴³ The average annual spending for those covered only by Medicare came in significantly lower, at \$8,593 per person. As a result, dual-eligible individuals are among the most medically complex individuals and often have wide-ranging health care needs that require additional services and supports. (pages 8 – 10 *Integrating Care for Beneficiaries Eligible for Medicare and Medicaid: An Update*, April 2020 Bipartisan Policy Institute).⁵

Overall, in Washington State, in September 2020, there were over 28,000 fee-for-service, Medicare dual eligible beneficiaries for the LTSS integration demonstration project. The LTSS target population in King County, the most seriously ill, was 1,524 beneficiaries representing 25% of the King County dual eligible population or over 6,000 total beneficiaries – all of whom are potentially hospice eligible. Dual-eligible Medicare-Medicaid patients have tremendous needs as they age and those needs continue when patients become eligible and can benefit from hospice services. There are other Medicaid and low-income King County residents. Planned outreach should increase access to these residents and the Eden Hospice charity care policy is designed to eliminate access barriers for low-income residents needing hospice services. The pro forma assumes that approximately 2% of total days of care would be included in the charity care budget allocation.⁶

⁴ [Integrating Care for Beneficiaries of Medicare and Medicaid: A White Paper](#). Bipartisan Policy Center. April 2020. pp. 8-9

⁵ *Ibid.* Page 10

⁶ Mathew R Paul, DSHS. Washington State's Fee-For-Service Dual Eligible Demonstration Quarterly Report. Oct. 2020. Pg 4

3. Assure that all residents considering hospice are offered informed choice as required by CMS: actively address and overcome any general negative views of Medicare hospice related to real and perceived loss of control about a loss of control in how a patient and family will address dying and (b) provide a secular hospice choice that directly addresses concerns related to religious affiliation of available hospice services in King County.

Washington ranks as the sixth-least-religious state, in a tie with Alaska with 47% of respondents in a 2017 Gallup poll saying that they are not religious, and seldom or never attend services. Younger residents are more likely to stating that they are not religious. (Appendix 30).⁷ Still, hospice chaplaincy services are vital because many King County residents are religious. In 2014, King County had 944 religious organizations, the 8th most out of all US counties As a community-based, non-sectarian hospice agency, Eden Hospice understands that it must welcome, engage and support all hospice patients and will actively support patients who value their religion and still support residents, regardless of their beliefs who wish to understand or pursue their “death with dignity” options as available under Washington law. As part of this effort, Eden will reach out to End of Life Washington for their advice and support in policy development, staff training and in locating needed resources within King County,

4. Implement outreach activities in urban and rural areas of King County with an emphasis on South and Southwest King County to inform residents about the benefits of hospice in a respectful, culturally competent approach based on collaborating with community agency representatives responsible for serving ethnically diverse populations, disease-specific populations, agencies serving low-income individuals and organizations serving Veterans and Hispanic populations.

In addition to collaborating with community agencies and healthcare providers who support a population that is eligible for hospice services, Eden is mindful of the geographic location of dual eligible Medicare and Medicaid beneficiaries as well as other low-income residents. Poverty (below 200% of the Federal Poverty Rate affects 31% of residents in South King County and 26% in Seattle. Poverty among the Hispanic population is at 48%, second only to the 50% poverty level among the Black/African American non-Hispanic population. Each of these rates is more than twice the county average poverty level of 23.9%. Most metrics of disparity affect the Hispanic population with the exception of life longevity. (Page 45).⁸

Based on the Department of Health’s 2019 Hospice Need Methodology and allowed revisions for King County, Eden Hospital at King County will provide needed services to new populations that are financially feasible, meet all structure and process requirements and are cost effective.

⁷ Gene Balk. Washingtonians are less religious than ever, Gallup poll finds, April 2018

⁸ King County Health Needs Assessment 2018-2019. King County Hospitals for a Healthier Community. Pg. 45

5. Confirm that this agency will be available and accessible to the entire geography of the county proposed to be served.

The agency will be available and accessible to the entire geography of King County.

6. With the understanding that the review of a Certificate of Need application typically takes at least six to nine months, provide an estimated timeline for project implementation, below:

Table 2 represents the project schedule if each stage of the regulatory review is completed in a timely fashion.

Table 2
Estimated Eden Hospital at King County CoN Schedule.

Event	Anticipated Month/Year
CN Approval	August 2021
Design Complete (if applicable)	Not Applicable
Construction Commenced (if applicable)	Not Applicable
Construction Completed (if applicable)	Not Applicable
Agency Prepared for Survey	November 2021
Agency Providing Medicare and Medicaid hospice services in the King County	January 2022

7. Identify the hospice services to be provided by this agency.

Table 3 lists the scope of services comprising Medicare hospice and indicates which will be provided directly or will be contracted.

Table 3
Eden Hospice Agency Direct Provided Services or Contracted

New Services	Medicare Hospice	Provided directly	Contracted
Skilled Nursing care	Required	x	
Medical social worker	Required	x	
Speech-language pathology services	Required	x	
Physical and occupational therapies	Required	x	
Respiratory services	Required		x
Dietary – Nutritional Counseling	Required		x
Pastoral care – Spiritual Counselling	Required		x
Home care aide	Required	x	
Interdisciplinary team	Required		
Pharmacy	Required		x
I.V. Services	Required	x	
Case management	Required	x	
Medical Director	Required		x
Medical appliances and supplies, including drugs and biologicals	Required	x	
Inpatient hospital care for procedures necessary for pain control and acute and chronic system management	Required		x

Palliative Care	Required	x	
Durable Medical Equipment	Required	x	
Inpatient (nursing home) respite care to relieve home caregiver as necessary	Required	x	
24-hour continuous care in the home at critical periods	Required	x	
Bereavement service for the family for 13 months	Required	x	
Available to nursing home residents	Yes	x	
Music Therapy-- Additional	On Request		x
Animal Therapy -- Additional	On Request		x

The hospice interdisciplinary group will include, but is not limited to, individuals who are qualified and competent to practice in the following professional roles:

- A Doctor of Medicine or Osteopathy (who is an employee or under contract with the hospice).
- A registered nurse.
- A social worker.
- A pastoral or other counselor.
- Physical therapy services, occupational therapy services, and speech-language pathology services must be available, and when provided, offered in a manner consistent with accepted standards of practice.
- Volunteers must provide day-to-day administrative and/or direct patient care services in an amount that, at a minimum, equals 5 percent of the total patient care hours of all paid hospice employees and contract staff. The hospice must maintain records on the use of volunteers for patient care and administrative services, including the type of services and time worked.

As noted by rule, a hospice must be primarily engaged in providing the following care and services and must do so in a manner that is consistent with accepted standards of practice:

- Nursing services.
- Medical social services.
- Physician services.
- Counseling services, including spiritual counseling, dietary counseling, and bereavement counseling
- Hospice aide, volunteer, and homemaker services.
- Physical therapy, occupational therapy, and speech-language pathology services.
- Short-term inpatient care.
- Medical supplies (including drugs and biologicals) and medical appliances.

8. If this application proposes expanding an existing hospice agency, provide the county(ies) already served by the applicant and identify whether Medicare and Medicaid services are provided in the existing county(ies).

Not Applicable.

9. If this application proposes expanding the service area of an existing hospice agency, clarify if the proposed services identified above are consistent with the existing services provided by the agency in other planning areas.

Not Applicable.

10. Provide a general description of the types of patients to be served by the agency at project completion (e.g. age range, diagnoses, special populations, etc).

Eden Hospital at King County has carried out the DOH hospice need methodology (initial), as a starting point to identify populations. This initial numerical analysis resulted in the following findings:

Method 1:

Application of the Department of Health Hospice Need Methodology

STEP 1: Calculate the following two statewide predicted hospice use rates using department of health survey and vital statistics data:

- a. The percentage of patients age sixty-five and over who will use hospice services. This percentage is calculated by dividing the average number of unduplicated admissions during the last three years for patients 65 and over by the average number of past three years statewide total deaths age 65 and over.
- b. The percentage of patients under sixty-five who will use hospice services. This percentage is calculated by dividing the average number of unduplicated admissions during the last three years for patients under age 65 by the average number of past three years statewide total of deaths under age 65.

Table 4 provides the 3-year averages.

**Table 4
King County Average Hospice Admissions and Deaths By Age Group**

	2017	2018	2019	3-Year Average
Average number of unduplicated admissions for patients 65 and older	26,365	26,207	26,017	26,196
Average number of statewide total deaths age 65 and older	42,918	42,773	44,159	43,283
Percentage of patients age 65 and older who will use hospice services.	61.43%	61.27%	60.52%	60.52%
Average number of unduplicated admissions for patients under age 65	3,757	4,114	3,699	3,857
Average number of statewide total deaths under age 65	14,113	14,055	14,047	14,072
Percentage of patients under age 65 who will use hospice services.	26.62%	29.27%	26.33%	27.41%

STEP 2: Calculate the average number of total resident deaths over the last three years for each planning area by age cohort:

Calculate the average number of total resident deaths over the last three years for each King County age cohort for 2016, 2017 and 2018.

**Table 5
Deaths in King County By Age Cohort and 3-Year Average**

	2017	2018	2019	3-Year Average
Average number King County of total resident deaths of patients age 65 and older	10,039	9,917	10,213	10,056
Average number King County of total resident deaths of patients under age 65	3,256	3,264	3,275	3,265

STEP 3: Multiply each hospice use rate determined in Step 1 by the planning areas' average total resident deaths determined in Step 2, separated by age cohort:

Table 6 provides the Planning Area's average and projected resident deaths by age cohort.

**Table 6
King County Average and Projected Deaths by Age Cohort**

	2017 - 2019 Average	3 Year Statewide Avg. Death Rate	Projected Hospice Patients
Population age 65 and older for King County	10,056	60.52%	6,086
Population under age 65 for King County	3,265	27.41%	895

STEP 4: Using the projected patients calculated in Step 3, calculate a use rate by dividing projected patients by the three-year historical average population by county. Use this use rate to determine the potential volume of hospice use by the projected population by the two age cohorts identified in Step 1, (a)(i) and (ii) of this subsection using OFM data:

Please see Table 7, which provides the potential volume of hospice use by age cohort.

**Table 7
Potential King County Hospice Volume, 2019-2021 By Age Group**

Projected Hospice Patients	2017-2019 Average Population	2020 Population	2021 Population	2022 Population	2020 Projected Patients	2021 Projected Patients	2022 Projected Patients
King County Population age 65 and Older							
6,086	296,484	324,660	337,771	350,881	6,665	6,934	7,203
King County Population Under Age 65							
895	1,863,482	1,906,749	1,918,470	1,930,192	916	921	927

STEP 5: Combine the two age cohorts. Subtract the average of the most recent three years hospice capacity in each planning area from the projected volumes calculated in Step 4 to determine the number of projected admissions beyond the planning area capacity:

Please see Table 8, which provides the number of projected admissions beyond the planning area's existing capacity.

**Table 8
King County Admissions & Patient Days Unmet Need, 2019-2022**

2020	2021	2022	Current Capacity Admits		2020	2021	2022
Forecast Admits	Forecast Admits	Forecast Admits			Unmet Need Admits	Unmet Need Admits	Unmet Need Admits
7,580	7,855	8,130	7,517		63	338	613

STEP 6: Multiply the unmet need from Step 5 by the statewide average length of stay as determined by CMS to determine unmet need patient days in the projection years:

Please see Table 9, which provides the unmet need for both admissions and patient days in King County.

**Table 9
King County Unmet Need Based on Patient Days, 2020 - 2022**

2020 Unmet Need Admits	2021 Unmet Need Admits	2022 Unmet Need Admits	Multiply Admits by 62.66 Days (ALOS) to Calculate Days	2019 Unmet Need Days	2021 Unmet Need Days	2022 Unmet Need Days
63	338	613	62.66	3,960	21,117	38,394

STEP 7: Divide the unmet patient days from Step 6 by 365 to determine the unmet need ADC:

Please see Table 10, which provides the unmet need based on Average Daily Census in King County. As noted below, absent additional hospice capacity, the Planning Area will experience *unmet* ADC of 105 by the target year 2022.

**Table 10
King County Unmet Need Based on ADC, 2020-2022**

2020 Unmet Need Days	2021 Unmet Need Days	2022 Unmet Need Days	Divide Unmet Need Days by 365 Days to Calculate Average Daily Census	2020 Unmet Need ADC	2021 Unmet Need Days ADC	2022 Unmet Need Days ADC
3,960	21,177	38,394	365	11	58	105

STEP 8: Determine the number of hospice agencies in the planning area that could support the unmet need with an ADC of thirty-five:

Please see Table 11, which provides the unmet need for Hospice Agencies in King County. As noted, absent additional hospice capacity, the Planning Area will experience numeric need for 3 agencies by the target year of 2022.

**Table 11
King County Unmet Need for Hospice Agencies, 2022**

2022 ADC (Unmet)	Agencies Needed in 2021
105	3

Source: DOH 2019-2020 Hospice Need Methodology

b. Identify the negative impact and consequences of unmet hospice needs and deficiencies.

Hospice provides care, comfort, and support for people nearing the end of life, wherever they reside. With a focus on quality of life, hospice addresses the needs of the whole person, from managing pain and symptoms to providing emotional, social, and spiritual support. Given hospice care is primarily provided in a home setting, proximity to local hospice providers is an important factor. The Department’s hospice need methodology establishes that, without an expansion of services in the Planning Area, King County residents will have insufficient access to hospice care and the associated benefits.

As noted in the 2018/2019 King County Community Health Needs Assessment, King County has adopted a commitment to Health Equity as the “quadruple aim” of the former Triple Aim of Better Health, Better Healthcare and Control of Healthcare Costs. Disparity in access to hospice service adversely affects all three of the traditional aims and the project proposed by Eden Hospital at King County directly targets inequity in access.⁹ Eden’s hospice outreach will concentrate on the dual eligible Medicare population – low-income Medicaid and Medicare eligible members. From an access basis, there is an alarming lower admission rate for King County dual eligible hospice admission rate when compared to the conventional hospice admission rate. Table 12 shows this difference.

Table 12

2019 Comparison of Dual Eligible Hospice Admits per 1,000 Medicare Deaths King County and United States			
	King	National	King Admission Rate as % of National Rate
Dual Eligible (Low Income) Rate	501	574	87%
Non-Dual Eligible (Regular) Rate	583	613	95%
Dual Eligible as % of Non-Dual	86%	94%	92%

Berg Data Solutions: Medicare Fee For Service Data Base 2019

The dual eligible Medicare patients have a much higher acuity of ongoing conditions with fewer resources to address this higher need. As noted in a previous section, Dual-eligible individuals tend to have poorer health and functional status than those eligible for Medicare only. According to the (MMCO), 41% have at least one mental health diagnosis, 49% receive LTSS and 60% have multiple 9 chronic conditions. The average dual-eligible individual has six chronic conditions, while all other Medicare beneficiaries average only four. Dual-eligible individuals have greater limitations in ADLs than non-dual eligible individuals. In 2016, 26% of dual-eligible individuals had limitations in one to two ADLs, compared to 18% of non-dual eligible individuals and 28% had limitations in three to six ADLs, compared to 9% of non-dual-eligible individuals. Table 13 provides an example of how this higher acuity level contributes to healthcare expenditures for Medicare and Medicaid and patients as well.¹⁰

Given the severity of illness and disabilities, per-capita spending on dual-eligible individuals is more than three times higher than for Medicare-only beneficiaries:

- Average annual spending per dual-eligible individual in 2013 was approximately \$29,238.
- Average annual spending for those covered only by Medicare was approximately \$8,593 per person.

While dual-eligible individuals comprise 20% of the Medicare population, they account for 34% of total Medicare expenditures. Similarly, dual-eligible individuals comprise only 15% of the Medicaid population, account for 32% of total Medicaid expenditures. Table 13 provides an example of how this higher acuity level contributes to healthcare expenditures for Medicare and Medicaid and patients as well.¹¹

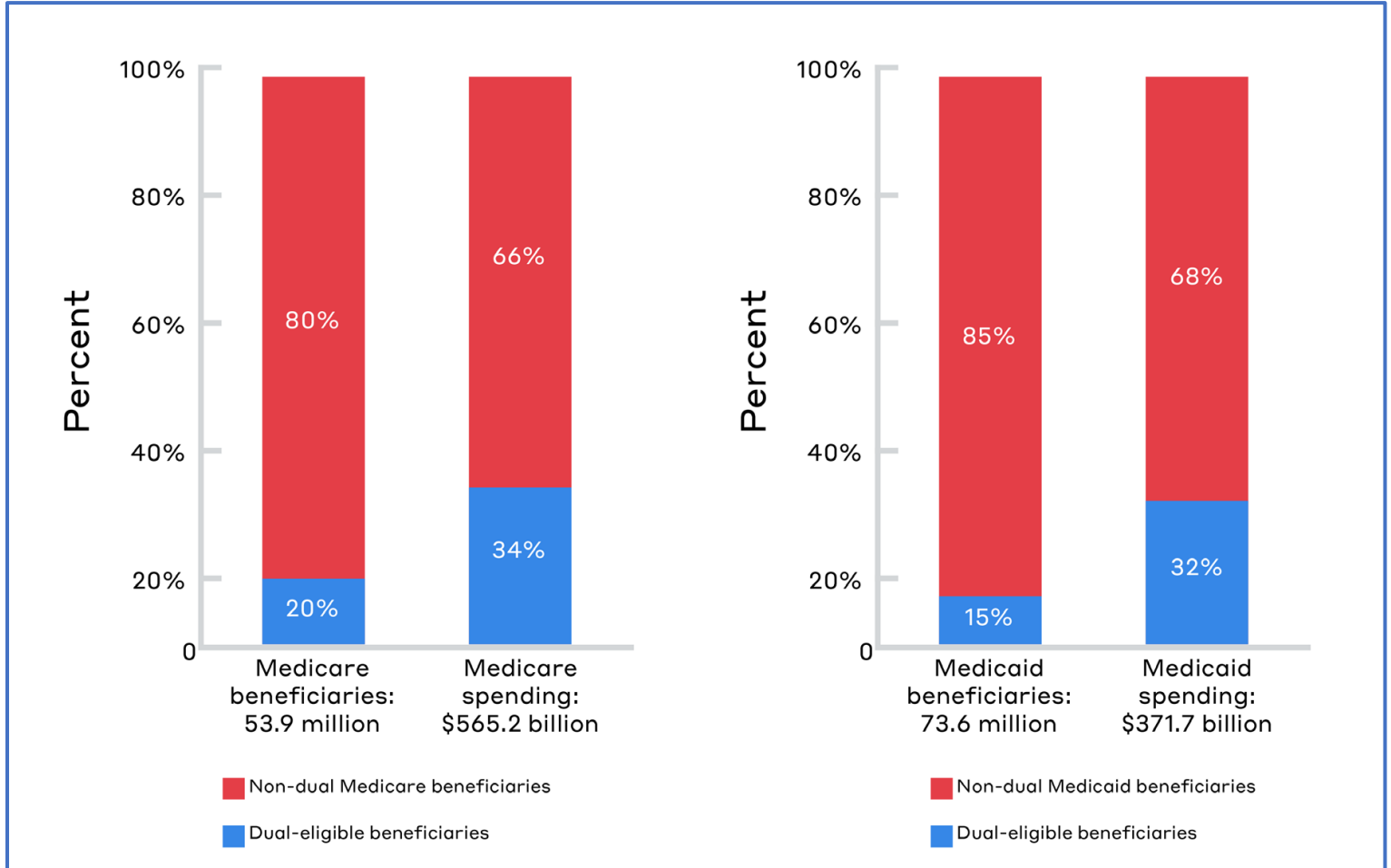
⁹ *Ibid.* Page 5

¹⁰ *Op. cit.* At Appendix 29. Pp. 8 - 9

¹¹ *Ibid.* Page 10

Table 13 ¹²

Dual-Eligible Beneficiaries as a Share of Medicare & Medicaid Enrollment and Spending, CY 2013



Source: MedPAC, MACPAC, Data book: *Beneficiaries dually eligible for Medicare Medicaid*. Jan 2018

This disparity in use of hospice services reduces live expectancy and quality of life for the patient after a terminal diagnosis had been made and places greater stress on caregivers while the patient is dying as well as during the grieving process after death as described in the Better Health Section. Hospice patients also have a better care experience as described in the Better Healthcare section with enhanced coordination of care, reduced need for emergency room and hospital care and support for caregivers with respite care and bereavement services.

Better Health

Longer lives

Hospice care prolongs the lives of those who choose it compared with those who don't. Terminal patients live from 20 days to more than 2 months longer in hospice, according to studies from 2004 through 2010 noted by the National Hospice and Palliative Care Organization.

¹² *Ibid.* Page 10

Hospice care available at home

Being in hospice care may allow seniors to stay in their home versus going into long-term care or assisted living. Nearly 90% of people over 65 want to stay in their home for as long as possible, according a 2011 survey by the AARP Public Policy Institute.

There are respite options for caregivers

Hospice care provides free respite options for caregivers in 2 ways: Respite volunteers can provide patient-sitting services. If the caregiver needs a break for a short time (a few hours at most), they can do so without having to pay. Hospice also provides a longer-term respite care option – up to 5 consecutive days for the patient in a hospice-approved nursing facility.

Social work and bereavement support

Hospice care also includes a social worker on the hospice team. The social worker can help patients and families find additional care and caregiver support services through local and federal programs. They can also help with finalizing burial plans. In conjunction with a spiritual counselor, social workers may also address the emotional needs of the patient and the family regarding the patient's eventual death. The patient and the family decide whether to use these services. Hospice care does not end when the patient dies. Bereavement support for up to 1 year after the patient's death is available to immediate family members.

Better Healthcare

Personalized and coordinated care plan

End-of-life care can be overwhelming, with a patient often seeing multiple health care professionals. Hospice provides each patient a doctor, nurse, home health aide and social worker, who coordinate the patient's daily care. Other provided health care professionals include a dietitian, and physical, occupational and speech therapists.

Reduced hospitalizations and fewer emergency room services

Hospice care also can be provided to those in a nursing home or assisted living facility, though the cost of nursing homes or assisted living facilities is not covered by hospice. A 2010 study of cancer patients in hospice by the Mount Sinai School of Medicine found that continuous hospice use leads to a reduction of hospital-based services, including fewer emergency and urgent care visits, and a greater likelihood that a patient will die at home, not in a hospital.¹³

Reduced rehospitalization from skilled nursing facilities

Hospice care reduces re-hospitalization. A study of terminally ill residents in nursing homes showed that residents enrolled in hospice are much less likely to be hospitalized in the final 30 days of life than those not enrolled in hospice (24% vs. 44%).

¹³ 7 ways hospice helps families and finances. Bank Rate.com, August 2015

Coordination of care can affect the patient and bereaved family members experience of the hospice patients care experience

The need to control pain appropriately and address bereavement issues early are two aspects of caring for the terminal patient wherein family members experience significant stress . But under the direction of the Medicare hospice interdisciplinary team, these are required aspects of care included in every patient’s plan of care. A 2007 study assessing length of stay and a perception that hospice care referral was too late found that bereaved family members reported that the hospice patient was referred too late when they perceived the patient had insufficient pain control and bereavement issues were not satisfactorily addressed.¹⁴

Washington State, with one of the lowest lengths of stay nationally, was one of the 5 states with the highest response that hospice referral was too late! Appendix 25 documents the high use of emergency room services for pain control for patients who are not receiving hospice services.¹⁵

Control of Healthcare Costs

Reduced out of pocket expense for patients and their families

Prescription medications are one of the biggest areas of cost savings for hospice patients. Hospice covers the cost of all medications for pain and comfort management related to the terminal illness. Rental costs of durable medical equipment – hospital beds, wheelchairs, walkers, wound dressings and catheters – are included as part of the paid-by-hospice coverage. Without hospice, the patient would need to pay for this equipment or would need to pay a Medicare rental copayment after submitting a doctor's approval for the equipment.

A previously cited study provides an example of total costs which are partially borne by the patient and health plan. The Survival and Cost-Effectiveness of Hospice Care for Metastatic Melanoma Patients study focused on patients 65 years of age and older with metastatic melanoma who died between 2000 and 2009. The study found that patients with four or more days of hospice care had longer survival rates and incurred lower end-of-life costs. Patients with four or more days of hospice care incurred average costs of \$14,594, compared to the groups who received one to three days of care, and no hospice care at all (\$22,647 and \$28,923 respectively).¹⁶

Reduced total costs of care

Table 14 provides an example of 2019 Medicare costs for beneficiaries hospitalized in the final 30 days of life by King County hospital and by the actual expected level of hospice utilization. The median of Medicare beneficiary costs of 13 King County hospitals is then compared with the national Medicare costs for all patients hospitalized within the final 30 days of their lives and the national Medicare costs for hospice patients hospitalized within the last 30 days of life. The 13 King County hospital Medicare costs were 96% of the national average of Medicare costs for patients hospitalized within the last 30 days of life. The national average was then compared to the national average of Medicare patients discharged to a hospice. The national average for Medicare patients discharged to a hospice was 75% of the national average of patients with a hospitalization within the final 30 days of life. The difference per patient on the national level was \$4,746.

¹⁴ Erica R. Schockett, Joan M. Teno, Susan C. Miller, Brad Stuart.. Timing of referral to hospice and quality of care PubMed 17583469. 2007

¹⁵ Smith AK, McCarthy E, Weber E, Cenzer IS, Boscardin J, Fisher J, Covinsky K. “Half of older Americans seen in emergency department in last month of life; most admitted to hospital, and many die there”

¹⁶ *Op cit.* Jinhai Huo, PhD, MD, MP *et al* (“Survival and Cost-Effectiveness of Hospice Care for Metastatic Melanoma Patients”, Am Journal Managed Care.

Looking at the King County data in Table 14, our estimate of expenditure differences would be approximately \$4,556 per patient (\$4,746 X 96%). While this is obviously an imprecise estimate subject to diagnostic and age mix as well as percentage of hospice penetration, the lower expenditures are conservative – compared to the national study cited in the previous section and the narrative and analysis of the example of the Providence CN 19-44 analysis presented in Table 15 which calculated savings per Medicare beneficiary of \$3,945 for patients enrolled in hospice during the final 5 weeks of their lives.

Table 14¹⁷

Comparison of Average Payment of King County Hospital Patients with Hospitalization in the Final 30 Days of Life With the National Average and the National Average When Discharged to Hospice			
	Average Medicare Payment - Patients With a Hospitalization in the Final 30 Days of Life	% of Discharges Coded to Hospice	Expected % of Discharges Coded to Hospice
HARBORVIEW MEDICAL CENTER - 500064 (SEATTLE, WA)	32,121	1.1%	3.2%
UNIVERSITY OF WASHINGTON MEDICAL CTR - 500008 (SEATTLE, WA)	25,589	2.1%	2.6%
SWEDISH MEDICAL CENTER / CHERRY HILL - 500025 (SEATTLE, WA)	21,585	2.3%	2.8%
VIRGINIA MASON MEDICAL CENTER - 500005 (SEATTLE, WA)	20,239	1.6%	3.0%
VALLEY MEDICAL CENTER - 500088 (RENTON, WA)	18,989	3.3%	4.0%
SWEDISH MEDICAL CENTER - 500027 (SEATTLE, WA)	18,660	2.2%	3.0%
SWEDISH ISSAQUAH - 500152 (ISSAQUAH, WA)	17,947	4.8%	3.6%
MULTICARE AUBURN MEDICAL CENTER - 500015 (AUBURN, WA)	17,617	2.9%	4.0%
ST FRANCIS COMMUNITY HOSPITAL - 500141 (FEDERAL WAY, WA)	17,560	3.6%	4.0%
HIGHLINE MEDICAL CENTER - 500011 (BURIEN, WA)	17,362	4.5%	4.3%
NORTHWEST HOSPITAL & MEDICAL CENTER - 500001 (SEATTLE, WA)	16,871	3.8%	3.4%
EVERGREENHEALTH MEDICAL CENTER - 500124 (KIRKLAND, WA)	15,874	4.8%	3.7%
OVERLAKE HOSPITAL MEDICAL CENTER - 500051 (BELLEVUE, WA)	15,141	4.0%	3.0%
Median Average Payment of 13 Hospitals for King County Patients with a Hospitalization in the Final 30 Days of Life	17,947	3.3%	3.4%
National Average	18,756		
National Average When Discharged to Hospice	14,010		

Beg Data Solutions, Medicare fee for service data base, Social Security enrollment

In regard to total costs of care as they relate to managing healthcare costs as part of Washington’s Triple Aim, Providence Health and Services dba Providence Hospice in its recently approved hospice application in Clark County (CN19-44) calculated that Based on Medicare claims data, a savings of over \$99 million across Washington State payers could have save nearly \$99 million annually if all Medicare beneficiaries who died in 2017 without hospice instead benefited from five weeks of hospice (35 days ALOS) (See Table on the next page). Of course, the savings would be much greater if Washington hospice patients received 88.6 days of hospice care¹⁰, which was the 2017 national ALOS.

¹⁷ Berg Data Solutions. Medicare Fee for Service Data Set 2019

Table 15

Exhibit 7: Providence CN 19-44 Hospice Cost Savings Analysis From CN 9-44 Table 26. 2017 WA State Hospice Analysis

Estimated Patients without Hospice			
Resident Deaths	46,324		
Hospice Deaths	21,071		
Deaths without Hospice	25,253		
Payment Reduction Estimate			
Weeks with Hospice	Average Payment	Deaths without Hospice	Est. Total Payments
0	\$36,944	25,253	\$932,951,942
5	\$32,999	25,253	\$833,330,793
Reduced Payments if patients had 5 weeks of hospice			\$99,621,149

Source: CMS Hospice State Profile -- Washington State 2017

Definition of the types of patients that are expected to be served by the project. The types of patients expected to be served can be defined according to specific needs and circumstances of patients (i.e., culturally diverse, limited English speaking, etc.) or by the number of persons who prefer to receive the services of a particular recognized school or theory of medical care.

Eden has been providing home health services in King County since 2014 and operates a skilled nursing facility (SNF) and EmpRes Home Care. With this experience has local knowledge for developing referral relationships within King County. Eden understands each patient and family is special. For this reason, Eden tailors its team approach to the specific needs of each patient and family. Hospice services are provided in the patient’s home, no matter where that home is located. It may be a private residence, an assisted living community, an adult care home, or a residential or intermediate care community. The proposed hospice will provide care to Medicare and Medicaid eligible patients as well as all other patients, regardless of the source or availability of payment for care.

The National Academy of Science, delves into cultural issues in the article “*Dying in America Improving Quality and Honoring Individual Preferences Near the End of Life*”:

“Patients’ backgrounds, culture, ethnicity, and race influence their perceptions about life, illness, suffering, dying, and death and the meaning they ascribe to these events. These perceptions in turn affect preferences for the kinds of care people want, how much they want to know about their situation and choices, whether and how they want to make treatment choices, whom they want to make those choices if they cannot, and the role of the family in the entire process. In the coming years, rapid growth in the proportion of U.S. elderly that are members of racial/ethnic minority groups will challenge clinicians to communicate more effectively with people of many cultural traditions. It is vital, that clinicians be aware of common differences in perception among racial, ethnic, and cultural groups so that at the very least, they can ask the right probing questions and have a firmer basis for individualized understanding of patients and their families. As noted above, although there are many differences among individual perspectives and actions within groups, the *general* pattern in minority populations is one of a lack of advance care planning and a preference for more intensive treatments; poorer communication with clinicians is part of this pattern. Although patients and families may not follow clinicians’ advice and recommendations, “avoiding such communication increases the likelihood of poor end-of life decision making.”¹⁸

¹⁸ Committee on Approaching Death: Addressing Key End-of-Life Issues, Institute of Medicine of the National Academies, pg 142

There are at least nine special populations that Eden will focus on developing a culturally competent outreach capability. These populations include the following: (1) Dual eligible Medicare-Medicaid patients; (2) Hispanic patients; (3) Veterans; (4) Black/African American, non Hispanic patients (5) Residents seeking a non-religiously affiliated, secular hospice provider; (6) LGBTQ patients; (7) Federally Qualified Health Center and other low income patients; (8) Home Health patients and (9) SNF patients.

Dual Eligible Patients:

Despite ongoing efforts by existing King hospice providers, King County hospice admission rates are 5% below the nationwide rate for non-dual (Medicare only) eligible hospice patients and over 18% below the nationwide rate for dual- eligible (Medicare and Medicaid) hospice patients. Addressing the large disparity in access and utilization of hospice services in King County among low income, dual-eligible Medicare patients would add nearly 200 King County hospice patients and add a 33- patient average daily census using 2020 hospice data.

Eden has a plan and a strategy to address current unmet need as well as increasing hospice service access through outreach to the dual-eligible Medicare population through collaborative and augmented, culturally competent services to hospice patients, along with their families and friends, who are currently underserved. To reduce disparity for the dual-eligible population requires outreach through existing agencies such as federally qualified health centers and healthcare providers who disproportionately serve the following cohorts: Medicaid population

- Dual-eligible and low income, Medicare population
- Black/African American populations
- Hispanic populations

Each of these population cohorts have socio-economic characteristics that lead to health disparity and access barriers resulting in lower utilization of hospice services. Additionally, each target population cohort is entitled to hospice services that are culturally sensitive, respectful and competent.

This strategy of increasing hospice utilization to underserved King County residents will not only improve the quality of life for patients facing death and for their families and friends who will grieve their loss, but it will:

- Reduce healthcare costs
- Meet the DSHS LTSS Dual-Eligibility service goals and Washington's Triple Aim for healthcare services

Hispanic Patients:

Table 16 shows that the Hispanic or Latino population (any race) comprised 9.8% of the King County population. Poverty (below 200% of the Federal Poverty Rate affects 31% of residents in South King County and 26% in Seattle. Poverty among the Hispanic population is at 48%, second only to the 50% poverty level among the Black/African American non-Hispanic population. In regard to access to healthcare 28% of Hispanic respondents reported unmet health need (Exhibit 3). 26% of Hispanic respondents to a language survey reported that they had difficulty understanding English. As noted in our discussion of dual-eligible patients our overall outreach strategy of working with federally qualified health centers will reach a large portion of the Hispanic population that needs hospice services. Eden will supplement its language and cultural competence capabilities through working with the federally qualified health centers and the National Hospice and Palliative Care Organization (NHPCO) as well as recruiting Hispanic team members for this population cohort.

Veterans:

American Fact Finder reports that King County had over 104,000 veterans during the 2014 – 2018 time period. Eden is a member of the NHPCO and participates in the We Honor Veterans Program. Eden is part of the TriWest Healthcare Alliance (TriWest) which is an honored third party administrator for the U.S. Department of Veterans Affairs (VA). TriWest works with high-performing, credentialed community providers that partner with VA to provide health care to Veterans in their local community. Eden Hospice at King will also achieve “partner” standing with “We Honor Veterans Program” with CoN approval.

All Ethnic Diversity Patients:

Ethnically diverse populations require culturally competent and respectful outreach to increase the knowledge and acceptance of hospice services that are designed to meet each ethnic cohort's expectations. As noted, the Black/African American population cohort poverty level is at 50% and the reported unmet medical need is 21%. Ethnic diversity contributes to disparity in health status and healthcare outcomes, which will be discussed in a later section. Even 32% of the Asian population cohort that has high life expectancy and the lowest unmet medical need rate of 9% reports difficulty with the English language. Eden Hospital at King County will build on its 7 years of relationships in the community to establish effective outreach and as noted in the previous section on dual-eligible residents will partner with FQHCs such as the International Community Health Services that maintains a language bank of healthcare interpreters and providers. The Demographic Profile of King in Table 16 provides the 2018 Demographic profile for King County prepared by the Employment Security Department for Washington State.

Secular Hospice:

As noted throughout the CoN application, the residents of King County who face terminal illness and need hospice, also have the right to be informed and have access to Washington State's Death with Dignity end-of-life option. Eden will provide an additional resource for patients and healthcare providers for supporting the Death with Dignity end-of-life statute.

LGBTQ Population

Seattle and King County are home to a growing lesbian, gay, bisexual, transgender, and queer (LGBTQ) community. Recent estimates (2011-2015) showed that 5.5% of King County adults and 4% of Washington State adults identified as lesbian, gay, or bisexual (LGB).¹⁹ In 2019 more than half of Washington's same-sex couples live in King County, which has not only the largest number of these couples, but also the highest percentage — there are 12.1 same-sex couples for every 1,000 households in the county (or 1.2 percent of all households). That ranks King as the county with the 19th highest percentage of same-sex couples of all counties in the United States.

Given that three hospice providers in King County are restricted or are perceived to be restricted by religious directives, the LGBTQ patients and their support community need and want hospice options that have no overarching religious affiliation. It is important to first briefly review the

¹⁹ Washington State Behavioral Risk Factor Surveillance System (BRFSS)

spectrum of health status disparity and the health disparity access and treatment facing the LGBTQ adult population.

“LGBT older adults are less likely than their heterosexual peers to reach out to providers, senior centers, meal programs, and other entitlement programs because they fear sexual orientation- or gender- based discrimination and harassment. LGBT older adults experience mental and physical illness more frequently than their heterosexual counterparts:

- Nearly one-third of transgender people do not have a regular doctor and report poor general health
- LGB older adults have higher rates of poor physical health and mental distress 41 percent of LGBT older adults report having a disability, compared to 35 percent of heterosexual older adults
- 9 percent of lesbian, gay, bisexual and queer people report that a doctor or other health care provider used harsh or abusive language while treating them; among transgender people, the number was 21 percent.”²⁰

The special challenges facing many LGBTQ older adults must be kept in mind and adequately addressed when designing and providing hospice services to the aging – **Eden is eager to participate in the special needs of the LGBTQ community.** Should Eden be granted the CoN, we will become involved with organizations in King County and the State of Washington that support the healthcare/hospice needs of the LGBTQ community. For example, Eden will carry out outreach to the Northwest LGBT Senior Care Providers Network, an informal coalition of Senior Care Providers working together to provide advocacy and quality care for the LGBTQ seniors of Washington State. To assure culturally competent and sensitive outreach services, Eden will also affiliate and become involved with SAGE, the country’s largest and oldest organization dedicated to improving the lives of lesbian, gay, bisexual and transgender (LGBTQ) older adults. Eden will also work with local and national resources that specifically support healthcare providers that serve the LGBTQ community.

²⁰ The Facts on LGBT Aging. sage Advocacy and Services for LGBT Elders. Info SageUSA.org

Table 16
King County Population Mix by Age, Gender and Ethnicity

	King County	Washington State
Population by age, 2018		
Under 5 years old	5.8%	6.1%
Under 18 years old	20.3%	22 %
65 years and older	13.2%	15 %
Females, 2018	49.8%	50 %
Race/ethnicity, 2018		
White	66.9%	78.9%
Black	6.9%	4.3%
American Indian, Alaskan Native	1.0%	1.9%
Asian, Native Hawaiian, other Pacific Islander	20.0%	10.1%
Hispanic or Latino, any race	9.8%	12.9%

Source: King County Profile January 2020 Employment Security Department

Home Health: EmpRes (Eden) Home (Eden) Home Health is a new home health agency in King County. The nine home health agencies that are established refer approximately 6% of their patients to hospice. As the Eden King County hospice matures, approximately 40 hospice patients could be referred annually to hospice services by the Eden hospice.

SNF: Eden operates four SNFs in King County. Two of the four SNFs, Seattle Medical Post Acute and Canterbury House have very high and medium patient acuity and very low hospice use that indicates a need for internal outreach for SNF patients who could benefit from hospice care.

11. Provide a copy of the letter of intent that was already submitted according to WAC 246-310-080 and WAC 246-310-290(3).

A copy of the letter of intent is provided in Appendix 2.

12. Confirm that the agency will be licensed and certified by Medicare and Medicaid. If this application proposes the expansion of an existing agency, provide the existing agency's license number and Medicare and Medicaid numbers.

Eden Hospice at King County, LLC confirms that the agency will be licensed by Washington State and certified by Medicare and Medicaid. It is not an existing agency.

13. Identify whether this agency will seek accreditation. If yes, identify the accrediting body.

Eden Hospice at King County, LLC confirms that the agency will seek accreditation by the Accreditation Commission for Health Care (ACHC).

CERTIFICATE OF NEED REVIEW CRITERIA

A. Need (WAC 246-310-210)

[WAC 246-310-210](#) provides general criteria for an applicant to demonstrate need for healthcare facilities or services in the planning area. [WAC 246-310-290](#) provides specific criteria for hospice agency applications. Documentation provided in this section must demonstrate that the proposed agency will be needed, available, and accessible to the community it proposes to serve. Some of the questions below only apply to existing agencies proposing to expand. For any questions that are not applicable to your project, explain why.

- 1. For existing agencies, using the table below, provide the hospice agency's historical utilization broken down by county for the last three full calendar years. Add additional tables as needed.**

Not applicable.

- 2. Provide the projected utilization for the proposed agency for the first three full years of operation. For existing agencies, also provide the intervening years between historical and projected. Include all assumptions used to make these projections.**

**Table 17
Eden Hospital at King County Projected Utilization**

King County	2022	2023	2024
Total number of admissions	81	180	276
Total number of Days	4,875	11,019	16,888
Average Daily Census	13.36	30.19	46.27

Assumptions

- Given the high unmet need (ADC of 105) for three hospice agencies projected by 2022 in King County, the project-related utilization is projected to reach capacity (ADC) by the third full year of operation (2024). A moderate ramp-up is assumed in prior years.
- Disparity in hospice admission rates within King County particularly for low income Medicare dual-eligible beneficiaries as well as Medicaid eligible patients (lower hospice use due to age of the Medicaid population that does not qualify for Medicare) at 86% of the non dual-eligible Medicare beneficiaries within King County.
- Outreach strategy to Federally Qualified Health Centers to reach special populations experiencing health disparity, e.g., SeaMar, Healthpoint, International Community Health Services and County Doctor).
- Disparity in access particularly for Hispanic King County residents wherein 28% report

unmet medical need and 26% report English language difficulty as well as 21% of Black/African American residents who report unmet Medical need even.

- Capability to refer home health agency patients from Eden Home Health of King County as well as other home health agencies and King County skilled nursing facilities – 4 operated by EmpRes.
- Patient days are calculated by multiplying the ADC by 365.
- Average length of stay (ALOS) is set to start at below the Washington statewide average of 62.66 days -- 60.2 days ramping up to 61.2 days
- Patient days are calculated by dividing patient days by the ALOS. Median LOS is estimated to be approximately 18 days across the forecast period

3. Identify any factors in the planning area that could restrict patient access to hospice services.

The state methodology identifies a need for an additional 3 hospices in 2022 with each of the three additional hospices operating at an average daily census of 35 patients (13,140 patient days). Eden Hospital at King County projects a patient census of 13.4 patients (4,875 days) in 2022 increasing to average daily census of 61.2 patients (16,888 days) in 2024

Eden Hospital is using the NHPCO reported mix of hospice patients in 2018. The Washington percentages show wide variance with Cancer making up over 44% and other diagnoses making up 56% (Washington State 2017 – 2018 Methodology). Eden works to improve access for all diagnostic cohorts to reduce access disparity for King County patients with diagnoses other than Cancer. Table 18 below reflects the 2020 (National Hospice and Palliative Care Organization) NHPCO Facts and Figures --findings of diagnostic mix in 2017 and 2018.

Table 18
Eden Hospital at King County Provisional Diagnostic Mix , 2021 – 2024

Diagnosis	Percent
Cancer	30
Heart/Cardiac/Circulatory	17
Dementia	16
Lung/Respiratory	11
Stroke/Coma	10
Other	15
Total	100%

King County is served by 9 approved agencies with 8 agencies operating in King County during 2019. Table 19 shows that 7 agencies are based primarily in King County while two are based in Pierce County One approved hospice was not operational during 2019.

Table 19

2019 Admissions and Length of Stay for CoN Approved Serving King County		
Total Admissions and Length of Stay for CoN Approved Hospices in King County		
Hospice Agency	Average LOS	Total Admissions
Kindred Hospice -501541	105.1	271
Franciscan Hospice - 501526	94.8	3,098
Providence Hospice of Seattle - 501515	80.0	1,998
Multicare Hospice - 501508	75.9	1,275
Kline Galland Hospice Services - 501540	64.2	346
Evergreen Health Hospice Care - 501523	62.1	2,742
Kaiser Foundation Health Plan of Washington -- 501521	59.2	796
Wesley Homes Hospice, LLC 501543	47.1	69
Envision Hospice - King County	N.A.	0
King County Admissions Only for Multi-County Hospices		
Evergreen Health Hospice Care - 501523		2,250
Franciscan Hospice - 501526		921
Kaiser Foundation Health Plan of Washington -- 501521		526
Multicare Hospice - 501508		176

Berg Data Solutions 2019 Medicare Fee for Service and cost report data, Social Security Enrollment Data

Table 19 shows that five of the operational hospices had length of stay that exceeded the Washington State length of stay average of 62.66 days, while three of the hospice’s length of stay was below 62.66 days. The median length of stay of the eight operating hospices was 71 days which is below the national average length of stay of 90.2 days in 2018.

4. Explain why this application is not considered an unnecessary duplication of services for the proposed planning area. Provide any documentation to support the response.

a. Existing Providers of Hospice

Table 19 provided the list of nine hospice agencies approved to serve King County. Most of the hospices, with the exception of the Kaiser Health Plan and Wesley Homes Hospice, serve the entire population of King County. Kaiser Health Plan serves its members and Wesley Homes Hospice supports its existing retirement communities.

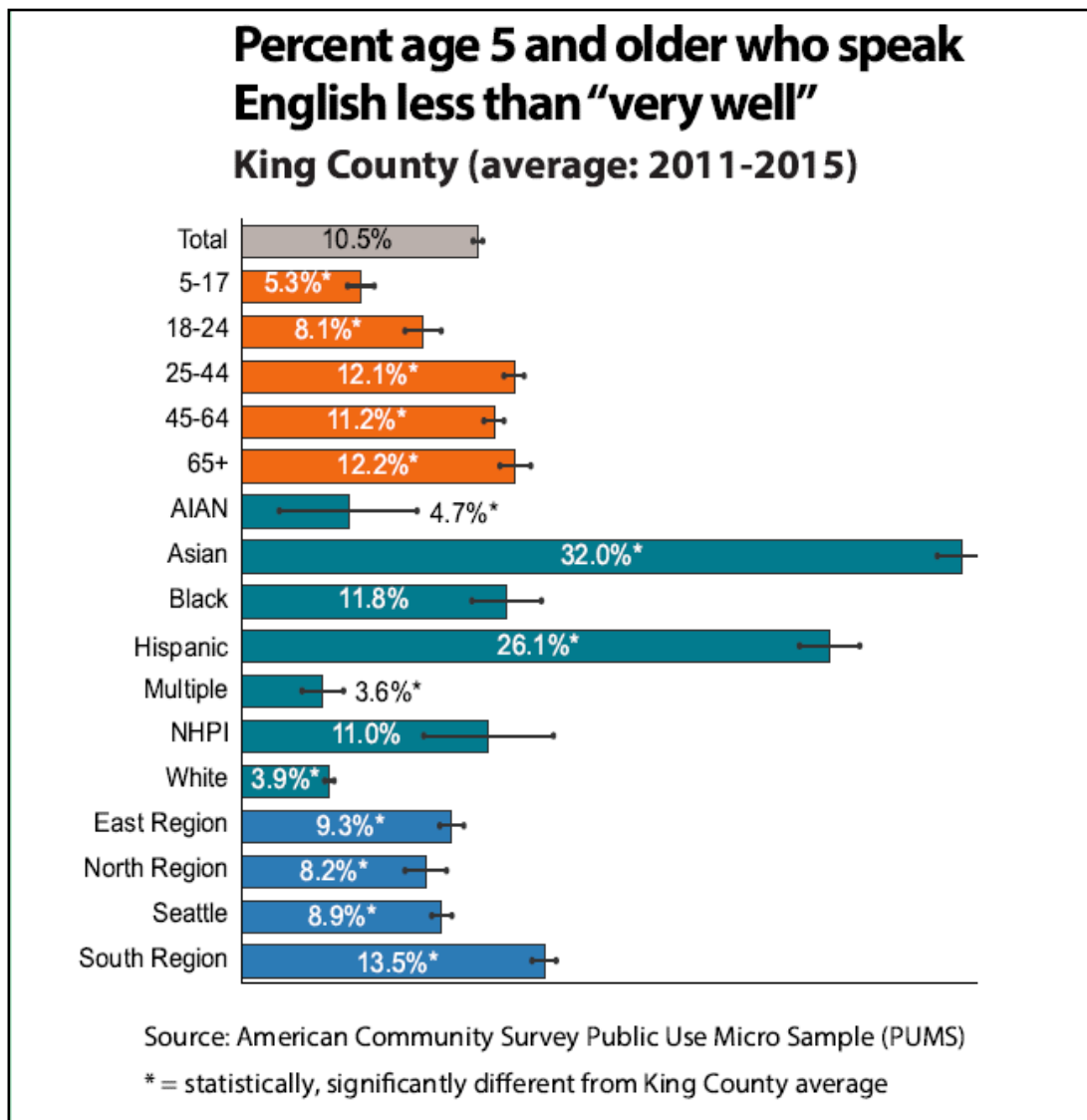
While six of the eight operating hospices serve all or more limited King County Medicare, Medicaid and commercial insurance population cohorts as well as providing charity care; the actual utilization of hospice services in King County is below national averages for the Dual Eligible and Non Dual Eligible (low income) Medicare population. Table 12 shows that the dual eligible population hospice admission rate is only 87% of the National dual eligible hospice admission rate and that the overall dual eligible utilization rate is only 86% of the King County non-dual eligible admission rate.

b. Existing Services are not Available and Accessible Due to a Variety of Barriers

The 2019 King County Health Needs Assessment identified many areas of health care utilization and outcome disparity based geographic, ethnic and economic barriers to healthcare access. Realizing that the metrics presented in this section refer to healthcare utilization before patients access hospice services, the metrics do characterize the scope of the disparity in healthcare service access and utilization. Exhibits 1 through 3 show that providing Hispanic outreach and focusing on the federally qualified healthcare centers particularly in their sites in South King County is the best strategy for reaching low-income dual eligible patients as well as other Medicaid patients.

Exhibit 1 shows the percent of respondents who speak English less than “very well,” Note that over 11% do not speak English very well who are over the age of 45 – hospice patients’ age. Over 26% of Hispanic respondents do not speak English very well indicating a need for Spanish language in brochures and materials as well as bilingual staff. This survey also shows that the concentrated area of King County for respondents who do not speak English well is in South King County where over 13% of respondents do not speak English well.²¹

Exhibit 1



²¹ King County Health Needs Assessment 2018-2019. King County Hospitals for a Healthier Community. Page 43

Exhibit 2 provides an analysis of cause of death and death rates by ethnic group for the overall population and top two causes of death for King County residents.²² These causes of death account for approximately one half of the hospice population. For the leading causes of death, the death rate per 100,000 persons (the first number is the 5-year age adjusted rate. The second number is the 5-year average count of deaths for each category.

Exhibit 2²³

Leading causes of death, King County (average: 2011-2015) (ranked by the number of deaths)

Rank	Total	BY RACE/ETHNICITY						
		AIAN	Asian	Black	Hispanic	Multiple race	NHPI	White
All	All 619.5 (12,409)	All 857.7 (113)	All 436.1 (1,006)	All 796.6 (738)	All 432.0 (277)	All 341.3 (113)	All 963.4 (67)	All 634.1 (10,337)
1	Cancer 147.7 (2,941)	Cancer 140.1 (19)	Cancer 117.2 (288)	Cancer 191.3 (178)	Cancer 96.0 (61)	Cancer 84.1 (26)	Heart disease 270.0 (17)	Cancer 150.4 (2,410)
2	Heart disease 125.7 (2,534)	Heart disease 156.9 (18)	Heart disease 80.9 (180)	Heart disease 154.9 (134)	Heart disease 89.5 (43)	Heart disease 65.0 (16)	Cancer 217.6 (16)	Heart disease 129.6 (2,163)

Exhibit 3 identifies the percentage of unmet medical needs by, ethnic group and geographic area. It demonstrates that the greatest need is in the South geographic area among the Hispanic population.²⁴

²² *Ibid.* Page 57

²³ *Ibid.* Page 57

²⁴ *Ibid.* Page 67

Exhibit 3

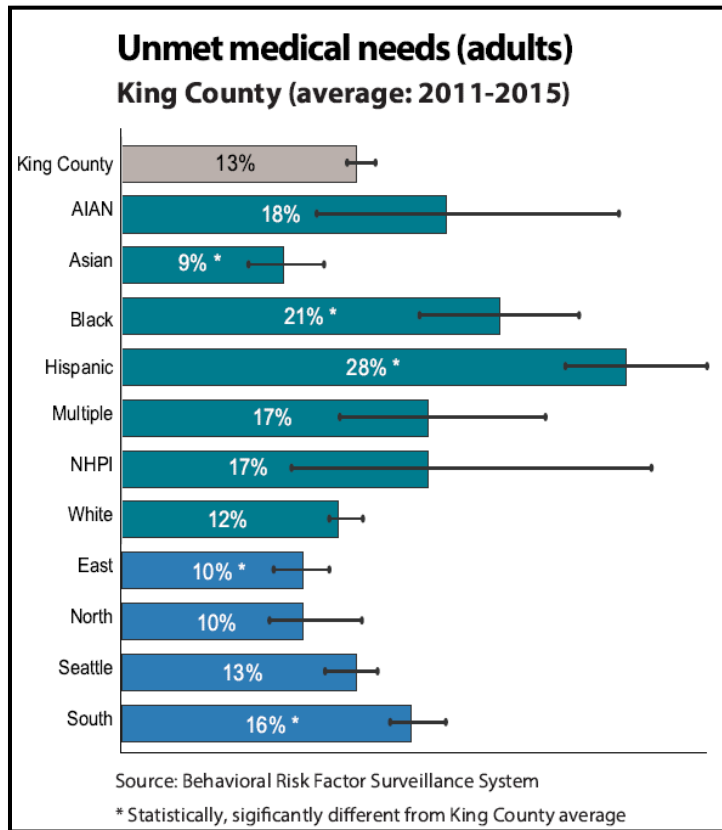


Table 20 shows that outreach by existing hospices in King County is insufficient to overcome geographic, ethnic and economic barriers to hospice services described in Exhibits 1 – 3 in King County. Table 19 shows that outreach to the dual diagnosis Medicare cohort that counters the various barriers to care such as language, income and geography can by itself nearly result in King County equalizing its overall hospice admission rate per 1,000 beneficiary deaths by achieving a 97% comparable rate to the national rate. Outreach to federally qualified health clinics will also reach the younger, Medicaid-only population and the Hispanic population cohorts and also raise their hospice admissions.

Table 20

King County Hospice Percent of National Hospice Admission Rates			
	King County	National	King County as % of National Rate
Duals			
Blended Hospice Admissions per 1,000 Beneficiary Deaths	564	604	93%
Dual Eligible Admissions per 1,000 Beneficiary Deaths	501	574	87%
Non-Dual Eligible Admissions per 1,000 Beneficiary Deaths	583	613	95%
Dual Eligible Admissions per 1,000 Beneficiary Deaths as a % of Non Dual Eligible Admissions per 1,000 Beneficiary Deaths	86%	94%	
Deaths if Dual Eligible Admissions Per 1,000 Beneficiary Deaths was the same rate as the King County Non Dual Admissions Rate	583	604	97%

Berg Data Solutions: CMS 2019

c. If existing services are available and accessible, justify why the proposed project does not constitute an unnecessary duplication of services.

The proposed Eden Hospice project will reach an ADC of 13 patients in 2022, expanding to 46 patients in the third year of operation. While seven of the existing hospice agencies in King County are large and well-established, they are not able to meet hospice need as described in previous metrics involving disparity for low-income King County residents (see Table 19); as well as the general unmet medical need among Black residents, which exceeds 20% of the population and among Hispanic residents, which approaches 30% of respondents (see Exhibit 3).²⁵ Hospice services are the logical extension of acute healthcare services. Attention to outreach to these two population cohorts, which would include attention to Spanish language-based services (see Exhibit 1) and outreach into South and East King County federally qualified health centers to reach these population cohorts requires a massive effort among all hospice providers.

²⁵ One approved hospice agency was not operating in King County in 2019. Two hospices with primary locations in King County, Kaiser Health Foundation Health Plan and Wesley Homes, LLC and do not serve all residents needing hospice services.

- 1) King Hospice Admissions per 1,000 Deaths at 564 admissions per 1,000 deaths, is below the national average of 604 admissions per 1,000 Deaths
- 2) An analysis of length of stay for King County hospice patients shows that while King County hospices' median length of stay at 71 days is higher than the statewide ALOS of 62.66 days; three hospices have lower lengths of stay than the statewide average.
- 3) **The percentage of King County hospice-eligible patients receiving hospice services is 4% below the expected statewide average;**
- 4) Table 21 shows that King Hospice dual eligible Admissions per 1,000 Deaths at 501 admissions per 1,000 deaths is below the King County non dual-eligible rate of 583 admissions per 1,000 Deaths for the Medicare population as calculated by Berg Data Solutions, LLC.
- 5) Table 19 shows that the median length of stay for 8 reporting hospices in King County is 71 days. This is lower than the national length of stay in 2018 of 90.2.²⁶
- 6) Only six of eight operating hospices serving King County serve the entire population needing hospice services.
- 7) Only four of eight currently operating hospices in King County serve only King County patients.

The obvious conclusion is that King County needs additional hospices with an exclusive interest in serving King County residents, particularly low-income, Medicaid-eligible residents and low income, dual-eligible Medicare patients. Since there is future net need for 3 hospice agencies, there is no duplication of services. This application has documented the following:

- There is disparity for the King County total Medicare population as measured by King County admissions per 1,000 deaths by beneficiaries compared to the national population.
- There is disparity for the King County non dual-eligible population as measured by admissions per 1,000 deaths by beneficiaries in the dual-eligible national population.
- There is disparity for the King County dual eligible population as measured by admissions per 1,000 deaths by King County beneficiaries in the dual-eligible population.
- By extension, there is disparity in admissions per 1,000 deaths by low income, Black and Hispanic King County beneficiaries as measured by unmet Medical need.
- Two of the hospices approved to operate in King County have their principal location sites in Pierce County, while two of the hospices within King County serve multiple counties.
- Two of the nine approved hospices restrict their access to member populations – Kaiser Foundation Health Plan and Wesley Homes Hospice, which may have limited community outreach.

5. Confirm the proposed agency will be available and accessible to the entire planning area.

The Eden Hospice at King County, LLC will be available and accessible to the entire population. Eden Hospice at King County, LLC will admit Pediatric patients in collaboration with other hospices.

²⁶ The CMS statewide average length of stay calculation treats all patients as new patients on Day 1 of a calendar year and assumes discharge for all patients on the last day of a calendar year which results in some duplicate counts of hospice patient admits and a modestly shorter length of stay than measuring unduplicated patients.

6. Identify how this project will be available and accessible to under-served groups.

EmpRes has been a King County healthcare provider for 23 years. Its Whatcom County home-health agency commenced in 2014, and its Whatcom homecare agency in 2016 and skilled nursing facilities in King County were established in 1997. Eden understands each patient and family is special. For this reason, Eden tailors its team approach to the specific needs of each patient and family. Hospice services are provided in the patient's home, no matter where that home is located. It may be a private residence, an assisted living community, an adult care home, or a residential or intermediate care community. The proposed hospice will provide care to Medicare and Medicaid eligible patients as well as all other patients, regardless of the source or availability of payment for care.

Dual Eligible Patients:

Despite ongoing efforts by existing King hospice providers, King County hospice admission rates are 5% below the nationwide rate for non-dual (Medicare only) eligible hospice patients and over 18% below the nationwide rate for dual-eligible (Medicare and Medicaid) hospice patients. Addressing the large disparity in access and utilization of hospice services in King County among low income, dual-eligible Medicare patients would add nearly 200 King County hospice patients and add a 33- patient average daily census using 2020 hospice data.

Eden has a plan and a strategy to address current unmet need as well as increasing hospice service access through outreach to the dual-eligible Medicare population through collaborative and augmented, culturally competent services to hospice patients, along with their families and friends, who are currently underserved. To reduce disparity for the dual-eligible population requires outreach through existing agencies such as federally qualified health centers and healthcare providers who disproportionately serve the following cohorts:

- Medicaid population
- Dual-eligible and low income, Medicare population
- Black/African American populations
- Hispanic populations
- Pediatric patients

Each of these population cohorts have socio-economic characteristics that lead to health disparity and access barriers resulting in lower utilization of hospice services. Additionally, each target population cohort is entitled to hospice services that are culturally sensitive, respectful and competent.

This strategy of increasing hospice utilization to underserved King County residents will not only improve the quality of life for patients facing death and for their families and friends who will grieve their loss, but it will:

- Reduce healthcare costs
- Meet the DSHS LTSS Dual-Eligibility service goals and Washington's Triple Aim for healthcare services

Hispanic Patients:

Table 16 shows that the Hispanic or Latino population (any race) comprised 9.8% of the King County population. Poverty (below 200% of the Federal Poverty Rate affects 31% of residents in South King County and 26% in Seattle. Poverty among the Hispanic population is at 48%, second only to the 50% poverty level among the Black/African American non-Hispanic population. In regard to access to healthcare 28% of Hispanic respondents reported unmet health need (Exhibit 3). 26% of Hispanic respondents to a language survey reported that they had difficulty understanding English. As noted in our discussion of dual-eligible patients our overall outreach strategy of working with federally qualified health centers will reach a large portion of the Hispanic population that needs hospice services. Eden will supplement its language and cultural competence capabilities through working with the federally qualified health centers and the National Hospice and Palliative Care Organization (NHPCO) as well as recruiting Hispanic team members for this population cohort.

Veterans:

American Fact Finder reports that King County had over 104,000 veterans during the 2014 – 2018 time period. Eden Hospice in Nevada is a member of the NHPCO and is a “partner” participating in the “We Honor Veterans Program”. As mentioned earlier, Eden is part of the TriWest Healthcare Alliance (TriWest) which is an honored third party administrator for the U.S. Department of Veterans Affairs (VA). TriWest works with high-performing, credentialed community providers that partner with VA to provide health care to Veterans in their local community. Eden Hospice at King will also achieve “partner” standing with “We Honor Veterans Program” with a CoN approval.

All Ethnic Diversity Patients:

Ethnically diverse populations require culturally competent and respectful outreach to increase the knowledge and acceptance of hospice services that are designed to meet each ethnic cohorts’ expectations. As noted, the Black/African American population cohort poverty level is at 50% and the reported unmet medical need is 21%. Ethnic diversity contributes to disparity in health status and healthcare outcomes, which will be discussed in a later section. Even 32% of the Asian population cohort that has high life expectancy and the lowest unmet medical need rate of 9% reports difficulty with the English language. Eden Hospice at King County will build on its 7 years of relationships in the community to establish effective outreach and as noted in the previous section on dual-eligible residents will partner with FQHCs such as the International Community Health Services that maintains a language bank of healthcare interpreters and providers. Table 16 provides the 2018 demographic profile for King County prepared by the Employment Security Department for Washington State.

Secular Hospice:

As noted throughout the CoN application, the residents of King County who face terminal illness and need hospice, also have the right to be informed and have access to Washington State’s Death with Dignity end-of-life option. Eden will provide an additional resource for patients and healthcare providers for supporting the Death with Dignity end-of-life statute.

LGBTQ Population

Approximately 5.5% of the King County adult population identifies as being in the LGBT population compared to 4% statewide. It is estimated that there are nearly 3 million LGBT people age 50 and older. By 2030 these estimates rise to nearly 7 million. And while no precise data exists on the number of transgender older people nationwide, it is estimated that there are hundreds of thousands of older adults who are transgender—and many more over the next few decades.²⁷

In 2019 more than half of Washington’s same-sex couples live in King County, which has not only the largest number of these couples, but also the highest percentage — there are 12.1 same-sex couples for every 1,000 households in the county (or 1.2 percent of all households). That ranks King as the county with the 19th highest percentage of same-sex couples of all counties in the United States. Three other Washington counties rank in the top 100 nationally: Jefferson, San Juan and Thurston, in that order. In Seattle alone, at least 2.3 percent of households being same-sex partners. That ranks Seattle as 38th nationally, but it should be noted that among America’s large cities (250,000+ population), Seattle ranks 2nd only to San Francisco. Of course, many LGBTQ live outside of Seattle but reside in King County.

In a 2018 AARP study, entitled *Maintaining Dignity, Understanding and Responding to Challenges Facing Older LGBT[Q] Americans – An AARP survey of LGBT adults age 45 – plus*, noted that “Black and Latino Americans are more concerned about multiple forms of discrimination and negative outcomes in healthcare as they age. The most striking differences by race/ethnicity were fears of discrimination and bad health outcomes, in particular for the black LGBT older adult community. For LGBT people of color, concern about discrimination due to their sexual orientation or gender identity is not disentangled from concern about discrimination due to their race or ethnicity.”²⁸

“There is significant concern within the LGBTQ community regarding healthcare and discrimination or prejudice. The greatest concern is healthcare providers who are not sensitive to LGBTQ patient needs, followed by discrimination or prejudice affecting quality of care.” Of course, for patients and their supporters facing end-of-life issues, it is extremely important they have unbiased, non-religious, non-judgmental and quality in-home hospice care readily available. Eden is acutely aware of the complex multilayered discrimination issues the LGBTQ patients may face in healthcare and hospice will embrace King County LGBTQ community.

Given that a large hospice provider in King County is restricted by religious directives, the LGBTQ patients and their support community need and want hospice options that have no overarching religious affiliation. The special challenges facing many LGBTQ older adults must be kept in mind and adequately addressed when designing and providing hospice services to the aging – **Eden is eager to participate in the special needs of the LGBTQ community.** Should Eden be granted the CoN, and as mentioned earlier, Eden will become involved with organizations in King County and the State of Washington that support the healthcare/hospice needs of the LGBTQ community.

Pediatric Population: Eden Hospice at King County will collaborate with other hospices and admit pediatric patients when appropriate.

²⁷ *Op cit.* at sage. Page 2

²⁸ *Maintaining Dignity: Understanding and Responding to the Challenges Facing Older LGBT Americans*, AARP Research; February 2020. Pg. 45

7. Provide a copy of the following policies:

- **Admissions Criteria Process (Intake Policy & Non-discrimination) – See Appendix 14**
- **Admissions and Charity care or financial assistance policy, and patient discharge - See Appendix 15 & 16**
- **Any other policies directly related with patient access (example, involuntary discharge)**

The requested policies are provided as listed below:

- **Admissions Criteria Process (Intake Policy & Non-discrimination) – See Appendix 14**
- **Admissions and Charity care or financial assistance policy and patient discharge – See Appendix 15 & 16**

8. If there is not sufficient numeric need to support approval of this project, provide documentation supporting the project’s applicability under WAC 246-310-290(12). This section allows the department to approve a hospice agency in a planning area absent numeric need if it meets the following review criteria:

- **All applicable review criteria and standards with the exception of numeric need have been met;**
- **The applicant commits to serving Medicare and Medicaid patients; and**
- **A specific population is underserved; or**
- **The population of the county is low enough that the methodology has not projected need in five years, and the population of the county is not sufficient to meet an ADC of thirty-five.**

Note: The department has sole discretion to grant or deny application(s) submitted under this subsection.

Not Applicable, there is a need for 3 hospice agencies in 2022.

B. Financial Feasibility (WAC 246-310-220)

WAC 246-310-990(2) defines “total capital expenditure” to mean the total project costs to be capitalized according to generally accepted accounting principles. These costs include, but are not limited to, the following: legal fees; feasibility studies; site development; soil survey and investigation; consulting fees; interest expenses during construction; temporary relocation; architect and engineering fees; construction, renovation, or alteration; total costs of leases of capital assets; labor; materials; fixed or movable equipment; sales taxes; equipment delivery; and equipment installation.

Financial feasibility of a hospice project is based on the criteria in [WAC 246-310-220](#).

- 1. Provide documentation that demonstrates the immediate and long-range capital and operating costs of the project can be met. This should include but is not limited to:**
 - **Utilization projections. These should be consistent with the projections provided under the Need section. Include all assumptions.**
 - **Pro Forma revenue and expense projections for at least the first three full calendar years of operation. Include all assumptions.**
 - **Pro Forma balance sheet for the current year and at least the first three full calendar years of operation. Include all assumptions.**
 - **For existing agencies proposing addition of another county, provide historical revenue and expense statements, including the current year. Ensure these are in the same format as the projections. For incomplete years, identify whether the data is annualized.**

Eden Hospice at King County, LLC

Eden Hospice at King County, LLC is a new agency. Therefore, the Pro Forma revenue and expense projections cover the first three calendar years of operation, 2022 – 2024 and include all assumptions that are consistent with the representations in the application itself. A 2022 – 2024 Balance Sheet is also provided for the first three, full calendar years of operation include all assumptions. Please see Appendix 12 which includes a pro forma forecast showing operating revenue and expenses for the first three full years of operations. There is no impact on capital costs, as no capital is required for this project. All assumptions are included in this section.

EmpRes Healthcare Group, Inc.

While Eden Hospice at King County, LLC is the applicant, it is wholly owned by EmpRes Healthcare Group Inc. EmpRes Healthcare Group, Inc. owns 4 hospices. Consistent with the program-approved Eden Hospice at Whatcom County certificate of need, a combined revenue and expense statement has been prepared for all EmpRes hospices with a historical period of 2017 – 2019, current year 2020 (annualized based on 10 months actual operations information) and is projected for the years 2021 through 2024. The pro forma from the approved Eden Whatcom Hospice is included in the “Hospice Without Eden Hospice at King County.” This Revenue and Expense Pro Forma along with the Pro Forma Balance Sheet for the existing, approved operations is then compared with the Existing approved

programs AND the Eden Hospice at King County project, so as to compare the “with and without analysis. Eden is still contemplating an analysis of cycle 2 projects and may submit a second hospice certificate of need application. If it does submit a second hospice project it will complete an additional analysis to compare the financial impact of starting two new hospices in relatively the same time period. **The “With and Without” Analysis including all assumptions is included in Appendix 13.**

2. Provide the following agreements/contracts:

- **Management agreement.**
- **Operating agreement**
- **Medical director agreement**
- **Joint Venture agreement**

Note, all agreements above must be valid through at least the first three full years following completion or have a clause with automatic renewals. Any agreements in draft form must include a document signed by both entities committing to execute the agreement as submitted following CN approval.

Appendix 3 provides the management agreement and operating agreements. Appendix 9 provides the medical director agreement and the agreement to execute the document upon CoN approval.

There is no joint venture agreement.

3. Provide documentation of site control. This could include either a deed to the site or a lease agreement for the site.

If this is an existing hospice agency and the proposed services would be provided from an existing main or branch office, provide a copy of the deed or lease agreement for the site. If a lease agreement is provided, the agreement must extend through at least the projection year. Provide any amendments, addendums, or substitute agreements to be created as a result of this project to demonstrate site control.

If this is a new hospice agency at a new site, documentation of site control includes one of the following:

- a. **An executed purchase agreement or deed for the site.**
- b. **A draft purchase agreement for the site. The draft agreement must include a document signed by both entities committing to execute the agreement as submitted following CN approval.**
- c. **An executed lease agreement for at least three years with options to renew for not less than a total of two years.**
- d. **A draft lease agreement. For Certificate of Need purposes, draft agreements are acceptable if the draft identifies all entities entering into the agreement, outlines all roles and responsibilities of the entities, identifies all costs associated with the agreement, includes all exhibits referenced in the agreement. The draft agreement must include a document signed by both entities committing to execute the agreement as submitted following CN approval.**

Eden Hospice at King County, LLC is co-locating with Eden Home Health of King County, LLC. Appendix 6 provides a signed lease with options covering a 3-year period with options extending for additional years.

4. **Complete the table with the estimated capital expenditure associated with this project. Capital expenditure is defined under WAC 246-310- 010(10). If you have other line items not listed in the table, include the definition of the line item. Include all assumptions used to create the capital expenditure estimate.**

Table 21 provides the estimated capital expenditure associated with the project. Eden Hospice at King County, LLC is co-locating with the Eden Home Health of King County, LLC so there is no building remodel, fixed equipment or moveable equipment costs associated with the project. Minor equipment such as laptops and cell phones are expected to be supported by current inventory. Even if some minor equipment had to be purchased that was not expensed, it would be well below \$50,000 threshold for minimum capital expenditures, but no expenditure is anticipated.

Table 21

Item	Cost
a. Land Purchase	\$0
b. Utilities to Lot Line	\$0
c. Land Improvements	\$0
d. Building Purchase	\$0
e. Residual Value of Replaced Facility	\$0
f. Building Construction	\$0
g. Fixed Equipment (not already included in the construction contract)	\$0
h. Movable Equipment	\$0
i. Architect and Engineering Fees	\$0
j. Consulting Fees	\$0
k. Site Preparation	\$0
l. Supervision and Inspection of Site	\$0
m. Any Costs Associated with Securing the Sources of Financing (include interim interest during construction)	\$0
1. Land	\$0
2. Building	\$0
3. Equipment	\$0
4. Other	\$0
n. Washington Sales Tax	\$0
Total Estimated Capital Expenditure	\$0

5. **Identify the entity responsible for the estimated capital costs identified above. If more than one entity is responsible, provide breakdown of percentages and amounts for each.**

EmpRes Healthcare Group Inc.

- 6. Identify the amount of start-up costs expected to be needed for this project. Include any assumptions that went into determining the start-up costs. Start-up costs should include any non-capital expenditure expenses incurred prior to the facility opening or initiating the proposed service. If no start-up costs are expected, explain why.**

Start-up costs are estimated to be less than \$100,000 to cover working capital requirements. Co-location will reduce the costs of outreach and administration during the certification process.

- 7. Identify the entity responsible for the estimated start-up costs identified above. If more than one entity is responsible, provide breakdown of percentages and amounts for each.**

EmpRes Healthcare Group Inc.

- 8. Explain how the project would or would not impact costs and charges for healthcare services in the planning area.**

As noted in this application, King County hospices are under capacity stress, a current need for three new hospices; resulting in shorter lengths of stay and limited outreach as shown by admissions. Eden being co-located with a one or two- county home health agency can operate with great economies of scale without large patient volumes that could affect new King County hospices and additional staffing is minimized due to the economies of scale. This addition of capacity should reduce future capacity stress for King County hospices while not reducing current volumes. This will give other newly approved hospices an opportunity to catch up with the current volume of patients.

- 9. Explain how the costs of the project, including any construction costs, will not result in an unreasonable impact on the costs and charges for health services in the planning area.**

The literature points to an ideal ALOS of 6 months. Studies cited in this application document that patients with terminal diagnoses with a longer progression of illness (the ALOS is 88 days but the median ALOS is 18 days), live longer with reduced hospitalizations and use of the emergency room if they are enrolled in hospice. A Providence Hospice financial analysis in the approved CN 19-44 calculated a potential statewide savings of \$99 million or \$3,945 per patient if all hospice eligible patients received 35 days of hospice care in short if admits and ALOS increased.¹⁹ Table 14, estimated that expenditures for King County hospice patients during the last 30 days of their lives would be \$4,556 per patient lower when compared to national hospice data. A melanoma study found that patients who received 4 or more hospice days had average costs of \$14,594, compared to the groups who received one to three days of care, or no hospice care at all (\$22,647 and \$28,923 respectively).²⁰

- 10. Provide the projected payer mix by revenue and by patients by county as well as for the entire agency using the example table below. Medicare and Medicaid managed care plans should be included within the Medicare and Medicaid lines, respectively. If “other” is a category, define what is included in “other.”**

As was noted in the Need section and executive summary, the Eden strategy is to conduct outreach among the Medicare dual-diagnosis program. Through this approach, Eden expects

to admit Medicaid patients as well because of the emphasis on outreach to federally qualified health centers. Medicare and Medicaid reimbursement is nearly identical in our strategy and that represents 95% of the patient population. Even though commercial insurance will pay at about 80% of the rate of Medicare and Medicaid, since the cohort is only 5%, it has little effect on the Percent of payer by patient as presented in Table 22.

Table 22
Payer Mix

Payer Mix	Percentage of Gross Revenue	Percentage by Patient
Medicare	90%	90%
Medicaid – CHPW, Molina etc.	5%	5%
Other Payers – All Commercial, Tri-Care, CHAMPUS, VA etc.)	5%	5%
Total	100%	100%

- 11. If this project proposes the addition of a county for an existing agency, provide the historical payer mix by revenue and patients for the existing agency. The table format should be consistent with the table shown above.**

Not applicable.

- 12. Provide a listing of equipment proposed for this project. The list should include estimated costs for the equipment. If no equipment is required, explain.**

There is no additional equipment expected to be purchased since Eden has laptops and other equipment in inventory. Any unanticipated equipment purchases would be considerably below the \$50,000 threshold requiring an amendment to the application.

- 13. Identify the source(s) of financing (loan, grant, gifts, etc.) and provide supporting documentation from the source. Examples of supporting documentation include: a letter from the applicant’s CFO committing to pay for the project or draft terms from a financial institution.**

As represented by EmpRes Healthcare Management, LLC, the members of Eden Hospice at King County, LLC will make capital contributions sufficient to support the start-up cash flow requirements of the expansion into King County. Appendix 5 provides a letter of financial commitment from the CFO of EmpRes Healthcare Management, LLC. The source of the funds is from cash generated through operations of the members of EmpRes Healthcare Management, LLC backed up by a \$40 million line of credit commitment, secured by accounts receivable, with MidCap Financial.

- 14. If this project will be debt financed through a financial institution, provide a repayment schedule showing interest and principal amount for each year over which the debt will be amortized.**

Not Applicable.

15. Provide the most recent audited financial statements for:

- **The applicant, and**
- **Any parent entity responsible for financing the project.**

Appendix 28 provides the most recent audited financial statement for EmpRes Healthcare Group and subsidiaries.

C. Structure and Process (Quality) of Care (WAC 246-310-230)

1. Please provide the current and projected number of employees for the proposed project

Please see Appendix 12 for the Eden Hospital at King County projected number of FTEs for the proposed project.

2. If this application proposes the expansion of an existing agency into another county, provide an FTE table for the entire agency, including at least the most recent three full years of operation, the current year, and the first three full years of operation following project completion. There should be no gaps in years. All staff categories should be defined.

Not Applicable

3. Provide the assumptions used to project the number and types of FTEs identified for this project.

Table 23 provides Eden Hospital at King County staff to patient ratios

**Table 23
Eden Hospital at King County Staff / Patient Ratio**

Type of Staff	Eden Hospital at King County
	Staff / Patient Ratio
Skilled Nursing (RN & LPN)	1:10
Physical Therapist	Contract only
Occupational Therapist	Contract only
Medical Social Worker	1:30
Speech Therapist	Contract only
Home Health / Hospice Aide	1:10
Chaplain	1:40

Provide a detailed explanation of why the staffing for the agency is adequate for the number of patients and visits projected.

Eden evaluated applications that had been approved in the 2018 and 2019 cycles in preparing staffing ratios. Table 24 provides comparative data based on a review of staffing tables and assumptions in the certificate of need applications that were evaluated

**Table 24
Comparative Staff : Patient Ratios on Recently Approved Hospice Agencies**

Type of Staff	Olympic Medical Center 2019 CoN	Providence 2018 CoN	Envision 2019 Snohomish	Inspiring 2019 Snohomish
	Staff / Patient Ratio	Staff / Patient Ratio	Staff / Patient Ratio	Staff / Patient Ratio
Skilled Nursing (RN & LPN)	1: 10	1:11	1:10	1:8
Physical Therapist	Contract only	Contract only	Contract only	Contract only
Occupational Therapist	Contract only	Contract only	Contract only	Contract only
Medical Social Worker	1:35	1:25	1:35	1:03
Speech Therapist	Contract only	Contract only	Contract only	Contract only
Home Health / Hospice Aide	1:10	1:15	1:10	1:8
Chaplain	Contract per Visit	1:50	1:37	1:30

- 4. Provide the name and professional license number of the current or proposed medical director. If not already disclosed under 210(1) identify if the medical director is an employee or under contract.**

The medical director for the proposed hospice is Gilson R. Giroto, DO, license #OP00002078, NPI 1083690333. The medical director will be under contract.

- 5. If the medical director is/will be an employee rather than under contract, provide the medical director’s job description.**

While Dr. Giroto will be under contract, the position description is included in Appendix 10.

- 6. Identify key staff by name and professional license number, if known. (nurse manager, clinical director, etc.)**

Administrator and Director of Nursing: Lisa Belal, RN. License #RN60815128.

- 7. For existing agencies, provide names and professional license numbers for current credentialed staff.**

Not applicable.

8. Describe your methods for staff recruitment and retention. If any barriers to staff recruitment exist in the planning area, provide a detailed description of your plan to staff this project.

Hospice services have been proven to reduce the demand for inpatient hospital services and the nursing and other ancillary staff needed to support hospital inpatients. As a result, hospice in general reduces the demand for hospital-based nursing staff by reducing hospital length of stay and reducing readmissions to acute care hospitals.

As a large multi-state organization, EmpRes and Eden have employees, visibility, and contacts across numerous job markets. Specific to King County, EmpRes currently operates both a home health agency and a skilled nursing facility in King County so it has local knowledge and established relationships within King County for recruiting staff.

Eden Hospital at King County is an employee owned agency. This is an added recruitment advantage in several important aspects of staffing, recruitment and retention:

- EmpRes maintains a recruitment office to systematically recruit for employees (see Appendix 18).
- Staff mobility within and between labor markets supports recruitment and enhances overall retention efforts for employees stay in the EmpRes and Eden organizations (see Appendix 18).
- As an employee-owned organization, EmpRes and Eden experience lower turn-over rates than many other health care providers.
- Co-location of Eden Hospice with EmpRes Home Health King County, LLC will reduce the need for new employees particularly in the start-up years.
- The EmpRes commitment to Employees/Residents reflected in the company name is also reflected in management efforts to prioritize employees and residents as core to any success again reducing turnover and making EmpRes an attractive employer.
- EmpRes maintains an Employee Referral bonus program (see Appendix 18).

9. Identify your intended hours of operation and explain how patients will have access to services outside the intended hours of operation.

The intended hours of operation will be from 8:00 a.m.-5:00 p.m. daily for regular office hours, with 24/7 access to nursing, including nursing visits.

10. For existing agencies, clarify whether the applicant currently has a method for assessing customer satisfaction and quality improvement for the hospice agency.

While this is a new hospice agency, Eden does have a methodology for assessing customer satisfaction and quality improvement. Please see Appendix 19 for the Eden Hospital at King County Quality Assurance Performance Improvement (QAPI) Policy and Plan. Strategic Healthcare Partners conducts the CHAP Community Health Assessment plan. The primary goals of the organizational Quality Assurance Performance Improvement (QAPI) Plan are to continually and systematically plan, design, measure, assess, and improve performance of organization-wide key functions and processes relative to patient care, treatment, and services.

Element 1. D. vii. Addresses the methods for assessing customer satisfaction and quality improvement.

CAHPS and Quality Results

2. To achieve this goal, the plan strives to:
 - a. Incorporate quality planning throughout the organization.
 - b. Collect data to monitor performance.
 - c. Provide a systematic mechanism for the organization's appropriate individuals, departments, and professions to function collaboratively in their Quality Assurance Performance Improvement (QAPI) efforts providing feedback and learning throughout the Agency.
 - d. Provide for an organization-wide program that assures the Agency designs processes (with special emphasis on design of new or revisions in established services) well and systematically measures, assesses, and improves its performance to achieve optimal patient health outcomes in a collaborative, cross-departmental, interdisciplinary approach. These processes include mechanisms to assess the needs and expectations of patients and their families, staff, and others. Process design contains the following focus elements:
 - i. Consistency with the organization's mission, vision, values, goals, and objectives and plans.
 - ii. Meets the needs of individuals served, staff, and others.
 - iii. Fosters the safety of patients and the quality of care, treatment, and services.
 - iv. Supports a culture of safety and quality.
 - v. Use of clinically sound and current data sources (e.g. use of practice/clinical guidelines, information from relevant literature and clinical standards).
 - vi. Is based upon best practices as evidenced by accrediting bodies.
 - vii. Incorporates available information from internal sources and other organizations about the occurrence of medical errors and sentinel events to reduce the risk of similar events in this organization.
 - viii. Utilizes reports generated from OASIS data, including the following OASIS reports:
 - Outcome-Based Quality Monitoring (OBQM) Potentially Avoidable Events Report and Patient Listing.
 - Outcome-Based Quality Improvement (OBQI) Outcome Report.
 - Error Summary Report.
 - Utilizes the results of Quality Assurance Performance Improvement (QAPI), patient safety and risk reduction activities.
 - Management of change and Quality Assurance Performance Improvement (QAPI) supports both safety and quality through the Agency.

11. For existing agencies, provide a listing of ancillary and support service vendors already in place.

Not Applicable

12. Identify whether any of the existing ancillary or support agreements are expected to change as a result of this project.

Not Applicable

13. For new agencies, provide a listing of ancillary and support services that will be established.

EmpRes has been a King County healthcare provider for 23 years. Its Whatcom County home-health agency commenced in 2014, and its Whatcom homecare agency in 2016 and skilled nursing facilities in King County were established in 1997 and provide ancillary and support services. The existing ancillary and support services include but are not limited to the following:

- **Hospital:** Eden Hospice will establish agreements with Evergreen Hospice Center to make available inpatient services and local hospitals.
- **Respite Care:** Eden Hospice will work with Evergreen at Kirkland, LLC for hospice center services and with its SNFs in King County.
- **Long Term Care facilities:** Eden Hospice will work with EmpRes SNFs located in King County – Canterbury House, Seattle Medical and Rehabilitation Center and Enumclaw Health and Rehabilitation
- **Pharmacy Benefit Manager:** EmpRes has an agreement with Enclara Pharmacia
- **Home Medical Equipment and Specialty Pharmacy Services:** Bellevue Healthcare II., Inc.
- **Occupational Therapy, Physical Therapy, and Speech Therapy:** EmpRes Home Health agency currently have these resources in place through its home health agency and SNFs within King County.
- **Oncology Cancer Center:** Eden Hospice will develop working relationships with cancer programs in King County.
- **Primary Care Clinics:** Eden Hospice will focus on developing working relationships with federally qualified health care clinics such as Sea Mar, Healthpoint, International Community Health Services and County Doctor Clinics and as part of its outreach to dual eligibility Medicare beneficiaries. It will also use its regular outreach activities with primary care clinics throughout Seattle and the rest of King County, initially relying on relationships developed with physicians in its home health and SNF operations.

The relationships demonstrate that Eden Hospital at King County has the capabilities to meet the service demands for the project. Once the project is approved, Eden Hospice will work to make any necessary adjustments or amendments to the agreements in order to provide the full spectrum of hospice services in King County.

14. For existing agencies, provide a listing of healthcare facilities with which the hospice agency has working relationships.

Not Applicable.

15. Clarify whether any of the existing working relationships would change as a result of this project.

Eden Hospice at King County , LLC would not expect existing working relationships to change as a result of this project.

16. For a new agency, provide a listing of healthcare facilities with which the hospice agency would establish working relationships.

EmpRes through its newly approved King County home health agency and its local SNFs has already developed relationships with area healthcare facilities. As noted in the response to question 16, Eden will work with EmpRes skilled nursing facilities as well as area hospitals including Evergreen Medical Center and Evergreen Hospice Center.

- 17. Identify whether any facility or practitioner associated with this application has a history of the actions listed below. If so, provide evidence that the proposed or existing facility can and will be operated in a manner that ensures safe and adequate care to the public and conforms to applicable federal and state requirements. WAC 246-310-230(3) and (5)**
- a. A criminal conviction which is reasonably related to the applicant's competency to exercise responsibility for the ownership or operation of a hospice care agency; or**
 - b. A revocation of a license to operate a health care facility; or**
 - c. A revocation of a license to practice a health profession; or**
 - d. Decertification as a provider of services in the Medicare or Medicaid program because of failure to comply with applicable federal conditions of participation.**

There are no such convictions or denial or revocation of licenses, so this question is not applicable.

18. Provide a discussion explaining how the proposed project will promote continuity in the provision of health care services in the planning area, and not result in an unwarranted fragmentation of services. WAC 246-310-230

As an established provider in the community, Eden Hospice has identified critical disparity barriers and has developed a targeted outreach strategy to work with federally qualified health centers, lead agencies in the DSHS health come project, community agencies focused on serving Veterans, Hispanic communities and the LGBTQ population and with local hospital, physicians, skilled nursing facilities and other providers. Eden Hospital at King County will co-locate with Eden Home Health of King County and will jointly work with that agency in outreach and planning efforts to ensure continuity of care, while avoiding fragmentation of care. Eden Hospice will leverage EmpRes/Eden's existing community relationships, within King County and add respite options and other relationships necessary to support the hospice patient and family members throughout the course of care and during the period of bereavement following death of the patient.

19. Provide a discussion explaining how the proposed project will have an appropriate relationship to the service area's existing health care system as required in WAC 246-310-230.

This standard asks for assurance that the staffing plan is consistent with requirements and community standards. Eden provided this assurance as noted in Table and Table regarding staffing. This standard expects that sufficient ancillary services and support services will be provided. Our affirmative response is included in response to question 14 in this section and is based on 23 years of King County experience. Finally, Eden provided a summary of its approach to continuity of care in its response to question 19 in this section. Eden also notes that its assessment of Need provides thorough documentation of its understanding of how disparity affects the public health of King County.

- 20. The department will complete a quality of care analysis using publicly available information from CMS. If any facilities or agencies owned or operated by the applicant reflect a pattern of condition-level findings, provide applicable plans of correction identifying the facility's current compliance status.**

There has been no history of condition-level findings related to information provided as requested by the Program. The Program has previously requested copies of surveys and accreditation reports on Eden Home Health and Eden Hospice agencies. The new information requirements do not request submission of these forms. They are available upon request.

- 21. If information provided in response to the question above shows a history of condition-level findings, provide clear, cogent and convincing evidence that the applicant can and will operate the proposed project in a manner that ensures safe and adequate care, and conforms to applicable federal and state requirements.**

There has been no history of condition-level findings related to information provided as requested by the Program.

D. Cost Containment (WAC 246-310-240)

1. Identify all alternatives considered prior to submitting this project. At a minimum include a brief discussion of this project versus no project.

- **Decision making criteria (*cost limits, availability, quality of care, legal restriction, etc.*):**
- **Advantages and disadvantages, and whether the sum of either the advantages or the disadvantages outweigh each other by application of the decision-making criteria;**
- **Capital costs;**
- **Staffing impact**

Eden Hospice at King County, LLC is requesting CN approval to operate a Medicare certified and Medicaid eligible hospice agency in King County. The hospice agency will be co-located with the EmpRes Home Health of King County, LLC agency.

As a certificate of need rules requirement, Eden Hospice evaluated the following alternatives: (1) status quo: “do nothing or postpone action,” (2) develop the proposed project, co-located with an existing Eden Home Health or EmpRes SNF and (3) Establish a new, single-purpose hospice agency location.

The three alternatives were evaluated using the following decision criteria: (1) access to hospice services; (2) health outcomes, (3) quality of care; (4) health care cost control for patients and for payers (5) operating efficiency; and (5) Impact on the existing hospice agency. Each alternative identifies advantages and disadvantages. Based on the above decision criteria and the analyses of each criteria covered in Tables 25 - 30, the requested project — seek CN approval to operate a Medicare certified and Medicaid eligible, hospice that is co-located with an existing Eden home health agency — is the best option.

2. Provide a comparison of the project with alternatives rejected by the applicant. Include the rationale for considering this project to be superior to the rejected alternatives. Factors to consider can include, but are not limited to: patient access to healthcare services, capital cost, legal restrictions, staffing impacts, quality of care, and cost or operation efficiency.

Table 25
Alternative Analysis: Access to Hospice Services

Advantages/Disadvantages	
<p>The Unmet Need in the 2020 methodology identified a 2022 unmet need of a 105 patient ADC requiring three new hospices that meet all of the other provisions of the four criteria if there is a population that is not receiving hospice services.</p> <p>An analysis of seven hospice capacity related metrics, documents that the King Hospice is unable to provide sufficient capacity that are barriers to access and can lead to increased healthcare costs for patients and payers.</p>	
<p>1) Status Quo: Do nothing or postpone action</p>	<p>There is no advantage to maintaining the status quo in terms of improving access. In 2020, the State methodology yielded a 105 ADC 2022 unmet need that that identified a Need for three additional hospices. No hospice was approved within King County.</p>
<p>2) Requested Project: CN approval – to operate a hospice agency co-located with the Eden King County home health agency</p>	<p>The requested project reduces current and future access barriers identified in King County. It adds choice as well as taking new steps to reach low-income Medicaid eligible residents and low income Medicare dual eligible beneficiaries by reaching out through federally qualified health centers. Overall King County access in terms of admits per 1,000 Medicare deaths is 7% below the national rate, while the dual-eligible (low income) rate in King County is 14% lower than the non-dual King County admission rate (Table 21). In addition, there are disparity rates due to language barriers among the Hispanic population (Exhibit 1) and high unmet medical need in the Hispanic population (28%) and the Black population (21%) (Exhibit 3). Eden addresses disparity in utilization due to language barriers and will take special steps in outreach recruitment and supporting materials for the Hispanic community to improve access.</p>
<p>3) Develop an independent location to operate a separate King County hospice operation</p>	<p>In regard to access, Eden’s goal is to reach out to community members where they live and where they seek medical care. Co-locating with a King County home health agency maximizes the outreach resources that can be employed, improves continuity of care between home health, hospice and SNF care and reduces financial overhead. As volume increases for both hospice and home health services, the economies of scale diminish in importance and allow the administrative teams to move closer to residents throughout King County.</p>
<p>Conclusion: The status quo is clearly not advantageous for the community from an access standpoint since the new home health and hospice agencies reach out to patients where they live and receive healthcare in the community and there is a methodology-based need for three hospices and seven metrics showing that capacity limits access to hospice services in King County</p>	

Table 26
Alternative Analysis: Improved Health Outcome Hospice

Advantages/Disadvantages	
<p>The literature points to an ideal ALOS of 6 months. Studies cited in this application document that patients with terminal diagnoses with a longer progression of illness (the ALOS is 88 days but the median ALOS is 18 days), live longer with reduced hospitalizations and use of the emergency room if they are enrolled in hospice. Nationally, ALOS is approximately 90 days while the median ALOS in King County hospices is only 71 days indicating a need for more capacity. Referenced research studies show that patient families routinely respond that they wished that they had accessed hospice services earlier in the course of the patient’s terminal illness (Appendix 26).</p>	
<p>1) Status Quo: Do nothing or postpone action</p>	<p>There is no advantage to maintaining the status quo in terms of improving health outcomes. As noted in the application, there is substantial disparity in access for low-income Medicaid eligible residents and low income, dual-eligible Medicare beneficiaries. The CHNA study for Washington identified high rates of unmet medical need particularly among Black and Hispanic residents with unmet need of 21% and 28% respectively (Exhibit 3). Our project aims to address this disparity.</p>
<p>2) Requested Project: CN approval – to operate a hospice agency co-located with the Eden King County home health agency</p>	<p>The requested project reduces current and future access barriers identified in the King County Planning Area. While initially our ALOS will be lower – 60.2 and 61.2 days as we reach out to new populations that have a more limited knowledge of hospice as well as a case mix that will initially include lower ALOS patients. ALOS should increase above the current 70-day ALOS because delays in enrollment will be sharply reduced. Eden will open new outreach channels for patients to enroll in hospice. A greater percentage of the hospice eligible population enrolling in hospice and longer ALOS will extend the lives of dying patients as well as reduce their discomfort.</p>
<p>3) Develop an independent location to operate a King County hospice operation</p>	<p>Co-location will allow our outreach team in both hospice and home health services to focus on the federally qualified health centers that specialize in serving low income and ethnic minority populations. This focus will have the highest impact on improving outcomes within the hospice program and reducing healthcare costs.</p>
<p>Conclusion: The status quo is clearly not advantageous for the community from a health outcome standpoint given the disparity metrics around lower than expected admits in using hospice services. In regard to establishing an independent hospice location, this can be carried out when volume for home health and hospice services demonstrates the advantage of multiple locations over a central King County location.</p>	

Table 27
Alternative Analysis: Quality of Care

Advantages/Disadvantages	
<p>The literature points to an ideal ALOS of 6 months. Studies cited in this application document that patients with terminal diagnoses with a longer progression of illness (the ALOS is 88 days but the median ALOS is 18 days), live longer with reduced hospitalizations and use of the emergency room if they are enrolled in hospice. Median ALOS in King County is approximately 71 days versus a national ALOS of 90 days. In addition to technical metrics, the care experience is also a quality metric. When patients and families are queried about the care experience, they often attribute quality of care issues as an issue of “not being on hospice long enough.” (Appendix 26) The literature on this point seems to be that dissatisfaction with hospice services is more related to elements of care rather than length of stay.¹⁸</p>	
<p>1) Status Quo: Do nothing or postpone action</p>	<p>There is no advantage to maintaining the status quo in terms of improving existing ALOS of about agencies and the trend of reduced care minutes per patient for the King Hospice are the kind of metrics that can detract from the patient and family care experience. As noted earlier, these metrics seem to be related to capacity constraints for the King Hospice.</p>
<p>2) Requested Project: CN approval – to operate a hospice agency co-located with the Eden King County home health agency</p>	<p>The requested project should increase ALOS and should reduce delays in enrollment. These two factors alone should improve the care experience for the patient and family. Ideally minutes of hospice care per day will also increase to national average rates.</p>
<p>3) Develop an independent location to operate a separate King County hospice operation</p>	<p>As volume in Eden home health and hospice services increases, economies of scale for one single office location are reduced and advantages of geographic closeness to the at-risk population increase. A South King County colocation with an additional site could improve outreach to Pierce County for example, and also reduce delays in enrollment and support more timely provision of care services in the rural area. This organizational form could be implemented at any time if it was advantageous but only after a CoN was fully implemented.</p>
<p>Conclusion: The status quo is clearly not advantageous for the community from health quality of care standpoint given the metrics around delays in enrollment in hospice both from hospital and home health transfers. In regard to a separate location for the Eden Hospital at King County, it could be implemented at any time when there was a need for expanded space.</p>	

¹⁸ Joan M. Teno, MD *et al.* Timing of Referral to Hospice and Quality of Care: Length of Stay and Bereaved Family Members’ Perceptions of the Timing of Hospice Referral, *Journal of Pain and Symptom Management* Aug. 2007 pp 120, 123

Table 28
Alternative Analysis: Healthcare Cost Control – Patient and Payer

<p>The literature points to an ideal ALOS of 6 months. Studies cited in this application document that patients with terminal diagnoses with a longer progression of illness (the ALOS is 88 days but the median ALOS is 18 days), live longer with reduced hospitalizations and use of the emergency room if they are enrolled in hospice. A Providence Hospice financial analysis in the approved CN 19-44 calculated a potential statewide savings of \$99 million or \$3,945 per patient if all hospice eligible patients received 35 days of hospice care in short if admits and ALOS increased.¹⁹ Table 14, estimated that expenditures for King County hospice patients during the last 30 days of their lives would be \$4,556 per patient lower when compared to national hospice data. A melanoma study found that patients who received 4 or more hospice days had average costs of \$14,594, compared to the groups who received one to three days of care, or no hospice care at all (\$22,647 and \$28,923 respectively).²⁰</p>	
<p>1) Status Quo: Do nothing or postpone action</p>	<p>There is no advantage to maintaining the status quo in terms of reducing patient or payer healthcare costs. In 2020, the State methodology yielded a 2022 unmet need of 105 ADC. Previous sections have addressed the 71-day ALOS versus the national 90-day ALOS as well as admission disparity rates.</p>
<p>2) Requested Project: CN approval – to operate a hospice agency co-located with the Eden King County home health agency</p>	<p>The requested project increases admits and ALOS should increase because delays in enrollment will be sharply reduced and Eden will open new outreach channels for patients to enroll in hospice. A higher percentage of hospice-eligible patients enrolling in hospice along with a longer ALOS for hospice care will reduce healthcare costs for both patients and payers. This approach also defers an approximate \$40,000 capital expenditure and higher lease costs and administrative costs.</p>
<p>3) Develop an independent location to operate a King County hospice operation</p>	<p>If a co-location facilitated outreach and more admits in South King County and facilitated earlier enrollment as well as the percentage of enrolled hospice-eligible patients then a colocation e could be considered. Given the cost reductions associated with setting up a new hospice for Eden, operating costs are not a major driver. This organizational form could be implemented at any time if it was advantageous.</p>
<p>Conclusion: The status quo is clearly not advantageous for the community from health quality of care standpoint given the metrics around delays in enrollment in hospice both from hospital and home health transfers. Regarding a separate location for the Eden Hospital at King County, it could be implemented at any time when there was a need for expanded space.</p>	

¹⁹ *Op cit.* See footnote 10 for details and narrative on page 25.

²⁰ *Op cit.* See footnote 3 for details and narrative on page 9.

Table 29
Alternative Analysis: Operating Efficiencies

Advantages/Disadvantages	
<p>There are distinct advantages to having Eden Hospice co-locate with EmpRes Home Health of King County; there will be no additional capital expenditure and utilities costs can be allocated to two programs rather than one program. Given that the Eden agency will be co-located with a 2-county home health agency, there will be economies of scale. In addition, the expense of developing multiple ancillary contracts can be avoided. Finally, co-locating should improve enrollment of hospice-eligible home health patients into hospice should be facilitated (easier and reduced wait times).</p>	
<p>1) Status Quo: Do nothing or postpone action</p>	<p>There is no advantage to maintaining the status quo in terms of operating efficiencies. In fact, Eden Hospice breakeven costs should be reduced with no capital expenditure and with a reduction in utilities and rent.</p>
<p>2) Requested Project: CN approval – to operate a hospice agency co-located with the Eden King County home health agency</p>	<p>Eden Hospice breakeven costs should be reduced with no capital expenditure and with a reduction in utilities and rent and any capital expenditure (e.g., \$40,000). As a result, Eden can concentrate on outreach to low-income Medicaid-eligible residents and low income, dual-eligible Medicare beneficiaries.</p>
<p>3) Develop an independent location to operate a King County hospice operation</p>	<p>There are more limited operating efficiencies related to an independent location in South King County for an Eden Hospice. The principal benefit would be potentially shortened response time for patient care. However, most of the staff are field-based rather than office-based, so operating efficiencies are generally more limited. Given the cost reductions associated with setting up a new hospice for Eden, operating costs are not a major driver. This organizational form could be implemented at any time if increases in volume made the approach advantageous.</p>
<p>Conclusion: The status quo is clearly not advantageous for the community from health quality of care standpoint given the metrics around delays in enrollment in hospice both from hospital and home health transfers. In regard to a separate location for the Eden Hospital at King County, it could be implemented at any time when there was a need for expanded space.</p>	

Table 30
Alternative Analysis: Impact on King County Hospices

Advantages/Disadvantages	
<p>As noted in this application, King Hospice is under capacity stress, a current need for three new hospices; resulting in shorter lengths of stay and limited outreach as shown by admissions. Eden being co-located with a one or two- county home health agency can operate with great economies of scale without large patient volumes that could affect new King County hospices and additional staffing is minimized due to the economies of scale. This addition of capacity should reduce future capacity stress for King County hospices while not reducing current volumes. This will give King Hospice an opportunity to catch up with their current volume of patients.</p>	
<p>1) Status Quo: Do nothing or postpone action</p>	<p>The status quo shows the King Hospice is under capacity stress. In addition to a State methodology projected need for three hospices in 2022, an analysis of seven hospice capacity related metrics, documents that King County hospices are unable to provide sufficient capacity resulting in documented barriers to access discussed in Table 25 and that lead to increased healthcare costs for patients and payers discussed in Table 28.</p>
<p>2) Requested Project: CN approval – to operate a hospice agency</p>	<p>Addition of the Eden Hospice will not reduce the capacity of the King County hospices. Most Eden Hospice patients will be generated by new outreach channels and simply by choice – choice that is afforded residents in other metropolitan areas. In addition, delays in enrollment from hospitals and home health agencies will be reduced or eliminated increasing ALOS. Eden will also concentrate on outreach to low-income Medicaid-eligible residents as well as low income, dual-eligible Medicare beneficiaries and the Hispanic community.</p>
<p>3) Develop an independent location to operate a King County hospice operation</p>	<p>There are more limited operating efficiencies related to an independent location in South King County for an Eden Hospice. The principal benefit would be potentially shortened response time for patient care. However, most of the staff are field-based rather than office-based, so operating efficiencies are generally more limited. Given the cost reductions associated with setting up a new hospice for Eden, operating costs are not a major driver. This organizational form could be implemented at any time if increases in volume made the approach advantageous.</p>
<p>Conclusion: The status quo is clearly not advantageous for the community from health quality of care standpoint given the metrics around delays in enrollment in hospice both from hospital and home health transfers. In regard to a separate location for the Eden Hospital at King County, it could be implemented at any time when there was a need for expanded space.</p>	

3. If the project involves construction, provide information that supports conformance with WAC 246-310-240(2):

**The costs, scope, and methods of construction and energy conservation are reasonable; and
The project will not have an unreasonable impact on the costs and charges to the public of providing health services by other persons.**

Not applicable.

4. Identify any aspects of the project that will involve appropriate improvements or innovations in the financing and delivery of health services which foster cost containment and which promote quality assurance and cost effectiveness.

Hospice promotes efficiency as it shifts care from expensive hospital settings to lower cost, home-based settings. For patients who choose hospice, they forgo more expensive curative treatments and seek the best possible care experience focused on personalized goals, pain and symptom alleviation, and comfort through end of life. The analysis prepared by Providence in its approved CoN that was based on Medicare claims data, demonstrated the cost-effectiveness of hospice care and estimated savings of over \$99 million across Washington State if all Medicare beneficiaries who died in 2017 without hospice instead benefited from five weeks of hospice.²¹

This is backed up by Table 12 and Table 13. Table 12 shows that the admission rate for dual eligible Medicare patients receiving hospice services is 14% lower than the non-dual rate in King County. Dual eligible beneficiaries make up about 20% of the Medicare population yet generate three times the cost per beneficiary compared to non-dual beneficiaries. With outreach to dual-eligible Medicare beneficiaries, substantial health care costs can be reduced for both the Medicare and Medicaid programs as shown in Table 13. The tragic part of this lower utilization of hospice services is that patients managed in programs such as the health home project for fragile, acute care dual-eligible patients and hospice care for dual-eligible patients and their families demonstrate a very high rate of satisfaction in these supportive services. The evidence presented in this application documents that health care costs related to emergency room visits and hospital admissions can be reduced by providing palliative and supportive care in the hospice setting.

The Eden Hospice project will co-locate with the EmpRes home health agency. This co-location approach will not only eliminate capital costs and reduce operating overhead, but it will improve continuity of care and facilitate rapid enrollment of hospice and skilled nursing facility patients based on existing referral relationships established by EmpRes home health. In addition, Eden Home Health will reach out to ten special population cohorts to increase hospice awareness and enrollment (see pages 43 - 45). In addition, Eden will collaborate with King County hospices in the provision of Pediatric services.

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 2
LETTER OF INTENT**



RECEIVED

By CERTIFICATE OF NEED PROGRAM at 3:15 pm, Nov 24, 2020

Eden Hospice at King County, LLC

733 7th Ave., Ste. 110, Kirkland, WA 98033 | Phone: 206-717-8161 | Fax: 206-899-1641

November 23, 2020

LOI20-11EHHK

ex: Dec 31, 2020

Eric Hernandez, Program Manager
Washington State Department of Health
Health Facilities and Certificate of Need Program
111 Israel Rd., SE
Tumwater, WA 98501

Re: Eden Hospice at King County, LLC Letter of Intent to Operate a Medicare Certified and Medicaid Eligible Hospice Agency

Dear Mr. Hernandez:

This letter of intent is issued on behalf of Eden Hospice at King County, LLC, a subsidiary of EmpRes Healthcare Group, Inc. Eden Hospice at King County, LLC in accordance with WAC 246-310-080, intends to operate a Medicare certified and Medicaid Eligible Hospice Agency to serve residents of King County.

1. Description of proposed service

EmpRes Healthcare Group, Inc., through Eden Hospice at King County, LLC requests certificate of need approval to operate a Hospice Agency in King County.

2. Estimated cost of the project

There are no capital costs associated with the proposed project.

3. Identification of the service area

Eden Hospice at King County, LLC will provide services in the King planning area, as identified in WAC 246-310-290 (3).

Please address all correspondence to:

Jamie Brown, Vice President of Home Services
EmpRes Healthcare / Eden Health
4601 NE 77th Ave., Ste. 300,
Vancouver, WA 98662

Thank you for your attention.

Sincerely,

Jamie Brown
Vice President of Home Services
EmpRes Healthcare Group, Inc.

Our Commitment to Caring

APPENDIX 2

LETTER OF INTENT

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 3
BUSINESS ASSOCIATE, MANAGEMENT
& OPERATING AGREEMENT
&
SOA EDEN HPS**

Business Associate Agreement

This **BUSINESS ASSOCIATE AGREEMENT** ("Agreement") between Eden Hospice at King County, LLC ("Covered Entity") and EmpRes Healthcare Management, LLC ("Business Associate") is effective upon signature and retroactive to the date that Business Associate first provided services.

For purposes of complying with the Administrative Simplification requirements of the Health Insurance Portability and Accountability Act of 1996, as amended, and the regulations promulgated thereunder (collectively, "HIPAA") and the requirements of Subtitle D of the Health Information Technology for Economic and Clinical Health Act and the regulations promulgated thereunder (collectively "HITECH"), if and only to the extent that Business Associate is acting as a business associate (as defined by HIPAA) of Covered Entity, the parties agree as follows:

Recitals

A. Covered Entity (further defined below) wish to disclose certain information to Business Associate (further defined below) pursuant an agreement for the provision of products and/or services.

B. It is the intention of the Covered Entity and Business Associate herein to protect the privacy and provide for the security of PHI disclosed to the BUSINESS ASSOCIATE in compliance with the Health Insurance Portability and Accountability Act of 1996, Public Law 104-191 ("HIPAA"), the Health Information and Technology for Economic and Clinical Health Act, Public Law 111-005 ("the HITECH Act").

C. As part of the HIPAA Regulations, the Privacy Rule and Security Rule (defined below) an Agreement containing specific requirements relating to the disclosure of PHI, as set forth in, but not limited to, Title 45, Sections 164.14(a), 164.502(e), and 164.504(e) of the Code of Federal Regulations ("CFR") is contained in this Agreement.

Definitions.

1. Capitalized terms used, but not otherwise defined in this Agreement, shall have the same meaning as those terms in the HIPAA regulations and HITECH, and the following capitalized terms shall be given the following meanings:

1.1 **"Breach"** means the acquisition, access, use, or disclosure of protected health information in a manner not permitted under the Privacy Rule, which compromises the security or privacy of the protected information.

1.2 **"Business Associate"** shall have the meaning given to such term under the Privacy Rule, the Security Rule, and the HITECH Act, including, but not limited to, 42 U.S.C.

Section 17938 and 45 C.F.R. Section 160.103.

1.3 "**Compliance Date**" means, in each case, the date by which compliance is required under the referenced provision of HITECH.

1.4 "**Covered Entity**" shall have the meaning given to such term under the Privacy Rule and the Security Rule, including, but not limited to, 45 C.F.R. Section 160.103.

1.5 "**Designated Record Set**" shall have the meaning given to such term under the Privacy Rule and the Security Rule, including, but not limited to, 45 C.F.R. Section 160.103.

1.6 "**Disclose**" and "**Disclosure**" mean, with respect to Protected Health Information, the release, transfer, provision of access to, or divulging in any other manner of Protected Health Information outside Business Associate's internal operations or to individuals other than its employees as well as to disclosures of Protected Health Information outside of Business Associate's operations to third parties which are required by applicable law (e.g. law enforcement, Health and Human Services, subcontractors, etc.).

1.7 "**Electronic Protected Health Information**" means Protected Health Information that is maintained in or transmitted by electronic media.

1.8 "**Electronic Health Record**" shall have the meaning given to such term in the HITECH Act, including, but not limited to, 42 U.S.C. Section 17921.

1.9 "**Health Care Operations**" shall have the meaning given to such term under the Privacy Rule, including, but not limited to, 45 C.F.R. Section 164.501.

1.10 "**HITECH**" means the Health Information Technology for Economic and Clinical Health Act, enacted as part of the American Recovery and Reinvestment Act of 2009, Pub. Law No. 111-5, and any regulations promulgated thereunder. References in this Agreement to a section or subsection of title 42 of the United States Code are references to provisions of HITECH. Any reference to provisions of HITECH in this Agreement shall be deemed a reference to that provision and its existing and future implementing regulations, when and as each is effective.

1.12 "**Minimum Necessary Standard**" means to engage reasonable efforts to limit the use of PHI to the minimum necessary to accomplish the intended purpose of the use, disclosure, or request and shall otherwise have the meaning given to such term under the Privacy Rule and the Security Rule, including, but not limited to, 45 C.F.R. Sections 164.502(b) and 164.514(d).

1.13 "**Privacy Rule**" means the Standards for Privacy of Individually Identifiable Health Information at 45 C.F.R. Part 160 and Part 164, Subparts A and E.

1.14 **"Protected Health Information"** or "PHI" means any information, whether oral or recorded in any form or medium, that (a) relates to the past, present or future physical or mental health or condition of an individual, the provision of health care to an individual, or the past, present or future payment for the provision of health care to an individual; (b) that identifies the individual (or for which there is reasonable basis for believing that the information can be used to identify the individual); and (c) is received by Business Associate from or on behalf of Covered Entity, or is created by Business Associate for Covered Entity, or is made accessible to Business Associate by Covered Entity, and shall have the meaning given to the term under the Privacy Rule, including, but not limited to, 45 C.F.R. Section 164.501. Protected Health Information includes Electronic Protected Health Information [45 C.F.R. Sections 160.103, 164.501].

1.15 **"Protected Information"** shall mean PHI provided by the COVERED ENTITY to BUSINESS ASSOCIATE or created or received by BUSINESS ASSOCIATE on behalf of any COVERED ENTITY.

1.16 **"Security Rule"** means the Security Standards for the Protection of Electronic Protected Health Information that is codified at 45 C.F.R. Parts 160 and 164, subparts A and C.

1.17 **"Unsecured Protected Health Information"** or **"Unsecured PHI"** means Protected Health Information that is not rendered unusable, unreadable, or indecipherable to unauthorized individuals through the use of a technology or methodology specified by the Secretary in the guidance issued pursuant to the HITECH ACT including, but not limited to, 42 U.S.C. Section 17932(h).

1.18 **"Use"** or **"Uses"** mean, with respect to Protected Health Information, the sharing, employment, application, utilization, examination or analysis of such Protected Health Information within Business Associate's internal operations.

2. **Confidentiality Obligation.** Business Associate will not Use or Disclose PHI other than as permitted by this Agreement or as otherwise Authorized by Law.

3. **Permitted Uses and Disclosures of PHI.** Business Associate shall Use or Disclose PHI only as necessary to perform services under the Agreement or as otherwise Required by Law, including but not limited to such Use or Disclosure as is necessitated by the services provided to Covered Entity. Such Use or Disclosure may occur only under circumstances that would not: (i) violate the Privacy Rule, Security Rule, other applicable provisions of HIPAA or HITECH if done by Covered Entity; or (ii) violate the minimum necessary standard.

4. **Safeguards.** Business Associate shall protect PHI from any improper oral, written, or electronic disclosure by enacting and enforcing safeguards to maintain the security of and to prevent any Use or Disclosure of PHI other than is permitted by law. Such safeguards shall include administrative, physical, and technical safeguards that reasonably and

appropriately protect the confidentiality, integrity, and availability of any electronic PHI that it creates, receives, maintains, or transmits on behalf of Covered Entity. Business Associate shall comply with the Security rule requirements set forth at 45 C.F.R. Section 164.308, 164.310, 164.312, and 164.316, as well as additional requirements established by HITECH that relate to security and are applicable to Covered Entity. Business Associate shall also comply with the requirements of Subtitle D of HITECH that relate to privacy and are applicable to Business Associates in performing services on behalf of Covered Entity.

5. **Access and Amendment.** Upon the request of Covered Entity, Business Associate shall: (1) make the PHI specified by Covered Entity available to Covered Entity or to the Individual(s) identified by Covered Entity as being entitled to access in order to meet the requirements under 45 C.F.R. Section 164.524; and (b) make PHI available to Covered Entity for the purpose of amendment and incorporate changes or amendments to PHI when notified to do so by Covered Entity.

6. **Accounting.** Upon Covered Entity's request, Business Associate shall provide to Covered Entity or, when directed in writing by Covered Entity, directly to an Individual in a time and manner specified by Covered Entity, an accounting of each Disclosure of PHI made by Business Associate or its employees, agents, representatives or subcontractors as would be necessary to permit Covered Entity to respond to a request by an Individual for an accounting of Disclosures of PHI in accordance with 45 C.F.R. Section 164.528. Any accounting provided by Business Associate under this subsection shall include: (a) the date of the Disclosure; (b) the name, and address if known, of the entity or person who received the PHI; (c) a brief description of PHI disclosed; and (d) a brief statement of the purpose of the Disclosure. For each Disclosure that could require an accounting under this subsection, Business Associate shall document the information specified in (a) through (d), above, and shall securely retain this documentation for six (6) years from the date of the Disclosure.

7. **Access to Books and Records.** Business Associate shall make its internal practices, books and records relating to the Use and Disclosure of PHI pursuant to this Agreement available to the Secretary of the Department of Health and Human Services for purposes of determining Covered Entity's compliance with HIPAA. Covered Entity shall have the right to access and examine ("Audit") the books, records, and other information of Business Associate related to this Agreement. Such Audit rights shall be in addition to and notwithstanding any audit provisions set forth in the Agreement. Business Associate shall cooperate fully with any such Audit(s) and shall provide all books, records, data and other documentation reasonably requested by Covered Entity. Covered Entity may make copies of such documentation. To the extent possible, Covered Entity will provide Business Associate reasonable notice of the need for an Audit and will conduct the Audit at a reasonable time and place. Notwithstanding the foregoing, Covered Entity will not have access to any books, records, data and/or documentation related to any of the Business Associate's other clients.

8. **Agents and Subcontractors.** Business Associate shall require all subcontractors and agents to which it provides PHI received from, or created or received on behalf of Covered

Entity, to agree to all of the same restrictions and conditions concerning such PHI to which Business Associate is bound in this Agreement.

9. **Reporting of Violations.** Business Associate shall report to Covered Entity any Use or Disclosure of PHI not authorized by this Agreement immediately upon becoming aware of it. This reporting obligation includes, without limitation, the obligation to report any Security Incident, as that term is defined in 45 C.F.R. Section 164.304.

9.1 **Breach Notification.** Business Associate also shall notify Covered Entity of any Breach of Unsecured PHI. Such notification shall occur without unreasonable delay and in no case later than fifteen (15) calendar days after Business Associate discovers the Breach in accordance with 45 C.F.R. Section 164.410. The notification shall comply with the Breach notification requirements set forth at 42 U.S.C. Section 17832 and its implementing regulations at 45 C.F.R. Section 164.410 and shall include: (a) to the extent possible, the identification of each person whose Unsecured PHI has been, or is reasonably believed by Business Associate to have been, accessed, acquired, or Disclosed during such Breach; and (b) any other available information about the Breach, including: (i) a description of what happened, including the dates of the Breach and discovery of the Breach, if known; (ii) a description of the types of Unsecured PHI involved in the Breach; (iii) any steps affected persons should take to protect themselves from potential harm resulting from the Breach; and (iv) the steps Business Associate is to investigate the Breach, mitigate harm to individuals, and to protect against any further Breaches. Business Associate shall provide Covered Entity with such additional information about the Breach either at the time of its initial notification to Covered Entity or as promptly thereafter as the information becomes available to Business Associate.

10. **Term and Termination.**

10.1 This Agreement remains in effect during the performance of services by Business Associate for or on behalf of the Covered Entity and to the extent that Business Associate maintains PHI in any form unless otherwise terminated.

10.2 In addition to and notwithstanding the termination provisions set forth herein, the Agreement may be terminated by Covered Entity in the event that Covered Entity determines Business Associate has violated a material term of this Agreement and such violation has not been remedied within fifteen (15) days following written notice to Business Associate.

10.3. Except as provided below, upon termination of this Agreement, Business Associate shall either return or destroy all PHI in the possession or control of Business Associate or its agents and subcontractors and shall retain no copies of such PHI. However, if Covered Entity determines that neither return nor destructions of PHI is feasible, Business Associate may retain PHI provided that it extends the protections of this Agreement to the PHI and limits further Uses and Disclosures to those purposes that make the return or destruction of the PHI infeasible, for so long as Business Associate maintains such PHI.

11. **Inconsistent Terms; Interpretation.** If any portion of this Agreement is inconsistent with the terms of the Agreement, the terms of this Agreement shall prevail. Except as set forth above, the remaining provisions of the Agreement are ratified in their entirety. Any ambiguity in this Agreement shall be resolved to permit Covered Entity to comply with the Privacy Rule, Security Rule, other applicable provisions of HIPAA, and HITECH and any regulations promulgated thereunder.

12. **Regulatory References.** A reference in this Agreement to a section in the Privacy Rule, Security Rule, other applicable provisions of HIPAA or HITECH or any regulations promulgated thereunder means the section as in effect or as amended.

13. **Amendment.** Covered Entity and Business Associate agree to take such action as is necessary to amend this Agreement from time to time as it necessary for the parties to comply with the requirements of the Privacy Rule, Security Rule, other applicable provisions of HIPAA, or HITECH and any regulations promulgated thereunder. Notwithstanding the foregoing, Covered Entity may unilaterally amend this Agreement as is necessary to comply with the applicable law and regulations and the requirements of applicable state and federal regulatory authorities. Covered Entity will provide written notice to Business Associate of such amendment and its effective date. Unless such laws, regulations or regulatory authorities require otherwise, the signature of Business Associate will not be required in order for the amendment to take effect.

14. **Indemnification.** Each Party to this Agreement shall indemnify, defend, and hold harmless the other Party from any and all claims, losses, damages, suits, fees, judgments, costs and expenses, including reasonably incurred attorneys fees, that the Indemnitees may suffer or incur arising out of any acts or omissions of the Indemnifying Party in the performance of this Agreement.

15. **Survival.** The respective rights and obligations of the Parties under section 7, subsection 10.3 and section 14 of this Agreement shall survive the termination of this Agreement.

16. **Entire Agreement.** This Agreement, together with the exhibits attached hereto, constitutes the entire agreement between the parties with respect to the services and all other subject matter hereof and merges all prior and contemporaneous communications and agreements with respect to such subject matter. It will not be modified except by a signed writing dated subsequent to the date of this Agreement and signed on behalf of the parties by their respective duly authorized representatives. No waiver consent, modification, or change of any term of this Agreement will bind either party unless the same is in writing and signed by both parties and all necessary state approvals have been obtained. Such express waiver, consent, modification, or change, if made, will be effective only in the specific instance and the specific purpose set forth in such signed writing.


16. **Counterparts.** This Agreement may be executed in counterparts, and via facsimile or electronically transmitted signature (i.e. emailed scanned true and correct copy of the signed


Agreement), each of which will be considered an original and all of which together will constitute one and the same agreement. At the request of a party, the other party will confirm facsimile or electronically transmitted signature page by delivering an original signature page to the requesting party.

IN WITNESS WHEREOF, the Parties hereto have caused their authorized representatives to execute this Business Associate Agreement effective and retroactive as above written.

Eden Hospice at King County, LLC

EmpRes Healthcare Management, LLC

By: 
by EmpRes Healthcare Management, LLC,
Manager
by Michael J. Miller, Assistant Manager

By: 
Name: Michael J. Miller
Title: Assistant Manager

Date: 12-22-2020

Date: 12-22-2020

MANAGEMENT AGREEMENT

Parties: EmpRes Healthcare Management, LLC (“Consultant”)
4601 NE 77th Avenue, Suite 300
Vancouver, WA 98662

Eden Hospice at King County, LLC (“Company”)
733 7th Ave., Ste. 110
Kirkland, WA 98033

Date: December 21, 2020 (the “Effective Date”)

A. Company operates a Hospice Agency licensed in the State of Washington.

B. Consultant is engaged in the business of providing consulting services for personal care agencies, and Company desires to have Consultant provide the consulting services set forth in this Agreement on Company's behalf, and Consultant is willing to do so pursuant to the terms and conditions hereinafter set forth.

NOW, THEREFORE, subject to the terms and conditions, and in consideration of the mutual promises and covenants herein contained, the parties agree as follows:

ARTICLE 1 RELATIONSHIP BETWEEN CONSULTANT AND COMPANY

1.1 Engagement. Subject to the terms, provisions and conditions set forth in this Agreement, and in consideration of the duties, covenants and obligations of the parties as set forth in this Agreement, Company hereby grants to Consultant the power and authority to provide the “Consulting Services” (as defined in Section 2.1 of this Agreement). Company shall, in good faith, at the request of Consultant, execute and deliver to Consultant all other documents and instruments necessary to vest in Consultant the authority required to perform Consultant’s duties required under this Agreement.

1.2 General Policy Decisions. Consultant shall consult with and keep Company advised as to all general policy issues relating to the Company. Subject to the terms of Company’s charter documents, all general policy decisions relating to the Company shall be made by Company and its governing body. Company shall request and receive recommendations from Consultant and shall duly consider all such recommendations prior to adopting any changes in general policies or directives concerning the operation of the Company. Authority Related to Management of the Company. Consultant shall provide the Consulting Services subject at all times to the ultimate operating and management authority of Company and its governing body. Nothing contained in this Agreement shall be construed to abrogate the ultimate authority of Company over the management and operations of the Company, and the governing body of Company shall retain authority and exercise control over the business of the Company.

1.3 Company hereby appoints Consultant (and its billing and collections agents) as true and lawful agent for Company, and hereby authorizes Consultant to collect, demand and accept on behalf of Company all amounts which become due, owing or payable to Company from any organization, entity or individual, including all federal health care programs, for Company services, and to effect receipts, releases and discharges for such amounts and collection of such amounts

ARTICLE 2
RIGHTS AND RESPONSIBILITIES OF CONSULTANT

2.1 Consulting Services. Consultant shall assist Company by providing administrative consulting services set forth in this Article 2 (the “Consulting Services”).

(a) Consultant shall be responsible for the following duties:

(i) Consult with Company and keep Company advised of all matters made known to Consultant which materially affect the financial wellbeing of or delivery of care by the Company;

(ii) Provide direction to Company to assist Company in operating the Company in accordance with the Medicare Conditions of Participation; and

(iii) Assist the Company in identifying appropriate personnel to be hired by the Company to fill the roles of **Director of Nursing** and **Administrator**.

(b) Consultant shall develop operational policies and procedures necessary to ensure establishment and maintenance of patient care appropriate for the nature of the facility and to ensure continued licensure and maintenance of the business. Consultant may seek advice and/or approval concerning such policies. Consultant shall obtain Company’s approval before adopting or implementing such policies which approval shall not be unreasonably withheld or delayed.

(c) Consultant shall assist Company in the keeping of full and accurate books of account and such other records reflecting the results of operation of the Company as required by law and more fully described below.

(d) Consultant shall promptly provide to Company, as and when received by Consultant, all notices, reports or correspondence from governmental agencies that assert deficiencies or charges against the Company or that otherwise relate to the suspension, revocation, or any other action adverse to any approval, authorization, certificate, determination, license or permit required or necessary to own or operate all or any part of the Company, together with a recommendation of whether or not to appeal same.

(e) Consultant shall also provide recommendations to Company with respect to the day-to-day operations of the Company, including, but not limited to:

(i) Designing and overseeing the implementation of an effective budgeting and accounting system;

(ii) Maintaining copies of all Company vendor contracts;

(iii) Provision of regulatory compliance counseling and oversight of audits and investigations;

(iv) Provision of risk management and education;

(v) Providing guidance related to maintaining adequate administrative staffing for quality management activities;

(vi) Development for review by Company template clinical and business and policy forms necessary and desirable to assist with the effective, efficient and professional operations of the Company which Licensee shall review and modify to fit unique circumstances of Company and implement as appropriate;

(vii) Provision of professional liability and other insurance consulting assistance in responding to demands for payment, allegations of liability and lawsuits. Consultant shall assist Company in identifying and obtaining all insurance policies required or appropriate to protect the financial interests of Company; and

(viii) Establish fees and charges for all services provided to patients by the Company.

(f) Consultant shall oversee the Company's human resources functions as follows:

(i) Drafting and implementing policies and procedures to comply with the Company's obligations as an employer including, but not limited to, equal opportunity laws, worker's compensation laws, wage and hour laws, age and disability discrimination laws, workplace safety laws, and any other laws applicable to an employer Company's state; provided, however, that prior to the implementation of any and all policies and procedures drafted or otherwise provided by Consultant, the policies and procedures shall be reviewed and approved by Company;

(ii) Performing criminal background checks, OIG exclusion checks and licensure or certification verifications as required by applicable state law, Medicare Conditions of Participation and other applicable federal laws;

(iii) Overseeing the benefit enrollment process for benefits approved and implemented by Company;

(iv) Assist in Company in managing labor organization activities and union or other labor related contract negotiations;

(v) Providing such other human resource-related matters as Company may refer to Consultant; and

(vi) Providing recommended compensation and benefits packages for Company's employees and contractors.

(g) Consultant shall design, implement and supervise appropriate compliant billing systems necessary for billing for the personal care services rendered by individuals who are either employed by or under contract with the Company; provided, however, that prior to the implementation of any and all policies and procedures drafted or otherwise provided by Consultant, the policies and procedures shall be reviewed and approved by Company.

(h) Consultant shall open one or more bank accounts for the Company in the name of the Consultant or its designee (the "Management Account"), the authorized signatories of which shall consist solely of persons designated by Consultant. Consultant will notify Company as to the identity of the entity in whose name the Management Account has been opened and of the names of the individuals who are authorized signers of the Management Account.

(i) Consultant shall provide the following collection services for the Company's client accounts. In order to facilitate Consultant providing such services, Consultant shall be granted access to Company's primary operating account (the "Operating Account") and shall be made a signatory to the Operating Account. Consultant shall also provide the following services:

(i) Receive, credit, deposit and record payment of invoices and claims for services, whether such payments are received in cash, check, money order or wire transfer, into the Company's Operating Account in accordance with the Company's procedures;

- (ii) Reconcile all bank deposits and provide deposit records to Company;
- (iii) Implement any banking and collection procedures initiated by and approved by the Company's governing body; and
- (iv) Perform such other collection activities as the Company's governing body may refer to Consultant.
- (j) Consultant shall provide the following financial services related to accounts payable. Consultant shall write checks on the Company's Operating Account to pay invoices received from the Company's suppliers, professional advisors, and other parties providing goods or services to the Company.
 - (i) Consultant shall be responsible for preparing and paying payroll. This shall include withholding appropriate amounts and making quarterly tax deposits; and
 - (ii) Consultant shall provide the Company's governing body with monthly reports on Company's income and profitability for use in planning, budgeting, determining profit distributions to its owners, strategic planning and other aspects concerning the operation of the Company.
- (k) Consultant shall assist the Company with designing and implementing an effective corporate compliance plan ("the Compliance Plan"). The Company's governing body shall review and approve the Compliance Plan.
- (l) Consultant shall supervise acquisition of supplies including of medical equipment, instruments, medical fixtures, office equipment, telephones, computers, office furniture and other equipment and supplies which are necessary for the operation of the Company.
- (m) Consultant shall cause Company to enter into such contracts as may be deemed necessary or advisable by Consultant for the furnishing of all ancillary services, utilities, concessions, equipment and supplies, and other services as may be needed from time to time for maintenance and operation of the Company. Consultant may negotiate or enter into contracts for group purchasing agreements for goods and services. In the event Consultant enters into group purchasing agreements for Company, the expenses for the goods and services purchased pursuant to those agreements shall be expensed directly to the Company and shall be the responsibility of the Company to pay.
- (n) Consultant shall assist Company with the preparation of any documentation or applications necessary (including, but not limited to cost reports) for Company to retain: (i) certification of the Company as a personal care agency under Title XVIII (Medicare) and/or Title XIX (Medicaid) of the Social Security Act; and (ii) licensure of the Company as a personal care agency under all applicable state and federal requirements.
- (o) Consultant shall provide or arrange for the provision of legal services for Company as requested by Company including, but not limited providing legal defense against third party claims, negotiating settlements of legal proceedings, and providing legal advice to minimize risk exposure and help ensure regulatory compliance. Consultant shall notify Company of all legal proceedings related to Company which Consultant becomes aware of.

ARTICLE 3
RIGHTS AND RESPONSIBILITIES OF COMPANY

3.1 Clinical Aspects of Company. Company shall remain as the responsible licensee of the Company providing all medical treatment and employing all medical staff, including, without limitation, the **Director of**

Nursing and Administrator. As such, Company shall be fully responsible to all patients, governmental agencies, and any others for patient care and all other clinical aspects of the Company.

3.2 Cooperation with Consultant.

(a) Company shall cooperate with Consultant in the provision of the Consultant Services for the Company's operations. Company shall provide Consultant with all authorizations, assistance, and documents necessary for Consultant to fulfill its obligations under this Agreement, including, without limitation, copies of all surveys and correspondence with governmental authorities related to the licensure or certification of the Company.

(b) Company shall notify Consultant of all legal proceedings related to Consultant.

ARTICLE 4
TERM

4.1 Term. The initial term of this Agreement (the "Initial Term") shall commence on the Effective Date, and, unless sooner terminated pursuant to this Section 4, shall remain in effect until midnight on the fifth (5th) anniversary of the Effective Date. Upon the expiration of the Initial Term, this Agreement will be automatically extended for successive additional periods of five (5) years each ("Renewal Terms") (collectively, the Initial Term and any Renewal Term(s) may be referred to herein as "Term").

4.2 Termination without Cause. This Agreement may be terminated by either Party, without cause, upon the delivery of ninety (90) days written notice of termination.

4.3 Termination for Cause. This Agreement shall terminate and, except as to liabilities or claims of either party hereto, which shall have accrued or arisen prior to such termination, the obligations of the parties hereto with respect to this Agreement shall cease and terminate upon the happening of any of the following events:

(a) if Company shall fail to keep, observe or perform any covenant, agreement, term or provision of this Agreement, including payment of the Consulting Fee, and if such default shall continue for a period of thirty (30) days after written notice thereof from Consultant, at Consultant's option, at any time thereafter while such default continues upon written notice to Company;

(b) if either party is excluded or debarred from participation in the Medicare or Medicaid programs; or

(c) if either party is convicted of a felony related to health care fraud or federally funded healthcare program abuse.

ARTICLE 5
CONSULTANT COMPENSATION

5.1 Consultant shall be entitled to a consultant fee in a sum equal to seven percent (7%) of Company revenues (the "Consultant Fee"). For purposes of this Agreement, the term Revenue shall mean gross patient charges net of contractual adjustments set forth in government and other payor contracts. Consultant shall provide Company with a monthly invoice that sets forth the Company's Revenue for the previous month and the amount of the Consultant Fee that is owed to Consultant. Company shall pay (or ensure that there is sufficient funds in the Operating Account for Consultant to pay itself) the Consultant Fee to Consultant within thirty (30) days after Company's receipt of such invoice. Consultant shall periodically reconcile the amount of the Company's gross revenues and calculation of the Consultant Fee to account for revenue overpayments, credits and recoupments, and shall furnish such reconciliation to Company.

ARTICLE 6
OWNERSHIP OF WORK PRODUCT

6.1 Consultant's Work Product. All operating procedures, protocols, information systems, operating data, computer data bases, reports and other non-public proprietary business systems or information owned by Consultant shall be and remain the exclusive property of Consultant.

ARTICLE 7
INDEMNIFICATION

7.1 Indemnification by Company.

(a) Consultant agrees to indemnify and hold Company harmless from all losses, costs, claims, judgments and expenses arising out of incident to Consultant's provision of management services to the Company during the term of this Agreement, other than such losses, costs and expenses arising out of the acts of omission of Consultant during the term of this Agreement.

(b) Company agrees to indemnify and hold Consultant harmless from all losses, costs, claims, judgments and expenses arising out of or incident to Company's operation of the Company prior to the commencement of the effective date of the term of this Agreement and for the acts and omissions of Company during the term of this Agreement.

ARTICLE 8
MISCELLANEOUS

8.1 Notices. All notices, requests, demands and other communications hereunder shall be in writing and shall be deemed to have been given: (i) when delivered personally, (ii) the next business day, if sent by a nationally-recognized overnight delivery service (unless the records of the delivery service indicate otherwise), or (iii) when sent by certified U.S. mail, postage prepaid, return receipt requested, addressed to the address of each party as set forth on the first page of this Agreement. Either party hereto may, from time to time, change such party's address for receiving notices under this Agreement by giving written notice thereof to the other party.

8.2 No Partnership or Joint Venture. It is expressly acknowledged by the parties that, for the purposes of this Agreement, Consultant is an independent contractor and nothing in this Agreement is intended, nor shall be construed, to create any employer/employee relationship, partnership or a joint venture relationship between Company, their successors or assigns, on the one hand, and Consultant, its successors or assigns, on the other hand.

8.3 Documentation and Records. Nothing in this Agreement shall be construed as limiting in any manner Consultant's or Company's obligation to retain, disclose, or produce appropriate documentation and records to any governmental agency pursuant to applicable laws and regulations. If this Agreement is determined to be a contract within the purview of Section 1861(v)(1) of Social Security Act and regulations promulgated in implementation thereof, Consultant shall, until the expiration of four (4) years after the furnishing of the Consultant Services, upon proper written request and prior written consent of Company, allow the Comptroller General of the United States, the Secretary of the Department of Health and Human Services, and their duly authorized representatives access to this Agreement and Consultant's books, documents, and records necessary to certify the nature and extent of costs of the Consultant Services provided hereunder. In accordance with the above referenced statute and regulations, if the Consultant Services are carried out by means of a subcontract with any organization related to Consultant, and such related organization provides services, the costs or value of which is Ten Thousand Dollars (\$10,000) or more over a twelve (12) month period, then the subcontract between Consultant and the related organization shall contain a clause comparable to the clause in the preceding subparagraph.

8.4 **Fraud and Abuse.** It is the intent and belief of the parties hereto that this Agreement complies with the Medicare/Medicaid anti-kickback and civil monetary penalties statutes and regulations promulgated thereunder. It is not a purpose of this Agreement to solicit or induce the referral of patients. The parties acknowledge that, under this Agreement or any agreement between Consultant and Company there is no payment to refer, recommend or arrange and no requirement for the referral, recommendation or arrangement for any items or services paid for by Medicare or Medicaid. Subsequent to the execution of this Agreement should any provision of this Agreement be deemed by either party to be contrary to the provisions of such statutes and regulations, then the parties shall, in good faith, renegotiate the provision to the mutual satisfaction of the parties. In the event the parties are not able to mutually agree on modification of the problematic provision, then either party may terminate this Agreement upon thirty (30) days written notice to the other party if the terminating party has a good faith belief that the provision creates an unfavorable exposure under said statutes, regulations, or safe harbor provisions. Each party represents and warrants that neither it nor any of its employees, directors, owners, agents or contractors providing services under this Agreement have been sanctioned under any applicable state or federal fraud statutes nor have ever been excluded from participation in any federally funded health care program, including but not limited to Medicare and/or Medicaid programs nor have ever been listed on the Office of the Inspector General and Government Services Administration exclusion list.

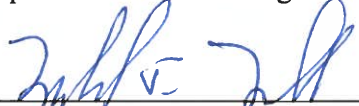
8.5 **Invalid Provisions.** If any one or more of the provisions contained in this Agreement shall be held to be invalid, illegal or unenforceable for any reason or in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions hereof, and this Agreement shall be construed as if such provisions had never been set forth in this Agreement.

IN WITNESS WHEREOF, the parties have hereunto caused this Agreement to be duly executed, as of the date and year first above written.

COMPANY

Eden Hospice at King County, LLC

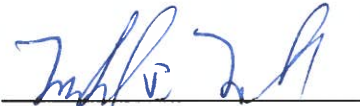
By: EmpRes Healthcare Management, LLC, Manager

By: 
Michael J. Miller, Assistant Manager

CONSULTANT

EmpRes Healthcare Management, LLC

By: EmpRes Healthcare Management, LLC, Manager

By: 
Michael J. Miller, Assistant Manager

**LIMITED LIABILITY COMPANY AGREEMENT OF
Eden Hospice at King County, LLC,
a Washington Limited Liability Company**

THIS OPERATING AGREEMENT ("Agreement") is made and entered into effective December 21, 2020 by EmpRes Hospice, LLC, a Washington limited liability company ("EH") (referred to herein as "Member" or "Members").

**ARTICLE 1
FORMATION**

1.1 Name. The name of the limited liability company is Eden Hospice at King County, LLC ("LLC").

1.2 Articles of Organization. Certificate of Formation was filed with the Washington Secretary of State on December 21, 2020.

1.3 Duration. The LLC is perpetual, unless dissolved as provided in this Agreement.

1.4 Principal Place of Business. The principal place of business of the LLC is located at 4601 NE 77th Avenue, Suite 300, Vancouver, Washington 98662. The Manager may relocate the principal place of business from time to time.

1.5 Registered Office and Registered Agent. The LLC's registered office shall be at 711 Capitol Way S., Suite 204, Olympia, WA 98501 and the name of its registered agent at such address shall be CT Corporation. The Manager may change the registered office and registered agent from time to time without amendment of this Agreement.

1.6 Purpose. The LLC may conduct, promote or engage in any lawful business or purpose permitted by the Washington Limited Liability Company Act, as amended ("Act"), and shall have all powers provided for in the Act.

**ARTICLE 2
MEMBERS, CONTRIBUTIONS, AND INTERESTS**

2.1 Members. The name and address of the initial Member of the LLC is as follows:

<u>Name of Members</u>	<u>Address</u>
EmpRes Hospice, LLC	4601 NE 77th Ave., Ste. 300 Vancouver, WA 98662

2.2 Additional Members. Except as otherwise expressly provided herein, no additional members may be admitted to the LLC without the prior written consent of all the Members.

2.3 Initial Capital Contributions. The initial capital contribution to the LLC by the Member and the value of the property contributed is as follows:

<u>Name of Member</u>	<u>Initial Capital Contribution</u>
EmpRes Hospice, LLC	Cash: \$0

2.4 Additional Capital Contributions. Additional capital contributions (including the amounts) shall be approved and made only upon the vote of fifty-one percent (51%) of the Units. If additional capital contributions are approved, the Members shall have the opportunity (but not the obligation) to make additional capital contributions on a pro rata basis in accordance with their Ownership Interests. If any Member elects to make less than the Member's pro rata share of any additional capital contributions, the other Members may contribute the difference on a pro rata basis in accordance with their Ownership Interests or upon such other basis as they may agree.

2.5 Units of Membership Interest. The interest of each Member in the capital and profits of the LLC will be in the form of units of membership interest ("Units"). There will be a total of 1,000 Units. The initial number of Units held by the Member is as follows:

<u>Members</u>	<u>Units</u>
EmpRes Hospice, LLC	1000
Total Units	1000

2.6 Ownership Interests. Each Member's percentage ownership interest in the LLC at any time shall be the ratio of that Member's initial and any additional capital contributions to all Members' initial and additional capital contributions. The Member's initial percentage ownership interest in the LLC ("Ownership Interests") is as follows:

<u>Members</u>	<u>Ownership Interests</u>
EmpRes Hospice, LLC	100%
Total	100%

2.7 Other Business of Members. Any Member may engage independently or with others in other business and investment ventures of every nature and description and

shall have no obligation to account to the LLC for such business or investments or for business or investment opportunities.

2.8 No Interest on Capital Contributions. No interest shall be paid on initial or any additional capital contributions.

2.9 Capital Accounts. An individual capital account shall be established and maintained for each Member in accordance with the following:

2.9.1 There shall be credited to each Member's capital account: (i) the amount of any money contributed by such Member to the capital of the LLC; (ii) the fair market value of any property contributed by such Member to the capital of the LLC (net of any liabilities secured by such property that the LLC is considered to assume or to take subject to under Internal Revenue Code Section 752); and (iii) such Member's share of the income and gain (and all items thereof) of the LLC (including income or gain exempt from federal income tax and income and gain described in Treasury Regulation § 1.704-1(b)(2)(iv)(g), but excluding income and gain described in Treasury Regulation § 1.704-1(b)(4)(i)).

2.9.2 There shall be charged against each Member's capital account: (i) the amount of money distributed to such Member by the LLC; (ii) the fair market value of any property distributed to such Member by the LLC (net of any liabilities secured by such distributed property that the Member is considered to assume or to take subject to under Section 752 of the Internal Revenue Code of 1986, as amended ("IRC")); (iii) such Member's share of expenditures of the LLC described in IRC § 705(a)(2)(B); and (iv) such Member's share of the losses and deductions (and all items thereof) of the LLC (including losses and deductions described in Treasury Regulation § 1.704-1(b)(2)(iv)(g), but excluding such Member's share of expenditures of the LLC described in IRC § 705(a)(2)(B) and losses and deductions described in Treasury Regulation § 1.704(b)(4)(i) and (iii)).

2.9.3 It is the intent of the Member of the LLC that the provisions of this Agreement relating to the establishment and maintenance of capital accounts comply with the requirements of Treasury Regulation § 1.704-1(b)(2)(iv) or any successor provision, and that such provisions be interpreted and applied in a manner consistent with such Treasury Regulation or successor provision.

ARTICLE 3 ALLOCATIONS AND DISTRIBUTIONS

3.1 Allocations of Income and Loss for Tax Purposes. All items of income, gain, loss, deduction, and credit shall be allocated among all Members in proportion to their Ownership Interests.

3.2 Distributions to Pay Tax Liabilities. Within 90 days after the end of each fiscal year, the LLC shall make a distribution in an amount equal to at least (a) the LLC's net taxable income during the fiscal year multiplied by (b) the sum of the maximum federal and state income tax rates of any Member in effect for the fiscal year (taking into account the deductibility of state taxes for federal income tax purposes), less (c) the amount of any distributions made by the LLC during the fiscal year (other than distributions made during the fiscal year that were required to be made under the provisions of this Section 3.2 with respect to a prior fiscal year). For purposes of this Section 3.2, an LLC's net taxable income shall be the net excess of items of recognized income and gain over the items of recognized loss and deduction reported on the LLC's federal income tax return for the taxable year with respect to which the distribution is being made. Notwithstanding the foregoing, the LLC's obligation to make such a distribution is subject to the restrictions governing distributions under the Act.

ARTICLE 4 MEMBER MEETINGS

4.1 Meetings. A meeting of Members shall be held (a) if it is called by the Manager, or (b) if Members holding at least fifty-one percent (51%) of the Units sign, date, and deliver to the LLC's principal office a written demand for the meeting, describing the purpose or purposes for which it is to be held. All meetings of Members shall be held at the principal office of the LLC or any other place specified in the Notice of Meeting.

4.2 Notice of Meeting. The Manager shall give notice of the date, time, and place of each Members' meeting to each Member not earlier than 60 days, nor less than 10 days, before the meeting date. The notice must include a description of the purpose or purposes for which the meeting is called. A Member may waive notice of any meeting, and the sufficiency of notice may not be challenged by any Member who is present at a meeting.

4.3 Record Date. The persons entitled to notice of and to vote at a Members' meeting, and their respective number of Units, shall be determined as of the record date for the meeting. The record date for a meeting shall be a date not earlier than 60 days, nor less than 10 days, before the meeting, selected by the Manager. If the Manager does not specify a record date for a meeting, the record date shall be the date on which notice of the meeting was first mailed or otherwise transmitted to the Members.

4.4 Quorum. The presence, in person or by proxy, of Members holding at least fifty-one percent (51%) of the Units shall constitute a quorum. If a quorum is not present or represented at any meeting of the Members, the meeting shall be adjourned without conducting any business.

4.5 Proxies. A Member may be represented at a meeting in person or by written proxy. A proxy shall be in writing executed by the Member and filed with the Manager prior to the commencement of the meeting.

4.6 Voting. On each matter requiring action by the Members, each Member may vote the Member's Units. Except as otherwise stated in the Articles of Organization, this Agreement, or applicable law, a matter submitted to a vote of the Members shall be deemed approved if it receives the affirmative vote of at least fifty-one percent (51%) of the Units represented at a meeting.

4.7 Action Without Meeting. Any action required or permitted to be taken by the Members at a meeting may be taken without a meeting if a consent in writing, describing the action taken, is signed by all of the Members and is included in the LLC's records of meetings.

ARTICLE 5 MANAGEMENT

5.1 Manager. The LLC shall be managed by one (1) manager ("Manager"). The Manager shall be EmpRes Healthcare Management, LLC, a Washington limited liability company.

5.2 Authority of Manager. The Manager shall have all the rights and powers that may be possessed by a manager in a limited liability company with managers pursuant to the Act and such rights and powers as are otherwise conferred by law or are necessary, advisable, or convenient to the discharge of the Manager's duties under this Agreement and to the management of the business and affairs of the LLC. Without limiting the generality of the foregoing, subject to the limitations set forth in Section 5.3 of this Agreement, the Manager shall have the following rights and powers (which the Manager may exercise at the cost, expense, and risk of the LLC):

5.2.1 To expend the funds of the LLC in furtherance of the LLC's business;

5.2.2 To perform all acts necessary to manage and operate the LLC's business, including engaging such persons as the Manager deems advisable to manage the LLC's business;

5.2.3 To execute, deliver, and perform on behalf of and in the name of the LLC any and all agreements and documents deemed necessary or desirable by the Manager to carry out the business of the LLC, including any lease, deed, easement, bill of sale, mortgage, trust deed, security agreement, contract of sale, or other document conveying, leasing, or granting a security interest in any of the assets of the LLC, or any part thereof, whether held in the LLC's name, the name of the Manager, or otherwise, with no other signature or signatures required; and

5.2.4 To borrow or raise moneys on behalf of the LLC in the LLC's name or in the name of the Manager for the benefit of the LLC and, from time to time, to draw, make, accept, endorse, execute, and issue promissory notes, drafts, checks, and other

negotiable or nonnegotiable instruments and evidences of indebtedness, and to secure the payment thereof by mortgage, security agreement, pledge, or conveyance or assignment in trust of the whole or any part of the assets of the LLC, including contract rights.

5.3 Limitations on Authority of the Manager.

5.3.1 Without the vote of fifty-one percent (51%) of the Units, the Manager shall not have any authority to:

5.3.1.1 Appoint an additional or replacement Manager;

5.3.1.2 Borrow money, pledge the credit of the LLC, or otherwise incur indebtedness in the name of or on behalf of the LLC other than in the ordinary course of the LLC's business or, in any event, in an amount in excess of \$500 in any single transaction;

5.3.1.3 Mortgage, pledge, or otherwise encumber or grant a security interest in LLC assets;

5.3.1.4 Merge the LLC with any other entity;

5.3.1.5 Sell or otherwise dispose of all or substantially all the assets of the LLC (other than sales of inventory in the ordinary course of the LLC's business); or

5.3.1.6 Dissolve the LLC.

5.3.2 Without the vote of one hundred percent (100%) of the Units, the Manager shall not have any authority to:

5.3.2.1 Amend the LLC's Articles of Organization or this Agreement;

5.3.2.2 Admit additional Members to the LLC; or

5.3.2.3 Confess a judgment against the LLC or file a voluntary petition in bankruptcy on behalf of the LLC.

5.4 Limitation on Liability of the Manager. The Manager shall not have any liability to the LLC or to any Member for any loss suffered by the LLC or any Member that arises out of any action or inaction of the Manager if the Manager, in good faith, determined that such course of conduct was in the best interest of the LLC and such course of conduct did not constitute gross negligence or misconduct of the Manager.

5.5 Indemnification of the Manager. The LLC shall indemnify the Manager against any losses, judgments, liabilities, expenses, and amounts paid in settlement of any claims sustained against the LLC or against the Manager in connection with the LLC, provided that the same were not the result of gross negligence or misconduct on the part of the Manager. The satisfaction of any indemnification of the Manager hereunder shall be from, and limited to, LLC assets, and the Members shall not have any personal liability on account thereof.

5.6 Removal of the Manager. The Members may, by a vote of fifty-one percent (51%) of the Units, remove the Manager at any time for any reason or for no reason. Removal of the Manager shall not affect the interest held by the Manager as a Member of the LLC. Upon removal of the Manager, the Members, by a vote of fifty-one percent (51%) of the Units, shall elect a replacement Manager, who need not be a Member of the LLC.

5.7 Other Activities. The Manager may have other business interests and may engage in other activities in addition to those relating to the LLC. This Section 5.7 does not, however, change the Manager's duty to act in a manner that the Manager reasonably believes to be in the best interests of the LLC.

ARTICLE 6 ACCOUNTING AND RECORDS

6.1 Books of Account. At the LLC's principal place of business, the Manager shall maintain the LLC's books and records; a register showing a current and past list of the full names and last known addresses of its Members and Managers, if any; a copy of its Certificate of Formation and all amendments thereto; a copy of its current Limited Liability Company Agreement and all amendments thereto, along with a copy of any prior agreements no longer in effect; a written statement of the amount of cash and the agreed value of the other property and services contributed by each Member (including that Member's predecessors in interest) and which each Member has agreed to contribute; a copy of the LLC's federal, state, and local tax returns and reports, if any, for the three most recent years; and a copy of any financial statements of the LLC for the three most recent years. Each Member shall have access thereto at all reasonable times. The Manager shall keep and maintain books and records of the operations of the LLC which are appropriate and adequate for the LLC's business and for the carrying out of the terms and provisions of this Agreement.

6.2 Fiscal Year. The fiscal year and the taxable year of the LLC shall be the calendar year.

6.3 Accounting Reports. Within 120 days after the end of each fiscal year of the LLC, the Manager shall furnish each Member with copies of unaudited financial statements of the LLC.

6.4 Tax Returns. The Manager shall cause all required federal and state income tax returns for the LLC to be prepared and timely filed with the appropriate authorities. Within 105 days after the end of each taxable year of the LLC, or such lesser time as prescribed by the Internal Revenue Service, each Member shall be furnished with a statement suitable for use in the preparation of the Member's income tax return, showing the amounts of any distributions, contributions, gains, losses, profits, or credits allocated to the Member during such taxable year.

6.5 Tax Matters Partner. EmpRes Hospice, LLC, shall act as the Tax Matters Partner of the LLC pursuant to IRC § 6231(a)(7). The Tax Matters Partner shall take such action as may be necessary to cause each other Member to become a notice partner within the meaning of IRC § 6223. The Tax Matters Partner may make any tax elections for the LLC allowed under the Internal Revenue Code or the tax laws of any state or other jurisdiction having taxing jurisdiction over the LLC including, but without limitation, elections:

6.5.1 To adjust the basis of LLC assets pursuant to IRC §§ 754, 734(b), and 743(b), or comparable provisions of state or local law, in connection with transfers of interests in the LLC and LLC distributions;

6.5.2 With the consent of all of the Members, to extend the statute of limitations for assessment of tax deficiencies against Members with respect to adjustments to the LLC's federal, state, or local tax returns; and

6.5.3 To the extent provided in IRC §§ 6221 through 6231, to represent the LLC and the Members before taxing authorities or courts of competent jurisdiction in tax matters affecting the LLC and the Members, and to file any tax returns and to execute any agreements or other documents relating to or affecting such tax matters, including agreements or other documents that bind the Members with respect to such tax matters or otherwise affect the rights of the LLC and Members.

ARTICLE 7 TRANSFER OF UNITS

7.1 Generally. Except as otherwise provided in this Article 7, no Member shall have the right to sell, assign, exchange, or otherwise transfer for consideration, or gift or otherwise transfer for no consideration, all or any part of the Member's Units in the LLC without the prior written consent of all the Members.

7.2 Option to Purchase. Any Member ("Transferor Member") wishing to transfer Units shall first give written notice to the other Members of the Transferor Member's intention to do so. The notice ("Transfer Notice") shall name the proposed transferee and the number of Units to be transferred, and, if the transfer is for consideration, the price per Unit and the terms of payment. For 30 days following the Transfer Notice, the other Members shall have the option to purchase the Units to be transferred at the price and on

the same terms and conditions stated in the Transfer Notice; provided, however, if the Transferor Member proposes to transfer the Units by gift, subject to the provisions of Section 7.7, the other Members shall have the option to purchase the Units to be transferred at the price and on the terms determined in accordance with Sections 7.5 and 7.6. Within 30 days after the giving of the Transfer Notice, any Member desiring to acquire any part of or all the Units offered shall give written notice of the number of Units such Member wishes to acquire to the principal office of the LLC, the Transferor Member, and each of the other Members. If the total number of Units that the other Members collectively offer to purchase exceeds the number of Units being offered, the offering Members shall purchase the offered Units in the proportion that the number of Units held by each offering Member bears to the total number of Units held by all offering Members, or in whatever other proportion the offering Members may agree upon within 30 days after the expiration of the 30 day option period. If the offering Members collectively offer to purchase fewer than all the Units proposed to be transferred, then the provisions of Section 7.3 shall govern the Units not purchased by the offering Members. Any Member acquiring Units pursuant to this Section 7.2 shall be substituted as a Member with respect to the Units transferred upon executing a counterpart to this Agreement, as amended, pursuant to which the acquiring Member agrees to be bound by all of the terms and conditions of this Agreement, as amended, with respect to the Units transferred.

7.3 Transfer of Units. To the extent the option to purchase is not exercised by any other Members, the Transferor Member may complete the proposed transfer, but only to the proposed transferee in strict accordance with the terms set forth in the Transfer Notice. Any Units not purchased by the proposed transferee in strict accordance with the terms set forth in the Transfer Notice shall continue to be subject to the terms and conditions of this Article 7. Unless substituted as a Member as hereinafter provided, a transferee under this Section 7.3 shall only be entitled to receive the distributions to which the Transferor Member would be entitled with respect to the Units transferred. No transferee under this Section 7.3 who is not already a Member may be substituted as a Member unless all the remaining Members consent in writing to the substitution and the transferee executes a counterpart of this Agreement, as amended, pursuant to which the transferee agrees to be bound by all of the terms and conditions of this Agreement, as amended. Each Member may give or withhold such consent in the Member's sole discretion.

7.4 Death, Divorce or Bankruptcy. Upon (a) the death of a Member, (b) the order of a court of competent jurisdiction to transfer Units in connection with a dissolution of a Member's marriage, or (c) the Bankruptcy of a Member (as defined below), the remaining Members shall have the option to purchase any Units owned by the effected Member ("Effected Member") at the price determined in accordance with Section 7.5 and on the terms set forth in Section 7.6. A Member shall be considered Bankrupt if the Member has filed a voluntary petition for bankruptcy, makes an assignment for the benefit of creditors, or consents to the appointment of a receiver or trustee with respect to a substantial part of the Member's assets. Upon acquiring knowledge of the occurrence of an event described in the previous two sentences, the Manager shall promptly notify the

other Members in writing of the event. Within 30 days of the giving of notice, any other Member desiring to acquire any part of or all the Units owned by the Effected Member shall give written notice of the number of Units such Member wishes to acquire to the principal office of the LLC, the Effected Member or the personal representative of the Effected Member, and each of the other Members. If the total number of Units that the remaining Members collectively offer to purchase exceeds the number of Units available for purchase, the offering Members shall purchase the available Units in the proportion that the number of Units held by each offering Member bears to the total number of Units held by all the offering Members, or in whatever other proportion the offering Members may agree upon within 30 days after the expiration of the 30 day option period. If the offering Members collectively offer to purchase fewer than all the available Units, then the unpurchased Units will pass in accordance with the Effected Member's will, trust, or otherwise. Unless substituted as a Member as hereinafter provided, a transferee under this Section 7.4 shall only be entitled to receive the distributions to which the Effected Member would be entitled with respect to the Units transferred. No transferee under this Section 7.4 who is not already a Member shall be substituted as a Member unless all the remaining Members consent in writing to the substitution and the transferee executes a counterpart of this Agreement, as amended, pursuant to which the transferee agrees to be bound by all of the terms and conditions of this Agreement, as amended. Each Member may give or withhold such consent in the Member's sole discretion. Any transferee under this Section 7.4 who is already a Member shall be substituted as a Member with respect to the Units transferred upon executing a counterpart to this Agreement, as amended, pursuant to which the transferee Member agrees to be bound by all of the terms and conditions of this Agreement, as amended, with respect to the Units transferred.

7.5 Purchase Price. Upon an election by a Member or Members to purchase the Units of a Member pursuant to Sections 7.2 or 7.4, except as otherwise provided in Section 7.2, the purchase price for the Units to be purchased shall be equal to the fair market value of the LLC divided by the total number of outstanding Units, multiplied by the number of Units to be transferred. The fair market value of the LLC shall be determined by agreement between the purchasing Member or Members (acting by majority vote, each purchasing Member having one vote) and the selling Member or the selling Member's personal representative. In the event agreement as to the fair market value of the LLC cannot be obtained within a reasonable period of time, the LLC shall be valued by a licensed appraiser acceptable to the purchasing Member or Members (acting by majority vote, each purchasing Member having one vote) and the selling Member or the selling Member's personal representative. The cost of the appraisal shall be paid by the LLC.

7.6 Payment for Units. To the extent that the purchase price for Units is determined in accordance with Section 7.5, such purchase price shall be paid to the transferring Member or to the personal representative of a deceased transferring Member in sixty (60) substantially equal monthly payments, including principal and interest at the appropriate publicly announced applicable medium term federal rate under IRC § 1274,

compounded annually, with the first payment to commence not later than 90 days following the effective date of the sale.

7.7 Permitted Transfers. Notwithstanding anything to the contrary in Sections 7.2, 7.3 and 7.4 of this Agreement, any Member may gift, during his or her lifetime, Units to other Members, or to the lineal descendants of such Member, or to a custodian, trustee, conservator, or guardian for such Member or such Member's lineal descendant. In addition, notwithstanding anything to the contrary in Sections 7.2, 7.3 and 7.4 of this Agreement, any Member may transfer, during his or her lifetime, Units to a revocable living trust for the benefit of such Member and/or such Member's spouse and/or children. Unless substituted as a Member as hereinafter provided, a transferee under this Section 7.7 shall only be entitled to receive the distributions to which the transferring Member would be entitled with respect to the Units transferred. No transferee under this Section 7.7 who is not already a Member shall be substituted as a Member unless all the remaining Members consent in writing to the substitution and the transferee executes a counterpart of this Agreement, as amended, pursuant to which the transferee agrees to be bound by all of the terms and conditions of this Agreement, as amended. Each Member may give or withhold such consent in the Member's sole discretion. Any transferee under this Section 7.7 who is already a Member shall be substituted as a Member with respect to the Units transferred upon executing a counterpart to this Agreement, as amended, pursuant to which the transferee Member agrees to be bound by all of the terms and conditions of this Agreement, as amended, with respect to the Units transferred.

ARTICLE 8 WITHDRAWAL PROHIBITED

No Member shall have the right or power to withdraw from the LLC voluntarily without the prior written consent of all other Members. A purported withdrawal in violation of this Article 8 shall constitute a breach of this Agreement for which the LLC and other Members shall have the remedies provided under applicable law. In the event a Member purports to withdraw from the LLC in violation of this Article 8, that Member shall not be entitled to receive any distribution from the LLC until the LLC has dissolved and wound up its affairs.

ARTICLE 9 DISSOLUTION AND WINDING UP OF THE LLC

9.1 Events of Dissolution. Except as otherwise provided in this Agreement, the LLC shall dissolve upon the earlier of:

- 9.1.1 The time for dissolution specified in the Articles of Organization;
- 9.1.2 The death or withdrawal of any Member;

9.1.3 Approval of dissolution of the LLC by a vote of fifty-one percent (51%) of the Units; or

9.1.4 The entry of a decree of judicial dissolution under RCW 25.15.275 or administrative dissolution under RCW 25.15.285.

9.2 Effect of Bankruptcy. The following events shall not cause the dissolution of the LLC:

9.2.1 A general assignment by a Member for the benefit of creditors;

9.2.2 A Member files a voluntary petition in bankruptcy;

9.2.3 A Member becomes the subject of an order for relief in bankruptcy proceedings;

9.2.4 A Member files a petition or answer from any reorganization, composition, readjustment, liquidation, dissolution, or similar relief under any statute, law or regulation;

9.2.5 A Member files an answer or other pleading admitting or failing to contest the material allegations of a petition filed against it in any proceeding described in 9.2.1 through 9.2.4; or

9.2.6 A Member seeks, consents to, or acquiesces in the appointment of a trustee, receiver, or liquidator of the Member or of all or any substantial part of the Member's properties.

9.3 Effect of Death of a Member. In the event of the death of a Member, if there is at least one remaining Member, the remaining Member or Members may within 120 days elect to continue the LLC. The election shall be at the sole discretion of the remaining Member or Members and shall require their unanimous written consent. If the remaining Member or Members do not so elect, the LLC shall be dissolved.

9.4 Effect of Withdrawal or Dissolution. Upon the withdrawal or dissolution of a Member, if there is at least one remaining Member, the remaining Member or Members may within 120 days, without waiving any remedies in the case of voluntary withdrawal, elect to continue the LLC. The election shall be at the sole discretion of the remaining Member or Members and shall require their unanimous written consent. If the remaining Member or Members do not so elect, the LLC shall be dissolved.

9.5 Liquidation Upon Dissolution and Winding Up. Upon the dissolution of the LLC, the Manager shall wind up the affairs of the LLC. A full account of the assets and liabilities of the LLC shall be taken. The assets shall be promptly liquidated and the proceeds thereof shall be applied as required by the Washington Limited Liability

Company Act. With the approval by a vote of fifty-one percent (51%) of the Units, the LLC may, in the process of winding up the LLC, elect to distribute certain property in kind.

ARTICLE 10 AMENDMENTS

This Agreement may only be amended by a written instrument executed by all of the Members.

ARTICLE 11 MISCELLANEOUS

11.1 Additional Documents and Actions. Each Member shall execute such additional documents and take such actions as are reasonably requested by the Manager in order to complete or confirm the transactions contemplated by this Agreement.

11.2 Arbitration. Any dispute among the Members or among the Members and the LLC concerning this Agreement shall be settled by arbitration before a single arbitrator, using the rules of commercial arbitration of the American Arbitration Association. Arbitration shall occur in Portland, Oregon. The parties shall be entitled to conduct discovery in accordance with the Federal Rules of Civil Procedure, subject to limitation by the arbitrator to secure just and efficient resolution of the dispute. If the amount in controversy exceeds \$10,000, the arbitrator's decision shall include a statement specifying in reasonable detail the basis for and computation of the amount of the award, if any. A party substantially prevailing in the arbitration shall also be entitled to recover such amount for its costs and attorney fees incurred in connection with the arbitration as shall be determined by the arbitrator. Judgment upon the arbitration award may be entered in any court having jurisdiction. Nothing herein, however, shall prevent a Member from resort to a court of competent jurisdiction in those instances where injunctive relief may be appropriate.

11. Governing Law. This Agreement and the rights of the parties hereunder shall be governed by and interpreted in accordance with the laws of the State of Washington (without regard to principals of conflicts of law).

11.4 Headings. Headings in this Agreement are for convenience only and shall not affect its meaning.

11.5 Severability. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of the remaining provisions.

11.6 Third-Party Beneficiaries. The provisions of this Agreement are intended solely for the benefit of the Members and shall create no rights or obligations enforceable by any third party, including creditors of the LLC, except as otherwise provided by applicable law.

11.7 Entire Agreement. This Agreement constitutes the entire understanding and agreement among the Members with respect to the subject matter hereof, and there are no agreements, understandings, restrictions, representations, or warranties among the Members other than those set forth herein.

IN WITNESS WHEREOF, this Agreement is made and entered into by the parties hereto effective as of the date first above written.

EMPRES HOSPICE, LLC
a Washington limited liability company

By: EmpRes Financial Services, LLC, Manager

By: 

Michael J. Miller, Manager

STATEMENT OF ACTION WITHOUT MEETING
OF THE
MEMBER AND MANAGER
OF
EDEN HOSPICE AT KING COUNTY, LLC

This is a Statement of Action without Meeting of the Member and Manager of Eden Hospice of King County, LLC a Washington limited liability company (the "Company"). This Statement of Joint Actions without Meeting of the Member and Manager of Eden Hospice of King County, LLC is taken in lieu of a special meeting of the member and manager.

The following resolutions are hereby adopted:

1. The Company resolves to appoint a Governing Body. In accordance with the terms of 42 CFR § 484.105 and Standard HH1-2A, the Governing Body is responsible for:

- Decision making;
- Appointment of a qualified Administrator;
- Adopting and periodically reviewing written bylaws or equivalent;
- Establishing or approving written policies and procedures governing operations;
- Human resource management;
- Quality Assessment and Performance Improvement (QAPI);
- Community-needs planning, if applicable;
- Oversight of the management, operation plans and fiscal affairs of the Company; and
- Annual review of the policies and procedures.

2. The Company resolves that the Governing Body will consist of EmpRes Healthcare Management, LLC in its role as statutory Manager of Company. The officers and directors of EmpRes Healthcare Management, LLC are Brent Weil (CEO), Michael Miller (CFO) and Jonathan Allred (CLO/General Counsel).

3. The Governing Body has received orientation to their responsibilities and accountabilities, which orientation included the following:

- Organizational structure;
- Confidentiality practices and signing of a confidentiality agreement;
- Review of the Company's values, mission, and goals;

- Overview of programs, operational plans, services and initiatives;
- Personnel and patient grievance policies and procedures;
- Responsibilities of the Quality Assessment and Performance Improvement Program QAPI;
- Organizational ethics; and
- Conflict of Interest

This Statement of Action without Meeting of the Member and Manager is effective on December 21, 2020.

EmpRes Healthcare Management, LLC, Manager

By: 

Michael J. Miller, Assistant Manager

EmpRes Hospice, LLC, Member

By: EmpRes Financial Services, LLC

Its: Manager

By: 

Michael J. Miller, Manager

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 4
ORGANIZATIONAL STRUCTURE OF
EMPRES**

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 5
LETTER OF FINANCIAL
COMMITMENT**

Eden Hospice at King County, LLC

733 7th Ave., Ste. 110, Kirkland, WA 98033 | Phone: 206-717-8161 | Fax: 206-899-1641

December 28, 2020

Eric Hernandez, Program Manager
Certificate of Need Program
Washington State Department of Health
111 Israel Road SE Tumwater, WA 98501

RE: Eden Hospice at King County, LLC Certificate of Need Application:

Dear Mr. Hernandez:

The Certificate of Need program's application for a Medicare-certified hospice agency asks for a financial letter of commitment.

The Members of Eden Hospice at King County, LLC have committed the necessary working capital to finance the establishment and operation of the proposed Medicare-certified hospice agency in King County.

On receipt of the Washington Certificate of Need, the members of Eden Hospice at King County, LLC will contribute sufficient funds, currently estimated at approximately \$100,000, to the working capital account of Eden Hospice at King County, LLC.

Sincerely,



Michael J. Miller
Chief Financial Office
EmpRes Healthcare Management, LLC

Our Commitment to Care

APPENDIX 5
LETTER OF FINANCIAL COMMITMENT

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 6
LEASE AGREEMENT**

LEASE AGREEMENT
(Multi-Tenant Gross Lease)

THIS LEASE AGREEMENT (the "Lease") is entered into and effective as of this **26th** day of **December, 2018** between **GJR REIH II, LLC, a Washington Limited Liability Company** ("Landlord"), and **Eden Home Health of King County, LLC, a Washington Limited Liability Company** (Tenant"). Landlord and Tenant agree as follows:

1. LEASE SUMMARY.

- a. **Leased Premises.** The leased commercial real estate i) consists of an agreed area of **1,576** rentable square feet and is outlined on the floor plan attached as Exhibit A (the "Premises"); ii) is located on the land legally described on attached Exhibit B; and iii) is commonly known as **Parkade Plaza Suite 110 located at 733 7th Ave, Kirkland, WA 98033** (suite number and address). The Premises do not include, and Landlord reserves, the exterior walls and roof of the building in which the Premises are located (the "Building"), the land beneath the Building, the pipes and ducts, conduits, wires, fixtures, and equipment above the suspended ceiling; and the structural elements of the Building. The Building, the land upon which it is situated, all other improvements located on such land, and all common areas appurtenant to the Building are referred to as the "Property." The Building and all other buildings on the Property as of the date of this Lease consist of an agreed area of **25,026** rentable square feet.
- b. **Lease Commencement Date.** The term of this Lease shall be for a period of **thirty seven (37) months** and shall commence on **February 1, 2019** or such earlier or later date as provided in Section 3 (the "Commencement Date").
- c. **Lease Termination Date.** The term of this Lease shall terminate at midnight on **February 28, 2022** or such earlier or later date as provided in Section 3 (the "Termination Date").
- d. **Base Rent.** The base monthly rent shall be (check one): \$_____, or according to the Rent Rider attached hereto ("Base Rent"). Rent shall be payable at Landlord's address shown in Section 1(h) below, or such other place designated in writing by Landlord.
- e. **Prepaid Rent.** Upon execution of this Lease, Tenant shall deliver to Landlord the sum of **\$4,005.67** as prepaid rent, to be applied to the Base Rent and Operating Costs due for month two () of the Lease.
- f. **Security Deposit.** Upon execution of this Lease, Tenant shall deliver to Landlord the sum of **\$4,400.00** to be held as a security deposit pursuant to Section 5 below. The security deposit shall be in the form of (check one): cash, or letter of credit according to the Letter of Credit Rider (CBA Form LCR) attached hereto.
- g. **Permitted Use.** The Premises shall be used only for **general office use** and for no other purpose without the prior written consent of Landlord (the "Permitted Use").
- h. **Notice and Payment Addresses.**

Landlord: **GJR REIH II, LLC**
C/O KidderMathews
500 - 108th Avenue NE #2400, Bellevue, WA 98004
Attn: Kristin Fabey
Email: **kfabey@kiddermathews.com**
425-283-5787

Tenant: **EmpRes Healthcare Management, LLC, a Washington Limited Liability Company.**

4601 NE 77th Avenue, Suite 300
Vancouver, WA 98662
Attn: Legal/Contracts

2. PREMISES.

- a. **Lease of Premises.** Landlord leases to Tenant, and Tenant leases from Landlord, the Premises upon the terms specified in this Lease.
- b. **Acceptance of Premises.** Except as specified elsewhere in this Lease, Landlord makes no representations or warranties to Tenant regarding the Premises, including the structural condition of the Premises or the condition of all mechanical, electrical, and other systems on the Premises. Except for any tenant improvements to be completed by Landlord as described on attached Exhibit C (the "Landlord's Work"), Tenant shall be responsible for performing any work necessary to bring the Premises into a condition satisfactory to Tenant. By signing this Lease, Tenant acknowledges that it has had an adequate opportunity to investigate the Premises; acknowledges responsibility for making any corrections, alterations and repairs to the Premises (other than the Landlord's Work); and acknowledges that the time needed to complete any such items shall not delay the Commencement Date.
- c. **Furniture.** Tenant acknowledges and agrees all "Built-In" furniture in the Premises, which is not directly owned by Tenant, may be removed from the Premises in the event a sheriff's sale occurs.
- d. **Tenant Improvements.** Attached Exhibit C sets forth all Landlord's Work, if any, and all tenant improvements to be completed by Tenant (the "Tenant's Work"), if any, that will be performed on the Premises. Responsibility for design, payment and performance of all such work shall be as set forth on attached Exhibit C. If Tenant fails to notify Landlord of any defects in the Landlord's Work within thirty (30) days of delivery of possession to Tenant, Tenant shall be deemed to have accepted the Premises in their then condition. If Tenant discovers any major defects in the Landlord's Work during this 30-day period that would prevent Tenant from using the Premises for the Permitted Use, Tenant shall notify Landlord and the Commencement Date shall be delayed until after Landlord has notified Tenant that Landlord has corrected the major defects and Tenant has had five (5) days to inspect and approve the Premises. The Commencement Date shall not be delayed if Tenant's inspection reveals minor defects in the Landlord's Work that will not prevent Tenant from using the Premises for the Permitted Use. Tenant shall prepare a punch list of all minor defects in Landlord's Work and provide the punch list to Landlord, which Landlord shall promptly correct.

3. TERM. The term of this Lease shall commence on the Commencement Date specified in Section 1, or on such earlier or later date as may be specified by notice delivered by Landlord to Tenant advising Tenant that the Premises are ready for possession and specifying the Commencement Date, which shall not be less than _____ days (thirty (30) days if not filled in) following the date of such notice.

- a. **Early Possession.** If Landlord permits Tenant to possess and occupy the Premises two (2) weeks prior to the Commencement Date specified in Section 1, then such early occupancy shall not advance the Commencement Date or the Termination Date set forth in Section 1, but otherwise all terms and conditions of this Lease shall nevertheless apply during the period of early occupancy before the Commencement Date. Tenant must not interfere with Landlord's Improvement Work outlined in Exhibit C during Early Possession.
- b. **Delayed Possession.** Landlord shall act diligently to make the Premises available to Tenant; provided, however, neither Landlord nor any agent or employee of Landlord shall be liable for any damage or loss due to Landlord's inability or failure to deliver possession of the Premises to Tenant as provided in this Lease. If possession is delayed, the Commencement Date set forth in Section 1 shall also be delayed. In addition, the Termination Date set forth in Section 1 shall be modified so that the length of the Lease term remains the same. If Landlord does not deliver possession of

the Premises to Tenant within _____ thirty (30) days if not filled in) after the Commencement Date specified in Section 1, Tenant may elect to cancel this Lease by giving written notice to Landlord within ten (10) days after such time period ends. If Tenant gives such notice of cancellation, the Lease shall be cancelled, all prepaid rent and security deposits shall be refunded to Tenant, and neither Landlord nor Tenant shall have any further obligations to the other. The first "Lease year" shall commence on the Commencement Date and shall end on the date which is twelve (12) months from the end of the month in which the Commencement Date occurs. Each successive Lease year during the initial term and any extension terms shall be twelve (12) months, commencing on the first day following the end of the preceding Lease year. To the extent that the tenant improvements are not completed in time for the Tenant to occupy or take possession of the Premises on the Commencement Date due to the failure of Tenant to fulfill any of its obligations under this Lease, the Lease shall nevertheless commence on the Commencement Date set forth in Section 1.

4. RENT.

- a. **Payment of Rent.** Tenant shall pay Landlord without notice, demand, deduction or offset, in lawful money of the United States, the monthly Base Rent stated in Section 1 in advance on or before the first day of each month during the Lease term beginning on (check one): the Commencement Date, or _____ (if no date specified, then on the Commencement Date), and shall also pay any other additional payments due to Landlord ("Additional Rent"), including Operating Costs (collectively the "Rent") when required under this Lease. Payments for any partial month at the beginning or end of the Lease shall be prorated. All payments due to Landlord under this Lease, including late fees and interest, shall also constitute Additional Rent, and upon failure of Tenant to pay any such costs, charges or expenses, Landlord shall have the same rights and remedies as otherwise provided in this Lease for the failure of Tenant to pay rent.
- b. **Late Charges; Default Interest.** If any sums payable by Tenant to Landlord under this Lease are not received within seven (7) business days after their due date, Tenant shall pay Landlord an amount equal to the greater of \$100 or five percent (5%) of the delinquent amount for the cost of collecting and handling such late payment in addition to the amount due and as Additional Rent. All delinquent sums payable by Tenant to Landlord and not paid within seven (7) business days after their due date shall, at Landlord's option, bear interest at the rate of fifteen percent (15%) per annum, or the highest rate of interest allowable by law, whichever is less (the "Default Rate"). Interest on all delinquent amounts shall be calculated from the original due date to the date of payment.
- c. **Less Than Full Payment.** Landlord's acceptance of less than the full amount of any payment due from Tenant shall not be deemed an accord and satisfaction or compromise of such payment unless Landlord specifically consents in writing to payment of such lesser sum as an accord and satisfaction or compromise of the amount which Landlord claims. Any portion that remains to be paid by Tenant shall be subject to the late charges and default interest provisions of this Section.
- d. **Base Year.** The Base Rent paid by Tenant under this Lease includes Tenant's Pro Rata Share of Operating Costs for 2019 (the "Base Year"). As additional Rent, Tenant shall pay to Landlord on the first day of each month commencing on the first day of 2019, with Tenant's payment of Base Rent, one-twelfth of the amount, if any, by which Tenant's Pro Rata Share of Operating Costs exceeds Tenant's annualized Pro Rata Share of Operating Costs for the Base Year of this Section. Tenant's percentage share of Operating Costs is computed by dividing the square footage of Tenant's leased Premises by the total rentable square footage of the Building. Tenant's pro-rata share is: 6.3%.
- e. **Operating Costs.** As used herein, "Operating Costs" shall mean all costs of operating, maintaining and repairing the Premises, the Building, and the Property, determined in accordance with generally accepted accounting principles, and including without limitation the following: real estate taxes and assessments; electricity, water, sewer, garbage and all other utility charges; all other

usual and necessary costs of operation, management, janitorial, maintenance, and repair, excluding depreciation, loan payments, replacement of major structural elements, and any items which are the direct responsibility of Tenant under this Lease.

5. SECURITY DEPOSIT. Upon execution of this Lease, Tenant shall deliver to Landlord the security deposit specified in Section 1 above. Landlord's obligations with respect to the security deposit are those of a debtor and not of a trustee, and Landlord may commingle the security deposit with its other funds. If Tenant breaches any covenant or condition of this Lease, including but not limited to the payment of Rent, Landlord may apply all or any part of the security deposit to the payment of any sum in default and any damage suffered by Landlord as a result of Tenant's breach. Tenant acknowledges, however, that the security deposit shall not be considered as a measure of Tenant's damages in case of default by Tenant, and any payment to Landlord from the security deposit shall not be construed as a payment of liquidated damages for Tenant's default. If Landlord applies the security deposit as contemplated by this Section, Tenant shall, within five (5) days after written demand therefore by Landlord, deposit with Landlord the amount so applied. If Tenant complies with all of the covenants and conditions of this Lease throughout the Lease term, the security deposit shall be repaid to Tenant without interest within thirty (30) days after the surrender of the Premises by Tenant in the condition required hereunder by Section 12 of this Lease.

6. USES. The Premises shall be used only for the Permitted Use specified in Section 1 above, and for no other business or purpose without the prior written consent of Landlord. No act shall be done on or around the Premises that is unlawful or that will increase the existing rate of insurance on the Premises, the Building, or the Property, or cause the cancellation of any insurance on the Premises, the Building, or the Property. Tenant shall not commit or allow to be committed any waste upon the Premises, or any public or private nuisance. Tenant shall not do or permit anything to be done on the Premises, the Building, or the Property which will obstruct or interfere with the rights of other tenants or occupants of the Property, or their employees, officers, agents, servants, contractors, customers, clients, visitors, guests, or other licensees or invitees or to injure or annoy such persons.

7. COMPLIANCE WITH LAWS. Tenant shall not cause or permit the Premises to be used in any way which violates any law, ordinance, or governmental regulation or order. Landlord represents to Tenant that, as of the Commencement Date, to Landlord's knowledge, but without duty of investigation, and with the exception of any Tenant's Work, the Premises comply with all applicable laws, rules, regulations, or orders, including without limitation, the Americans With Disabilities Act, if applicable, and Landlord shall be responsible to promptly cure at its sole cost any noncompliance which existed on the Commencement Date. Tenant shall be responsible for complying with all laws applicable to the Premises as a result of the Permitted Use, and Tenant shall be responsible for making any changes or alterations as may be required by law, rule, regulation, or order for Tenant's Permitted Use at its sole cost and expense. Otherwise, if changes or alterations are required by law, rule, regulation, or order unrelated to the Permitted Use, Landlord shall make changes and alterations at its expense.

8. UTILITIES AND SERVICES. Landlord shall provide the Premises the following services, the cost of which shall be included in the Operating Costs, to the extent not separately metered to the Premises: water and electricity for the Premises seven (7) days per week, twenty-four (24) hours per day, and HVAC from 7:00 a.m. to 6:00 p.m. Monday through Friday. Landlord shall provide janitorial service to the Premises and Building five (5) nights each week, exclusive of holidays, the cost of which shall also be included in Operating Costs. HVAC services will also be provided by Landlord to the Premises during additional hours on reasonable notice to Landlord, at Tenant's sole cost and expense, at an hourly rate reasonably established by Landlord from time to time and payable by Tenant, as and when billed, as Additional Rent. Notwithstanding the foregoing, if Tenant's use of the Premises incurs utility service charges which are above those usual and customary for the Permitted Use, Landlord reserves the right to require Tenant to pay a reasonable additional charge for such usage. Landlord shall not be liable for any loss, injury or damage to person or property caused by or resulting from any variation, interruption, or failure of utilities due to any cause whatsoever, and Rent shall not abate as a result thereof.

Tenant shall furnish all other utilities (including, but not limited to, telephone, Internet, and cable service if available) and other services which Tenant requires with respect to the Premises, and shall pay, at Tenant's sole expense, the cost of all utilities separately metered to the Premises, and of all other utilities and other

services which Tenant requires with respect to the Premises, except those to be provided by Landlord and included in Operating Expenses as described above. Landlord shall not be liable for any loss, injury or damage to person or property caused by or resulting from any variation, interruption, or failure of utilities due to any cause whatsoever, and Rent shall not abate as a result thereof.

9. TAXES. Tenant shall pay all taxes, assessments, liens and license fees ("Taxes") levied, assessed or imposed by any authority having the direct or indirect power to tax or assess any such liens, related to or required by Tenant's use of the Premises as well as all Taxes on Tenant's personal property located on the Premises. Landlord shall pay all taxes and assessments with respect to the Property, including any taxes resulting from a reassessment of the Building or the Property due to a change of ownership or otherwise.

10. COMMON AREAS.

- a. **Definition.** The term "Common Areas" means all areas, facilities and building systems that are provided and designated from time to time by Landlord for the general non-exclusive use and convenience of Tenant with other tenants and which are not leased or held for the exclusive use of a particular tenant. To the extent that such areas and facilities exist within the Property, Common Areas include hallways, entryways, stairs, elevators, driveways, walkways, terraces, docks, loading areas, restrooms, trash facilities, parking areas and garages, roadways, pedestrian sidewalks, landscaped areas, security areas, lobby or mall areas, common heating, ventilating and air conditioning systems, common electrical service, equipment and facilities, and common mechanical systems, equipment and facilities. Tenant shall comply with reasonable rules and regulations concerning the use of the Common Areas adopted by Landlord from time to time. Without advance notice to Tenant and without any liability to Tenant, Landlord may change the size, use, or nature of any Common Areas, erect improvements on the Common Areas or convert any portion of the Common Areas to the exclusive use of Landlord or selected tenants, so long as Tenant is not thereby deprived of the substantial benefit of the Premises. Landlord reserves the use of exterior walls and the roof, and the right to install, maintain, use, repair and replace pipes, ducts, conduits, and wires leading through the Premises in areas which will not materially interfere with Tenant's use thereof.
- b. **Use of the Common Areas.** Tenant shall have the non-exclusive right, in common with such other tenants to whom Landlord has granted or may grant such rights, to use the Common Areas. Tenant shall abide by rules and regulations adopted by Landlord from time to time and shall use its best efforts to cause its employees, officers, agents, servants, contractors, customers, clients, visitors, guests, or other licensees or invitees to comply with those rules and regulations, and not interfere with the use of Common Areas by others.
- c. **Maintenance of Common Areas.** Landlord shall maintain the Common Areas in good order, condition and repair. This maintenance cost shall be an Operating Cost chargeable to Tenant pursuant to Section 8. In performing such maintenance, Landlord shall use reasonable efforts to minimize interference with Tenant's use and enjoyment of the Premises.

11. ALTERATIONS. Tenant may make alterations, additions or improvements to the Premises, including any Tenant Work identified on attached Exhibit C (the "Alterations"), only with the prior written consent of Landlord, which, with respect to Alterations not affecting the structural components of the Premises or utility systems therein, shall not be unreasonably withheld, conditioned, or delayed. Landlord shall have thirty (30) days in which to respond to Tenant's request for any Alterations so long as such request includes the name of Tenant's contractors and reasonably detailed plans and specifications therefor. The term "Alterations" shall not include the installation of shelves, movable partitions, Tenant's equipment, and trade fixtures that may be performed without damaging existing improvements or the structural integrity of the Premises, the Building, or the Property, and Landlord's consent shall not be required for Tenant's installation or removal of those items. Tenant shall perform all work at Tenant's expense and in compliance with all applicable laws and shall complete all Alterations in accordance with plans and specifications approved by Landlord, using contractors approved by Landlord, and in a manner so as not to unreasonably interfere with other tenants. Tenant shall pay, when due, or furnish a bond for payment (as set forth in

Section 20) all claims for labor or materials furnished to or for Tenant at or for use in the Premises, which claims are or may be secured by any mechanics' or materialmen's liens against the Premises or the Property or any interest therein. Tenant shall remove all Alterations at the end of the Lease term unless Landlord conditioned its consent upon Tenant leaving a specified Alteration at the Premises, in which case Tenant shall not remove such Alteration, and it shall become Landlord's property. Tenant shall immediately repair any damage to the Premises caused by removal of Alterations.

12. REPAIRS AND MAINTENANCE; SURRENDER. Tenant shall, at its sole expense, maintain the entire Premises in good condition and promptly make all non-structural repairs and replacements necessary to keep the Premises safe and in good condition, including all HVAC components and other utilities and systems to the extent exclusively serving the Premises. Landlord shall maintain and repair the Building structure, foundation, subfloor, exterior walls, roof structure and surface, and HVAC components and other utilities and systems serving more than just the Premises, and the Common Areas, the costs of which shall be included as an Operating Cost. Tenant shall not damage any demising wall or disturb the structural integrity of the Premises, the Building, or the Property and shall promptly repair any damage or injury done to any such demising walls or structural elements caused by Tenant or its employees, officers, agents, servants, contractors, customers, clients, visitors, guests, or other licensees or invitees. Notwithstanding anything in this Section to the contrary, Tenant shall not be responsible for any repairs to the Premises made necessary by the negligence or willful misconduct of Landlord or its employees, officers, agents, servants, contractors, customers, clients, visitors, guests, or other licensees or invitees therein. If Tenant fails to perform Tenant's obligations under this Section, Landlord may at Landlord's option enter upon the Premises after ten (10) days' prior notice to Tenant and put the same in good order, condition and repair and the cost thereof together with interest thereon at the default rate set forth in Section 4 shall be due and payable as additional rent to Landlord together with Tenant's next installment of Base Rent. Upon expiration of the Lease term, whether by lapse of time or otherwise, Tenant shall promptly and peacefully surrender the Premises, together with all keys, to Landlord in as good condition as when received by Tenant from Landlord or as thereafter improved, reasonable wear and tear and insured casualty excepted.

13. ACCESS AND RIGHT OF ENTRY. After twenty-four (24) hours' notice from Landlord and during normal working hours (except in cases of emergency, when no notice shall be required), Tenant shall permit Landlord and its agents, employees and contractors to enter the Premises at all reasonable times to make repairs, inspections, alterations or improvements, provided that Landlord shall use reasonable efforts to minimize interference with Tenant's use and enjoyment of the Premises. This Section shall not impose any repair or other obligation upon Landlord not expressly stated elsewhere in this Lease. After reasonable notice to Tenant, Landlord shall have the right to enter the Premises for the purpose of (a) showing the Premises to prospective purchasers or lenders at any time, and to prospective tenants within one hundred eighty (180) days prior to the expiration or sooner termination of the Lease term; and (b) posting "for lease" signs within one hundred eighty (180) days prior to the expiration or sooner termination of the Lease term.

14. SIGNAGE. Tenant shall obtain Landlord's written consent as to size, location, materials, method of attachment, and appearance, before installing any signs within the Premises. Tenant shall install any approved signage at Tenant's sole expense and in compliance with all applicable laws. Tenant shall not damage or deface the Premises in installing or removing signage and shall repair any injury or damage to the Premises caused by such installation or removal. Landlord will be responsible for all directory and suite signage.

15. DESTRUCTION OR CONDEMNATION.

- a. **Damage and Repair.** If the Premises or the portion of the Building or the Property necessary for Tenant's occupancy are partially damaged but not rendered untenable, by fire or other insured casualty, then Landlord shall diligently restore the Premises and the portion of the Property necessary for Tenant's occupancy to the extent required below and this Lease shall not terminate. Tenant may, however, terminate the Lease if Landlord is unable to restore the Premises within six (6) months of the casualty event by giving twenty (20) days written notice of termination.

The Premises or the portion of the Building or the Property necessary for Tenant's occupancy shall not be deemed untenable if twenty-five percent (25%) or less of each of those areas are

damaged. If insurance proceeds are not available or are not sufficient to pay the entire cost of restoring the Premises, or if Landlord's lender does not permit all or any part of the insurance proceeds to be applied toward restoration, then Landlord may elect to terminate this Lease and keep the insurance proceeds, by notifying Tenant within sixty (60) days of the date of such casualty.

If the Premises, the portion of the Building or the Property necessary for Tenant's occupancy, or fifty percent (50%) or more of the rentable area of the Property are entirely destroyed, or partially damaged and rendered untenable, by fire or other casualty, Landlord may, at its option: (a) terminate this Lease as provided herein, or (b) restore the Premises and the portion of the Property necessary for Tenant's occupancy to their previous condition to the extent required below; provided, however, if such casualty event occurs during the last six (6) months of the Lease term (after considering any option to extend the term timely exercised by Tenant) then either Tenant or Landlord may elect to terminate the Lease. If, within sixty (60) days after receipt by Landlord from Tenant of written notice that Tenant deems the Premises or the portion of the Property necessary for Tenant's occupancy untenable, Landlord fails to notify Tenant of its election to restore those areas, or if Landlord is unable to restore those areas within six (6) months of the date of the casualty event, then Tenant may elect to terminate the Lease upon twenty (20) days' notice to Landlord unless Landlord, within such twenty (20) day period, notifies Tenant that it will in fact restore the Premises or actually completes such restoration work to the extent required below, as applicable.

If Landlord restores the Premises or the Property under this Section, Landlord shall proceed with reasonable diligence to complete the work, and the Rent shall be abated in the same proportion as the untenable portion of the Premises bears to the whole Premises, provided that there shall be a Rent abatement only if the damage or destruction of the Premises or the Property did not result from, or was not contributed to directly or indirectly by the act, fault or neglect of Tenant, or Tenant's employees, officers, agents, servants, contractors, customers, clients, visitors, guests, or other licensees or invitees. No damages, compensation or claim shall be payable by Landlord for inconvenience, loss of business or annoyance directly, incidentally or consequentially arising from any repair or restoration of any portion of the Premises or the Property. Landlord shall have no obligation to carry insurance of any kind for the protection of Tenant; any alterations or improvements paid for by Tenant; any Tenant's Work identified in Exhibit C (regardless of who may have completed them); Tenant's furniture; or on any fixtures, equipment, improvements or appurtenances of Tenant under this Lease, and Landlord's restoration obligations hereunder shall not include any obligation to repair any damage thereto or replace the same.

- b. **Condemnation.** If the Premises, the portion of the Building or the Property necessary for Tenant's occupancy, or 50% or more of the rentable area of the Property are made untenable by eminent domain, or conveyed under a threat of condemnation, this Lease shall terminate at the option of either Landlord or Tenant as of the earlier of the date title vests in the condemning authority or the condemning authority first has possession of the Premises or the portion of the Property taken by the condemning authority. All Rents and other payments shall be paid to that date.

If the condemning authority takes a portion of the Premises or of the Building or the Property necessary for Tenant's occupancy that does not render them untenable, then this Lease shall continue in full force and effect and the Rent shall be equitably reduced based on the proportion by which the floor area of any structures is reduced. The reduction in Rent shall be effective on the earlier of the date the condemning authority first has possession of such portion or title vests in the condemning authority. The Premises or the portion of the Building or the Property necessary for Tenant's occupancy shall not be deemed untenable if twenty-five percent (25%) or less of each of those areas are condemned. Landlord shall be entitled to the entire award from the condemning authority attributable to the value of the Premises or the Building or the Property and Tenant shall make no claim for the value of its leasehold. Tenant shall be permitted to make a separate claim against the condemning authority for moving expenses if Tenant may terminate the Lease under this Section, provided that in no event shall Tenant's claim reduce Landlord's award.

16. INSURANCE

- a. **Tenant's Liability Insurance.** During the Lease term, Tenant shall pay for and maintain commercial general liability insurance with broad form property damage and contractual liability endorsements. This policy shall name Landlord, its property manager (if any), and other parties designated by Landlord as additional insureds using an endorsement form acceptable to Landlord, and shall insure Tenant's activities and those of Tenant's employees, officers, agents, servants, contractors, customers, clients, visitors, guests, or other licensees or invitees with respect to the Premises against loss, damage or liability for personal injury or bodily injury (including death) or loss or damage to property with a combined single limit of not less than \$1,000,000, and a deductible of not more than \$10,000. Tenant's insurance will be primary and noncontributory with any liability insurance carried by Landlord. Landlord may also require Tenant to obtain and maintain business income coverage for at least six (6) months, business auto liability coverage, and, if applicable to Tenant's Permitted Use, liquor liability insurance and/or warehouseman's coverage.
- b. **Tenant's Property Insurance.** During the Lease term, Tenant shall pay for and maintain special form clauses of loss coverage property insurance (with coverage for earthquake if required by Landlord's lender and, if the Premises are situated in a flood plain, flood damage) for all of Tenant's personal property, fixtures and equipment in the amount of their full replacement value, with a deductible of not more than \$10,000.
- c. **Miscellaneous.** Tenant's insurance required under this Section shall be with companies rated A-/VII or better in Best's Insurance Guide, and which are admitted in the State in which the Premises are located. No insurance policy shall be cancelled or reduced in coverage and each such policy shall provide that it is not subject to cancellation or a reduction in coverage except after thirty (30) days prior written notice to Landlord. Tenant shall deliver to Landlord upon commencement of the Lease and from time to time thereafter, copies of the insurance policies or evidence of insurance and copies of endorsements required by this Section. In no event shall the limits of such policies be considered as limiting the liability of Tenant under this Lease. If Tenant fails to acquire or maintain any insurance or provide any policy or evidence of insurance required by this Section, and such failure continues for three (3) days after notice from Landlord, Landlord may, but shall not be required to, obtain such insurance for Landlord's benefit and Tenant shall reimburse Landlord for the costs of such insurance upon demand. Such amounts shall be Additional Rent payable by Tenant hereunder and in the event of non-payment thereof, Landlord shall have the same rights and remedies with respect to such non-payment as it has with respect to any other non-payment of Rent hereunder.
- d. **Landlord's Insurance.** Landlord shall carry special form clauses of loss coverage property insurance of the Building shell and core in the amount of their full replacement value, liability insurance with respect to the Common Areas, and such other insurance of such types and amounts as Landlord, in its discretion, shall deem reasonably appropriate.
- e. **Waiver of Subrogation.** Landlord and Tenant hereby release each other and any other tenant, their agents or employees, from responsibility for, and waive their entire claim of recovery for any loss or damage arising from any cause covered by property insurance required to be carried or otherwise carried by each of them. Each party shall provide notice to the property insurance carrier or carriers of this mutual waiver of subrogation, and shall cause its respective property insurance carriers to waive all rights of subrogation against the other. This waiver shall not apply to the extent of the deductible amounts to any such property policies or to the extent of liabilities exceeding the limits of such policies.

17. INDEMNIFICATION.

- a. **Indemnification by Tenant.** Tenant shall defend, indemnify, and hold Landlord and its property manager (if any) harmless against all liabilities, damages, costs, and expenses, including attorneys' fees, for personal injury, bodily injury (including death) or property damage arising from any negligent or wrongful act or omission of Tenant or Tenant's employees, officers, agents, servants, contractors, customers, clients, visitors, guests, or other licensees or invitees on or around the

Premises or the Property, or arising from any breach of this Lease by Tenant. Tenant shall use legal counsel reasonably acceptable to Landlord in defense of any action within Tenant's defense obligation.

- b. **Indemnification by Landlord.** Landlord shall defend, indemnify and hold Tenant harmless against all liabilities, damages, costs, and expenses, including attorneys' fees, for personal injury, bodily injury (including death) or property damage arising from any negligent or wrongful act or omission of Landlord or Landlord's employees, officers, agents, servants, contractors, customers, clients, visitors, guests, or other licensees or invitees on or around the Premises or the Property, or arising from any breach of this Lease by Landlord. Landlord shall use legal counsel reasonably acceptable to Tenant in defense of any action within Landlord's defense obligation.
- c. **Waiver of Immunity.** Landlord and Tenant each specifically and expressly waive any immunity that each may be granted under the Washington State Industrial Insurance Act, Title 51 RCW. Neither party's indemnity obligations under this Lease shall be limited by any limitation on the amount or type of damages, compensation, or benefits payable to or for any third party under the Worker Compensation Acts, Disability Benefit Acts or other employee benefit acts.
- d. **Exemption of Landlord from Liability.** Except to the extent of claims arising out of Landlord's gross negligence or intentional misconduct, Landlord shall not be liable to Tenant for injury to Tenant's business or assets or any loss of income therefrom or for damage to any property of Tenant or of its employees, officers, agents, servants, contractors, customers, clients, visitors, guests, or other licensees or invitees, or any other person in or about the Premises or the Property.
- e. **Survival.** The provisions of this Section shall survive expiration or termination of this Lease.

18. ASSIGNMENT AND SUBLETTING. Tenant shall not assign, sublet, mortgage, encumber or otherwise transfer any interest in this Lease (collectively referred to as a "Transfer") or any part of the Premises, without first obtaining Landlord's written consent, which shall not be unreasonably withheld, conditioned, or delayed. No Transfer shall relieve Tenant of any liability under this Lease notwithstanding Landlord's consent to such Transfer. Consent to any Transfer shall not operate as a waiver of the necessity for Landlord's consent to any subsequent Transfer. In connection with each request for consent to a Transfer, Tenant shall pay the reasonable cost of processing same, including attorneys' fees, upon demand of Landlord, up to a maximum of \$1,250.

If Tenant is a partnership, limited liability company, corporation, or other entity, any transfer of this Lease by merger, consolidation, redemption or liquidation, or any change in the ownership of, or power to vote, which singularly or collectively represents a majority of the beneficial interest in Tenant, shall constitute a Transfer under this Section.

As a condition to Landlord's approval, if given, any potential assignee or sublessee otherwise approved by Landlord shall assume all obligations of Tenant under this Lease and shall be jointly and severally liable with Tenant and any guarantor, if required, for the payment of Rent and performance of all terms of this Lease. In connection with any Transfer, Tenant shall provide Landlord with copies of all assignments, subleases and assumption agreement or documents.

19. LIENS. Tenant shall not subject the Landlord's assets to any liens or claims of lien. Tenant shall keep the Premises free from any liens created by or through Tenant. Tenant shall indemnify and hold Landlord harmless from liability for any such liens including, without limitation, liens arising from any Alterations. If a lien is filed against the Premises by any person claiming by, through or under Tenant, Tenant shall, within ten (10) days after Landlord's demand, at Tenant's expense, either remove the lien or furnish to Landlord a bond in form and amount and issued by a surety satisfactory to Landlord, indemnifying Landlord and the Premises against all liabilities, costs and expenses, including attorneys' fees, which Landlord could reasonably incur as a result of such lien.

20. DEFAULT. The following occurrences shall each constitute a default by Tenant (an "Event of Default"):

- a. **Failure To Pay.** Failure by Tenant to pay any sum, including Rent, due under this Lease following seven (7) days' notice from Landlord of the failure to pay.
- b. **Vacation/Abandonment.** Vacation by Tenant of the Premises (defined as an absence for at least fifteen (15) consecutive days without prior notice to Landlord), or abandonment by Tenant of the Premises (defined as an absence of five (5) days or more while Tenant is in breach of some other term of this Lease). Tenant's vacation or abandonment of the Premises shall not be subject to any notice or right to cure.
- c. **Insolvency.** Tenant's insolvency or bankruptcy (whether voluntary or involuntary); or appointment of a receiver, assignee or other liquidating officer for Tenant's business; provided, however, that in the event of any involuntary bankruptcy or other insolvency proceeding, the existence of such proceeding shall constitute an Event of Default only if such proceeding is not dismissed or vacated within sixty (60) days after its institution or commencement.
- d. **Levy or Execution.** The taking of Tenant's interest in this Lease or the Premises, or any part thereof, by execution or other process of law directed against Tenant, or attachment of Tenant's interest in this Lease by any creditor of Tenant, if such attachment is not discharged within fifteen (15) days after being levied.
- e. **Other Non-Monetary Defaults.** The breach by Tenant of any agreement, term or covenant of this Lease other than one requiring the payment of money and not otherwise enumerated in this Section or elsewhere in this Lease, which breach continues for a period of thirty (30) days after notice by Landlord to Tenant of the breach.
- f. **Failure to Take Possession.** Failure by Tenant to take possession of the Premises on the Commencement Date or failure by Tenant to commence any Tenant Improvement in a timely fashion.

21. REMEDIES. Landlord shall have the following remedies upon an Event of Default. Landlord's rights and remedies under this Lease shall be cumulative, and none shall exclude any other right or remedy allowed by law.

- a. **Termination of Lease.** Landlord may terminate Tenant's interest under the Lease, but no act by Landlord other than notice of termination from Landlord to Tenant shall terminate this Lease. The Lease shall terminate on the date specified in the notice of termination. Upon termination of this Lease, Tenant will remain liable to Landlord for damages in an amount equal to the Rent and other sums that would have been owing by Tenant under this Lease for the balance of the Lease term, less the net proceeds, if any, of any reletting of the Premises by Landlord subsequent to the termination, after deducting all of Landlord's Reletting Expenses (as defined below). Landlord shall be entitled to either collect damages from Tenant monthly on the days on which rent or other amounts would have been payable under the Lease, or alternatively, Landlord may accelerate Tenant's obligations under the Lease and recover from Tenant: (i) unpaid rent which had been earned at the time of termination; (ii) the amount by which the unpaid rent which would have been earned after termination until the time of award exceeds the amount of rent loss that Tenant proves could reasonably have been avoided; (iii) the amount by which the unpaid rent for the balance of the term of the Lease after the time of award exceeds the amount of rent loss that Tenant proves could reasonably be avoided (discounting such amount by the discount rate of the Federal Reserve Bank of San Francisco at the time of the award, plus 1%); and (iv) any other amount necessary to compensate Landlord for all the detriment proximately caused by Tenant's failure to perform its obligations under the Lease, or which in the ordinary course would be likely to result from the Event of Default, including without limitation Reletting Expenses described below.
- b. **Re-Entry and Reletting.** Landlord may continue this Lease in full force and effect, and without demand or notice, re-enter and take possession of the Premises or any part thereof, expel the

Tenant from the Premises and anyone claiming through or under the Tenant, and remove the personal property of either. Landlord may relet the Premises, or any part of them, in Landlord's or Tenant's name for the account of Tenant, for such period of time and at such other terms and conditions as Landlord, in its discretion, may determine. Landlord may collect and receive the rents for the Premises. To the fullest extent permitted by law, the proceeds of any reletting shall be applied: first, to pay Landlord all Reletting Expenses (defined below); second, to pay any indebtedness of Tenant to Landlord other than rent; third, to the rent due and unpaid hereunder; and fourth, the residue, if any, shall be held by Landlord and applied in payment of other or future obligations of Tenant to Landlord as the same may become due and payable, and Tenant shall not be entitled to receive any portion of such revenue. Re-entry or taking possession of the Premises by Landlord under this Section shall not be construed as an election on Landlord's part to terminate this Lease, unless a notice of termination is given to Tenant. Landlord reserves the right following any re-entry or reletting, or both, under this Section to exercise its right to terminate the Lease. Tenant will pay Landlord the Rent and other sums which would be payable under this Lease if repossession had not occurred, less the net proceeds, if any, after reletting the Premises and after deducting Landlord's Reletting Expenses. "Reletting Expenses" is defined to include all expenses incurred by Landlord in connection with reletting the Premises, including without limitation, all repossession costs, brokerage commissions and costs for securing new tenants, attorneys' fees, remodeling and repair costs, costs for removing persons or property, costs for storing Tenant's property and equipment, and costs of tenant improvements and rent concessions granted by Landlord to any new Tenant, prorated over the life of the new lease.

- c. **Waiver of Redemption Rights.** Tenant, for itself, and on behalf of any and all persons claiming through or under Tenant, including creditors of all kinds, hereby waives and surrenders all rights and privileges which they may have under any present or future law, to redeem the Premises or to have a continuance of this Lease for the Lease term, or any extension thereof.
- d. **Nonpayment of Additional Rent.** All costs which Tenant is obligated to pay to Landlord pursuant to this Lease shall in the event of nonpayment be treated as if they were payments of Rent, and Landlord shall have the same rights it has with respect to nonpayment of Rent.
- e. **Failure to Remove Property.** If Tenant fails to remove any of its property from the Premises at Landlord's request following an uncured Event of Default, Landlord may, at its option, remove and store the property at Tenant's expense and risk. If Tenant does not pay the storage cost within five (5) days of Landlord's request, Landlord may, at its option, have any or all of such property sold at public or private sale (and Landlord may become a purchaser at such sale), in such manner as Landlord deems proper, without notice to Tenant. Landlord shall apply the proceeds of such sale: (i) to the expense of such sale, including reasonable attorneys' fees actually incurred; (ii) to the payment of the costs or charges for storing such property; (iii) to the payment of any other sums of money which may then be or thereafter become due Landlord from Tenant under any of the terms hereof; and (iv) the balance, if any, to Tenant. Nothing in this Section shall limit Landlord's right to sell Tenant's personal property as permitted by law or to foreclose Landlord's lien for unpaid rent.

22. MORTGAGE SUBORDINATION AND ATTORNMENT. This Lease shall automatically be subordinate to any mortgage or deed of trust created by Landlord which is now existing or hereafter placed upon the Premises including any advances, interest, modifications, renewals, replacements or extensions ("Landlord's Mortgage"). Tenant shall attorn to the holder of any Landlord's Mortgage or any party acquiring the Premises at any sale or other proceeding under any Landlord's Mortgage provided the acquiring party assumes the obligations of Landlord under this Lease. Tenant shall promptly and in no event later than fifteen (15) days after request execute, acknowledge and deliver documents which the holder of any Landlord's Mortgage may reasonably require as further evidence of this subordination and attornment. Notwithstanding the foregoing, Tenant's obligations under this Section to subordinate in the future are conditioned on the holder of each Landlord's Mortgage and each party acquiring the Premises at any sale or other proceeding under any such Landlord's Mortgage not disturbing Tenant's occupancy and other rights under this Lease, so long as no uncured Event of Default by Tenant exists.

23. NON-WAIVER. Landlord's waiver of any breach of any provision contained in this Lease shall not be deemed to be a waiver of the same provision for subsequent acts of Tenant. The acceptance by Landlord of Rent or other amounts due by Tenant hereunder shall not be deemed to be a waiver of any previous breach by Tenant.

24. HOLDOVER. If Tenant shall, without the written consent of Landlord, remain in possession of the Premises and fail to return them to Landlord after the expiration or termination of this Lease, the tenancy shall be a holdover tenancy and shall be on a month-to-month basis, which may be terminated according to Washington law. During such tenancy, Tenant agrees to pay to Landlord 150% of the rate of rental last payable under this Lease, unless a different rate is agreed upon by Landlord. All other terms of the Lease shall remain in effect. Tenant acknowledges and agrees that this Section does not grant any right to Tenant to holdover, and that Tenant may also be liable to Landlord for any and all damages or expenses which Landlord may have to incur as a result of Tenant's holdover.

25. NOTICES. All notices under this Lease shall be in writing and effective (i) when delivered in person or via overnight courier to the other party, (ii) three (3) days after being sent by registered or certified mail to the other party at the address set forth in Section 1; or (iii) upon confirmed transmission by facsimile to the other party at the facsimile numbers set forth in Section 1. The addresses for notices and payment of rent set forth in Section 1 may be modified by either party only by written notice delivered in conformance with this Section.

26. COSTS AND ATTORNEYS' FEES. If Tenant or Landlord engage the services of an attorney to collect monies due or to bring any action for any relief against the other, declaratory or otherwise, arising out of this Lease, including any suit by Landlord for the recovery of Rent or other payments, or possession of the Premises, the losing party shall pay the prevailing party a reasonable sum for attorneys' fees in such action, whether in mediation or arbitration, at trial, on appeal, or in any bankruptcy proceeding.

27. ESTOPPEL CERTIFICATES. Tenant shall, from time to time, upon written request of Landlord, execute, acknowledge and deliver to Landlord or its designee a written statement specifying the following, subject to any modifications necessary to make such statements true and complete: (i) the total rentable square footage of the Premises; (ii) the date the Lease term commenced and the date it expires; (iii) the amount of minimum monthly Rent and the date to which such Rent has been paid; (iv) that this Lease is in full force and effect and has not been assigned, modified, supplemented or amended in any way; (v) that this Lease represents the entire agreement between the parties; (vi) that all obligations under this Lease to be performed by either party have been satisfied; (vii) that there are no existing claims, defenses or offsets which the Tenant has against the enforcement of this Lease by Landlord; (viii) the amount of Rent, if any, that Tenant paid in advance; (ix) the amount of security that Tenant deposited with Landlord; (x) if Tenant has sublet all or a portion of the Premises or assigned its interest in the Lease and to whom; (xi) if Tenant has any option to extend the Lease or option to purchase the Premises; and (xii) such other factual matters concerning the Lease or the Premises as Landlord may reasonably request. Tenant acknowledges and agrees that any statement delivered pursuant to this Section may be relied upon by a prospective purchaser of Landlord's interest or assignee of any mortgage or new mortgagee of Landlord's interest in the Premises. If Tenant shall fail to respond within ten (10) days to Landlord's request for the statement required by this Section, Landlord may provide the statement and Tenant shall be deemed to have admitted the accuracy of the information provided by Landlord.

28. TRANSFER OF LANDLORD'S INTEREST. This Lease shall be assignable by Landlord without the consent of Tenant. In the event of any transfer or transfers of Landlord's interest in the Premises, other than a transfer for collateral purposes only, upon the assumption of this Lease by the transferee, Landlord shall be automatically relieved of obligations and liabilities accruing from and after the date of such transfer, including any liability for any retained security deposit or prepaid rent, for which the transferee shall be liable, and Tenant shall attorn to the transferee.

29. LANDLORD'S LIABILITY. Anything in this Lease to the contrary notwithstanding, covenants, undertakings and agreements herein made on the part of Landlord are made and intended not as personal covenants, undertakings and agreements for the purpose of binding Landlord personally or the assets of Landlord but are made and intended for the purpose of binding only the Landlord's interest in the Premises,

as the same may from time to time be encumbered. In no event shall Landlord or its partners, shareholders, or members, as the case may be, ever be personally liable hereunder.

30. RIGHT TO PERFORM. If Tenant shall fail to timely pay any sum or perform any other act on its part to be performed hereunder, Landlord may make any such payment or perform any such other act on Tenant's behalf. Tenant shall, within ten (10) days of demand, reimburse Landlord for its expenses incurred in making such payment or performance. Landlord shall (in addition to any other right or remedy of Landlord provided by law) have the same rights and remedies in the event of the nonpayment of sums due under this Section as in the case of default by Tenant in the payment of Rent.

31. HAZARDOUS MATERIAL. As used herein, the term "Hazardous Material" means any hazardous, dangerous, toxic or harmful substance, material or waste including biomedical waste which is or becomes regulated by any local governmental authority, the State of Washington or the United States Government, due to its potential harm to the health, safety or welfare of humans or the environment. Landlord represents and warrants to Tenant that, to Landlord's knowledge without duty of investigation, there is no Hazardous Material on, in, or under the Premises as of the Commencement Date except as may otherwise have been disclosed to Tenant in writing before the execution of this Lease. If there is any Hazardous Material on, in, or under the Premises as of the Commencement Date which has been or thereafter becomes unlawfully released through no fault of Tenant, then Landlord shall indemnify, defend and hold Tenant harmless from any and all claims, judgments, damages, penalties, fines, costs, liabilities or losses including without limitation sums paid in settlement of claims, attorneys' fees, consultant fees and expert fees, incurred or suffered by Tenant either during or after the Lease term as the result of such contamination.

Tenant shall not cause or permit any Hazardous Material to be brought upon, kept, or used in or about, or disposed of on the Premises or the Property by Tenant, its employees, officers, agents, servants, contractors, customers, clients, visitors, guests, or other licensees or invitees, except with Landlord's prior consent and then only upon strict compliance with all applicable federal, state and local laws, regulations, codes and ordinances. If Tenant breaches the obligations stated in the preceding sentence, then Tenant shall indemnify, defend and hold Landlord harmless from any and all claims, judgments, damages, penalties, fines, costs, liabilities or losses including, without limitation, diminution in the value of the Premises or the Property; damages for the loss or restriction on use of rentable or usable space or of any amenity of the Premises or the Property, or elsewhere; damages arising from any adverse impact on marketing of space at the Premises or the Property; and sums paid in settlement of claims, attorneys' fees, consultant fees and expert fees incurred or suffered by Landlord either during or after the Lease term. These indemnifications by Landlord and Tenant include, without limitation, costs incurred in connection with any investigation of site conditions or any clean-up, remedial, removal or restoration work, whether or not required by any federal, state or local governmental agency or political subdivision, because of Hazardous Material present in the Premises, or in soil or ground water on or under the Premises. Tenant shall immediately notify Landlord of any inquiry, investigation or notice that Tenant may receive from any third party regarding the actual or suspected presence of Hazardous Material on the Premises.

Without limiting the foregoing, if the presence of any Hazardous Material brought upon, kept or used in or about the Premises or the Property by Tenant, its employees, officers, agents, servants, contractors, customers, clients, visitors, guests, or other licensees or invitees, results in any unlawful release of any Hazardous Materials on the Premises or the Property, Tenant shall promptly take all actions, at its sole expense, as are necessary to return the Premises or the Property to the condition existing prior to the release of any such Hazardous Material; provided that Landlord's approval of such actions shall first be obtained, which approval may be withheld at Landlord's sole discretion. The provisions of this Section shall survive expiration or termination of this Lease.

32. QUIET ENJOYMENT. So long as Tenant pays the Rent and performs all of its obligations in this Lease, Tenant's possession of the Premises will not be disturbed by Landlord or anyone claiming by, through or under Landlord.

33. MERGER. The voluntary or other surrender of this Lease by Tenant, or a mutual cancellation thereof, shall not work a merger and shall, at the option of Landlord, terminate all or any existing subtenancies or may, at the option of Landlord, operate as an assignment to Landlord of any or all of such subtenancies.

34. GENERAL.

- a. **Heirs and Assigns.** This Lease shall apply to and be binding upon Landlord and Tenant and their respective heirs, executors, administrators, successors and assigns.
- b. **Brokers' Fees.** Tenant represents and warrants to Landlord that except for Tenant's Broker, if any, described and disclosed in Section 37 of this Lease, it has not engaged any broker, finder or other person who would be entitled to any commission or fees for the negotiation, execution or delivery of this Lease and shall indemnify and hold harmless Landlord against any loss, cost, liability or expense incurred by Landlord as a result of any claim asserted by any such broker, finder or other person on the basis of any arrangements or agreements made or alleged to have been made by or on behalf of Tenant. Landlord represents and warrants to Tenant that except for Landlord's Broker, if any, described and disclosed in Section 37 of this Lease, it has not engaged any broker, finder or other person who would be entitled to any commission or fees for the negotiation, execution or delivery of this Lease and shall indemnify and hold harmless Tenant against any loss, cost, liability or expense incurred by Tenant as a result of any claim asserted by any such broker, finder or other person on the basis of any arrangements or agreements made or alleged to have been made by or on behalf of Landlord.
- c. **Entire Agreement.** This Lease contains all of the covenants and agreements between Landlord and Tenant relating to the Premises. No prior or contemporaneous agreements or understandings pertaining to the Lease shall be valid or of any force or effect and the covenants and agreements of this Lease shall not be altered, modified or amended except in writing, signed by Landlord and Tenant.
- d. **Severability.** Any provision of this Lease which shall prove to be invalid, void or illegal shall in no way affect, impair or invalidate any other provision of this Lease.
- e. **Force Majeure.** Time periods for either party's performance under any provisions of this Lease (excluding payment of Rent) shall be extended for periods of time during which the party's performance is prevented due to circumstances beyond such party's control, including without limitation, fires, floods, earthquakes, lockouts, strikes, embargoes, governmental regulations, acts of God, public enemy, war or other strife.
- f. **Governing Law.** This Lease shall be governed by and construed in accordance with the laws of the State of Washington.
- g. **Memorandum of Lease.** Neither this Lease nor any memorandum or "short form" thereof shall be recorded without Landlord's prior consent.
- h. **Submission of Lease Form Not an Offer.** One party's submission of this Lease to the other for review shall not constitute an offer to lease the Premises. This Lease shall not become effective and binding upon Landlord and Tenant until it has been fully signed by both of them.
- i. **No Light, Air or View Easement.** Tenant has not been granted an easement or other right for light, air or view to or from the Premises. Any diminution or shutting off of light, air or view by any structure which may be erected on or adjacent to the Building shall in no way effect this Lease or the obligations of Tenant hereunder or impose any liability on Landlord.
- j. **Authority of Parties.** Each party signing this Lease represents and warrants to the other that it has the authority to enter into this Lease, that the execution and delivery of this Lease has been duly authorized, and that upon such execution and delivery, this Lease shall be binding upon and enforceable against the party on signing.

- k. **Time.** "Day" as used herein means a calendar day and "business day" means any day on which commercial banks are generally open for business in the state where the Premises are situated. Any period of time which would otherwise end on a non-business day shall be extended to the next following business day. Time is of the essence of this Lease.

35. EXHIBITS AND RIDERS. The following exhibits and riders are made a part of this Lease, and the terms thereof shall control over any inconsistent provision in the sections of this Lease:

Exhibit A Floor Plan/Outline of the Premises
Exhibit B Legal Description of the Property
Exhibit C Tenant Work Letter
Exhibit D Commencement Date Memorandum
Exhibit E Rules and Regulations

CHECK THE BOX FOR ANY OF THE FOLLOWING THAT WILL APPLY. CAPITALIZED TERMS USED IN THE RIDERS SHALL HAVE THE MEANING GIVEN TO THEM IN THE LEASE.

- Rent Rider
 Arbitration Rider
 Letter of Credit Rider
 Parking Rider
 Option to Extend Rider
 Guaranty of Tenant's Lease Obligations Rider

36. AGENCY DISCLOSURE. At the signing of this Lease, Landlord is represented by Derek Heed of Colliers International (the "Landlord's Broker"), and Tenant is represented by Jordan Siek of Kidder Mathews (the "Tenant's Broker").

This Agency Disclosure creates an agency relationship between Landlord, Landlord's Broker (if any such person is disclosed), and any managing brokers who supervise Landlord's Broker's performance (collectively the "Supervising Brokers"). In addition, this Agency Disclosure creates an agency relationship between Tenant, Tenant's Broker (if any such person is disclosed), and any managing brokers who supervise Tenant's Broker's performance (also collectively the "Supervising Brokers"). If Tenant's Broker and Landlord's Broker are different real estate licensees affiliated with the same Firm, then both Tenant and Landlord confirm their consent to that Firm and both Tenant's and Landlord's Supervising Brokers acting as dual agents. If Tenant's Broker and Landlord's Broker are the same real estate licensee who represents both parties, then both Landlord and Tenant acknowledge that the Broker, his or her Supervising Brokers, and his or her Firm are acting as dual agents and hereby consent to such dual agency. If Tenant's Broker, Landlord's Broker, their Supervising Brokers, or their Firm are dual agents, Landlord and Tenant consent to Tenant's Broker, Landlord's Broker and their Firm being compensated based on a percentage of the rent or as otherwise disclosed on the attached addendum. Neither Tenant's Broker, Landlord's Broker nor either of their Firms are receiving compensation from more than one party to this transaction unless otherwise disclosed on an attached addendum, in which case Landlord and Tenant consent to such compensation. Landlord and Tenant confirm receipt of the pamphlet entitled "The Law of Real Estate Agency."

37. COMMISSION AGREEMENT. If Landlord has not entered into a listing agreement (or other compensation agreement with Landlord's Broker), Landlord agrees to pay a commission to Landlord's Broker (as identified in the Agency Disclosure paragraph above) as follows:

- \$
 _____% of the gross rent payable pursuant to the Lease
 Other \$1.00/SF/Yr to Tenant's Broker; \$0.50/SF/Yr to Landlord's Broker less any free rent

Landlord's Broker shall shall not (shall not if not filled in) be entitled to a commission upon the extension by Tenant of the Lease term pursuant to any right reserved to Tenant under the Lease calculated as provided above or as follows _____ (if no box is checked,

as provided above). Landlord's Broker shall shall not (shall not if not filled in) be entitled to a commission upon any expansion of the Premises pursuant to any right reserved to Tenant under the Lease, calculated as provided above or as follows _____ (if no box is checked, as provided above).

Any commission shall be earned upon execution of this Lease, and paid one-half upon execution of the Lease and one-half upon occupancy of the Premises by Tenant. Landlord's Broker shall pay to Tenant's Broker (as identified in the Agency Disclosure paragraph above) the amount stated in a separate agreement between them or, if there is no agreement, **\$0.00** or _____% (complete only one) of any commission paid to Landlord's Broker, within five (5) days after receipt by Landlord's Broker.

If any other lease or sale is entered into between Landlord and Tenant pursuant to a right reserved to Tenant under the Lease, Landlord shall shall not (shall not if not filled in) pay an additional commission according to any commission agreement or, in the absence of one, according to the commission schedule of Landlord's Broker in effect as of the execution of this Lease. Landlord's successor shall be obligated to pay any unpaid commissions upon any transfer of this Lease and any such transfer shall not release the transferor from liability to pay such commissions.

38. BROKER PROVISIONS.

LANDLORD'S BROKER, TENANT'S BROKER AND THEIR FIRMS HAVE MADE NO REPRESENTATIONS OR WARRANTIES CONCERNING THE PREMISES; THE MEANING OF THE TERMS AND CONDITIONS OF THIS LEASE; LANDLORD'S OR TENANT'S FINANCIAL STANDING; ZONING OR COMPLIANCE OF THE PREMISES WITH APPLICABLE LAWS; SERVICE OR CAPACITY OF UTILITIES; OPERATING COSTS; OR HAZARDOUS MATERIALS. LANDLORD AND TENANT ARE EACH ADVISED TO SEEK INDEPENDENT LEGAL ADVICE ON THESE AND OTHER MATTERS ARISING UNDER THIS LEASE.

IN WITNESS WHEREOF, this Lease has been executed the date and year first above written.

GJR REIH II, LLC,
a Washington Limited Liability Company
Washington

Eden Home Health of King County, LLC, a
Limited Liability Company by its Manager,
EmpRes Healthcare Management, LLC

LANDLORD


LANDLORD (Signature)

TENANT


TENANT (Signature)

Gary Rubens
BY
Manager
ITS

Brent Weil
BY
CEO
ITS

State of Washington)
County of King) ss.

On this 22nd day of January, 2019 before me personally appeared before me Gary Rubens, to me known to be the Manager of GJR REIH II, the L.L.C. that executed the within and foregoing instrument and acknowledged that he signed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned an on oath stating that he is authorized to execute said instrument.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed by official seal the day and year first written above.

Kendra Mills
(Signature of Notary)

Kendra Mills
(Legibly Print or Stamp Name of Notary)

Notary public in and for the state of Washington
Residing at Issaquah
My appointment expires 10-2-19



State of Utah)
County of King) ss.

On this 17 day of January, 2019 before me personally appeared before me Brent Weil, to me known to be the CEO of EmpRes Healthcare Management, LLC, a Washington Limited Liability Company Manager of Eden Home Health of King County, LLC, a Washington Limited Liability Company that executed the within and foregoing instrument and acknowledged that he signed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned an on oath stating that he is authorized to execute said instrument.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed by official seal the day and year first written above.

Brooke Nicole Barraza
(Signature of Notary)

Brooke Nicole Barraza
(Legibly Print or Stamp Name of Notary)

Notary public in and for the state of Utah
Residing at Utah
My appointment expires 10/19/21

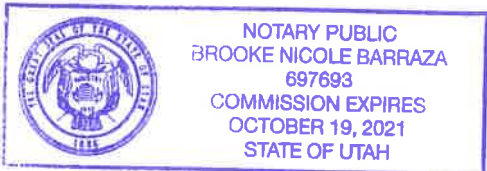


EXHIBIT A
[Floor Plan/Outline of the Premises]

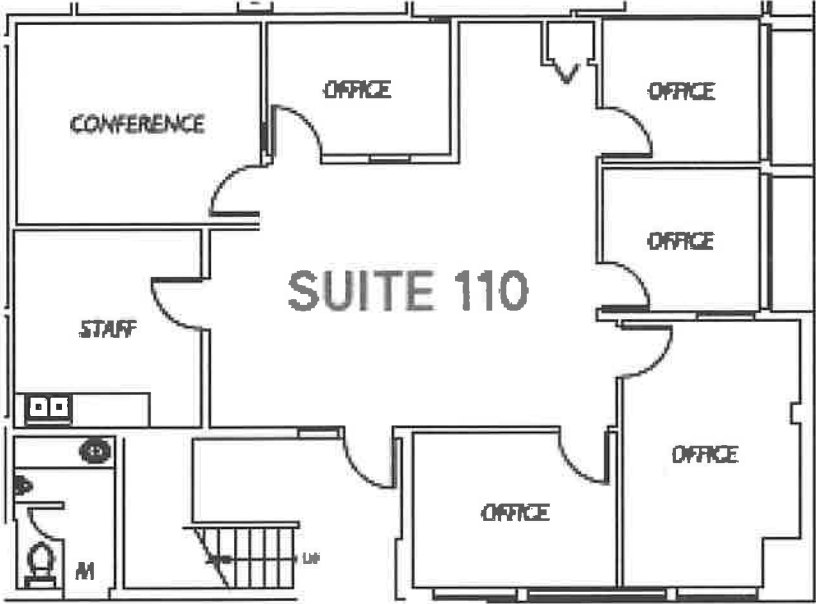


EXHIBIT B
[Legal Description of the Property]

LEGAL DESCRIPTION

PARKADE PLAZA, KIRKLAND, WASHINGTON

PARCEL A:

Lots 8 through 15 inclusive. Block 225. Supplementary Plat to Kirkland, according to the plat thereof recorded in Volume 8 of Plats, Page 5, records of King County, Washington.

PARCEL B:

Lots 1 and 2. Block 186, Town of Kirkland, according to the plat thereof recorded in Volume 6 of Plats, Page 53, records of King County, Washington.

Together with that portion of Lot 3 and Lot 21, Block 186, of said plat described as follows:

Beginning at the northeasterly corner of said Lot 3;
thence westerly along the northerly line of said Lot 3, a distance of 24.00 feet;
thence south parallel to the easterly line of said Lot 3 a distance of 124.75 feet to the northerly margin of Central Way as conveyed 80 feet in width;
thence northeasterly along said northerly margin to the southeasterly corner of said Lot 3;
thence north along the easterly line of said Lot 3 to the true point of beginning;

(Being known as Lots A and B of City of Kirkland Short Plat No. 78-6-22, recorded under Recording No. 7806270925, records of King County, Washington).

Both situate in the County of King, State of Washington.

EXHIBIT C
[Tenant Work Letter]

Landlord will provide the following initial tenant improvements, at Landlord's sole cost (i) new paint (Tenant to select color); (ii) repair and patch wall prior to painting; (iii) professionally clean carpet and kitchen; and (iv) replace ceiling tiles. Tenant accepts the Premises in its current, "as is" condition, subject to Landlord's construction of the initial tenant improvements. It shall be Tenant's obligation to determine whether the Premises comply with the applicable governmental regulations with regard to Tenant's intended use. Tenant acknowledges that (i) neither Landlord nor any of its employees or agents has made any representations regarding the Premises or the suitability of the Premises for any particular use or the condition thereof; and (ii) except for the Improvements, Landlord has no obligation to perform any work, supply any materials, incur any expense, or make any alterations or improvements to prepare the Premises for Tenant's occupancy.

EXHIBIT D

[Commencement Date Memorandum Form]

This Letter is an amendment to the Lease for space in Parkade Plaza in Kirkland, Washington, executed on the ____ day of _____, 20__ between GJR REIH II, LLC, a Washington Limited Liability Company, as Landlord, and EmpRes Healthcare Management, LLC, a Washington Limited Liability Company, dba Eden Home Health of King County, LLC, a Washington Limited Liability Company, as Tenant.

Landlord and Tenant agree that:

1. The Premises consists of 1,576 square feet of net rentable area.
2. Except for those items shown on the attached "punch list", if any, which Landlord will remedy within ____ days hereof, Landlord has fully completed the construction work required under the terms of the Lease.
3. The Premises are tenantable, the Landlord has no further obligation for construction (except as specified above), and Tenant acknowledges that both the Building and the Premises are satisfactory in all respects.
4. The Commencement Date of the Lease is agreed to be the ____ day of _____, 20__.
5. The Expiration Date of the Lease is agreed to be the ____ day of _____, 20__.

All other terms and conditions of the Lease are ratified and acknowledged to be unchanged.

Agreed and executed this ____ day of _____, 20__.

ACKNOWLEDGED AND AGREED:

**LANDLORD: GJR REIH II, LLC,
a Washington Limited Liability Company
Washington**

By _____

Name _____

Its _____

Dated: _____

ACKNOWLEDGED AND AGREED:

**TENANT:
Eden Home Health of King County, LLC, a
Limited Liability Company, by its Manager
EmpRes Healthcare Management, LLC**

By  _____

Name Brent Weil

Its CEO

Dated: 1/17/2019

EXHIBIT E
[Rules and Regulations]

1. No sign, placard, picture, advertisement, name or notice shall be installed or displayed on any part of the outside or inside of the Building or Land without the prior written consent of the Landlord. Landlord shall have the right to remove, at Tenant's expense and without notice, any sign installed or displayed in violation of this rule. All approved signs or lettering on doors and walls shall be printed, painted, affixed or inscribed at the expense of Tenant by a person with the appropriate experience performing such work.

2. If Landlord objects in writing to any curtains, blinds, shades, screens or hanging plants or other similar objects attached to or used in connection with any window or door of the Premises, Tenant shall immediately discontinue such use. No awning shall be permitted on any part of the Premises. Tenant shall not place anything against or near glass partitions or doors or windows which may appear unsightly from outside the Premises.

3. Tenant shall not obstruct any sidewalk, halls, passages, exits, entrances, elevators, escalators, or stairways of the Building. The halls, passages, exits, entrances, elevators, escalators and stairways are not open to the general public. Landlord shall in all cases retain the right to control and prevent access to such areas of all persons whose presence in the judgment of Landlord would be prejudicial to the safety, character, reputation and interest of the Land, Building and the Building's tenants; provided that, nothing in this Lease contained shall be construed to prevent such access to persons with whom any Tenant normally deals in the ordinary course of its business, unless such persons are engaged in illegal activities. Tenant shall not go upon the roof of the Building.

4. The directory of the Building will be provided exclusively for the display of the name and location of tenants only, and Landlord reserves the right to exclude any other names there from.

5. Landlord will furnish Tenant, free of charge, two (2) keys to each door lock in the Premises. Landlord may make a reasonable charge for any additional keys. Tenant shall not make or have made additional keys, and Tenant shall not alter any lock or install a new additional lock or bolt on any door of its Premises. Tenant, upon the termination of its tenancy, shall deliver to Landlord the keys of all doors which have been furnished to Tenant, and in the event of loss of any keys so furnished, shall pay Landlord therefor.

6. HVAC service shall be provided to the Premises Monday through Friday from 7:00 a.m. to 6:00 p.m. After-hours HVAC usage will be charged to Tenant.

7. If Tenant requires Telecommunication Services, computer circuits, burglar alarm or similar services or other utility services, it shall first obtain Landlord's approval of the construction or installation of such services. Application for such services shall be made in accordance with the procedure prescribed by Landlord in the Lease.

8. Tenant shall not place a load upon any floor of the Premises which exceeds the load per square foot which such floor was designed to carry and which is allowed by Government Requirements. Landlord shall have the right to, within reason, prescribe the weight, size and position of all equipment, materials, furniture or other property brought into the Building. Heavy objects shall, if considered necessary by Landlord, stand on such platforms as determined by Landlord to be necessary to properly distribute the weight. Business machines and mechanical equipment belonging to Tenant, which cause noise or vibration that may be transmitted to the structure of the Building or to any space in the Building or to any other tenant in the Building, shall be placed and maintained by Tenant, at Tenant's expense, on vibration eliminators or other devices sufficient to eliminate noise or vibration. The persons employed to move such equipment in or out of the Building must be acceptable to Landlord. Landlord will not be responsible for loss of, or damage to, any such equipment or other property from any cause, and all damage done to the Building by maintaining or moving such equipment or other property shall be repaired at the expense of Tenant.

9. Tenant shall not use or keep in the Premises any kerosene, gasoline or inflammable or combustible fluid or material other than those limited quantities permitted by the Lease. Tenant shall not use or permit to be used in the Premises any foul or noxious gas or substance, or permit or allow the Premises to be occupied or used in a manner offensive or objectionable to Landlord or other occupants of the Building by reason of noise, odors or vibrations nor shall Tenant bring into or keep in or about the Premises any birds or animals.

10. Tenant shall not use any method of heating or air conditioning other than that supplied by Landlord.

11. Tenant shall not waste any utility provided by Landlord and agrees to cooperate fully with Landlord to assure the most effective operation of the Building's heating and air conditioning and to comply with any governmental energy-saving rules, laws or regulations of which Tenant has actual notice.

12. Landlord reserves the right, exercisable without notice and without liability to Tenant, to change the name and street address of the Building.

13. Landlord reserves the right to exclude from the Building between the hours of 6 p.m. and 7 a.m. the following day, or such other hours as may be established from time to time by Landlord, and on Sundays and legal holidays, any person other than Tenant's employees. Tenant shall be responsible for all persons for whom it requests passes and shall be liable to Landlord for all acts of such persons. Landlord shall not be liable for damages for any error with regard to the admission to or exclusion from the Building of any person. Landlord reserves the right to prevent access to the Building in case of invasion, mob, riot, public excitement or other commotion by closing the doors or by other appropriate action.

14. Tenant shall close and lock the doors of its Premises and entirely shut off all water faucets or other water apparatus, and electricity, gas or air outlets before Tenant and its employees leave the Premises. Tenant shall be responsible for any damage or injuries sustained by other tenants or occupants of the Building or by Landlord for noncompliance with this rule.

15. The toilet rooms, toilets, urinals, wash bowls and other apparatus shall not be used for any purpose other than that for which they were constructed. The expenses of any breakage, stoppage or damage resulting from the violation of this rule shall be borne by Tenant if it or its employees or invitees shall have caused it.

16. Tenant shall not sell, or permit the sale at retail, of newspapers, magazines, periodicals, theater tickets or any other goods or merchandise to the general public in or on the Premises other than the products that the Tenant markets. Tenant shall not make any room-to-room solicitation of business from other tenants in the Building. Tenant shall not use the Premises for any business or activity other than that specifically provided for in the Lease.

17. Tenant shall not install any radio or television antenna, loudspeaker or other device on the roof or exterior walls of the Building. Tenant shall not interfere with radio or television broadcasting or reception from or in the Building or elsewhere. Other than the usual and customary cellular telephones, Tenant shall not install or utilize any wireless Telecommunication Facilities, including antenna and satellite receiver dishes within the Premises or on, in, or about the Building without first obtaining Landlord's prior written consent and Landlord at its option may require the entry of a supplemental agreement with respect to such construction or installation. Tenant shall comply with all instructions for installation and shall pay or shall cause to be paid the entire cost of such installations. Application for such facilities shall be made in the same manner and shall be subject to the same requirements as specified for Telecommunication Services and Telecommunication Facilities in the paragraph of the Lease entitled "Utilities". Supplemental rules and regulations may be promulgated by Landlord specifying the form of and information to be included with the application and establishing procedures, regulations, and controls with respect to the installation and use of such wireless Telecommunication Facilities.

18. Tenant shall not mark, drive nails, screws or drill into the partitions, woodwork or plaster or in any way deface the Premises unless hanging customary fixtures such as pictures, signs and other commercially reasonable items. Landlord reserves the right to direct electricians as to where and how telephone and telegraph wires are to be introduced to the Premises. Tenant shall not cut or bore holes for wires. Tenant shall not affix any floor covering to the floor of the Premises in any manner except as approved by Landlord. Tenant shall repair any damage resulting from noncompliance with this rule.

19. Tenant shall not install, maintain or operate upon the Premises any vending machine without the written consent of Landlord.

20. Canvassing, soliciting and distribution of handbills or any other written material, and peddling in the Building or Land are prohibited, and Tenant shall cooperate to prevent the same.

21. Landlord reserves the right to exclude or expel from the Building and Land any person who, in Landlord's judgment, is intoxicated, under the influence of liquor or drugs or in violation of any of these Rules and Regulations.

22. Tenant shall store all of its trash and garbage within the Premises. Tenant shall not place in any trash box or receptacle any material which cannot be disposed of in the ordinary and customary manner of trash and garbage disposal. All garbage and refuse disposal shall be made in accordance with directions issued from time to time by Landlord.

23. The Premises shall not be used for lodging or any improper or immoral or objectionable purpose. No cooking shall be done or permitted by Tenant, except that use by Tenant of Underwriters' Laboratory approved equipment for brewing coffee, tea, hot chocolate and similar beverages shall be permitted and the use of a microwave oven; provided that, such equipment and its use is in accordance with all Governmental Requirements.

24. Tenant shall not use in the Premises or in the public halls of the Building any hand truck except those equipped with rubber tires and side guards or such other material-handling equipment as Landlord may approve. Tenant shall not bring any other vehicles of any kind into the Building.

25. Without the prior written consent of Landlord, Tenant shall not use the name of the Building in connection with or in promoting or advertising the business of Tenant except as Tenant's address.

26. Tenant shall comply with all safety, fire protection and evacuation procedures and regulations established by Landlord or any governmental agency.

27. Tenant assumes any and all responsibility for protecting the Premises from theft, robbery and pilferage, which includes keeping doors locked and other means of entry to the Premises closed.

28. The requirements of Tenant will be attended to only upon appropriate application to the Manager of the Building by an authorized individual. Employees of Landlord are not required to perform any work or do anything outside of their regular duties unless under special instructions from Landlord, and no employee of Landlord is required to admit Tenant to any space other than the Premises without specific instructions from Landlord.

29. Tenant shall not park its vehicles in any parking areas designated by Landlord as areas for parking by visitors to the Building or Land. Tenant shall not leave vehicles in the parking areas overnight nor park any vehicles in the Building parking areas other than automobiles, motorcycles, motor driven or non-motor driven bicycles or four-wheeled trucks.

30. Landlord may waive any one or more of these Rules and Regulations for the benefit of Tenant or any other tenant, but no such waiver by Landlord shall be construed as a waiver of such Rules

and Regulations in favor of any other person, nor prevent Landlord from thereafter revoking such waiver and enforcing any such Rules and Regulations against any or all of the tenants of the Building.

31. These Rules and Regulations are in addition to, and shall not be construed to in any way modify or amend, in whole or in part, the covenants and conditions of any lease of premises in the Building. If any provision of these Rules and Regulations conflicts with any provision of the Lease, the terms of the Lease shall prevail.

32. Landlord reserves the right to make such other and reasonable Rules and Regulations as, in its judgment, may from time to time be needed for safety and security, the care and cleanliness of the Building and Land, the preservation of good order in the Building and the maintenance or enhancement of the value of the Building as a rental property. Tenant agrees to abide by all the Rules and Regulations stated in this exhibit and any additional rules and regulations which are so made by Landlord.

33. Tenant shall be responsible for the observance of all of the foregoing rules by Tenant and Tenant's Agents.

RENT RIDER

This Rent Rider ("Rider") is made part of the Lease Agreement dated December 26, 2018 (the "Lease"), between GJR REIH II, LLC, a Washington Limited Liability Company ("Landlord"), and EmpRes Healthcare Management, LLC, a Washington Limited Liability Company, dba Eden Home Health of King County, LLC, a Washington Limited Liability Company ("Tenant") concerning the space commonly known as 733 7th Avenue, Suite 110, Kirkland, WA 98033 (the "Premises"), located at the property commonly known as Parkade Plaza (the "Property").

1. BASE MONTHLY RENT SCHEDULE. Tenant shall pay Landlord base monthly rent during the Lease Term according to the following schedule:

Lease Term	Base Monthly Rent Amount
<u>February 1, 2019– February 28, 2019</u>	<u>\$0.00 per month</u>
<u>March 1, 2019 – January 31, 2020</u>	<u>\$4,005.67 per month</u>
<u>February 1 2020 – January 31, 2021</u>	<u>\$4,137.00 per month</u>
<u>February 1, 2021 – January 31, 2022</u>	<u>\$4,268.33 per month</u>
<u>February 1, 2022 – February 28, 2022</u>	<u>\$4,399.67 per month</u>

PARKING RIDER

This Parking Rider (the "Rider") is made part of the Lease Agreement dated December 26, 2018 (the "Lease"), between GJR REIH II, LLC, a Washington Limited Liability Company ("Landlord"), and EmpRes Healthcare Management, LLC, a Washington Limited Liability Company, dba Eden Home Health of King County, LLC, a Washington Limited Liability Company ("Tenant") concerning the space commonly known as 733 7th Avenue, Suite 110, Kirkland, WA 98033 (the "Premises"), located at the property commonly known as Parkade Plaza (the "Property").

1. Tenant's Parking Rights. Tenant's right to park on the Property shall be as follows (check one):

- Tenant shall be entitled to use parking stalls on the Property or other designated parking area on a (check one) reserved unreserved (unreserved, if neither box checked) basis at the prevailing monthly rate established by Landlord from time to time. Tenant shall comply with the reasonable rules and regulations which Landlord or its parking operator may adopt from time to time for the safe and orderly operation of the parking areas.
- Free Parking.** Tenant shall be entitled to share parking with Landlord's other tenants in the designated parking areas at no charge at a ratio of 2.8 parking stalls for every 1,000 square feet leased. Tenant shall be responsible for ensuring compliance with the terms of the Lease, this Rider, and any reasonable rules and regulations adopted by Landlord from time to time for the safe and orderly sharing of parking.
- No Parking.** The Lease does not include parking on the Property, and Tenant shall park off the Property at Tenant's own expense.

2. Tenant. For purpose of this Rider only, the term "Tenant" shall include Tenant and Tenant's employees, officers, contractors, licensees, agents, and invitees, except as follows:

OPTION TO EXTEND RIDER

This Option to Extend Rider (the "Rider") is made part of the Lease Agreement dated December 10, 2018 (the "Lease"), between GJR REIH II, LLC, a Washington Limited Liability Company ("Landlord"), and EmpRes Healthcare Management, LLC, a Washington Limited Liability Company, dba Eden Home Health of King County, LLC, a Washington Limited Liability Company ("Tenant") concerning the space commonly known as 733 7th Avenue, Suite 110, Kirkland, WA 98033 (the "Premises"), located at the property commonly known as Parkade Plaza (the "Property").

1. **Extension of Lease.** Provided Tenant is not in default of any provision of the Lease at the time that Tenant exercises the right to extend the Lease or at the time the new term begins, Tenant shall have one (1) (zero if not completed) successive option to extend the term of the Lease for three (3) years. The term of the Lease shall be extended on the same terms, conditions and covenants set forth in the Lease, except that (i) the amount of the Base Rent stated in the Lease shall be adjusted as set forth below (provided, however, that Base Rent shall not be decreased); (ii) there shall be no free or abated rent periods, tenant improvement allowances or other concessions that may have been granted to Tenant at the beginning of the initial term hereof; and (iii) after exercise of Tenant's final extension term option, there shall be no further extension or renewal term options.
2. **Notice.** To extend the Lease, Tenant must deliver written notice to Landlord not less than one hundred eighty (180) days prior to the expiration of the then-current Lease term. Time is of the essence of this Rider.
3. **Monthly Rent.** Landlord and Tenant shall make a good faith effort to determine and agree on the fair market value of rent for the Premises for the next term of the Lease.
 - a. **Failure to Agree on Rent.** If Landlord and Tenant are unable to agree on the fair market rental value for the Premises within thirty (30) days after Tenant gives notice to extend, they shall then have ten (10) days to select or, appoint one real estate appraiser to determine the fair market value of rent for the Premises. All appraisers selected or appointed pursuant to this Rider shall be a Member of the American Institute of Real Estate Appraisers ("M.A.I.") with at least ten (10) years' experience appraising commercial properties in the commercial leasing market in which the Premises are located, or equivalent. The appraiser appointed shall determine the fair market rental value for the Premises within twenty (20) days of appointment, which determination shall be final, conclusive, and binding upon both Landlord and Tenant, and Base Rent shall be adjusted accordingly for the new term. The appraiser's fees and expenses shall be shared equally between the parties.
 - b. **Failure to Appoint One Appraiser.** If Landlord and Tenant cannot mutually agree upon an appraiser, then either party may give the other party written notice that it has selected and appointed an M.A.I. appraiser, complete with the name, address, and other identifying information about the appraiser. The party receiving such notice shall then have ten (10) days to select and appoint its own M.A.I. appraiser and respond by giving written notice to the other party, complete with the name, address, and other identifying information about the appraiser. If, however, the responding party fails to select and appoint an appraiser and give notice to the other party within ten (10) days, the determination of the appraiser first appointed shall be final, conclusive and binding upon both parties, and the Base Rent shall be adjusted accordingly for the new term. The appraiser's fees and expenses shall be shared equally between the parties.
 - c. **Method of Determining Rent.** The appraisers appointed shall proceed to determine fair market rental value within twenty (20) days following their appointment. The conclusion shall be final, conclusive and binding upon both Landlord and Tenant. If the appraisers should fail to agree, but the difference in their conclusions as to fair market rental value is ten percent (10%) or less of the lower of the two

appraisals, then the fair market rental value shall be deemed to be the average of the two, and Base Rent shall be adjusted accordingly for the new term. If the two appraisers should fail to agree on the fair market rental value, and the difference between the two appraisals exceeds ten percent (10%) of the lower of the two appraisals, then the two appraisers shall appoint a third M.A.I.-qualified appraiser. If they fail to agree on a third appraiser within ten (10) days after their individual determination of the fair market rental value, either party may apply to the courts for the county in which the Premises are located, requesting the appointment of a the third M.A.I.-qualified appraiser. The third appraiser shall promptly determine the fair market rental value of the Premises. The parties shall then take the average of the two appraisals that are closest in value, which shall then constitute the fair market value; shall be final, conclusive and binding upon both parties; and Base Rent shall be adjusted accordingly for the new term. Each party shall pay the fees and expenses for its own appraiser. In the event a third appraiser must be appointed, his or her fees and expenses shall be borne equally by the parties.

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 7
2018 NHPCO FACTS FIGURES**



NHPCO Facts and Figures

2018 EDITION *(REVISION 7-2-2019)*



APPENDIX 7
NHPCO 2018 FACTS & FIGURES



Table of Contents

Please see the Data Sources Section at the end of this report for details on the data sources used within this publication.

Section 1: Introduction

- About this report
- What is hospice care?
- How is hospice care delivered?
- What services are provided?
- Location of Care
- Levels of Care
- Volunteer Services
- Bereavement Services

Section 2: Who Receives Hospice Care

- How many Medicare beneficiaries received care?
- What proportion of Medicare decedents were served by hospice?
- What % of hospice patients were enrolled in Medicare Advantage?
- What are the characteristics of Medicare beneficiaries who received hospice care?
 - Gender
 - Age
 - Race
 - Principal Diagnosis

Section 3: How Much Care was Received

- Length of Service
- Days of Care
- Deaths
- Discharges
- Level of Care
- Location of Care

Section 4: How Does Medicare Pay for Hospice

- Spending per Patient
- Spending by Days of Care
- Spending by Diagnosis
- Spending by Level of Care

Section 5: Who Provides Care

- How many hospices were in operation in 2017
- Provider Size
- Tax Status
- Patient Volume
- Admissions
- Deaths

Reference: Data Sources



Introduction

About this Report

NHPCO Facts and Figures: Hospice Care in America provides an annual overview of hospice care delivery. This overview provides specific information on:

- Hospice patient characteristics
- Location and level of care
- Medicare hospice spending
- Hospice provider characteristics
- Volunteer and bereavement services

Currently, most hospice patients have their costs covered by Medicare, through the Medicare Hospice Benefit. The findings in this report reflect only those patients who received care through 2017, provided by the Medicare Hospice Benefit by the hospices certified by the Centers for Medicare and Medicaid Services (CMS) to care for them.

What is hospice care?

Considered the model for quality compassionate care for people facing a life-limiting illness, hospice provides expert medical care, pain management, and emotional and spiritual support expressly tailored to the patient's needs and wishes. Support is provided to the patient's family as well.

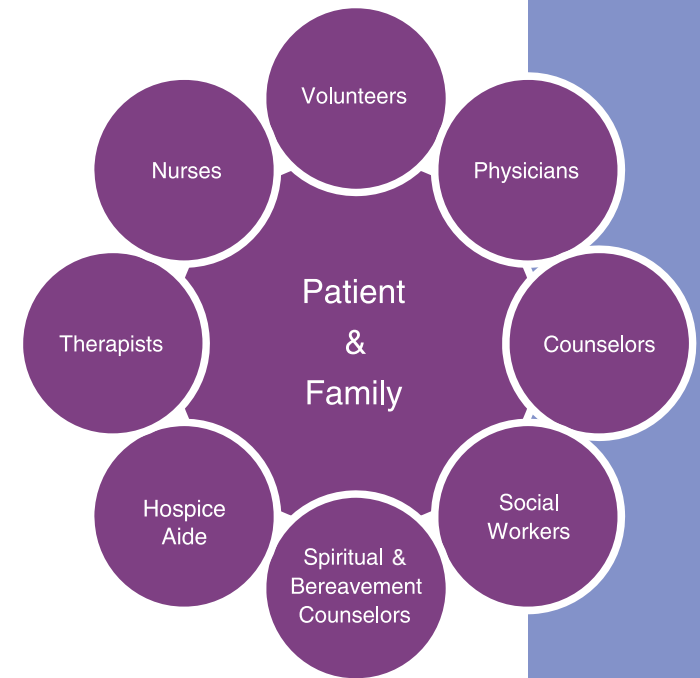
Hospice focuses on caring, not curing. In most cases, care is provided in the patient's home but may also be provided in freestanding hospice facilities, hospitals, and nursing homes and other long-term care facilities. Hospice services are available to patients with any terminal illness or of any age, religion, or race.

Introduction (continued)

How is hospice care delivered?

Typically, a family member serves as the primary caregiver and, when appropriate, helps make decisions for the terminally ill individual. Members of the hospice staff make regular visits to assess the patient and provide additional care or other services. Hospice staff is on-call 24 hours a day, seven days a week.

The hospice team develops a care plan that meets each patient's individual needs for pain management and symptom control. This interdisciplinary team, as illustrated in Figure 1, usually consists of the patient's personal physician, hospice physician or medical director, nurses, hospice aides, social workers, bereavement counselors, clergy or other spiritual counselors, trained volunteers, and speech, physical, and occupational therapists, if needed.



What services are provided?

The interdisciplinary hospice team:

- Manages the patient's pain and other symptoms;
- Assists the patient and family members with the emotional, psychosocial, and spiritual aspects of dying;
- Provides medications and medical equipment;
- Instructs the family on how to care for the patient;
- Provides grief support and counseling;
- Makes short-term inpatient care available when pain or symptoms become too difficult to manage at home, or the caregiver needs respite time;
- Delivers special services like speech and physical therapy when needed;
- Provides grief support and counseling to surviving family and friends.

Location of Care

The majority of hospice care is provided in the place the patient calls home. In addition to private residences, this includes nursing homes and residential facilities. Hospice care may also be provided in freestanding hospice facilities and hospitals (see Levels of Care).



Introduction (continued)

Levels of Care

Hospice patients may require differing intensities of care during the course of their disease. While hospice patients may be admitted at any level of care, changes in their status may require a change in their level of care.

The Medicare Hospice Benefit affords patients four levels of care to meet their clinical needs: Routine Home Care, General Inpatient Care, Continuous Home Care, and Inpatient Respite Care. Payment for each covers all aspects of the patient's care related to the terminal illness, including all services delivered by the interdisciplinary team, medication, medical equipment and supplies.

- **Routine Hospice Care (RHC)** is the most common level of hospice care. With this type of care, an individual has elected to receive hospice care at their residence.
- **Continuous Home Care (CHC)** is care provided for between 8 and 24 hours a day to manage pain and other acute medical symptoms. CHC services must be predominately nursing care, supplemented with caregiver and hospice aide services and are intended to maintain the terminally ill patient at home during a pain or symptom crisis.
- **Inpatient Respite Care (IRC)** is available to provide temporary relief to the patient's primary caregiver. Respite care can be provided in a hospital, hospice facility, or a long-term care facility that has sufficient 24 hour nursing personnel present.
- **General Inpatient Care (GIP)** is provided for pain control or other acute symptom management that cannot feasibly be provided in any other setting. GIP begins when other efforts to manage symptoms are not sufficient. GIP can be provided in a Medicare certified hospital, hospice inpatient facility, or nursing facility that has a registered nursing available 24 hours a day to provide direct patient care.



Introduction (continued)

Volunteer Services

The U.S. hospice movement was founded by volunteers and continues to play an important and valuable role in hospice care and operations. Moreover, hospice is unique in that it is the only provider with Medicare Conditions of Participation (CoPs) requiring volunteers to provide at least 5% of total patient care hours.

Hospice volunteers provide service in three general areas:

- Spending time with patients and families (“direct support”)
- Providing clerical and other services that support patient care and clinical services (“clinical support”)
- Engaging in a variety of activities such as fundraising, outreach and education, and serving on a board of directors (general support).

Bereavement Services

Counseling or grief support for the patient and loved ones is an essential part of hospice care. After the patient’s death, bereavement support is offered to families for at least one year. These services can take a variety of forms, including telephone calls, visits, written materials about grieving, and support groups. Individual counseling may be offered by the hospice or the hospice may make a referral to a community resource.

Some hospices also provide bereavement services to the community at large.

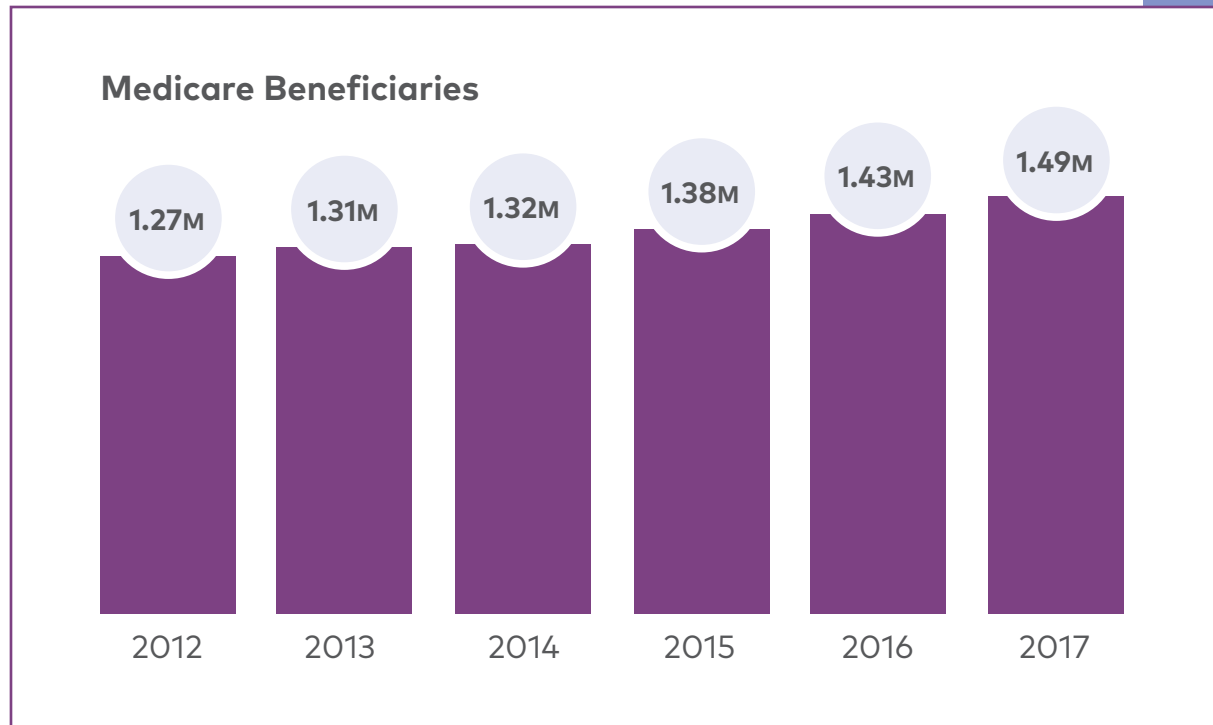
Who Receives Hospice Care

How many Medicare beneficiaries received hospice care in 2017?

1.49 million Medicare beneficiaries, a 4.5% increase from prior year, were enrolled in hospice care for one day or more in 2017*. This includes patients who:

- Died while enrolled in hospice
- Were enrolled in hospice in 2016 and continued to receive care in 2017
- Left hospice care alive during 2017 (live discharges)

*includes all states, Washington, D.C., U.S. territories, and Other.

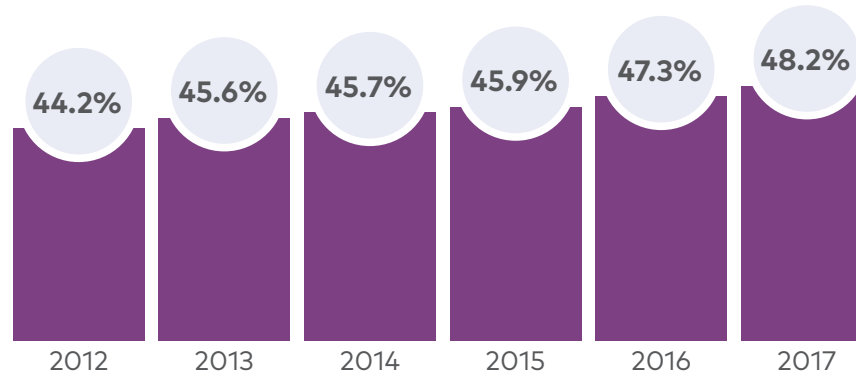


Who Receives Hospice Care (continued)

What proportion of Medicare decedents were served by hospice in 2017?

Of all Medicare decedents in 2017, 48.2% received one day or more of hospice care and were enrolled in hospice at the time of death.

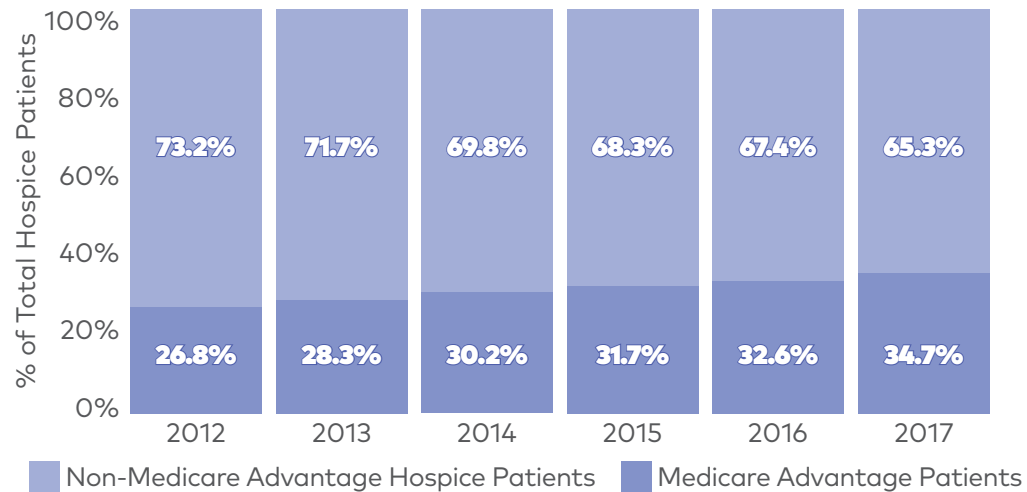
Medicare Decedents Receiving 1 or more Days of Hospice Care



What % of Hospice Patients Enrolled in Medicare Advantage within the Year?

The number of individuals who enrolled in a Medicare Advantage plan within the same year that they utilized the hospice benefit rose from 26.8% of Medicare hospice patients in 2012 to 34.7% in 2017. The increase in hospice beneficiaries with MA enrollment is consistent with the overall increase in MA enrollment over this period.

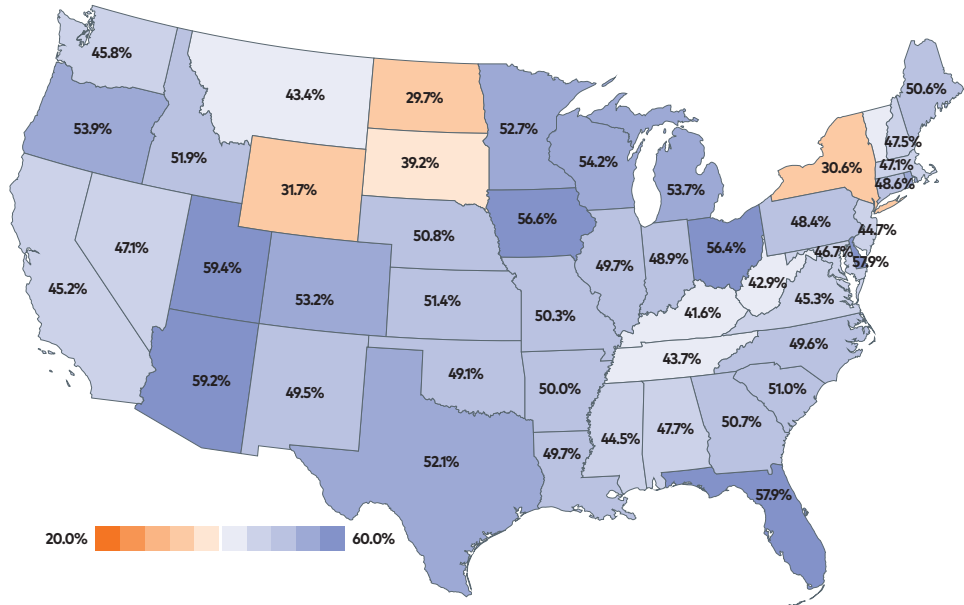
Growth of Medicare Advantage Hospice Patients



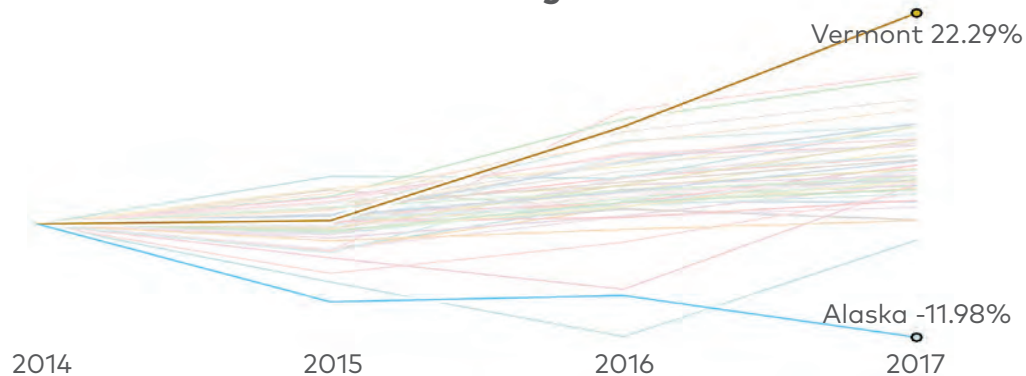
Who Receives Hospice Care (continued)

As illustrated on this page, the proportion of Medicare decedents enrolled in hospice at the time of death varied from a low of 13% (other) to a high of 59.4% (UT). Vermont and Alaska had the greatest % increase/decrease in decedents enrolled in hospice at the time of death since 2014.

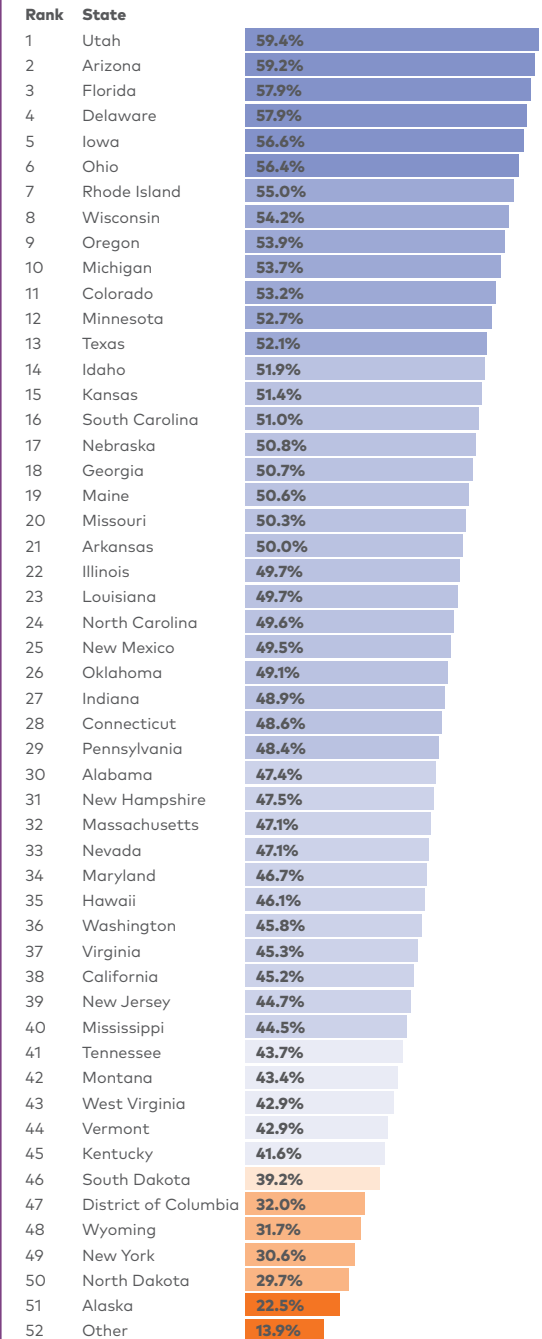
% of Medicare Decedents Services by Hospice and Aligns to Graphic at Right



% of Medicare Enrollment Change from Base Year



2017 State Rank For Decedent Medicare Enrollment %

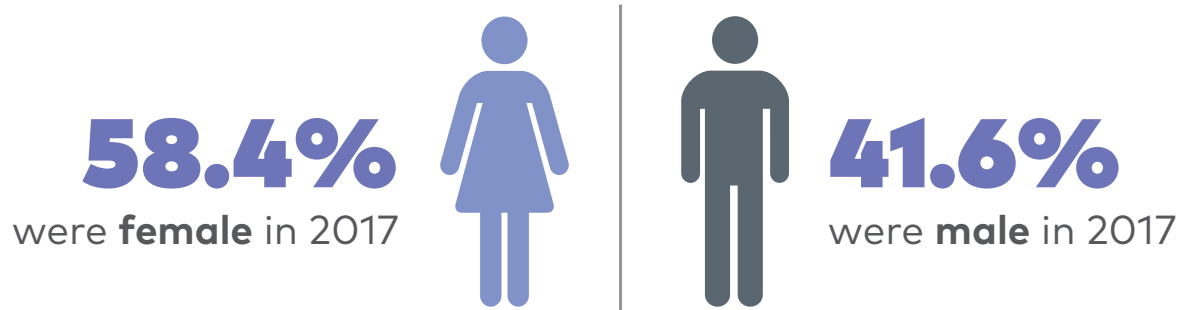


Who Receives Hospice Care (continued)

What are the characteristics of Medicare beneficiaries who received hospice care in 2017?

Patient Gender

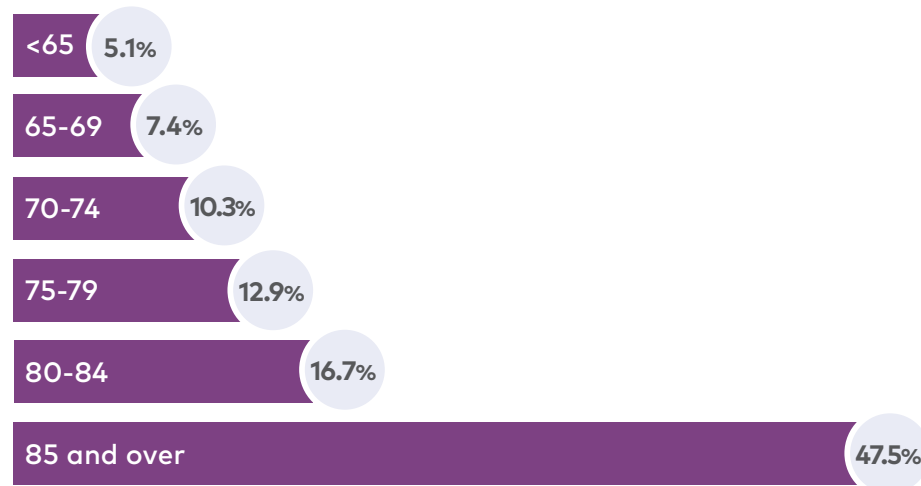
In 2017, more than half of hospice Medicare beneficiaries were female.



Patient Age

In 2017, about 64.2% of Medicare hospice patients were 80 years of age or older.

% of Patients by Age for 2017



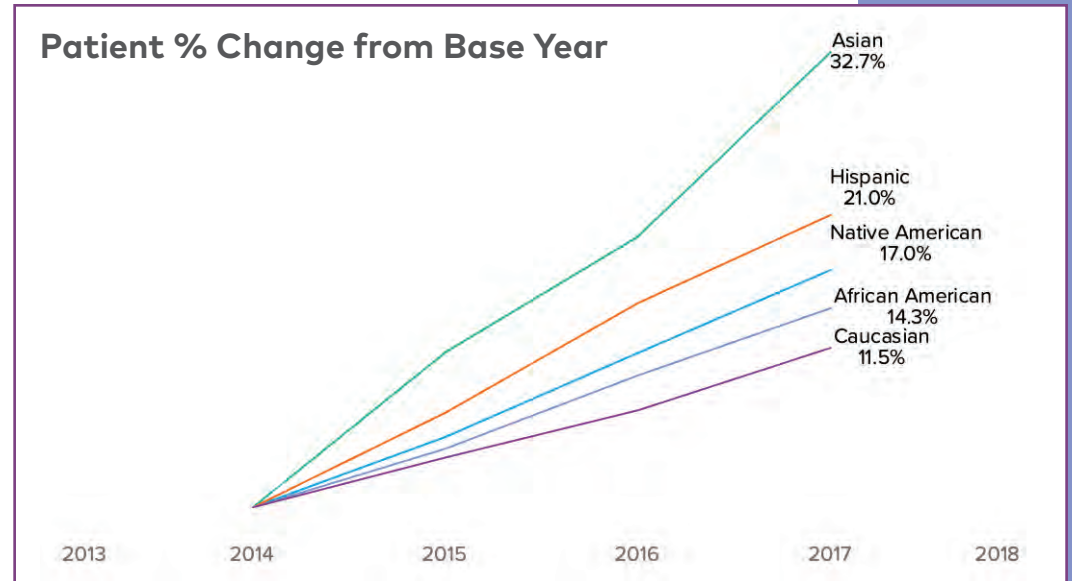
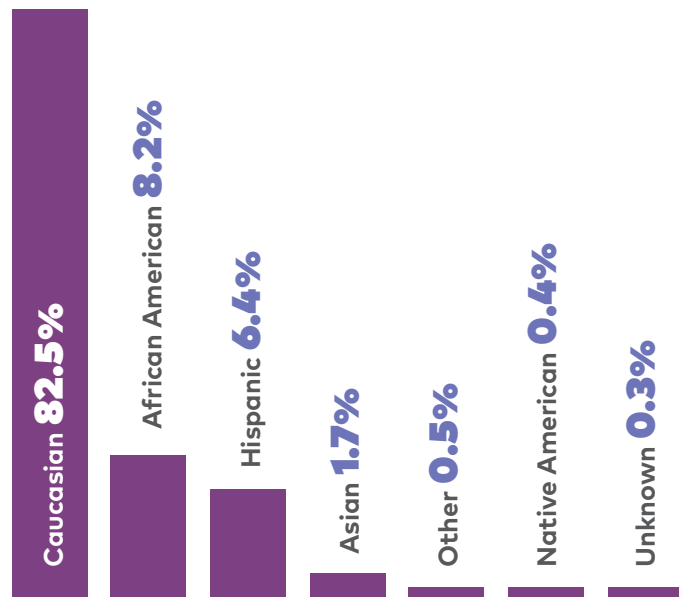
Who Receives Hospice Care (continued)

What are the characteristics of Medicare beneficiaries who received hospice care in 2017?

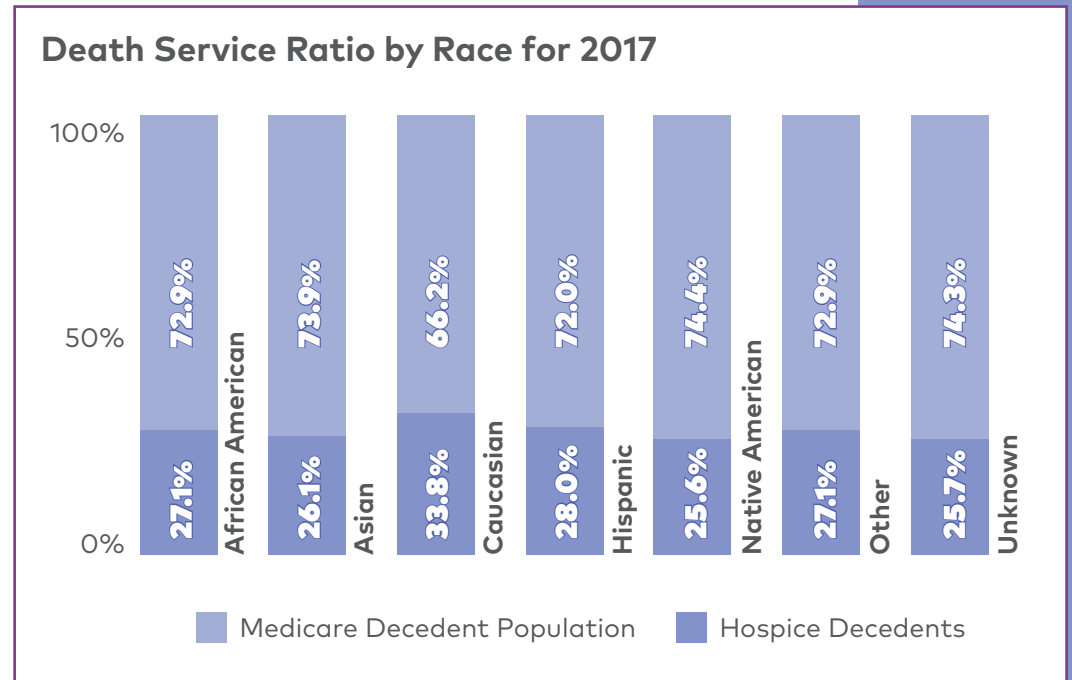
Patient Race*

In 2017 a substantial majority of Medicare hospice patients were Caucasian. However, since 2014 Patients identified as Asian and Hispanic increased by 32% and 21% respectively.

% of Patients by Race for 2017



* Categories correspond to those used by CMS in the Hospice Limited Data Set



*Percentage of Medicare decedents who died under hospice care by race.

Who Receives Hospice Care (continued)

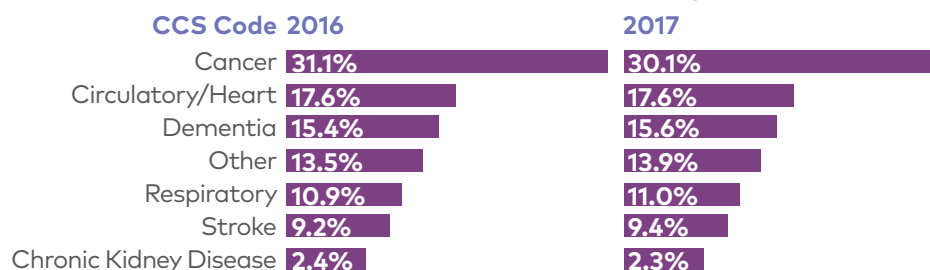
What are the characteristics of Medicare beneficiaries who received hospice care in 2017?

Principal Diagnosis

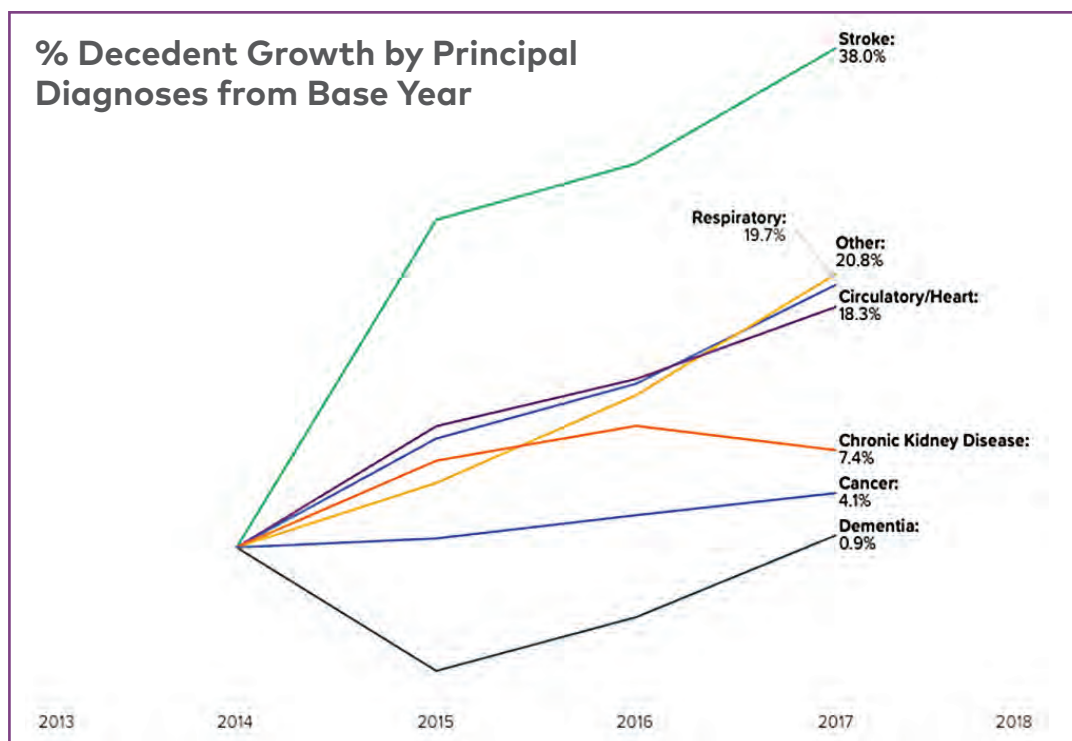
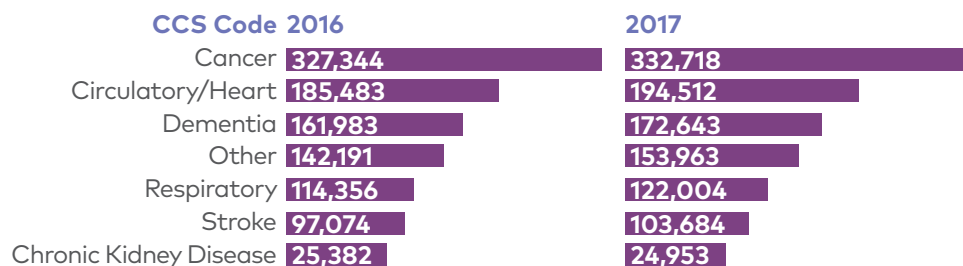
The principal hospice diagnosis is the diagnosis that has been determined to be the most contributory to the patient's terminal prognosis. 2017 continued to show that more Medicare hospice patients had a principal diagnosis of cancer than any other disease.

Stroke, circulatory/heart, Respiratory, and other CCS diagnosis grew the most since 2014.

% of Hospice Decedents by Principal Diagnosis for 2016 & 2017



No. of Hospice Decedents by Principal Diagnosis for 2016 & 2017



How Much Care Is Received?

Length of Service*

The average length of service (ALOS) for Medicare patients enrolled in hospice in 2017 was 76.1 days.

The median length of service (MLOS) was 24 days.

Average Levels of Service

Year	Patients	Total Days	Avg. Days of Care
2012	1.3M	98.7M	77.6
2013	1.3M	103.7M	79.0
2014	1.3M	100.7M	76.1
2015	1.4M	102.6M	74.5
2016	1.4M	108.2M	75.7
2017	1.5M	113.6M	76.1

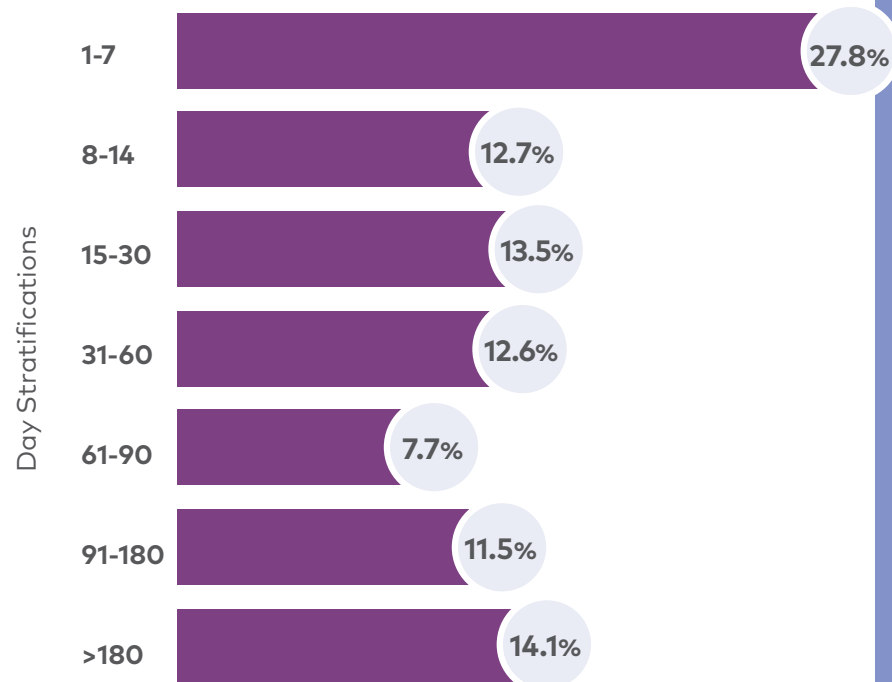
*LOS calculation is based on the total days of care for patients who received care in 2017. Also included in the calculation are days from 2014 and 2015 for patients who received care in those years as well as in 2016.

Days of Care

In 2017 hospice patients received a total of 113.6 million days of care paid for by Medicare.

A greater proportion of Medicare patients (27.8%) were enrolled in hospice a total of seven days or fewer compared to all other length of service categories.

% of Patients by Days of Care for 2017



*These values are computed using only days of care that occurred in 2017. Days of care occurring in other years are not included. Days of care have been combined for patients who had multiple episodes of care in 2017.

How Much Care Is Received (continued)

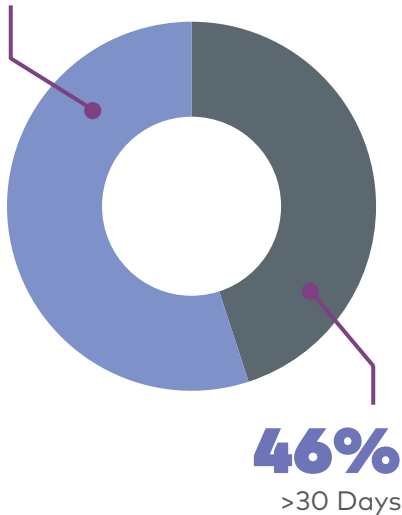
Days of Care

In 2017 over half (54%) of patients were enrolled in hospice for 30 or fewer days.

% of Patients by Days of Care for 2017

54%

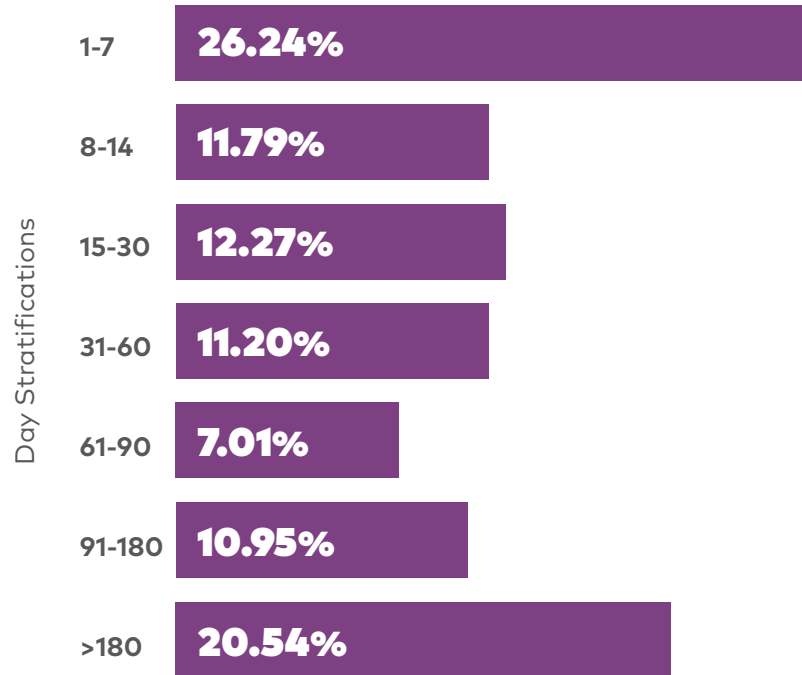
First 30 Days



Days of Care

Days of care over multiple years by percentage of patients*

Days of Care Between 2015-2017 by % of Patients



**These values are computed using all days of care that occurred between 2015 through 2017 highlighting extended care beyond 180 days that covered multiple years vs just 2017.*

How Much Care Is Received? (continued)

Days of Care

Patients with a principal diagnosis of dementia had the largest number of days of care on average in 2017.

Days of Care by Principal Diagnosis for 2017



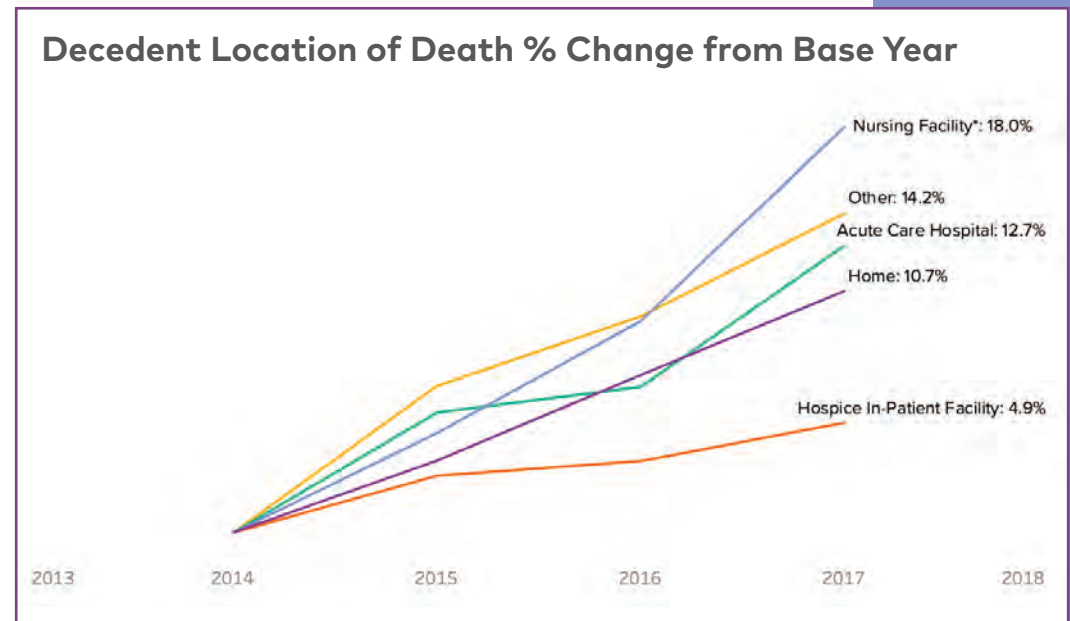
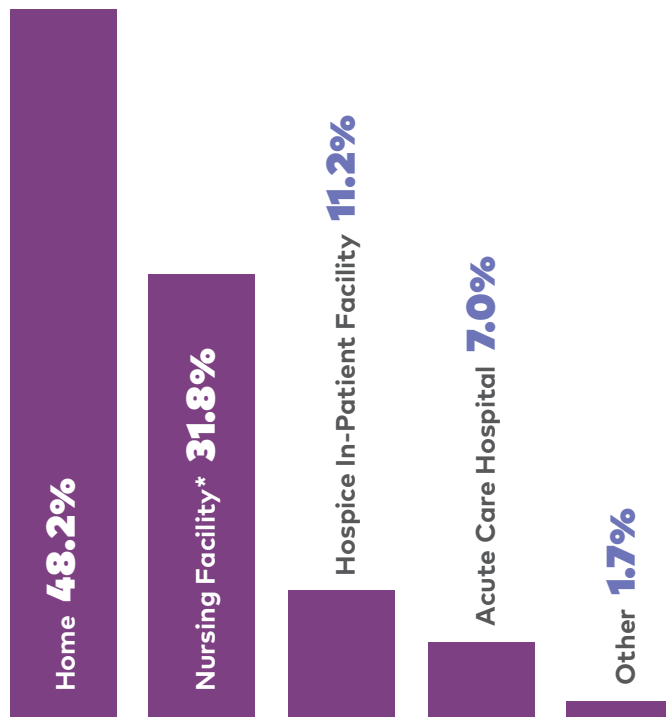
*These values are computed using only days of care that occurred in 2017. Days of care have been combined for patients who had multiple episodes of care in 2017. Days of care occurring in other years are not included.

How Much Care Is Received? (continued)

Deaths

In 2017 1.1 million Medicare beneficiaries died while enrolled in hospice care. 48.2 % of deaths occurred in the home, and almost a third in nursing facilities. Nursing facilities have continued to grow the most since 2014 at 18% followed acute care and other facilities.

Decedent % by Location of Death



* Includes skilled nursing facilities, nursing facilities, assisted living facilities, and long-term care facilities.

How Much Care Is Received? (continued)

Discharges and Transfers

In 2017, there were 1.3M discharges. Live discharges comprised 17% of all Medicare hospice discharges with patient and hospice initiated discharges being about equal.

Discharge by Type for 2017

Deaths	Decedents	82.9%
Patient Initiated-Live Discharges	Revocations	6.5%
	Transfers	2.1%
Hospice Initiated-Live Discharges	No Longer Terminally Ill	6.7%
	Moved Out of the Service Area	1.4%
	Discharges for Cause	0.3%

**Calculations are based on total number of discharges which includes patients who were discharged more than one time in 2017.*

Level of Care

In 2016 the vast majority of days of care were at the Routine Homecare (RHC) level.

Level of Care by % of Days of Care

LOC Metrics	2012	2013	2014	2015	2016	2017
RHC Days	97.6%	97.8%	97.8%	97.9%	98.1%	98.2%
CHC Days	0.3%	0.3%	0.3%	0.3%	0.2%	0.2%
IRC Days	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
GIC Days	1.8%	1.6%	1.5%	1.5%	1.4%	1.3%

Location of Care

In 2017, most of days of care were provided at a private residence followed by Nursing Facilities. Since 2014, Nursing Facilities have grown by over 14% and Home by 12.3%.

Location of Care by % of Days of Care for 2017

Home	55.7%
Nursing Facility*	42.2%
Hospice In-Patient Facility	0.8%
Acute Care Hospital	0.3%
Other	1.1%

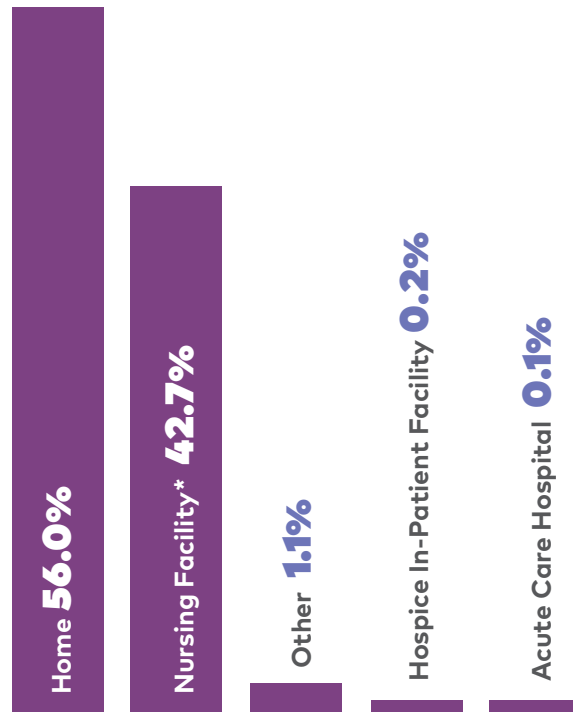
** Includes skilled nursing facilities, nursing facilities, assisted living facilities, and RHC days in a hospice inpatient facility.*

How Much Care Is Received? (continued)

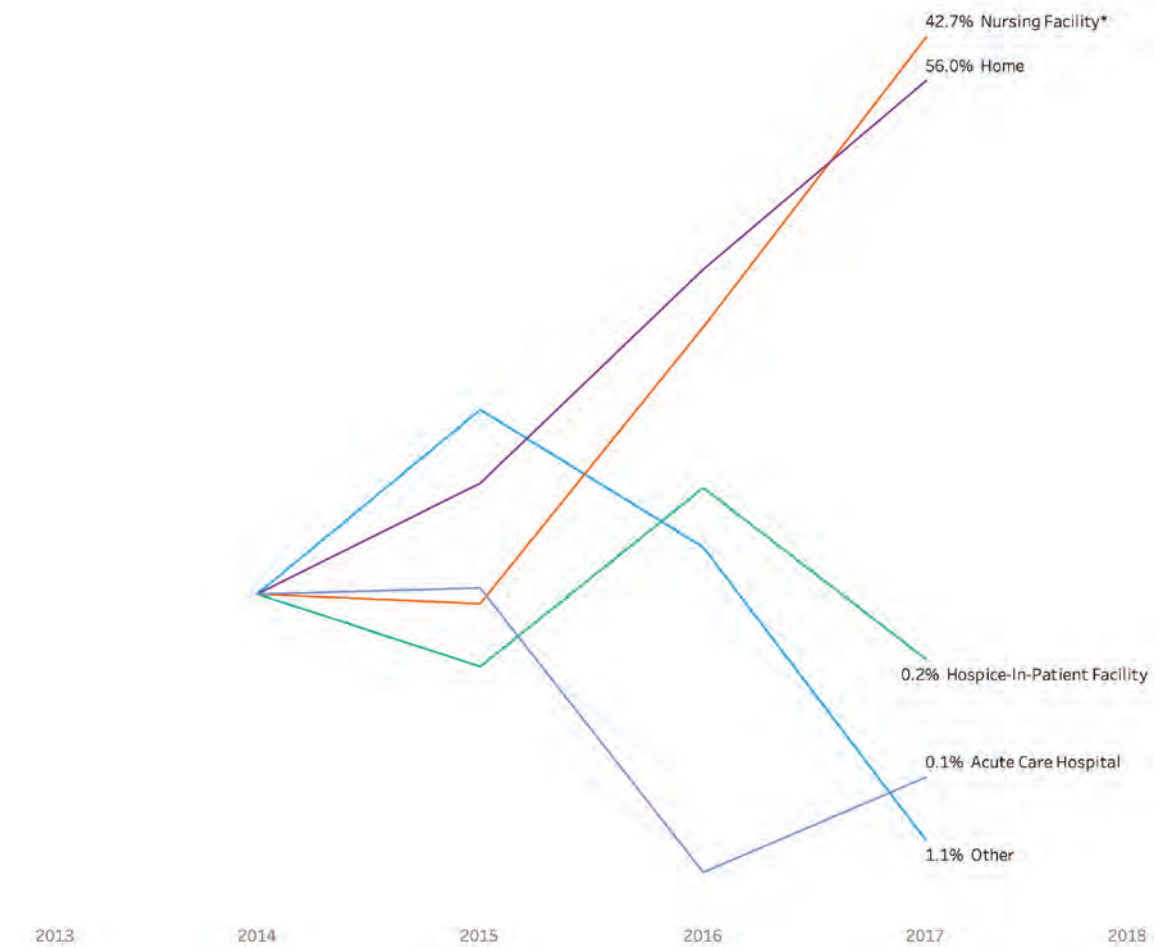
Location of RHC Days

56% of RHC days of care occurred in a private residence. RHC days in nursing facilities and home care have grown since 2014 by more than 42% while use of hospice inpatient facilities have declined.

Location of RHC Days for 2017



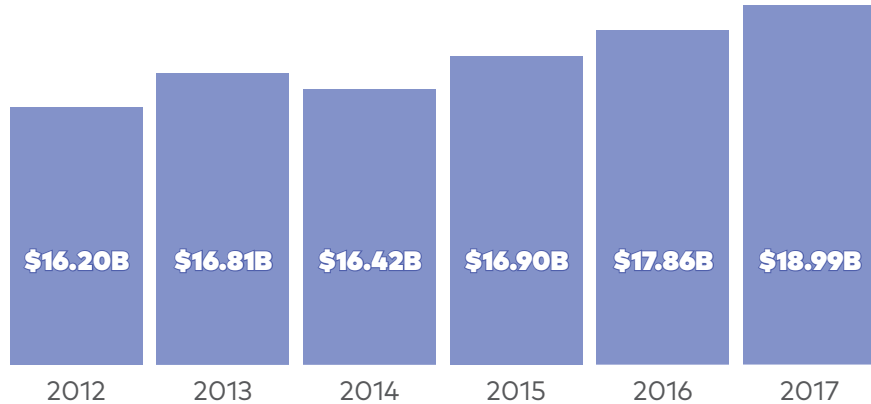
% Change in RHC Days from Base Period



How Does Medicare Pay for Hospice?

Medicare paid hospice providers a total of \$18.99 billion dollars for care provided in 2017, representing an increase of 6.3% over the previous year.

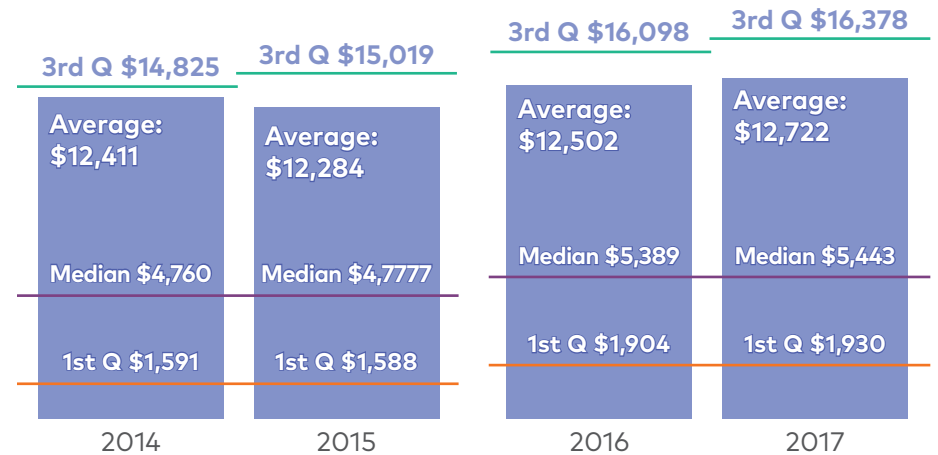
Medicare Spending



Spending Per Patient

The average spending per Medicare hospice patient was \$12,722.

Average Medicare Spending Per Patient



Spending by Days of Care

In 2017, only 26.2% of Medicare spending for hospice care was for patients who had received 180 or fewer days of care.*

Medicare Payments by Days of Care Stratified from 2012-2017

Day Stratifications	2012	2013	2014	2015	2016	2017
1-7	97.6%	97.8%	97.8%	97.9%	98.1%	98.2%
8-14	0.3%	0.3%	0.3%	0.3%	0.2%	0.2%
15-30	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
31-60	1.8%	1.6%	1.5%	1.5%	1.4%	1.3%
61-90	0.3%	0.3%	0.3%	0.3%	0.2%	0.2%
91-180	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
>180	1.8%	1.6%	1.5%	1.5%	1.4%	1.3%

* Includes days of care that spanned between the years of 2012 through 2017.

How Does Medicare Pay for Hospice? (continued)

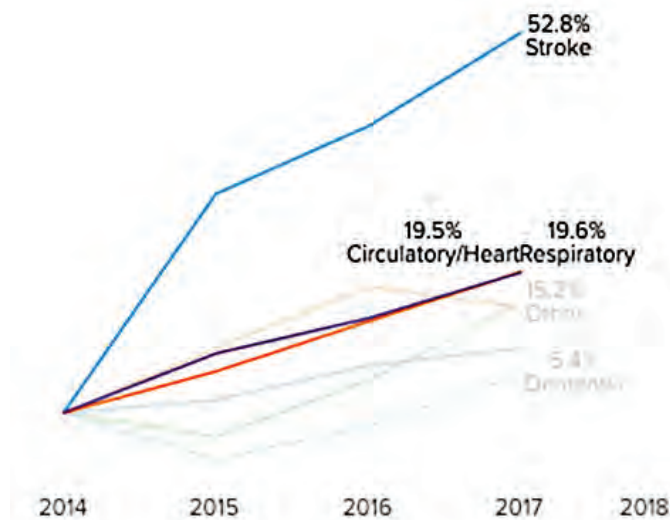
Spending by Diagnosis

In 2017, patients with a principal diagnosis of dementia continued to lead Medicare hospice spending at 25.4%. Stroke, circulatory/heart, and respiratory related diagnosis grew the most since 2014.

% of Medicare Spending by Principal Diagnosis

CCS	2017
Dementia	25.4%
Circulatory/Heart	20.0%
Cancer	18.4%
Other	13.3%
Respiratory	10.9%
Stroke	10.9%
Chronic Kidney Disease	1.1%

Medicare Spending % Change from Base Period



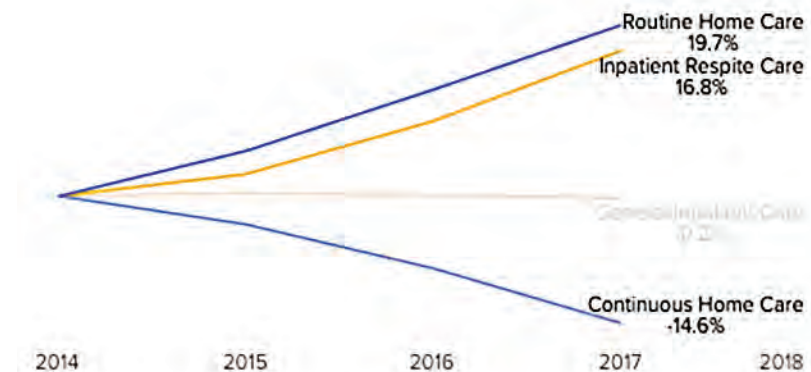
Spending by Level of Care

In 2017, the vast majority of Medicare spending for hospice care was for care at the routine home care level. This has grown 20% since 2014, followed by inpatient respite care. Continuous home care has declined 14% over the same period.

Spending by Level of Care

Level of Care	2017
Routine Home Care	89.31%
General Inpatient Care	7.14%
Inpatient Respite Care	1.78%
Continuous Home Care	1.77%

LOC Spending % Change from Base Period

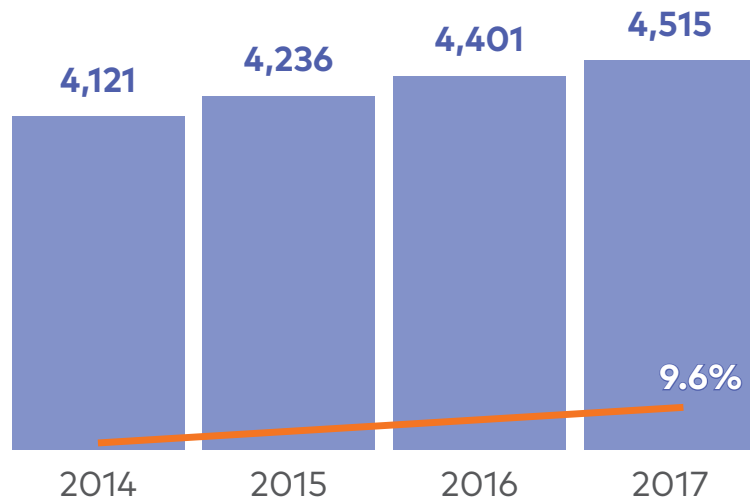


Who Provides Care?

How many hospices were in operation in 2017?

Over the course of 2017, there were 4,515 Medicare certified hospices in operation based on claims data. This represents an increase of 9.6% since 2014.

Number of Operating Hospices



ADC Support Stats

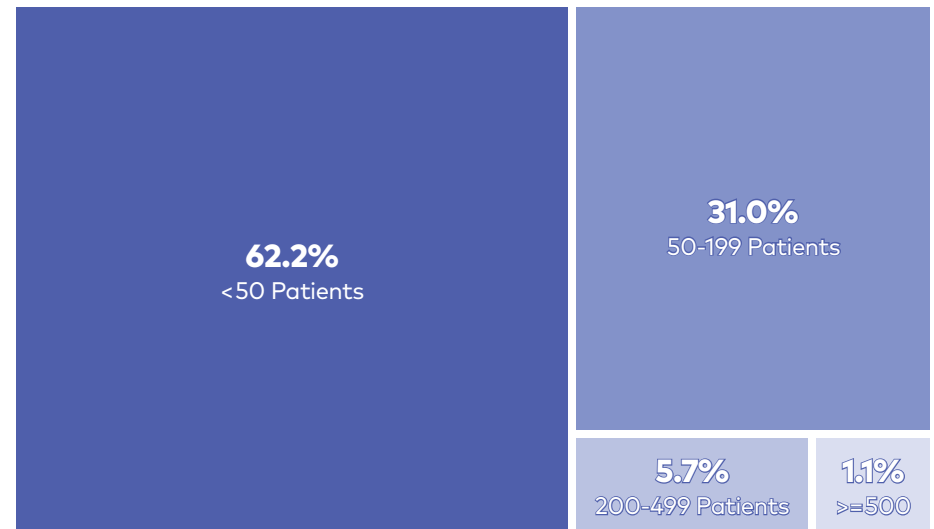
Year	Providers	Mean Census	Median Census	10th Percentile Census	25th Percentile Census	75th Percentile Census	90th Percentile Census
2014	4,121	66.9	33.5	4.1	12.8	75.3	150.3
2015	4,236	66.3	33.2	4.0	13.2	74.5	146.5
2016	4,401	67.3	33.1	3.1	12.1	75.9	153.5
2017	4,515	68.9	33.2	3.6	12.2	78.3	157.6

Hospice Size

One indicator of hospice size is the average daily census (ADC) or more specifically the number of patients cared for by a hospice on average each day.

In 2017 the mean ADC was 63 and the median 31. 62% of hospices had an ADC of less than 50 patients.

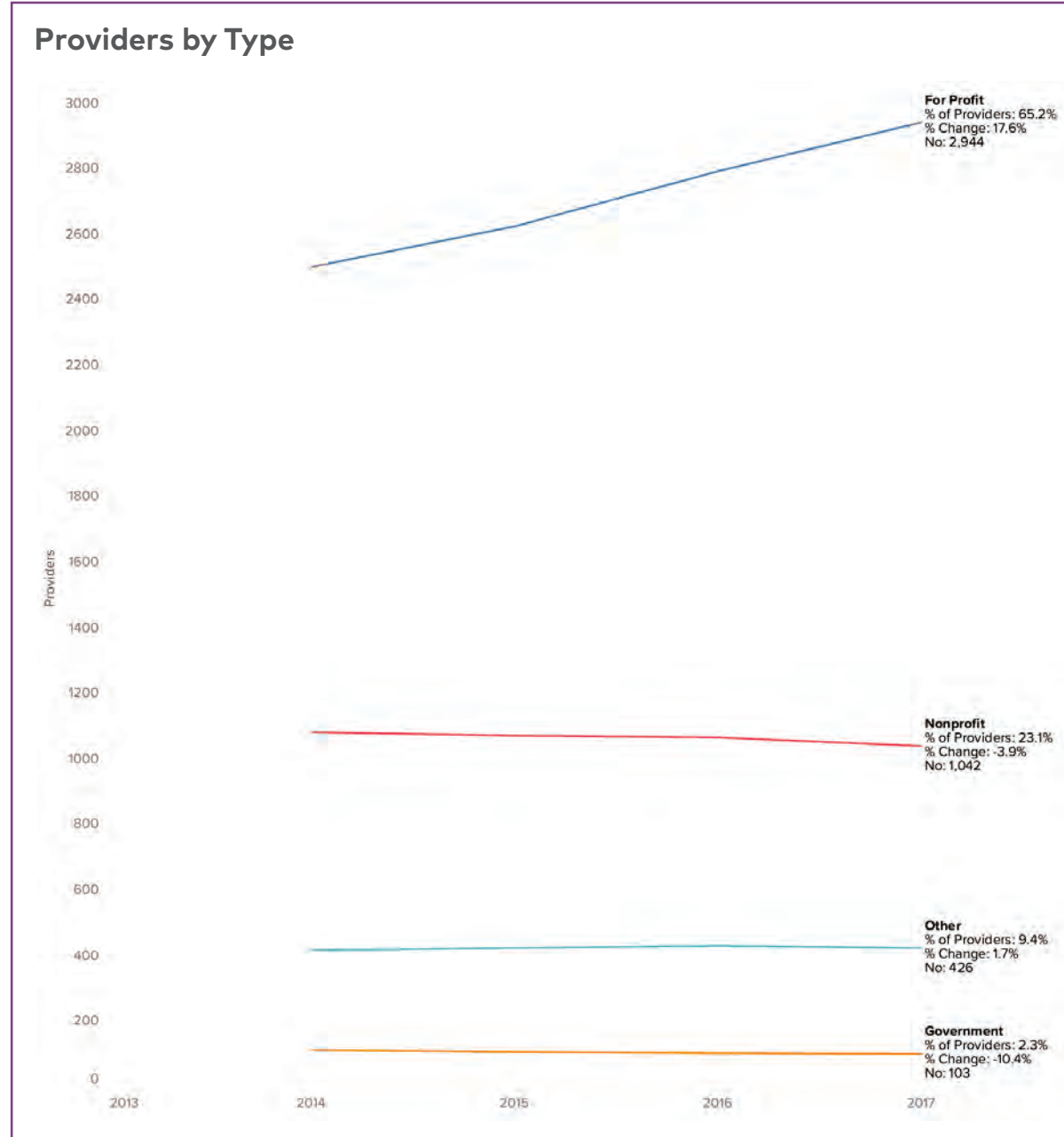
Hospice Average Daily Census for 2017



Who Provides Care? (continued)

Tax Status

62.2% of active Medicare provider numbers were assigned to hospice providers with for-profit tax status and 23.1% with not-for-profit status. For-profit hospice providers grew more than 17% since 2014 while non-profit hospice providers retracted 3.9%. Government-owned hospice providers comprised only 2.3% and has also declined.

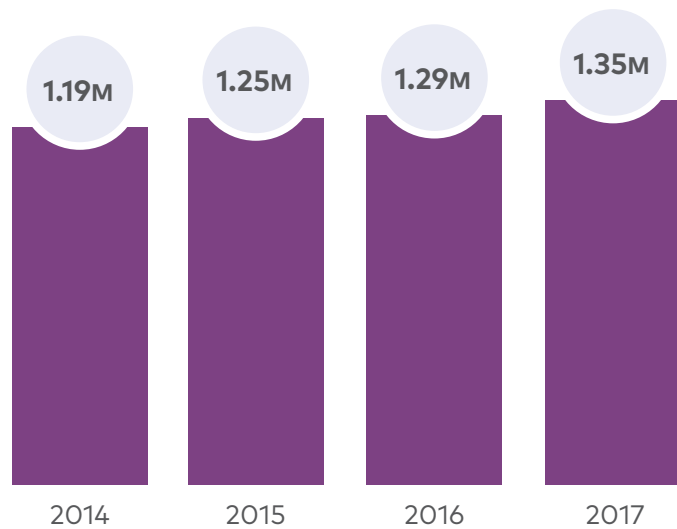


Who Provides Care? (continued)

Patient Volume First Admissions

In 2017 hospice providers performed a total 1.3 million unduplicated admissions* of Medicare hospice patients representing a 13.1% increase since 2014.

First Admissions

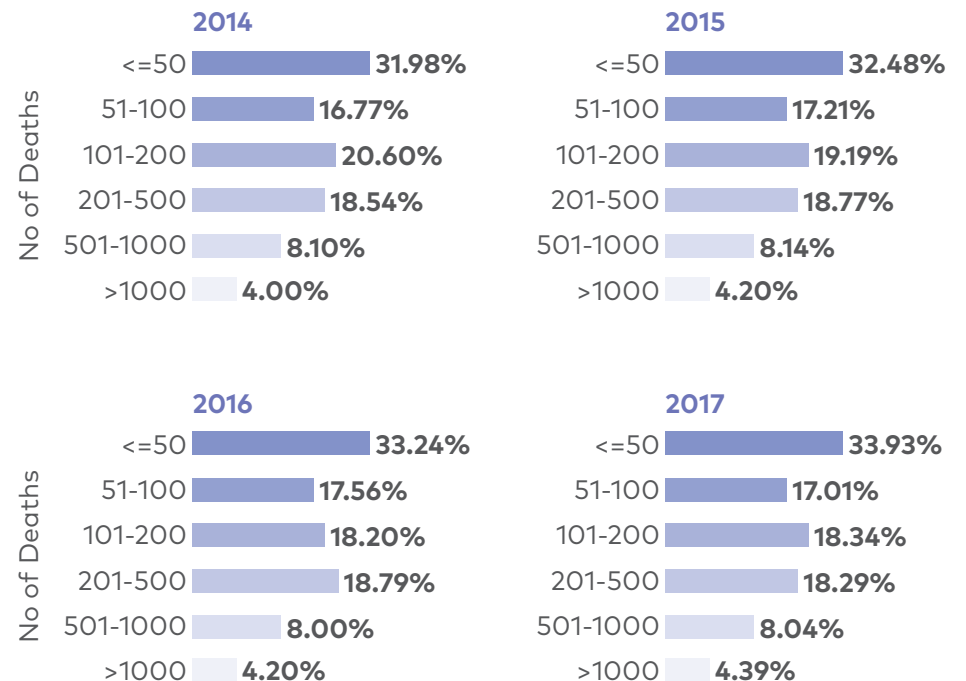


*Unduplicated admissions include patients who were part of the census at the end of 2016, carried over into 2017, discharged in 2016 and readmitted within the year.

Volume of Deaths

In 2017, the highest number of hospice providers served 50 or fewer patients who died while enrolled in hospice care.

% of Hospice Providers by Decedent Count



Who Provides Care? (continued)

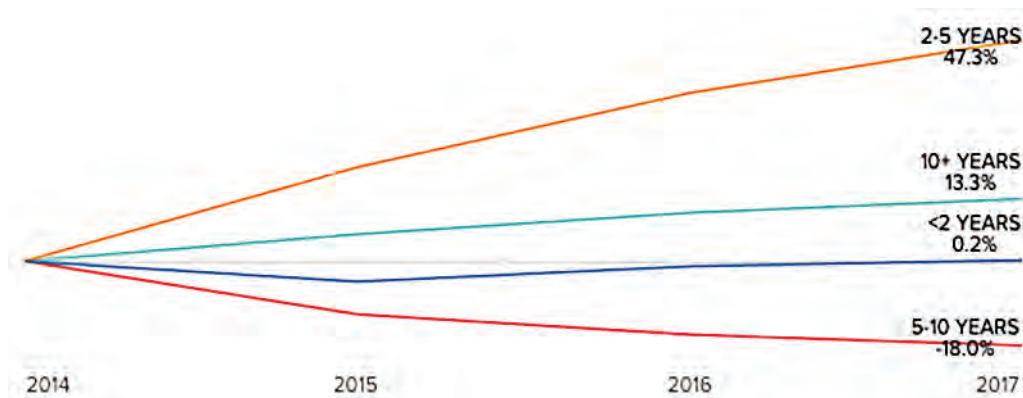
Provider Medicare Certification

More than 55% of all providers have been certified for 10 or more years highlighting the maturity of the industry. The biggest growth of provider certification since 2014 have been on newer providers certified for 2-5 years highlighting new entrants within the industry.

Provider Certification

Years Certified	2012	2013	2014	2015	2016	2017
<2 Years	9.6%	11.0%	11.1%	10.3%	10.3%	10.1%
2-5 Years	12.5%	12.3%	13.3%	15.5%	16.9%	17.9%
5-10 Years	25.7%	24.8%	21.8%	18.8%	17.2%	16.3%
10+ Years	52.1%	51.9%	53.8%	55.4%	55.6%	55.7%
N/A	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%

% of Medicare Certified Providers Change from Base Year



Data Sources

The primary data source used for the findings in this report is CMS Research Identifiable Files (RIF) Medicare Fee-for-Service (FFS) claims data including 100% of Medicare Part A from 2012-2017. The CMS 2018 Provider of Service (POS) file is used to provide further information on facilities certified to provide care to Medicare beneficiaries. The Healthcare Cost and Utilization Project (HCUP) Clinical Classification Software (CCS) was used to classify patients into diagnosis categories based on their primary ICD-9 or ICD-10 diagnosis. The FY 2018 Hospice Wage Index and Payment Rate Update and Hospice Quality Reporting Requirements is the source for the tax status statistics.

Methodology Note

All claims are analyzed within the calendar year with the date assigned based on the claim through date, the last date on the billing statement for services covered to a beneficiary. The methods used to aggregate hospice claims were based on those outlined in the Centers for Medicare and Medicaid Services' [Medicare Hospice Utilization & Payment Public Use File: A Methodological Overview](#). Results may differ from other reports such as Medpac's publications that look within a fiscal year or across multiple years for patients that have lengths of stay that cross many years. Unless otherwise specified, the denominator is all hospice beneficiaries who had any services covered within the calendar year, regardless of the discharge status code for the last service rendered. This differs from other analyses that may restrict to patients who were discharged (live discharges and/or decedents).

CMS Research Identifiable Files (RIF) Data Set

The Medicare FFS RIFs used for this report contain all Medicare Part A claims related to payment made directly towards hospice services. All

beneficiaries with at least one hospice claim paid through Medicare are included in this file (2.5% of all Medicare beneficiaries in 2017). Selected variables within the files are encrypted, blanked, or ranged. The RIF Medicare claims used for Facts and Figures include the following data files:

- Hospice File: Hospice Fee-for-Service claims submitted by Medicare certified hospice providers ([see documentation](#) for detailed information on hospice files)
- Member Beneficiary Summary File (MBSF): Medicare beneficiary enrollment information via Medicare Parts A, B, C, and D ([see documentation](#) for detailed information on MBSF)

CMS 2018 Provider of Service (POS) Data Set

The [POS file](#) contains information of health care providers who are certified to provide care to Medicare beneficiaries.

Healthcare Cost and Utilization Project (HCUP) Clinical Classification Software (CCS)

The [CCS tool](#) was used to group patients into diagnosis groups based off ICD-9 or ICD-10 diagnosis.

Questions May Be Directed To:

National Hospice and Palliative Care Organization

Attention: Research

Phone: 703.837.1500

Web: www.nhpco.org/research

Email: Research@nhpco.org

©2019 National Hospice and Palliative Care Organization.

All rights reserved, including the right to reproduce this publication or portions thereof in any form.



NHPCO

National Hospice and Palliative
Care Organization

NHPCO

1731 King Street
Alexandria, VA 22314

tel. 703.837.1500 | nhpco.org

APPENDIX 7
NHPCO 2018 FACTS & FIGURES

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 8
LIST OF EMPRES/EDEN SKIILED
NUIRSING FACILITIES,
HOSPICE, HOME HEALTH AND
CARE AGENCIES**

Legal Name	DBA
OPERATING ENTITIES	
ARIZONA	
Eden Hospice at Sierra Vista, LLC	Eden Hospice
Eden Home Health of Sierra Vista, LLC	Eden Home Health
Eden Home Health of Safford, LLC	Eden Home Health of Safford
Eden Hospice at Cochise County, LLC	Eden Hospice in Chochise
CALIFORNIA	
Evergreen at Petaluma, L.L.C.	EmpRes Post Acute Rehabilitation
Evergreen at Salinas, L.L.C.	Katherine Healthcare
Evergreen at Tracy, L.L.C.	New Hope Post Acute Care
Evergreen at Heartwood Avenue, L.L.C.	Heartwood Avenue Healthcare
Evergreen at Springs Road, L.L.C.	Springs Road Healthcare
Eden Home Health of Elk Grove, LLC	Eden Home Health
IDAHO	
EmpRes at Idaho Falls, LLC	Teton Post Acute Care and Rehabilitation
Lewiston Royal Plaza Care, LLC	Royal Plaza Health and Rehabilitation
Lewiston Royal Plaza Retirement, LLC	Royal Plaza Retirement Center
Eden Home Health of Idaho Falls, LLC	Eden Home Health
Eden Home Health of Sandpoint, LLC	Eden Home Health
MONTANA	
Evergreen at Polson, L.L.C.	Polson Health and Rehabilitation Center

**APPENDIX 8
FACILITY LIST**

Legal Name	DBA
Evergreen at Hot Springs, L.L.C.	Hot Springs Health and Rehabilitation Center
Evergreen at Missoula, L.L.C.	Missoula Health and Rehabilitation Center
Evergreen at Laurel, L.L.C.	Laurel Health and Rehabilitation Center
Evergreen at Livingston, L.L.C.	Livingston Health and Rehabilitation Center
EmpRes at Lewistown, LLC	Central Montana Nursing & Rehabilitation Center
EmpRes at Shelby, LLC	Marias Care Center
EmpRes at Billings, LLC	Aspen Meadows Health and Rehabilitation Center
Aspen Meadows Assisted Living, LLC	Aspen Meadows Assisted Living
NEVADA	
Evergreen at Pahrump, L.L.C.	Pahrump Health and Rehabilitation Center
Evergreen at Carson City, L.L.C.	Ormsby Post Acute Rehab
Evergreen at Mountain View, L.L.C.	Mountain View Health and Rehabilitation Center
Evergreen at Gardnerville, L.L.C.	Gardnerville Health and Rehabilitation Center
EmpRes Personal Care Nevada, LLC	Eden Home Care
Quality Health Care Corporation	Eden Home Health
Eden Hospice at Carson City, LLC	Eden Hospice
OREGON	
Evergreen Oregon Healthcare Mountain Vista, L.L.C.	LaGrande Post Acute Rehab
Evergreen Oregon Healthcare Independence, L.L.C.	Independence Health and Rehabilitation Center
Evergreen Oregon Healthcare Tualatin, L.L.C.	EmpRes Hillsboro Health and Rehabilitation Center

**APPENDIX 8
FACILITY LIST**

Legal Name	DBA
Evergreen Oregon Healthcare Orchards Rehabilitation, L.L.C.	Milton Freewater Health and Rehabilitation Center
Evergreen Oregon Healthcare Orchards Retirement, L.L.C.	Cascade Valley Assisted Living and Memory Care Cascade Valley Assisted Living Cascade Valley Memory Care
Evergreen Oregon Healthcare Valley Vista, L.L.C.	The Dalles Health and Rehabilitation Center
Evergreen Oregon Healthcare Portland, L.L.C.	Portland Health and Rehabilitation Center
Evergreen Oregon Healthcare Salem, L.L.C.	Windsor Health and Rehabilitation Center
SOUTH DAKOTA	
EmpRes at Mitchell, LLC	Firesteel Healthcare Center
EmpRes at Rapid City, LLC	Fountain Springs Healthcare Center
Rapid City Assisted Living, LLC	Fountain Springs Assisted Living
Sturgis Assisted Living, LLC	Aspen Grove Assisted Living
EmpRes at Garretson, LLC	Palisade Healthcare Center
EmpRes at Woonsocket, LLC	Prairie View Healthcare Center
EmpRes at Flandreau, LLC	Riverview Healthcare Center
Flandreau Independent Living, LLC	Riverview Care Center
EmpRes at Britton, LLC	Wheatcrest Hills Healthcare Center
WASHINGTON	
Evergreen Washington Healthcare Frontier, L.L.C.	Frontier Rehabilitation and Extended Care
Evergreen Washington Healthcare Americana, L.L.C.	Americana Health and Rehabilitation Center
Evergreen Washington Healthcare Whitman, L.L.C.	Whitman Health and Rehabilitation Center
Evergreen Washington Healthcare Seattle, L.L.C.	Seattle Medical Post Acute Care
Evergreen Washington Healthcare Enumclaw, L.L.C.	Enumclaw Health and Rehabilitation Center
Evergreen Washington Healthcare Auburn, L.L.C.	Canterbury House

**APPENDIX 8
FACILITY LIST**

Legal Name	DBA
Evergreen at Shelton, L.L.C.	Shelton Health and Rehabilitation Center
Evergreen at Bellingham, L.L.C.	North Cascades Health and Rehabilitation Center
Evergreen at Tacoma, L.L.C.	Alaska Gardens Health and Rehabilitation Center
EmpRes at Alderwood, LLC	Alderwood Park Health and Rehabilitation
EmpRes Highland Care, LLC	Highland Health and Rehabilitation
EmpRes at Snohomish, LLC	Snohomish Health and Rehabilitation
Spokane Royal Park Care, LLC	Royal Park Health and Rehabilitation
Spokane Royal Park Retirement, LLC	Royal Park Retirement Center
EmpRes at Colville, LLC	Buena Vista Healthcare
Fort Vancouver Post Acute, LLC	Fort Vancouver Healthcare Vancouver Post Acute
Fort Vancouver Assisted Living, LLC	Fort Vancouver Assisted Living
EmpRes at Auburn, LLC	Advanced Post Acute
EmpRes Home Health of Bellingham, LLC	Eden Home Health
EmpRes Home Care of Bellingham, LLC	Eden Home Care
Eden Home Health of King County, LLC	Eden Home Health
Eden Home Health of Clark County, LLC	Eden Home Health
Eden Home Health of Spokane County, LLC	Eden Home Health

**APPENDIX 8
FACILITY LIST**

Legal Name	DBA
WYOMING	
EmpRes at Rock Springs, LLC	Sage View Care Center
EmpRes at Cheyenne, LLC	Granite Rehabilitation and Wellness
EmpRes at Rawlins, LLC	Rawlins Rehabilitation and Wellness
EmpRes at Riverton, LLC	Wind River Rehabilitation and Wellness
EmpRes at Thermopolis, LLC	Thermopolis Rehabilitation and Wellness
EmpRes at Casper, LLC	Shepherd of the Valley Rehabilitation and Wellness
Casper Independent Living, LLC	Maurice Griffith Manor Care

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 9
MEDICAL DIRECTOR
CONTRACT**

Medical Director Independent Contractor Agreement

THIS MEDICAL DIRECTOR INDEPENDENT CONTRACTOR AGREEMENT (“Agreement”) is between Eden Hospice at King County, LLC d/b/a Eden Hospice (“AGENCY”) and Dr. Gilson R. Giroto, DO, (“PROVIDER”). In consideration of the mutual promises set forth below in the body of this Agreement, the parties agree as follows:

1. TERM

The term of this Agreement shall commence on the date PROVIDER is licensed as a state certified hospice agency and shall continue for a period of one year thereafter, with automatic one-year renewals. AGENCY may terminate the use of PROVIDER’s services at any time, for any reason, upon 30 days advance written notice to PROVIDER, and without further obligations to PROVIDER except for payment due for services performed by PROVIDER prior to the contract termination date. PROVIDER may also terminate the contract at any time, for any reason, upon 30 days advance written notice to AGENCY; provided that PROVIDER agrees to continue to perform the agreed upon services for the 30 days leading up to the contract termination date. This Agreement may be terminated immediately upon the determination that any of the representations made by either party under this Agreement are false.

2. PROVIDER SERVICES

PROVIDER agrees to provide medical director services (“Services”) to AGENCY’s clients in accordance with all applicable requirements of federal, state or local laws, rules and/or regulations to include official interpretations of those requirements by the entities charged with implementing and enforcing them, including but not limited to the requirements of 42 C.F.R. § 418.102 and applicable CMS guidance regarding the same. PROVIDER will perform its services in accordance with accepted professional standards of practice and, in accordance with 42 C.F.R. 418.64, use only qualified duly licensed, certified or registered health care professionals in the performance of these services. PROVIDER understands and agrees that this Agreement is subject to the right of AGENCY clients, clients’ insurers or payors and clients’ physicians to choose services from another provider.

PROVIDER agrees to be responsible for (1) implementation of client care policies, and (2) the coordination of medical care at AGENCY.

With respect to the implementation of client care policies, PROVIDER agrees to provide clinical guidance and oversight regarding the implementation of client care policies, which includes collaborating with the AGENCY to help develop, implement and evaluate client care policies and procedures that reflect current standards of practice. “Client care policies and procedures” is further defined as the AGENCY’s goals, directives and governing Statements that direct the delivery of care and services to clients. Client care procedures describe the processes by which the AGENCY provides care to clients that are consistent with current standards of practice and AGENCY policies.

With respect to the coordination of medical care, PROVIDER shares responsibility with the AGENCY for assuring AGENCY is providing appropriate care as required, which involves

APPENDIX 9

(1) providing oversight and supervision of physician services and medical care of clients, and (2) helping the AGENCY identify, evaluate, and address/resolve medical and clinical issues that affect client care, medical care or quality of life, or are related to the provision of services by physicians and other health care practitioners. PROVIDER agrees to consult with clients or their attending physicians as needed to ensure adequate care is being provided. PROVIDER will attend client care conferences and advise AGENCY on pertinent ethical and clinical issues. PROVIDER will participate in utilization reviews of AGENCY services and participate in periodic, random reviews of records for AGENCY client services.

PROVIDER shall abide by applicable AGENCY policies and procedures to contractors, respond to AGENCY's requests for services in a timely manner, and provide accurate and timely documentation to AGENCY of services provided to AGENCY's clients. PROVIDER will provide clinical input and guidance, as required, in AGENCY's hiring of and clinical evaluation of AGENCY's Director of Nursing Services or AGENCY's clinical evaluation of other health care personnel as requested. PROVIDER will also provide clinical input and guidance into other quality monitoring programs established by AGENCY, which may include periodic attendance at the AGENCY's Continuous Quality Improvement Committee and Care Planning Committee meetings.

PROVIDER shall act as AGENCY's medical representative in the community (including medical staff, referring physicians, hospitals and community and professional organizations) and be familiar with policies and programs of public health agencies that may affect client care management. PROVIDER shall communicate with federal, state and county agencies regarding AGENCY programs.

PROVIDER shall participate as a member of AGENCY's OIG Compliance Committee.

PROVIDER shall participate in clinical education programs at the AGENCY, including the in-service clinical education of AGENCY personnel and continuing client/family and community education.

PROVIDER and AGENCY understand and agree that, while PROVIDER may also serve as an attending physician to clients of the AGENCY, PROVIDER's roles and functions as a Medical Director under this Agreement are separate from PROVIDER's roles and functions as an attending physician, which involves primary responsibility for the medical care of individual clients.

3. COMPENSATION

INVOICE FOR WORK PROVIDED PAYABLE NET 30. PROVIDER will be paid for Services on a monthly basis at the rate of \$200.00 per hour which will be billed at ¼ hour increments rounded up to the closest ¼ hour. All payments will be made net 30 days of receipt of an invoice for Services provided under this Agreement. Invoices shall indicate services rendered and the time expended to provide said services during the preceding month in accordance with the rates and fees set forth above, as well as sufficient documentation in support of the services provided. Payment of PROVIDER is conditioned on PROVIDER complying with all material provisions of this Agreement, providing an acceptable quality of service consistent with the requirements of all applicable federal and state requirements, and providing the AGENCY accurate and complete documentation of such services.

The parties warrant and acknowledge that the above rate of compensation constitutes fair market value for PROVIDER's services and is consistent with PROVIDER's customary services, if any.

Any and all professional service fees or retainers due to PROVIDER in his or her capacity as an attending physician or any fees owed to PROVIDER associated with any visitations, examinations or consultations to clients of AGENCY shall be the complete and sole responsibility of PROVIDER and not of AGENCY.

4. CIVIL RIGHTS

PROVIDER shall comply with Title VI and VII of the Civil Rights Act of 1964, Sections 503 and 504 of the Rehabilitation Act of 1973, and all requirements imposed by or pursuant to the regulations of the Department of Health and Human Services and any other applicable agencies issued pursuant to these Acts.

5. RECORDS

5.1 AGENCY and PROVIDER will each prepare and maintain complete and detailed clinical records concerning AGENCY's clients receiving Services under this Agreement, in accordance with prudent record-keeping procedures and as required by applicable federal and state laws, regulations and program guidelines. Each clinical record shall completely, timely and accurately document all services provided to, and events concerning, each patient (including evaluations, treatments, and progress notes) (collectively, "Clinical Records") and will remain confidential. The Clinical Records, records relating to billing and payment and other records relating to this Agreement shall be retained by AGENCY and PROVIDER for 8 years from the date said service was provided.

5.2 To the extent the value or services furnished under this Agreement, or a subcontract of this Agreement, exceed \$10,000 over a 12-month period, PROVIDER will make available to the Secretary of the Department of Health and Human Services, the Comptroller General, or their authorized representatives, a copy of this Agreement and such books, documents and records that are necessary to certify the nature and extent of the costs incurred by AGENCY under this Agreement for a period of four years after the furnishing of such services. PROVIDER agrees to notify AGENCY within 3 days of the nature and scope of any request for access and to provide, or make available, copies of any books, records or documents proposed to be provided. Any disclosure under this paragraph shall not be construed as a waiver of any other legal rights to which such party may be entitled.

6. QUALIFICATIONS

6.1 AGENCY represents and warrants that it is duly licensed and certified. PROVIDER represents and warrants that it has, and will maintain at all times throughout the term of this Agreement, all the necessary qualifications, certifications and/or licenses required by applicable federal, state and local laws and regulations to provide the Services covered by this Agreement. PROVIDER will provide AGENCY with a copy of its license in effect on the effective date of this Agreement and at each successive renewal. PROVIDER shall provide notice of any changes in certifications or licensing within 15 days.

6.2 PROVIDER agrees that it shall be responsible for conducting criminal background checks on those of its employees it assigns to AGENCY, including all costs relating to conducting such investigations and testing. PROVIDER further agrees that it shall not assign any of its employees to AGENCY who have been convicted of the following crimes: theft, sexually deviant behavior, assault and/or battery, abuse of the elderly, children or vulnerable individuals or other criminal conviction related to the services being provided to the AGENCY. PROVIDER further agrees that it shall not assign any of its employees to AGENCY who are determined (after appropriate alcohol and drug testing if necessary) to be engaged in the possession, distribution, dispensation, manufacture, sale or use of alcohol or illegal drugs in the workplace (whether that workplace is the AGENCY or elsewhere). For purposes of this Agreement, the term "illegal drugs" includes the abuse or misuse of prescription medication and the use or abuse of medical and/or recreational marijuana.

6.3 PROVIDER acknowledges and agrees that investigations into criminal backgrounds (a) will cover the previous seven years, (b) shall be conducted in accordance with applicable state and federal law, and (c) must be based on information provided by the appropriate state or local law enforcement agency if so required by applicable state law.

6.4 Each party represents and warrants that it is currently eligible for Medicare and Medicaid participation and not subject to any sanction or exclusion. The Parties agree to regularly verify such status of themselves and their employees and immediately disclose any actual or threatened federal, state or local investigations or imposed sanctions of any kind, in progress or initiated subsequent to the date of entering into this Agreement. Each party further represents and warrants that it has not been sanctioned under any applicable state or federal fraud and abuse statutes, including exclusion from any state or federal health care program. If, during the term of this Agreement, either party, any parent company of either party, or any officer, director or owner of either party, receives such a sanction or notice of a proposed sanction and the period of its duration within 15 days. Each party reserves the right to terminate the Agreement immediately upon receipt of notice that the other party, has been sanctioned under fraud and abuse statutes and/or any other federal, state or local regulation. Each party agrees to indemnify and hold the other harmless from any and all liability, loss or expenses incurred directly or indirectly as a result of such sanctions or investigations against the indemnifying party.

7. INSURANCE AND INDEMNITY

7.1 PROVIDER shall arrange and maintain in full force and effect at all times during the term of this Agreement malpractice insurance with a carrier reasonably satisfactory to AGENCY in an amount not less than \$1,000,000 per occurrence and \$3,000,000 in the aggregate. Such insurance shall cover the professional medical services provided by PROVIDER in private practice, and, PROVIDER'S Services as Medical Director pursuant to this Agreement. PROVIDER represents and warrants that such insurance is in effect on the date of execution of this Agreement and shall remain in effect during the term of this Agreement. The policy shall provide that AGENCY shall be given not less than 30 days prior written notice of any reduction in coverage or any cancellation of the policy. In addition, PROVIDER shall notify AGENCY of any lapse in coverage. Prior to the commencement of this Agreement and at least 10 days prior to the expiration of any then effective policy, PROVIDER

shall provide AGENCY with satisfactory written evidence of the coverage required by this paragraph.

7.2 AGENCY shall obtain and maintain in full force and effect, its own general and professional liability insurance in amounts not less than \$1,000,000 per occurrence and \$3,000,000, in the aggregate, either through a commercial carrier or through an adequate self-insurance program, covering its operations of the AGENCY. AGENCY represents and warrants that such insurance is in effect on the date of execution of this Agreement and shall remain in effect during the term of this Agreement.

7.3 PROVIDER agrees to save, indemnify and hold harmless AGENCY from and against any and all losses, malpractice actions, claims, suits, damages, liabilities and expenses based upon, arising out of or attributable to the negligent performance or non-performance of their respective obligations under this Agreement.

8. EQUIPMENT AND SUPPLIES

PROVIDER is expected to use its own equipment and/or supplies whenever feasible. When PROVIDER uses equipment and/or supplies provided by AGENCY, PROVIDER shall use such equipment and supplies properly and is solely responsible for injuries or damages resulting from any misuse. In addition, PROVIDER shall notify AGENCY in writing whenever equipment or supplies provided by AGENCY and used by PROVIDER for providing Services need repair or replacement. When PROVIDER uses its own equipment and/or supplies, PROVIDER agrees to save, indemnify and hold AGENCY harmless of and from the use, misuse or failure of such equipment or supplies. The parties shall maintain their equipment and/or supplies in good operating condition and repair and in accordance with manufacturer's recommendations and all applicable federal, state and local laws.

9. MASTER LIST

Pursuant to 42 CFR 411.357(d)(1)(ii) a master list of contracts which reflects all arrangements and/or agreements between AGENCY and PROVIDER or PROVIDER's immediate family members, to the extent any such arrangements or agreements exists, is provided by PROVIDER to AGENCY and maintained by AGENCY.

10. INDEPENDENT CONTRACTOR

This Agreement does not constitute a hiring of PROVIDER as an employee of AGENCY. It is the parties' intention that PROVIDER shall be an independent contractor and not AGENCY's employee. PROVIDER shall retain discretion and judgment regarding the manner and means of providing Services to AGENCY subject to all applicable laws, regulations and AGENCY's policies. AGENCY assumes professional and administrative responsibility for the services rendered only to the extent that AGENCY will assure itself that (1) PROVIDER is qualified by education and/or experience to render the services contracted for; and (2) PROVIDER is satisfying the obligations set forth herein in a timely manner. This Agreement shall not be construed as a partnership, and AGENCY shall not be liable for any obligations incurred by PROVIDER.

The parties hereto agree that payments to be made by AGENCY to PROVIDER are for services as an independent contractor. AGENCY shall not make any deduction from the fees to be paid PROVIDER including, but not limited to, social security, withholding taxes, business taxes, unemployment insurance, and other such deductions. PROVIDER assumes full responsibility, on an independent contractor basis, for all such taxes, contributions, and assessments and for worker's compensation insurance, agrees to indemnify AGENCY with respect thereto and agrees to meet all requirements with enforcement of any relevant state or federal act or regulation. PROVIDER agrees to obtain and maintain any and all business licenses as may be required under any applicable federal or state laws for independent contractors or consultants and to provide AGENCY with proof of same immediately upon request.

PROVIDER acknowledges that since he is not an employee of the Company, the Company will not provide health insurance or any other fringe benefit of any kind to PROVIDER.

11. CONFIDENTIALITY

PROVIDER agrees to respect and abide by all federal, state and local laws pertaining to confidentiality and disclosure with regard to all information and records obtained or reviewed in the course of providing services to AGENCY and/or its clients.

12. ATTORNEY'S FEES

If suit is brought to enforce any of the terms or conditions of this Agreement, the prevailing party shall be entitled to recover such sums as the court may fix as costs and reasonable attorney's fees, in addition to any other relief to which it may be entitled.

13. NOTICES

Any notice required to be provided to any party to this Agreement shall be in writing and shall be considered effective three (3) days after the date of deposit with the United States Postal Service by certified or registered mail, first class postage prepaid, return receipt requested.

14. NON-ASSIGNABILITY

Neither this Agreement nor any of the Services or obligations of PROVIDER hereunder shall be assigned or delegated by PROVIDER without prior written consent of AGENCY.

15. WASHINGTON LAW AND VENUE

This Agreement shall be governed by the laws of the State of Washington. If any suit or action is filed by any party to enforce or interpret this Agreement, venue shall be in the federal or state courts of Clark County, Washington.

16. COMPLETE AGREEMENT

This Agreement and the accompanying Business Associate Agreement supersedes all previous agreements, oral or written, between the parties and embodies the complete Agreement between the parties. This Agreement may only be amended or modified by written agreement signed by both parties.

17. COMPLIANCE CERTIFICATION

PROVIDER acknowledges AGENCY’s Corporate Compliance Program and receipt of AGENCY’s Code of Conduct. PROVIDER represents and warrants that each of its employees who provide patient care to Federal health care program beneficiaries at AGENCY shall read and review AGENCY’s Code of Conduct prior to commencement of services under this Agreement. PROVIDER agrees to obtain and retain a signed certification from its employees that they have received, read and understand AGENCY’s Code of Conduct and agree to abide by the requirements of AGENCY’s Corporate Compliance Program. Such certification shall be obtained prior to commencement of services under this Agreement, shall be maintained by PROVIDER and shall be made available for review by AGENCY or AGENCY’s agents upon reasonable request.

18. COMPENSATION NOT BASED ON REFERRALS

The parties acknowledge that none of the benefits granted to PROVIDER under this Agreement or in relation to the performance of services hereunder is conditioned on any requirement that PROVIDER make referrals to, be in a position to make or influence referrals to, or otherwise generate business for the AGENCY or the affiliates of the AGENCY by common ownership. The parties further acknowledge that, except as may otherwise be provided in this Agreement, PROVIDER is not restricted from establishing staff privileges at, referring any services to, or otherwise generating any business for any other entity of PROVIDER’S choosing.

IN WITNESS WHEREOF, the parties by their duly authorized representatives have entered into this Agreement as of the date first above written.

AGENCY
by its Manager, EmpRes Healthcare
Management, LLC,

PROVIDER

By: _____

By: _____

Name: Michael Miller

Name: _____

Title: CFO

Title: _____

Date: _____

Date: _____

UPIN #: _____

REQUIRED DOCUMENTS FOR CONTRACT COMPLETION
Copy of Liability/Malpractice Insurance - \$1M / \$3M Liability Limits
Office Address and Phone Number

Copy of Current State of Practice License;
PROVIDER-signed Business Associate Agreement

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 10
MEDICAL DIRECTOR
JOB DESCRIPTION**

JOB TITLE: Medical Director
REPORTS TO: Administration, Board of Directors
SUPERVISES:

AGENCY NAME:
DISTRIBUTION CODE: N/A
FSLA STATUS:

JOB SUMMARY

The Medical Director provides overall management of medical care of Agency patients and makes sure provision of Hospice services reflects Eden philosophy and standards. The Medical Director adheres to all federal, state, and local rules and regulations, as well as accrediting organization standards. He or she works in conjunction with the patient's attending physician and provides direct patient care. The Medical Director establishes relationships with the medical community in order to increase awareness and provide education about hospice and palliative care, and participates in the Agency's performance improvement program.

Note: Medical staff is privileged and credentialed according to the rules and regulations of the specific Agency. The medical staff of each Agency is responsible for peer review activities to promote continuous improvement of the quality of patient care provided by the medical staff in all departments of the Agency. See Eden's *Medical Staff Bylaws and Rules and Regulations* to define these processes.

ESSENTIAL FUNCTIONS

1. Directs and coordinates medical care for the Agency.
2. Participates in administrative decision making and establishes policies, procedures, and guidelines designed to provide adequate, comprehensive care.
3. Communicates with patients' attending physicians and other healthcare providers regarding the Agency's policies, procedures, and standards.
4. Develops and implements rules, regulations, and policies that govern the attending physicians that admit patients to the Agency, in conjunction with the administration.
5. Monitors the clinical practice of the attending physicians; may intervene as needed on the patient's behalf.
6. Assists in developing procedures for the emergency treatment of patients. May assume care of the patient if the attending physician is not available or the patient does not have an attending physician.
7. Assists with the development of policies and procedures for the admission, transfer, or discharge of patients to other facilities when necessary.
8. Participates in patient comprehensive care planning.
9. Participates in the development and implementation of educational programs for nursing and other healthcare professionals of the Agency.
10. Provides clear, concise documentation in medical record as it relates to reimbursement guidelines and Agency policy and procedure.
11. Reviews and evaluates incident reports and identifies hazards to health and safety to provide a safe and sanitary environment for patients. Makes relevant recommendations to Administration.
12. Helps create environment that optimizes patient safety and reduces the likelihood of medical/health care errors.
13. Supports and maintains a culture of safety and quality.
14. Advocates on behalf of the patient to meet the patient's medical and psychosocial needs.

The above Job Description is intended to describe the general content and requirements for the performance of this particular position. It is not to be construed as an exhaustive statement of duties, responsibilities, or requirements, nor is it to be construed as a contract for employment.

15. Develops, revises, and implements policies and procedures for patient care, infection prevention and control, performance improvement, and patient rights.
16. Establishes performance improvement monitoring programs and standards to make sure the Agency maintains accreditation, licensing, and quality patient care.
17. Monitors and evaluates the quality and appropriateness of medical services as an integral part of the overall performance improvement program.
18. Treats patients and their families with respect and dignity.
19. Identifies and addresses psychosocial needs of patients and their families.
20. Demonstrates extensive knowledge of hospice and palliative care.
21. Demonstrates knowledge of current pain management protocols.
22. Effectively and consistently communicates administrative directives to physicians and staff and encourages interactive meetings and discussions.
23. Presents periodic reports reflecting the medical services of the Agency and such special reports as may be required by the Board.
24. Develops educational classes for healthcare professionals and the community regarding hospice and palliative care.
25. Acts as the Agency's medical representative in the community.
26. Provides direct patient medical care:
 - a. Approves Patient Admittance
 - b. Confirms Patient Diagnosis and Prognosis
 - c. Recertifies Patients for Each Benefit Period
 - d. Pain Management
 - e. Symptom Management
 - f. Palliative Care
 - g. Inpatient Rounds
 - h. Home Visits
 - i. On Call
 - j. Prescribes Medications and Other Regulated Medical Devices

PROFESSIONAL REQUIREMENTS

1. Adheres to dress code; appearance is neat and clean.
2. Reports to work on time and as scheduled.
3. Wears identification while on duty.
4. Attends annual review and departmental inservices, as appropriate.
5. Represents the organization in a positive and professional manner.
6. Completes quarterly/annual education requirements.
7. Maintains regulatory requirements, including federal, state, local regulations, and accrediting organization standards.
8. Maintains patient confidentiality.
9. Works at maintaining a good rapport and a cooperative working relationship with physicians, departments, and staff.
10. Attends committee, QAPI, management meetings, and other required meetings as appropriate.
11. Adheres to payroll, billing, and documentation policies and procedures.

The above Job Description is intended to describe the general content and requirements for the performance of this particular position. It is not to be construed as an exhaustive statement of duties, responsibilities, or requirements, nor is it to be construed as a contract for employment.

12. Guarantees compliance with policies and procedures regarding operations, fire safety, emergency management, grievance and concerns, adverse events, incident reporting and infection prevention and control.
13. Complies with organizational policies regarding ethical business practices.
14. Demonstrates effective time management and organizational skills.
15. Communicates the mission, ethics, and goals of the organization.

KNOWLEDGE, SKILLS, AND ABILITIES

1. Understands regulations/standards applicable to Hospice.
2. Thorough knowledge and understanding of the functions of a Hospice Agency.
3. Demonstrates knowledge of the dying patient and pain control measures.
4. Exhibits genuine interest in and compassion for patients and families dealing with end-of-life issues.
5. Understands hospice philosophy and issues of death and dying.
6. Ability to be flexible, organized, and function under stressful situations
7. Able to communicate effectively in English, both verbally and in writing.
8. Excellent interpersonal skills.
9. Excellent writing and presentation skills.
10. Knowledge of general modalities and scope of practice within the state of Agency operation.
11. Candidate should be self-directed and can work in the field with minimum supervision.
12. A valid driver's license, reliable auto, and current auto insurance.
13. Basic computer knowledge.

EDUCATION AND EXPERIENCE

1. Doctorate in Medicine or Osteopathy.
2. Currently licensed to practice medicine in the state of employment.
3. Current Board Certification in specialty area. Board certified by the American Academy of Hospice and Palliative Medicine preferred.
4. Drug Enforcement Administration Registration.
5. Presentation of Certificate of Insurance.
6. Experience in hospice and palliative care required.
7. Administrative experience preferred.

REPORTING RELATIONSHIPS

1. This position reports directly to Administration and the Board of Directors.

WORKING CONDITIONS

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job.

1. Ability to work under stress and in emergency situations.
2. Ability to work under conditions requiring sitting, standing, walking, reaching, pushing, pulling, and grasping with potential exposure to communicable diseases.

PHYSICAL DEMANDS ANALYSIS

See attached Physical Demands Analysis, if applicable.

The above Job Description is intended to describe the general content and requirements for the performance of this particular position. It is not to be construed as an exhaustive statement of duties, responsibilities, or requirements, nor is it to be construed as a contract for employment.

SIGNATURES

I have read and reviewed this job description and fully understand the requirements set forth therein. I am able to perform the essential functions of this job with or without reasonable accommodation. I agree to perform the tasks outlined in this job description in a safe manner and in accordance with the company's established processes.

Employee Signature

Date

Supervisor Signature

Date

The above Job Description is intended to describe the general content and requirements for the performance of this particular position. It is not to be construed as an exhaustive statement of duties, responsibilities, or requirements, nor is it to be construed as a contract for employment.

JOB TITLE: Medical Director
REPORTS TO: Administrator, Board of Directors
SUPERVISES:

AGENCY NAME:
DISTRIBUTION CODE: N/A
FSLA STATUS:

PHYSICAL DEMANDS

Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions of this position.

On-the-job time is spent in the following physical activities:

Standing: Remaining on one's feet in an upright position at a workstation without moving about.

LEVEL: Matted/even surface (linoleum, carpet, mats)

TIME: 3.00 hours per day

REPETITION: Occasionally

Sitting: Remaining in the seated position.

LEVEL: Casual, flexible, discretionary position.

TIME: 2.00 hours per day

REPETITION: Occasionally

Walking: Moving about on foot.

LEVEL: Casual, discretionary movement on matted/even surface (linoleum, carpet, mats). TIME: 3.00 hours per day

REPETITION: Frequently

Lifting: Raising or lowering an object from one level to another.

LEVEL: Medium, 50lbs maximum, frequent lifting/carrying 25lbs or less.

TIME: 1.00 hours per day

REPETITION: Occasionally

Bending: Moving the body downward and forward by bending the spine at the waist.

LEVEL: Moderate bend (45 degrees).

TIME: 2.00 hours per day

REPETITION: Occasionally

Reaching: Extending the hands and arms in any direction.

LEVEL: Dominant hand and arm.

TIME: 4.00 hours per day

REPETITION: Frequently

LEVEL: Both hands and arms.

TIME: 2.00 hours per day

REPETITION: Occasionally

Handling: Seizing, holding, grasping, turning, or otherwise working with the hand or hands (with or without significant weight resistance).

LEVEL: Dominant hand and arm.

TIME: 4.00 hours per day

REPETITION: Frequently

LEVEL: Both hands and arms.

TIME: 4.50 hours per day

REPETITION: Frequently

Fingering: Picking and pinching or otherwise working with the fingers primarily.

LEVEL: Dominant hand.

TIME: 4.00 hours per day

REPETITION: Frequently

LEVEL: Both hands.

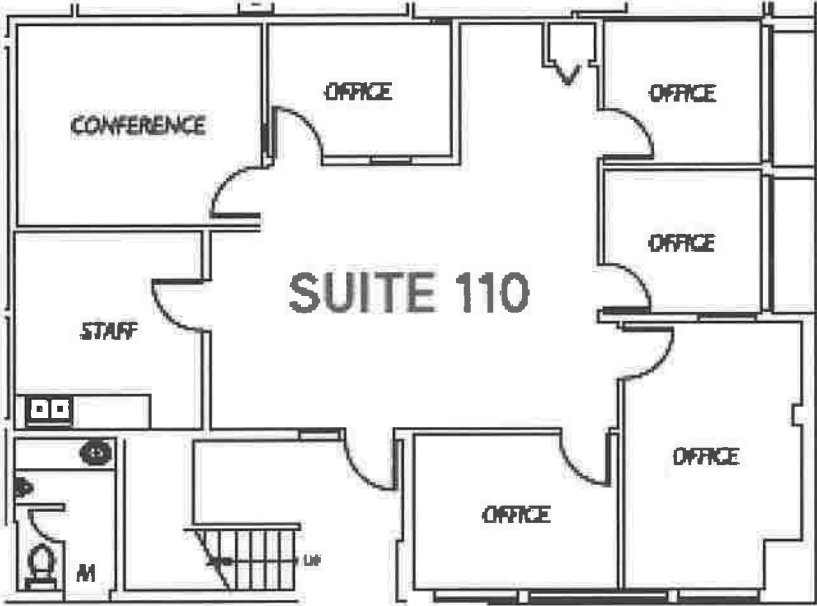
TIME: 2.50 hours per day

REPETITION: Occasionally

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 11
SINGLE LINE DRAWING OF
HOSPICE –
HOME HEALTH CO-LOCATION**

EXHIBIT A
[Floor Plan/Outline of the Premises]



**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 12
EDEN HOSPICE AT KING
COUNTY, LLC
PRO FORMA**

**Projected Statement of Operations
Eden Hospice at King County, LLC**

CENSUS	2022	2023	2024
Patient Days	4,875	11,019	16,888
Average Daily Census	13.36	30.19	46.27
 REVENUE			
Medicare	874,947	1,977,703	3,031,132
Medicaid	46,857	105,914	162,329
Commercial/Other	46,857	105,914	162,329
TOTAL GROSS REVENUE	968,661	2,189,531	3,355,790
 Deductions from Revenue			
Contractual Allowances	(17,499)	(39,554)	(60,623)
Bad Debt	(19,373)	(43,791)	(67,116)
Charity Care Adj	(14,530)	(32,843)	(50,337)
TOTAL NET REVENUE	917,259	2,073,344	3,177,715
 DIRECT CARE EXPENSE			
Ancillary Expenses			
Pharmacy Expense	24,374	55,094	84,440
Lab Expense	585	1,322	2,027
Xray Expense	390	882	1,351
Ambulance/Transportation Expense	1,950	4,408	6,755
DME Expense	25,593	57,849	88,662
TOTAL ANCILLARY EXPENSES	52,891	119,554	183,235
 Home Services Expense			
Mileage Expense	40,558	91,677	140,508
Medical Supplies	9,750	22,038	33,776
RN Expense	138,898	313,961	481,193
Hospice Aide Expense	61,115	138,143	211,725
Spiritual Counselor Expense	58,240	58,240	101,920
QA Nurse Expense	45,000	45,000	45,000
GIP Expense	21,071	47,629	72,998
Respite Expense	9,289	20,997	32,181
SNF Room & Board Expense	6,988	15,795	24,208
Social Services Expense	35,188	79,537	121,902
Payroll Taxes & Benefits	101,532	190,464	288,522
TOTAL HOME SERVICES EXPENSE	527,629	1,023,479	1,553,934
 Contract Labor			
Medical Director	34,124	77,132	118,216
Physical Therapy	244	551	844
Occupational Therapy	146	331	507
Speech Therapy	244	551	844
Dietary Consulting	439	992	1,520
TOTAL CONTRACT LABOR	35,196	79,556	121,932
 TOTAL DIRECT CARE EXPENSES	 615,717	 1,222,589	 1,859,100

**Projected Statement of Operations
Eden Hospice at King County, LLC**

A&G EXPENSE

Administrative Compensation

Administrator	75,000	75,000	75,000
Director of Patient Care Services	-	-	-
Business Office Manager	27,040	27,040	27,040
Clinical Support Specialist	54,080	54,080	81,120
Volunteer/Bereavement Coord	-	-	52,000
Community Liaison	40,000	40,000	80,000
Payroll Taxes & Benefits	71,586	71,586	107,298
TOTAL ADMIN COMP EXPENSES	310,206	310,206	464,958

Administrative Expenses

Contract Services	11,052	11,052	11,052
Office Supplies	4,200	4,800	4,800
Recruiting	4,800	4,800	4,800
Telephone/Internet	8,512	17,728	26,532
Licenses/Permits	1,642	1,642	1,642
Business Taxes	17,428	39,394	60,377
Bank Fees	1,376	3,110	4,767
Office Cleaning	-	-	-
Marketing Expense	7,200	7,200	7,200
TOTAL	56,210	89,726	121,169

TOTAL A&G EXPENSE 366,416 399,932 586,127

INSURANCE EXPENSE 6,879 15,550 23,833

TOTAL OPERATING EXPENSES 989,012 1,638,071 2,469,060

MANAGEMENT FEES 45,863 103,667 158,886

BUILDING LEASE 26,334 26,400 26,400

TOTAL DEPRECIATION & AMORTIZATIC - - -

INTEREST EXPENSE - - -

TOTAL NON OPERATING EXPENSES 72,197 130,067 185,286

TOTAL EXPENSES 1,061,209 1,768,138 2,654,346

NET INCOME (LOSS) (143,950) 305,205 523,369

Balance Sheet
Eden Hospice at King County, LLC

ASSETS	2022	2023	2024
Current Assets			
Cash & Cash Equivalents	76,978	315,466	783,869
Accounts Receivable (net)	76,438	172,779	264,810
Prepaid Expenses	-	-	-
Total Current Assets	153,416	488,245	1,048,678
Property and Equipment			
Fixed Assets	-	-	-
Accumulated Depreciation	-	-	-
Total Property and Equipment	-	-	-
Other Assets			
Intangibles	-	-	-
Loan Fees	-	-	-
Accumulated Amortization	-	-	-
Total Other Assets	-	-	-
TOTAL ASSETS	153,416	488,245	1,048,678
LIABILITIES AND CAPITAL			
Current Liabilities			
Accounts Payable & Accrued Expenses	11,542	22,978	33,855
Accrued Payroll & Related Payables	32,947	51,134	77,322
Notes Payable	-	-	-
Current Portion LT Debt	-	-	-
Total Current Liabilities	44,489	74,113	111,177
Long-Term Liabilities			
Long-Term Note Payable	-	-	-
Less: Current Portion of LTD	-	-	-
Total Long-Term Liabilities	-	-	-
TOTAL LIABILITIES	44,489	74,113	111,177
Capital	100,000		
Retained Earnings	-		
Shareholder Equity	(15,409)	414,132	937,501
Total Capital	84,591	414,132	937,501
TOTAL LIABILITIES AND CAPITAL	153,416	488,245	1,048,678

The following table provides key methodology and assumptions used for all revenue, costs, and expenses for the proposed King County hospice. Assumptions underlying more detailed line items are provided as part of Appendix 12. Where items are based on costs Per Patient Day (PPD), per month, or per year, these averages from experience in Eden Health's Nevada, Idaho and Arizona Hospice operations combined with adjustments based on cost experience in King County under Eden Health's Home Health operation in Whatcom, Skagit, Snohomish, Island and King Counties.

Draft Proforma Operating Statement, Eden Hospice at King County, LLC

Assumptions for calculating line items at Appendix 12

Revenue	
Medicaid	Includes managed Medicaid (i.e. CHPW, Molina, etc.)
Commercial	Includes all commercial, TriCare, CHAMPUS, VA
Deductions from Revenue	
Contractual Allowances	Includes 2% sequestration from Medicare
Bad Debt	1% of gross revenue
Charity Care Adj	1.5% of gross revenue
Direct Care Expenses	
Ancillary Expenses:	
Pharmacy	\$5.00 PPD
Lab	\$0.12 PPD
Xray	\$0.08 PPD
Ambulance	\$0.40 PPD
DME	\$5.25 PPD
Home Services:	
Mileage	\$8.32 PPD
Medical Supplies	\$2.00 PPD
GIP Expense	\$864.50 PPD for GIP days
Respite Expense	\$381.11 PPD for Respite days
SNF Room & Board Expense	\$229.35 PPD for R&B days
Payroll Taxes & Benefits	30% of salaries
Contract Services:	
Hospice Medical Director	\$7.00 PPD
Physical Therapy	\$0.05 PPD
Occupational Therapy	\$0.03 PPD
Speech Therapy	\$0.05 PPD
Dietary Consultant	\$0.09 PPD
Administrative Expenses	
Payroll Taxes & Benefits	30% of salaries
Contract Services	\$921.00/month- vendor agreements (HIS sweeper, CAHPS vendor, ATS, etc.)
Office Supplies	\$350.00/month- includes admission packet orders, general office supplies
Recruiting	\$400.00/month- posting on job boards such as Indeed, Facebook, LinkedIn
Telephone/Internet	\$1.50 PPD for company-issued cell phones and tablets for documentation, \$100/month for office internet (shared with Home Health office)
Licenses/Permits	\$1,642.00 annual Hospice license fee
Business Taxes	1.9% of net revenue
Bank Charges	0.15% of net revenue
Marketing Expense	\$600.00/month- includes advertisements, brochures, etc.
Insurance Expense	0.75% of net revenue- includes property/liability insurance
Management Fees	5% of net revenue- includes Management, Billing, HR and Benefits, Legal, Payroll, Recruiting, Accounts Payable, Authorizations, EHR Support, IT Support, Publications/Policy Writing and Review, Payer Contracting and Negotiations

Basis for Staffing Assumptions

Eden Health has operated a very successful Hospice agency in Carson City, NV and has implemented a start-up Hospice located in Safford, AZ turning profit in the first year of start-up. The ratios and assumptions underlying the proposed staffing for King County are based on:

- Eden Health's depth of experience in highly competitive markets for both census growth and recruiting of staff;
- Eden Health's Home Health operation employs just under 200 total employees, with lower than 1% turnover rates;
- Its preferred staffing model, plus
- Alignment with national staffing averages per type of position.

APPENDIX 12 PRO FORMA ASSUMPTIONS

The following table provides key methodology and assumptions used for calculating revenue and labor expenses, revenue, costs, and expenses for the proposed King County hospice. Assumptions underlying more detailed line items are provided as part of Appendix 12. Where items are based on costs Per Patient Day (PPD), per month, or per year, these averages from experience in Eden Health's Nevada, Idaho and Arizona Hospice operations combined with adjustments based on cost experience in King County under Eden Health's Home Health operation in Whatcom, Skagit, Snohomish, Island and King Counties

Revenue Assumptions & Staffing Summary Eden Hospice at King County, LLC

CENSUS	2022	2023	2024	
Admissions	81	180	276	
Patient Days	4,875	11,019	16,888	
Average Daily Census	13.36	30.19	46.27	
PATIENT DAYS BY LEVEL OF CARE				
Routine Home Care 0-60	2,242	5,069	7,768	
Routine Home Care 61+	2,535	5,730	8,782	
Respite Care	49	110	169	
General Inpatient Care	24	55	84	
Continuous Care	24	55	84	
TOTAL	4,875	11,019	16,888	
PER PATIENT DAY RATES				
Routine Home Care 0-60	208.64	208.64	208.64	Per day
Routine Home Care 61+	164.91	164.91	164.91	Per day
Respite Care	480.37	480.37	480.37	Per day
General Inpatient Care	1,079.28	1,079.28	1,079.28	Per day
Continuous Care	62.48	62.48	62.48	Per hour
GROSS REVENUE BY LEVEL OF CARE				
Routine Home Care 0-60	467,857	1,057,528	1,620,823	
Routine Home Care 61+	418,036	944,914	1,448,225	
Respite Care	23,417	52,932	81,125.66	
General Inpatient Care	26,306	59,462	91,135	
Continuous Care	33,046	74,695	114,482	
TOTAL	968,661	2,189,531	3,355,790	
PAYER MIX				
Medicare	90%	90%	90%	
Medicaid	5%	5%	5%	
Commercial/Other	5%	5%	5%	
TOTAL	100%	100%	100%	
GROSS REVENUE BY PAYER				
Medicare	874,947	1,977,703	3,031,132	
Medicaid	46,857	105,914	162,329	
Commercial/Other	46,857	105,914	162,329	
TOTAL	968,661	2,189,531	3,355,790	

APPENDIX 12 PRO FORMA ASSUMPTIONS

Revenue Assumptions & Staffing Summary Eden Hospice at King County, LLC

Revenue Assumptions & Staffing Summary Eden Hospice at King County, LLC

		2022	2023	2024		
STAFFING SUMMARY FTE						
CLINICAL OPERATIONS						
	SALARY					
QAPI Nurse	90,000	0.50	0.50	0.50	Split between HH and HOS	
Registered Nurse	104,000	1.34	3.02	4.63	1 per 10 ADC	
Medical Social Worker	79,040	0.45	1.01	1.54	1 per 30 ADC	
Hospice Aide	45,760	1.34	3.02	4.63	1 per 10 ADC	
Spiritual Care Coord	58,240	1.00	1.00	2.00	Vol/bereavement until ADC 30	
TOTAL		4.62	8.54	13.30		
ADMINISTRATIVE						
Administrator	150,000	0.50	0.50	0.50	Split between HH and HOS	
Director of Patient Care	120,000	-	-	-		
Clinical Manager	85,000	0.50	0.50	0.50	Split between HH and HOS	
Business Office Manager	54,080	0.50	0.50	0.50	Split between HH and HOS	
Clinical Support Specialist	54,080	1.00	1.00	1.50	Split between HH and HOS	
Volunteer/Bereavement Coord	52,000	-	-	1.00		
Community Liaison	80,000	0.50	0.50	1.00	Split between HH and HOS	
TOTAL		3.00	3.00	5.00		
TOTAL FTE'S		7.62	11.54	18.30		

APPENDIX 12: BALANCE SHEET ASSUMPTIONS	
Balance Sheet	
Eden Hospice at King County, LLC	
ASSETS	
Current Assets	
Cash & Cash Equivalents	
Accounts Receivable (net)	Accounts receivable are set at 60.83 days - 365 / 6 periods
Prepaid Expenses	
Total Current Assets	
Property and Equipment	
Fixed Assets	No capital investment required
Accumulated Depreciation	
Total Property and Equipment	
Other Assets	
Intangibles	
Loan Fees	No loans are required
Accumulated Amortization	
Total Other Assets	
TOTAL ASSETS	
LIABILITIES AND CAPITAL	
Current Liabilities	
Accounts Payable & Accrued Expenses	Accounts payable are set at 60.83 days - 365 / 6 periods
Accrued Payroll & Related Payables	Accrued payroll is set at 15.208 days -- 365 days / 24 periods
Notes Payable	
Current Portion LT Debt	
Total Current Liabilities	
Long-Term Liabilities	
Long-Term Note Payable	
Less: Current Portion of LTD	
Total Long-Term Liabilities	
TOTAL LIABILITIES	
Capital	Working capital is set at \$100,000 to cover start up costs.
Retained Earnings	
Shareholder Equity	
Total Capital	
TOTAL LIABILITIES AND CAPITAL	
Diff. Between Assets & Liab+Equity	

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 13
EMPRES HEALTHCARE GROUP
INC.
PRO FORMA
WITHOUT EDEN HOSPICE OF
KING COUNTY, &
WITH EDEN HOSPICE OF KING**

Projected Statement of Operations
EXISTING HOSPICE OPERATIONS 3 YEAR HISTORICAL AND CURRENT YEAR

	2017	2018	2019	2020
Total Gross Revenue	3,493,043	4,751,449	6,454,531	8,564,368
Total Net Revenue	3,442,004	4,656,503	6,341,272	7,302,089
Total Expenses	3,063,631	4,035,188	5,701,665	5,982,176
Net Income	378,373	621,315	639,607	974,477
	11%	13%	10%	11%

**** 2020 is Annualized using Jan - Oct data**

2020 also includes 2 Hospice start-up agencies, so net would be even better without those

EDEN EXISTING-HOSPICE PRO FORMA			
Projected Summary Statement of Operations Without Eden Hospice of King County			
	2022	2023	2024
Total Gross Revenue	15,879,373	22,548,540	31,318,476
Total Net Revenue	13,339,456	18,934,704	26,112,043
Total Expenses	10,844,707	15,160,145	20,578,898
Net Income	2,494,749	3,774,559	5,533,145

Balance Sheet
Eden Hospice Balance Sheet Without Eden Hospice of King County, LLC

ASSETS	2022	2023	2024
Current Assets			
Cash & Cash Equivalents	2,494,749	3,774,559	5,533,145
Accounts Receivable (net)	2,223,243	3,155,784	4,352,007
Prepaid Expenses	-	-	-
Total Current Assets	4,717,991	6,930,343	9,885,152
Property and Equipment			
Fixed Assets	124,904	124,904	124,904
Accumulated Depreciation	93,678	109,291	124,904
Total Property and Equipment	31,226	15,613	-
Other Assets			
Intangibles	-	-	-
Loan Fees	-	-	-
Accumulated Amortization	-	-	-
Total Other Assets	-	-	-
TOTAL ASSETS	4,749,217	6,945,956	9,885,152
LIABILITIES AND CAPITAL			
Current Liabilities			
Accounts Payable & Accrued Expenses	451,863	631,673	857,454
Accrued Payroll & Related Payables	225,931	315,836	428,727
Notes Payable	-	-	-
Current Portion LT Debt	-	-	-
Total Current Liabilities	677,794	947,509	1,286,181
Long-Term Liabilities			
Long-Term Note Payable	-	-	-
Less: Current Portion of LTD	-	-	-
Total Long-Term Liabilities	-	-	-
TOTAL LIABILITIES	677,794	947,509	1,286,181
Capital			
Capital	-	-	-
Retained Earnings	-	-	-
Shareholder Equity	4,071,423	5,998,447	8,598,971
Total Capital	4,071,423	5,998,447	8,598,971
TOTAL LIABILITIES AND CAPITA	4,749,217	6,945,956	9,885,152

Projected Statement of Operations
EXISTING HOSPICES WITH EDEN HOSPICE OF KING COUNTY

	2022	2023	2024
Total Gross Revenue	16,848,034	25,910,151	38,741,816
Total Net Revenue	14,256,715	22,090,413	33,013,495
Total Expenses	11,905,916	18,159,285	26,712,247
Net Income	2,350,799	3,931,128	6,301,248

Balance Sheet
Eden Hospices With Eden Hospice of King County

ASSETS	2022	2023	2024
Current Assets			
Cash & Cash Equivalents	2,350,799	3,931,128	6,301,248
Accounts Receivable (net)	2,376,119	3,681,736	5,502,249
Prepaid Expenses	-	-	-
Total Current Assets	4,726,918	7,612,863	11,803,497
Property and Equipment			
Fixed Assets	124,904.00	124,904.00	124,904.00
Accumulated Depreciation	93,678.00	109,291.00	124,904.00
Total Property and Equipment	31,226	15,613	-
Other Assets			
Intangibles	-	-	-
Loan Fees	-	-	-
Accumulated Amortization	-	-	-
Total Other Assets	-	-	-
TOTAL ASSETS	4,758,144	7,628,476	11,803,497
LIABILITIES AND CAPITAL			
Current Liabilities			
Accounts Payable & Accrued Expenses	496,080	756,637	1,113,010
Accrued Payroll & Related Payables	248,040	378,318	556,505
Notes Payable	-	-	-
Current Portion LT Debt	-	-	-
Total Current Liabilities	744,120	1,134,955	1,669,515
Long-Term Liabilities			
Long-Term Note Payable	-	-	-
Less: Current Portion of LTD	-	-	-
Total Long-Term Liabilities	-	-	-
TOTAL LIABILITIES	744,120	1,134,955	1,669,515
Capital	100,000		
Retained Earnings	-		
Shareholder Equity	3,914,024	6,493,521	10,133,982
Total Capital	4,014,024	6,493,521	10,133,982
TOTAL LIABILITIES AND CAPITA	4,758,144	7,628,476	11,803,497

EDEN HOSPICE PRO FORMA PROJECTIONS								
Projected Summary Statement of Operations Without Eden Hospice of King County								
	2017	2018	2019	2020	2021	2022	2023	2024
Revenue and Expense Assumptions								
Total Gross Revenue	Gross Revenue grew by annual rate of 34%, a combination of volume increase and annual rate increases. CoN wants to remove annual inflation and MedPac indicates profit among all hospices is 13% and among for profits is 15% -- both increasing. Existing hospices were increased by 21% per year and the pro forma for Whatcom and King were directly input. Whatcom was increased by 21% for 2024.							
Total Net Revenue	Net Revenue grew by an annual rate of 28%, a combination of volume increase and annual rate increases. CoN wants to remove annual inflation and MedPac indicates profit among all hospices is 13% and among for profits is 15% -- both increasing. Existing hospices were increased by 18% annually per year and the pro forma for Whatcom and King were directly input. Whatcom was increased by 18% from 2023 - 2024.							
Total Expenses	Total Expense grew by an annual rate of 25%, a combination of volume increase and annual rate increases. CoN wants to remove annual inflation and MedPac indicates profit among all hospices is 13% and among for profits is 15% -- both increasing. Existing hospices were increased by 16% annually and the pro forma for Whatcom and King were directly input. Whatcom was increased by 16% from 2023 - 24.							
Net Income	Net Income grew by an annual rate of 37% from 2017 - 2020. Net Income was calculated by subtracting Total Expenses from Net Revenue. The percent profit was calculated and controlled to remain in the 12% - 18% range consistent with MedPac which is how the annual increases in revenue and expense were calculated.							
Balance Sheet Assumptions								
Accounts Receivable	Accounts receivable set at 80.83 days of net revenue (365 / 6)							
Annual Depreciation	Annual depreciation is set at existing annual rate of \$15,613 declining to \$0 in 2024							
Accounts Payable	Accounts payable set at 60,83 days (365/12) Accounts payable represent 50% of expense.							
Accrued Payroll	Accrued payroll set at 15.208 days (365/24). Accrued payroll represents 50% of expense.							
Capital Contribution	Working capital for the Eden Hospice of King County, LLC is set at \$100,000.							

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 14
ADMISSIONS CRITERIA
PROCESS – INTAKE &
NON-DISCRIMINATION**



Reference#	1003
Effective:	12/01/14
Last Revised:	10/18/19

INTAKE/REFERRAL POLICY

PURPOSE:

- The Hospice intake process is an important first step in a potential hospice patient's experience, to guarantee the Agency can provide applicable care, treatment, and services to the patient.

POLICY:

1. The Agency's intake process functions 24 hours a day, seven days a week.
2. This process strives to enable same day admissions.

PROCEDURE:

1. Intake receives referrals by way of multiple referral methods including:
 - a. Telephone
 - b. Facsimile
 - c. Written Order
 - d. E-mail
 - e. Direct Contact
2. Intake referral sources:
 - a. Physicians of medicine, osteopathy, podiatry, dental surgery, psychiatrists, or dentists.
 - b. Office staff representing the physician.
 - c. Discharge planners from inpatient and/or outpatient services.
 - d. Social Service agencies.
 - e. Individual patients, their family members, or caregiver(s).
 - f. Case managers and/or insurance company representatives.
 - g. Other home health or hospice organizations.
3. Intake during scheduled working hours:
 - a. Clinical or office staff may obtain referral information, requesting patient demographics, diagnosis, services needed, the name of the physician, hospitalization, etc.
 - b. The Director of Patient Care Services, Clinical Manager, or designee decides whether the patient meets the eligibility criteria.
 - c. Patient insurance is verified and authorization is received as appropriate. Ongoing authorization is obtained as required. Payment Method: Eden Hospice accepts most private healthcare insurance (please refer to the Agency brochure for further details), Medicare, and Medicaid.
 - d. If the referral call is not from a physician, staff contacts the physician to confirm service needs, medications, and to obtain verbal orders for an evaluation and admission visit.
 - e. Referrals containing verbal orders are given to the designated professional for verification and documentation of verbal orders.



Reference#	1003
Effective:	12/01/14
Last Revised:	10/18/19

- f. Staff may ask for verification of physician certification.
 - g. Staff contacts patient, family, or caregiver to schedule an initial meeting to assess the patient for admission into the Agency and provide information on the Agency's services and program.
4. Patients are accepted by the Hospice Medical Director for care and services based on eligibility criteria listed below:
- a. The care and services required by the patient are consistent with the Agency's mission, scope of service, and availability of services to meet patient's needs.
 - b. The patient resides within the geographical area served by the Agency.
 - c. The patient has adequate support at the place of residence.
 - d. The patient is certified as being terminally ill as required by payer source.
 - e. There is a reasonable expectation that the patient's care and service needs can be met adequately in his/her residence.
5. If it is determined that the Agency cannot reasonably accommodate the patient's needs, or if the patient does not meet the admission criteria, the patient/family/referral source is notified and provided with information about other providers and referrals are made when appropriate.
6. The hospice maintains a record of referrals.

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 15
ADMISSIONS, CHARITY CARE
FINANCIAL ASSISTANCE
POLICY, DISCHARGE, &
PATIENT BILL OF RIGHTS**

Reference#	1001
Effective:	12/01/14
Last Revised:	11/29/16

ADMISSION POLICY

PURPOSE:

- To keep acceptance of patients consistent with Eden Hospice' mission and scope of services based on the reasonable expectation that the patient's care and service needs can be appropriately and safely met in the patient's place of residence.

POLICY:

1. The Agency admits a patient on the recommendation of the Hospice Medical Director in consultation with/with input from the patient's attending physician.
2. The Hospice Medical Director considers the following information when reaching a decision to certify that a patient is terminally ill:
 - a. Diagnosis of the terminal condition of the patient.
 - b. Other health conditions whether related or unrelated to the terminal condition.
 - c. Current clinically relevant information supporting diagnoses.
3. Patients with a terminal illness are accepted by the clinical supervisor or designee for care and services who meet the eligibility criteria listed below:
 - a. The patient is under the care of a physician. The patient's physician orders and approves care by the Agency. The physician is willing to sign or get another physician to sign the death certificate upon the patient's death. The physician discusses the patient's resuscitation status with the patient, family, or caregiver.
 - b. The patient identifies a family member, a caregiver, or a legal representative who agrees to be a primary support care person. Terminally ill patients (who are currently independent in activities of daily living) without an identified support person require the development of a specific plan for the future need of a primary support person. Staff discuss and plan for this at time of admission.
 - c. The patient has a life-threatening illness with a life expectancy of six months or less, as determined by the attending physician and Hospice Medical Director.
 - d. The patient wants hospice services and is aware of his/her diagnosis and prognosis.
 - e. The focus of the care wanted is palliative versus curative.
 - f. The patient, family, or caregiver agrees to participate in the plan of care and signs the *Hospice Consent Form*.
 - g. The patient, family, or caregiver understands and agrees that the Agency primarily provides care at home.
 - h. The physical facilities and equipment in the patient's home are adequate for safe and effective care.
 - i. The patient resides within the Agency's geographical area.

Reference#	1001
Effective:	12/01/14
Last Revised:	11/29/16

- j. Hospice does not base eligibility for participation on the patient's race, color, creed, sex, age, disability (mental or physical), communicable disease, or place of national origin.
 - k. The patient meets the eligibility criteria for Medicare, Medicaid, private Hospice benefit or meets the Eden Hospice Charity Care eligibility criteria.**
 - l. In order to be eligible to elect hospice care under Medicare, the patient is:
 - i. Entitled to Part A of Medicare, *and*
 - ii. Certified as being terminally ill.
 - m. The Agency accepts patients based on their care needs. The Agency considers the adequacy and suitability of staff and the resources required to provide the service. A reasonable expectation exists that the Agency can adequately take care of the patient at home.
 - n. The Agency accepts patients based on a patient's ability to pay for hospice services, either through state or federal assistance programs, private insurance, personal assets or the Eden Hospice Charity Care eligibility criteria.**
 - o. The Agency reserves the right to refuse patients who do not meet the admission criteria and refers patients to other resources.
 - p. For Medicare patients, the physician is willing to provide a face-to-face encounter and the required written orders for care and/or services.
 - q. Payment Method: Eden Home Health accepts most private healthcare insurance (please refer to the Agency brochure for further details), Medicare, and Medicaid.
4. If it is determined that the Agency cannot reasonably accommodate the patient's needs, or if the patient does not meet the admission criteria, the patient/family/referral source is notified and provided with information about other providers.

PROCEDURE:

1. Referral information provided by family, caregiver, and healthcare clinicians from other facilities, other agencies, and physicians' offices may help in the determination of eligibility for admission. If the patient's physician does not make the request for service, the Agency consults with the physician before the assessment visit.
2. Assignment of appropriate staff to conduct the initial assessment.

WASHINGTON HOSPICE PATIENT BILL OF RIGHTS

Patients have the right to:

1. Receive effective pain management and symptom control and quality services from Eden Hospice for services identified in the plan of care;
2. Be cared for by appropriately trained or credentialed personnel, contractors and volunteers with coordination of services;
3. A statement advising of the right to ongoing participation in the development of the plan of care;
4. Choose his or her attending physician;
5. A statement advising of the right to have access to the department's listing of licensed hospice agencies and to select any licensee to provide care, subject to the individual's reimbursement mechanism or other relevant contractual obligations;
6. A listing of the total services offered by the hospice agency and those being provided to the patient;
7. Refuse specific services;
8. The name of the individual within Eden Hospice responsible for supervising the patient's care and the manner in which that individual may be contacted;
9. Be treated with courtesy, respect, and privacy;
10. Be free from verbal, mental, sexual, and physical abuse, neglect, exploitation, discrimination, and the unlawful use of restraint or seclusion;
11. Have property treated with respect;
12. Privacy and confidentiality of personal information and health care related records;
13. Be informed of what Eden Hospice charges for services, to what extent payment may be expected from health insurance, public programs, or other sources, and what charges the patient may be responsible for paying;
14. A fully itemized billing statement upon request, including the date of each service and the charge. Agencies providing services through a managed care plan are not required to provide itemized billing statements;
15. Be informed about advanced directives and POLST and Eden Hospice's scope of responsibility;
16. Be informed of Eden Hospice's policies and procedures regarding the circumstances that may cause the agency to discharge a patient;
17. Be informed of Eden Hospice's policies and procedures for providing backup care when services cannot be provided as scheduled;
18. A description of Eden Hospice's process for patients and family to submit complaints to Eden Hospice about the services and care they are receiving and to have those complaints addressed without retaliation;
19. Be informed of the department's complaint hotline number (1-800-633-6828) to report complaints about the licensed agency or credentialed health care professionals; and
20. Be informed of the DSHS end harm hotline number (1-866-363-4276) to report suspected abuse of children or vulnerable adults.
21. Eden Hospice must ensure that the patient rights under this section are implemented and updated as appropriate.

Reference #:	7003
Effective:	12/01/14
Last Revised:	05/21/20

DISCHARGE FOR CAUSE POLICY

PURPOSE:

- To define the circumstances when a patient may be discharged for cause.
- To uphold the patient's right to receive information about his/her care, treatment, and services, and to be involved in the decision-making process when appropriate.
- To maintain the continuity of care, treatment, and/or services meet the patient's needs.
- To standardize the process for discharging patients for cause from Eden Hospice.
- To exchange appropriate information related to the care, treatment, and/or services with other staff and the receiving healthcare provider when patients are discharged for cause from Eden Hospice.

POLICY:

1. Eden Hospice is professionally and ethically responsible to provide care, treatment, and services within its financial and service capabilities, mission, and applicable laws and regulations, once a patient has been admitted to the Agency.
2. The patient and family are active participants, as appropriate and when possible, in planning the discharge.
3. Eden Hospice provides the transfer and discharge policies in the patient or legal representative's primary language.
4. Discharge for cause criteria includes: The patient's (or other persons in the patient's home) behavior is disruptive, abusive, or uncooperative to the extent that delivery of care to the patient or the ability of the hospice to operate effectively is seriously impaired.
5. Discharge of patients occurs in an appropriate manner, guaranteeing that relevant information, including all necessary information pertaining to the patient's current course of illness and treatment, goals of care, and treatment preferences are communicated to appropriate parties and in such a way as to prevent harm to the patient. Eden Hospice complies with requests from the receiving facility or health care practitioner for additional clinical information as may be necessary for treatment of the patient.
 - a. Patients are provided verbal or written notice of discharge 48 hours prior to discharge. Advance notice of discharge is not required in cases of worker safety.
 - b. Documentation of discharge notification and the patient's understanding are documented in the patient's medical record.

Reference #:	7003
Effective:	12/01/14
Last Revised:	05/21/20

PROCEDURE:

1. Prior to discharging a patient for cause, Eden Hospice:
 - a. Advises the patient that a discharge for cause is being considered.
 - b. Advises the attending physician (if involved in patient's care) that a discharge for cause is being considered and consults with him/her.
 - c. Makes a serious effort to resolve the problem(s) presented by the patient's behavior, the behavior of other persons in the patient's home, or situation.
 - d. Ascertains that the patient's proposed discharge is not due to the patient's use of necessary hospice services.
 - e. Provides the patient and representative (if any) with contact information for other agencies or Providers who may be able to provide care.
 - f. If there is a concern about patient's ongoing care and safety, submits a report to appropriate state agencies.
 - g. Documents the problem(s) and efforts made to resolve the problem(s) and enters this documentation into the clinical records.
 - h. Obtains an order for discharge from the Hospice Medical Director.

2. The *Discharge-Transfer Summary Report* and other relevant clinical record documents are completed and submitted within 72 hours of discharge from the Agency.

3. A copy of the *Discharge-Transfer Summary Report* is provided to the patient's attending physician when requested.

ADMISSION POLICY

PURPOSE:

- To keep acceptance of patients consistent with Eden Hospice' mission and scope of services based on the reasonable expectation that the patient's care and service needs can be appropriately and safely met in the patient's place of residence.

POLICY:

1. The Agency admits a patient on the recommendation of the Hospice Medical Director in consultation with/with input from the patient's attending physician.
2. The Hospice Medical Director considers the following information when reaching a decision to certify that a patient is terminally ill:
 - a. Diagnosis of the terminal condition of the patient.
 - b. Other health conditions whether related or unrelated to the terminal condition.
 - c. Current clinically relevant information supporting diagnoses.
3. Patients with a terminal illness are accepted by the clinical supervisor or designee for care and services who meet the eligibility criteria listed below:
 - a. The patient is under the care of a physician. The patient's physician orders and approves care by the Agency. The physician is willing to sign or get another physician to sign the death certificate upon the patient's death. The physician discusses the patient's resuscitation status with the patient, family, or caregiver.
 - b. The patient identifies a family member, a caregiver, or a legal representative who agrees to be a primary support care person. Terminally ill patients (who are currently independent in activities of daily living) without an identified support person require the development of a specific plan for the future need of a primary support person. Staff discuss and plan for this at time of admission.
 - c. The patient has a life-threatening illness with a life expectancy of six months or less, as determined by the attending physician and Hospice Medical Director.
 - d. The patient wants hospice services and is aware of his/her diagnosis and prognosis.
 - e. The focus of the care wanted is palliative versus curative.
 - f. The patient, family, or caregiver agrees to participate in the plan of care and signs the *Hospice Consent Form*.
 - g. The patient, family, or caregiver understands and agrees that the Agency primarily provides care at home.
 - h. The physical facilities and equipment in the patient's home are adequate for safe and effective care.
 - i. The patient resides within the Agency's geographical area.

APPENDIX 15

ADMISSIONS & CHARITY CARE OR FINANCIAL ASSISTANCE & DISCHARGE POLICY

- j. Hospice does not base eligibility for participation on the patient's race, color, creed, sex, age, disability (mental or physical), communicable disease, or place of national origin.
 - k. The patient meets the eligibility criteria for Medicare, Medicaid, private Hospice benefit or meets the Eden Hospice Charity Care eligibility criteria.**
 - l. In order to be eligible to elect hospice care under Medicare, the patient is:
 - i. Entitled to Part A of Medicare, *and*
 - ii. Certified as being terminally ill.
 - m. The Agency accepts patients based on their care needs. The Agency considers the adequacy and suitability of staff and the resources required to provide the service. A reasonable expectation exists that the Agency can adequately take care of the patient at home.
 - n. The Agency accepts patients based on a patient's ability to pay for hospice services, either through state or federal assistance programs, private insurance, personal assets or the Eden Hospice Charity Care eligibility criteria.**
 - o. The Agency reserves the right to refuse patients who do not meet the admission criteria and refers patients to other resources.
 - p. For Medicare patients, the physician is willing to provide a face-to-face encounter and the required written orders for care and/or services.
 - q. Payment Method: Eden Home Health accepts most private healthcare insurance (please refer to the Agency brochure for further details), Medicare, and Medicaid.
4. If it is determined that the Agency cannot reasonably accommodate the patient's needs, or if the patient does not meet the admission criteria, the patient/family/referral source is notified and provided with information about other providers.

PROCEDURE:

1. Referral information provided by family, caregiver, and healthcare clinicians from other facilities, other agencies, and physicians' offices may help in the determination of eligibility for admission. If the patient's physician does not make the request for service, the Agency consults with the physician before the assessment visit.
2. Assignment of appropriate staff to conduct the initial assessment.

WASHINGTON HOSPICE PATIENT BILL OF RIGHTS

Patients have the right to:

1. Receive effective pain management and symptom control and quality services from Eden Hospice for services identified in the plan of care;
2. Be cared for by appropriately trained or credentialed personnel, contractors and volunteers with coordination of services;
3. A statement advising of the right to ongoing participation in the development of the plan of care;
4. Choose his or her attending physician;
5. A statement advising of the right to have access to the department's listing of licensed hospice agencies and to select any licensee to provide care, subject to the individual's reimbursement mechanism or other relevant contractual obligations;
6. A listing of the total services offered by the hospice agency and those being provided to the patient;
7. Refuse specific services;
8. The name of the individual within Eden Hospice responsible for supervising the patient's care and the manner in which that individual may be contacted;
9. Be treated with courtesy, respect, and privacy;
10. Be free from verbal, mental, sexual, and physical abuse, neglect, exploitation, discrimination, and the unlawful use of restraint or seclusion;
11. Have property treated with respect;
12. Privacy and confidentiality of personal information and health care related records;
13. Be informed of what Eden Hospice charges for services, to what extent payment may be expected from health insurance, public programs, or other sources, and what charges the patient may be responsible for paying;
14. A fully itemized billing statement upon request, including the date of each service and the charge. Agencies providing services through a managed care plan are not required to provide itemized billing statements;
15. Be informed about advanced directives and POLST and Eden Hospice's scope of responsibility;
16. Be informed of Eden Hospice's policies and procedures regarding the circumstances that may cause the agency to discharge a patient;
17. Be informed of Eden Hospice's policies and procedures for providing backup care when services cannot be provided as scheduled;
18. A description of Eden Hospice's process for patients and family to submit complaints to Eden Hospice about the services and care they are receiving and to have those complaints addressed without retaliation;
19. Be informed of the department's complaint hotline number (1-800-633-6828) to report complaints about the licensed agency or credentialed health care professionals; and
20. Be informed of the DSHS end harm hotline number (1-866-363-4276) to report suspected abuse of children or vulnerable adults.
21. Eden Hospice must ensure that the patient rights under this section are implemented and updated as appropriate.

DISCHARGE FOR CAUSE POLICY

PURPOSE:

- To define the circumstances when a patient may be discharged for cause.
- To uphold the patient's right to receive information about his/her care, treatment, and services, and to be involved in the decision-making process when appropriate.
- To maintain the continuity of care, treatment, and/or services meet the patient's needs.
- To standardize the process for discharging patients for cause from Eden Hospice.
- To exchange appropriate information related to the care, treatment, and/or services with other staff and the receiving healthcare provider when patients are discharged for cause from Eden Hospice.

POLICY:

1. Eden Hospice is professionally and ethically responsible to provide care, treatment, and services within its financial and service capabilities, mission, and applicable laws and regulations, once a patient has been admitted to the Agency.
2. The patient and family are active participants, as appropriate and when possible, in planning the discharge.
3. Eden Hospice provides the transfer and discharge policies in the patient or legal representative's primary language.
4. Discharge for cause criteria includes: The patient's (or other persons in the patient's home) behavior is disruptive, abusive, or uncooperative to the extent that delivery of care to the patient or the ability of the hospice to operate effectively is seriously impaired.
5. Discharge of patients occurs in an appropriate manner, guaranteeing that relevant information, including all necessary information pertaining to the patient's current course of illness and treatment, goals of care, and treatment preferences are communicated to appropriate parties and in such a way as to prevent harm to the patient. Eden Hospice complies with requests from the receiving facility or health care practitioner for additional clinical information as may be necessary for treatment of the patient.
 - a. Patients are provided verbal or written notice of discharge 48 hours prior to discharge. Advance notice of discharge is not required in cases of worker safety.
 - b. Documentation of discharge notification and the patient's understanding are documented in the patient's medical record.

PROCEDURE:

1. Prior to discharging a patient for cause, Eden Hospice:
 - a. Advises the patient that a discharge for cause is being considered.
 - b. Advises the attending physician (if involved in patient's care) that a discharge for cause is being considered and consults with him/her.
 - c. Makes a serious effort to resolve the problem(s) presented by the patient's behavior, the behavior of other persons in the patient's home, or situation.
 - d. Ascertains that the patient's proposed discharge is not due to the patient's use of necessary hospice services.
 - e. Provides the patient and representative (if any) with contact information for other agencies or Providers who may be able to provide care.
 - f. If there is a concern about patient's ongoing care and safety, submits a report to appropriate state agencies.
 - g. Documents the problem(s) and efforts made to resolve the problem(s) and enters this documentation into the clinical records.
 - h. Obtains an order for discharge from the Hospice Medical Director.
2. The *Discharge-Transfer Summary Report* and other relevant clinical record documents are completed and submitted within 72 hours of discharge from the Agency.
3. A copy of the *Discharge-Transfer Summary Report* is provided to the patient's attending physician when requested.

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 16
CHARITY CARE POLICY**



Reference#	2023
Effective:	08/30/19
Last Revised:	08/30/19

CHARITY CARE POLICY

POLICY:

1. Patients may be eligible for charity care at the time of admission to Eden Hospice or during the period when they receive hospice services, consistent with the Income Guidelines set out below.
2. Admitted Patients can appeal charity care determinations according to the Patient Concerns and Grievances policy.
3. Eligibility for charity care under this policy is at all times contingent upon the patient's cooperation with the application process, including the timely submission of all information that Eden Hospice deems necessary or appropriate to enable it to make a charity care determination.
4. Patients' eligibility for free or discounted care is based on household income and family size as identified in Exhibit 1, which is updated annually, and is based on eligible services.

Income Level of 200% or less -- 100% discount level
 Income Level of 201% to 300% -- 75% discount level
 Income Level of 301% to 400% -- 50% discount level

EXHIBIT 1

National Federal Poverty Guidelines 2019

Household Size	100% - 199%	200%	300%	400%
1	\$12,490	\$24,980	\$37,470	\$49,960
2	\$16,910	\$33,820	\$50,730	\$67,640
3	\$21,330	\$42,660	\$63,990	\$85,320
4	\$25,750	\$51,500	\$77,250	\$103,000
5	\$30,170	\$60,340	\$90,510	\$120,680
6	\$34,590	\$69,180	\$103,770	\$138,360
7	\$39,010	\$78,020	\$117,030	\$156,040
8	\$43,430	\$86,860	\$130,290	\$173,720
9	\$47,850	\$95,700	\$143,550	\$191,400
10	\$52,270	\$104,540	\$156,810	\$209,080

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 17
VOLUNTEER SERVICES POLICY**



Reference#	3021
Effective:	12/01/14
Last Revised:	04/05/18

VOLUNTEER SERVICES POLICY

PURPOSE:

- The Agency has qualified volunteers to help meet the patient's needs and to follow the interdisciplinary plan of care.

POLICY:

1. The Agency has volunteer services under the direction of the Agency's Volunteer Department. The Volunteer coordinator is the coordinator of volunteers providing Hospice services.
2. The Agency uses volunteers to provide assistance with ancillary and office activities, as well as indirect patient care services, and/or to help patients and families with household chores, shopping, transportation, and companionship.
3. Volunteers may work in a variety of capacities, including:
 - a. Patient care volunteers provide emotional support and practical assistance that enhance the comfort and quality of life for patients/families/caregivers. These services include being available for companionship, listening, simply "being there," and preparing meals.
 - b. Bereavement volunteers provide anticipatory counseling and bereavement support to families and caregivers.
 - c. Errands and transportation volunteers offer a type of practical support often needed by Hospice patients, families, and caregivers. These duties may include picking up needed prescriptions or supplies or grocery shopping.
 - d. Office volunteers lend their services working in Hospice's office. These activities may include assembling information packets, filing, photocopying, and assisting with mailings.
4. Volunteers who are qualified to provide professional services must meet standards associated with their specialty area. If licensure or registration is required by the state, the volunteer is licensed or registered.
5. The Agency documents and maintains a volunteer staff sufficient to provide administrative or direct patient care in an amount that, at a minimum, equals five percent (5%) of the total patient care hours of paid Agency employees and contract staff.
 - a. Expansion of care and services achieved through the use of volunteers, including the types of services and the time worked, is recorded.

PROCEDURE:

1. The Volunteer Coordinator arranges for volunteers to provide support to the patient, family, or caregiver according to the Interdisciplinary Plan of Care.
2. The Agency documents active and ongoing efforts to recruit and retain volunteers.
 - a. Documentation includes evidence such as advertisements in local newspapers, bulletins, or flyers.

Reference#	3021
Effective:	12/01/14
Last Revised:	04/05/18

3. Volunteers work under the supervision of an Agency staff member.
4. Required volunteer training is consistent with the specific tasks performed.
5. Volunteers receive orientation before being assigned to a patient/family in the following areas:
 - a. The duties and responsibilities of the volunteer position.
 - b. To whom the volunteer reports.
 - c. The person(s) to contact if assistance is needed and instructions regarding the performance of their duties and responsibilities.
 - d. Hospice goals, services, and philosophy.
 - e. Confidentiality and protection of the patient's and family's rights.
 - f. Documentation.
 - g. Family dynamics, coping mechanisms, and psychological issues surrounding terminal illness, death, and bereavement.
 - h. Procedures followed in an emergency, or following the death of the patient.
 - i. Infection prevention and control (e.g. hand hygiene).
6. Attendance at orientation and inservices is maintained in the volunteer's Human Resources file.
7. Volunteers document their activities on the Volunteer Progress Note and submit this documentation for the patient's clinical records.
8. The Agency documents the cost savings achieved through the use of volunteers, specifically identifying the positions which are occupied by volunteers, and collect the work time spent by the volunteers occupying those positions.
 - a. The Volunteer Coordinator estimates the dollar costs which Agency would have incurred if paid Agency staff occupied the identified positions.
9. The Volunteer Coordinator develops, implements, and evaluates the volunteer services program regularly and at least annually.

VOLUNTEER HOURS:

1. Volunteers submit their documentation for services and time to the Volunteer Coordinator on a weekly basis.
2. The Volunteer Coordinator composes and analyzes the data monthly.
3. Monthly and annual statistical reports determine the percentage of services given by volunteers in relationship to the other disciplines.
4. Based on the reports, the Volunteer Coordinator determines the cost savings achieved through the use of Hospice volunteers.
5. Reports are submitted to the Executive Director as requested and at least on an annual basis.

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 18
EMPLOYEE RECRUITMENT
TRAINING & DEVELOPMENT
POLICY**

RECRUITMENT POLICY

PURPOSE:

- Eden Health believes that hiring qualified individuals to fill positions at the company contributes to the overall strategic success of the organization. Each employee, while employed, is hired to make significant contributions to Eden Health.

HIRING PROCESS AND PROCEDURES:

1. Personnel requisitions must be completed to fill Eden Health positions. Requisitions must be initiated by the department supervisor/manager and forwarded to the Eden Health Recruiting Department. This is done by the completion of the *New Open Position Form*. Once completed, the form is forwarded to the recruiting department via email.
2. Personnel requisitions should indicate the following:
 - a. Date, Eden Location, and Agency number
 - b. Discipline if applicable
 - c. Position title
 - d. Position's hours/shifts
 - e. Hourly rate/Salary/Per visit
 - f. Territory Coverage (specific)
 - g. Hiring manager and names of interviewers
 - h. Any additional information about the posting/position that will assist the recruiter

JOB POSTINGS:

1. All regular exempt and nonexempt job openings are posted on the Eden Health website within 24 hours of receipt of the submitted *New Open Position form*. The job posting will also be advertised automatically on various applicable job posting websites. Jobs will remain posted until the position(s) is filled.
2. Positions are advertised externally based on need and budget requirements.
3. The Recruiting Department is responsible for placing all recruitment advertising.
4. Unless otherwise noted by the supervisor/manager who submits the *New Open Position form*, all jobs will be posted on the Eden Health website as well as various applicable job posting websites.

RECRUITMENT:

1. The Recruiting Department reviews all applicants. The applicants that best fit the open position are contacted by the recruiter and screened for a possible interview. The interview is then scheduled with the manager if the applicant passes the screening.

2. After three (3) weeks of the initial job posting, the recruiting team re-evaluates the position if no candidates have applied and partners with the supervisor/manager for plan of action. Adjustments are made accordingly to obtain candidates for the position.

ACTIONS BY AGENCY:

1. Upon completion of the interview by the Agency, the interviewer is to make contact with the recruiter within 24 hours of the interview to give some feedback on how the interview and provide thoughts on next steps.

JOB OFFER MADE TO APPLICANT:

1. Upon receipt of written approval from the hiring manager/supervisor, the Recruiting Department will make an initial verbal offer to the applicant. The recruiter will also advise the applicant that once the background information form is completed, the recruiter will then follow up with a formal offer letter. The offer letter will be drafted to note that employment is contingent upon satisfactory completion of reference checks, motor vehicle and criminal background checks. The Recruiting Department will establish a start date in coordination with the Agency and the applicant.
2. The Recruiting Department is responsible to notify applicants who are not selected for positions at Eden Health.

INTERNAL TRANSFERS:

1. Employees who have been in their current position for at least one year may apply for internal job openings. This requirement may be waived with the consent of the employee's manager.
2. Employees must complete the Internal Job Opening Request Form. The form must be completed and submitted to the Recruiting Department within one week after the job is posted.
3. All applicants for a posted vacancy will be considered on the basis of their qualifications and ability to perform the job successfully. Internal candidates who are not selected will be notified by the Recruiting Department.

EMPLOYEE REFERRALS:

1. Employees are eligible for a referral bonus if they have referred an applicant that is hired for a full time position. The referral bonus will vary depending on the position and this will be outlined in the Referral Bonus program on the Eden Health website. The employee is to complete the Referral form provided on our website and submit the form prior to the applicant having an interview. In addition, the applicant should specify on the Eden Health application, the referring Eden employee's name. The Eden Health employee will then be eligible for the referral bonus once the applicant is hired in a full time position and has worked for a minimum of 90 days.

REFERENCE CHECKS, CRIMINAL BACKGROUND CHECKS, AND FINAL DOCUMENTS FORWARDED TO AGENCY:

1. The Recruiting Department will submit a request for a background check and will check references for all hired candidates.
2. Once the Recruiting Department has the following documents for the candidate:
 - a. New Hire Approval
 - b. Completed Application
 - c. Completed Background Check
 - d. Completed Motor Vehicle Check
 - e. Resume
 - f. Completed Reference checks
 - g. Signed Offer Letter
3. The Recruiting Department will then scan all the documents and forward them via email to the BOM (Business Office Manager) located at the Agency.

CONTINUING EDUCATION PROGRAMS POLICY

PURPOSE:

- To provide planned ongoing educational activities for Eden Hospice employees that:
 - Develop and enhance employees' skills.
 - Broaden and increase employee's knowledge base.
 - Maintain and improve staff competency.

POLICY:

1. This Agency provides educational programs appropriate to the staff's patient care, treatment, and services responsibilities specific to the needs of the patient population served, and as required by applicable laws, regulations, and standards.
 2. Educational programs are provided to those staff members whose responsibilities have changed.
 3. Hospice Aides receive a minimum of 12 hours of inservice training every 12 months. Inservice training may occur when an aide is furnishing care to a patient under the supervision of an RN.
 4. Staff are evaluated annually and as needed to identify educational needs.
 5. Patient care, treatment, and services staff are required to attend or produce evidence of having attended the appropriate number of continuing education programs required by law and regulation to maintain currency of licensure and/or certification.
 6. Supervisors are encouraged to attend on-going education programs to improve their supervisory skills.
 7. An annual educational program is planned and implemented based on identified staff needs and regulatory requirements including, but limited to:
 - Emergency/disaster training
 - How to handle complaints/grievances
 - Infection control training
 - Cultural diversity
 - Communication barriers
 - Ethics training
 - Workplace (OSHA), patient safety and components of HSP7-2A.01
 - Methods for coping with work related issues of grief, loss, and change
 - Patient Right and Responsibilities
 - Compliance Program
 - Pain and symptom management
- Safety training:
- Body mechanics
 - Fire
 - Evacuation

- Security
 - Office Equipment
 - Environmental hazards
 - In-home safety
 - Personal safety techniques
8. Non-direct care personnel have a minimum of 8 hours of on-going education per year. Direct care personnel have a minimum of 12 hours of on-going education during each 12-month period.
 9. Hospice administration retains the right to designate other inservice programs as mandatory programs.

INSERVICE RESPONSIBILITIES:

1. Each department manager is responsible for providing current and factual information to his/her employees regarding performance of their job duties. New processes, procedures, or policies governing such duties are conveyed to the employees in a manner that is understandable and reasonable to those involved. Records of such programs are retained as described in this policy.
2. The administration provides up-to-date and factual information to employees regarding policies, procedures, and benefits. In most cases, policies and procedures are conveyed to department managers who convey such information to their employees.

PROCEDURE - INSERVICE ATTENDANCE:

1. Mandatory Inservice Meetings: Those meetings which have been determined necessary for employees within a particular department or group of common interest are considered to be mandatory. Mandatory attendance is at the discretion of the department manager with approval of the Executive Director/Administrator.
 - a. Mandatory meetings are generally those which provide vital and necessary information to the employees involved, and attendance is requested with prior notice to those required to attend. Employees receive their regular rate of pay for attendance at mandatory meetings, unless their attendance is not specifically requested. If attendance at a mandatory meeting involve overtime for an employee during that work week, specific approval from the department manager is required if an alternate attendance time cannot be arranged.
2. Voluntary Inservice Meetings: Those meetings for which attendance is not deemed necessary and vital to a particular department or group of common interest are considered voluntary. Attendance at voluntary meetings is at the discretion of the employee, based on his/her interest in the subject being presented.
3. Credit for Attendance at Inservice Programs:
 - a. In order to receive appropriate attendance credit, participants:
 - i. Attend the entire program.

- ii. Sign the attendance sheet.
 - iii. Complete an evaluation form.
- 4. Continuing Education Credits:
 - a. Programs for which continuing education credits are offered are advertised as such.
 - b. The number of credit hours is listed with the program information.
 - c. In order to receive appropriate continuing education credits and a certificate, participants:
 - i. Attend the entire program.
 - ii. Sign the attendance sheet.
 - iii. Complete an evaluation form.
- 5. Internal Scheduling of Inservice Programs:
 - a. Equipment and Supplies: Audiovisual and other inservice equipment is maintained by the Education Department. Those who desire use of this equipment submit a written request as early in advance as possible.
 - i. Supplies necessary for inservice programs are the responsibility of the individual conducting the program. Prior administrative approval is required for expenditures made for inservice program supplies.
 - b. Meeting Room Availability: Meeting rooms are reserved in advance as early as possible through administration.
- 6. Record Keeping for Education Programs:
 - a. Records of education programs are maintained in a central location (e.g. Education Department, Hospice Clinical Nurse Manager, or administration). Proper record keeping contains the following information:
 - i. Names and signatures of employees who attended the program.
 - ii. Title of the program, name of the individual conducting the program, dates, and times the program was conducted, and the location of the program.
 - iii. A description of the content of the program, its relation to the department and/or employees, and voluntary/mandatory status of the program.
 - b. Results of education program evaluation are compiled and summarized by the Education Department.
 - c. Summary reports are evaluated monthly to determine the quality and appropriateness of the education provided and to develop and/or modify future educational programs.
 - d. Summary reports of educational activities and the results of program evaluations are submitted to the Performance Improvement Committee quarterly.
 - e. Education records for individual employees are considered valid on either a card made for that employee showing dates and subjects of programs attended, or on a written form or other sheet of paper containing such information placed in the employee's personnel file.

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 19
QUALITY ASSESSMENT &
IMPROVEMENT PROGRAM**

Reference#	16001
Effective:	12/01/14
Last Revised:	12/27/17

QUALITY ASSURANCE PERFORMANCE IMPROVEMENT (QAPI) POLICY

PURPOSE:

1. The Agency's Quality Assurance Performance Improvement (QAPI) plan is designed to:
 - a. Delineate expectations and plan and manage processes to measure, assess, and improve Eden Hospice's Agency's governance, management, clinical, and support activities.
 - b. Promote positive patient outcomes through the application of optimal patient care, treatment, and services based on clinically sound principles and current knowledge.
 - c. Identify, on an ongoing basis and in a coordinated and collaborative manner, areas for improvement in the quality of care, treatment, and services.
 - d. Evaluate, monitor, improve, and resolve areas of concern.
2. The Quality Assurance Performance Improvement (QAPI) plan, established by the senior management of the organization in collaboration with staff members and the Performance Improvement Committee, with the support and approval of the Governing Body, is comprehensive in scope and provides a vehicle to monitor patient care, treatment, and services with the goal of identifying and resolving processes, functions, and services that may adversely impact patient care, treatment, and services, while striving to continuously facilitate positive patient outcomes.

POLICY:

1. The Hospice Agency develops implements and maintains an ongoing, effective, data driven Quality Assurance Performance Improvement (QAPI) program.
2. The Governing Body guarantees the following;
 - a. The program reflects the complexity of its organization and services.
 - b. Involves all Hospice agency services (including those under contract or arrangement).
 - c. Focuses on indicators related to improved outcomes including;
 - i. Use of emergency care services,
 - ii. Hospital admissions and readmissions,
 - iii. Takes actions that address the performance across the spectrum of care,
 - iv. Prevention and re-education of medical errors.
3. Eden Hospice's Quality Assurance Performance Improvement (QAPI) plan is evaluated at least annually and revised as necessary.
4. The Quality Assurance Performance Improvement (QAPI) activities are planned in a collaborative, interdisciplinary manner throughout the organization.

Reference#	16001
Effective:	12/01/14
Last Revised:	12/27/17

5. In keeping with the organization’s mission of providing quality, cost-effective patient care, treatment, and services, the Quality Assurance Performance Improvement (QAPI) plan allows for a systematic, coordinated, and continuous approach to improving performance, focusing upon the process and functions that address these principles.

GOALS:

1. The primary goals of the organizational Quality Assurance Performance Improvement (QAPI) Plan are to continually and systematically plan, design, measure, assess, and improve performance of organization-wide key functions and processes relative to patient care, treatment, and services.
2. To achieve this goal, the plan strives to:
 - a. Incorporate quality planning throughout the organization.
 - b. Collect data to monitor performance.
 - c. Provide a systematic mechanism for the organization’s appropriate individuals, departments, and professions to function collaboratively in their Quality Assurance Performance Improvement (QAPI) efforts providing feedback and learning throughout the Agency.
 - d. Provide for an organization-wide program that assures the Agency designs processes (with special emphasis on design of new or revisions in established services) well and systematically measures, assesses, and improves its performance to achieve optimal patient health outcomes in a collaborative, cross-departmental, interdisciplinary approach. These processes include mechanisms to assess the needs and expectations of patients and their families, staff, and others. Process design contains the following focus elements:
 - i. Consistency with the organization’s mission, vision, values, goals, and objectives and plans.
 - ii. Meets the needs of individuals served, staff, and others.
 - iii. Fosters the safety of patients and the quality of care, treatment, and services.
 - iv. Supports a culture of safety and quality.
 - v. Use of clinically sound and current data sources (e.g. use of practice/clinical guidelines, information from relevant literature and clinical standards).
 - vi. Is based upon best practices as evidenced by accrediting bodies.
 - vii. Incorporates available information from internal sources and other organizations about the occurrence of medical errors and sentinel events to reduce the risk of similar events in this organization.
 - viii. Utilizes reports generated from OASIS data, including the following OASIS reports:
 - Outcome-Based Quality Monitoring (OBQM) Potentially Avoidable Events Report and Patient Listing.
 - Outcome-Based Quality Improvement (OBQI) Outcome Report.
 - Error Summary Report.

Reference#	16001
Effective:	12/01/14
Last Revised:	12/27/17

- ix. Utilizes the results of Quality Assurance Performance Improvement (QAPI), patient safety and risk reduction activities.
 - x. Management of change and Quality Assurance Performance Improvement (QAPI) supports both safety and quality through the Agency.
 - e. The organization incorporates information related to these elements, when available and relevant, in the design or redesign of processes, functions, or services.
 - f. Assure that the improvement process is organization-wide, monitoring, assessing, and evaluating the quality and appropriateness of patient care, treatment, and services, patient safety practices, and clinical performance to resolve identified problems and improve performance.
 - g. Appropriate reporting of information to the Governing Body to provide the leaders with the information they need in fulfilling their responsibility for the quality of patient care, treatment, and services, and safety is a required mandate of this plan.
3. Necessary information is communicated among departments/services when opportunities to improve patient care, treatment, and/or services and patient/staff safety practices impact more than one department/service.
 4. The status of identified problems is monitored to assure improvement or resolution.
 5. Information from departments/services and the findings of discrete Quality Assurance Performance Improvement (QAPI) activities are analyzed to detect trends, patterns of performance, or potential problems that may impact more than one department/service.
 6. The objectives, scope, organization, and mechanisms for overseeing the effectiveness of monitoring, assessing, evaluation, and problem-solving activities in the Quality Assurance Performance Improvement (QAPI) program are evaluated at least annually and revised as necessary.
 7. Important key aspects of care to the health and safety of patients are identified. Included are those that occur frequently or affect large numbers of patients; place patients at risk of serious consequences of deprivation of substantial benefit if care is not provided correctly or not provided when indicated; or care provided is not indicated, or those tending to produce problems for patients, their families, or staff.
 8. Internal structures can adapt to changes in the environment.

SCOPE OF ACTIVITIES:

1. Eden Hospice measures, analyzes, and tracks quality indicators to enable the agency to assess processes of care, services, and operations.
2. The scope of the organizational Quality Assurance Performance Improvement (QAPI) program includes an overall assessment of the efficacy of Quality Assurance Performance Improvement (QAPI) activities with a focus on continually improving care, treatment, and services, and patient and staff safety practices.

Reference#	16001
Effective:	12/01/14
Last Revised:	12/27/17

3. The Hospice agency's performance improvement activities must;
 - a. Focus on high risk, high volume, or problem-prone areas;
 - b. Consider incidence, prevalence, and severity of problems in those areas;
 - c. Lead to an immediate correction of any identified problem that directly or potentially threaten the health and safety of patients.
4. Performance activities must track adverse patient events, analyze their causes, and implement preventative actions.
5. Assessment of the performance of the following patient care and organizational functions may include but not limited to:
 - a. Environment of Care.
 - b. Emergency Management, including:
 - c. Review of the annual emergency management planning reviews.
 - d. Review of emergency response exercises.
 - e. Review of response to actual emergencies.
 - f. Human Resources.
 - g. Infection Prevention and Control.
 - h. Information Management.
 - i. Leadership.
 - j. Medication Management.
 - k. Provision of Care, Treatment, and Services.
 - l. Performance Improvement.
 - m. Record of Care, Treatment, and Services.
 - n. Rights and Responsibilities of the Individual.
 - o. Waived Testing.

PERFORMANCE IMPROVEMENT PROJECTS:

1. Hospice Agencies must conduct performance improvement projects.
2. The number and scope of distinct improvement projects conducted annually must reflect the scope, complexity, and past performance of the Hospice Agencies services and operations.
3. The Hospice Agency must document the quality improvement projects undertaken, the reasons for conducting these projects, and the measureable progress achieved on these projects.

ORGANIZATION:

1. To achieve fulfillment of the objectives, goals, and scope of the organizational Quality Assurance Performance Improvement (QAPI) plan, the organizational structure of the program is designed to facilitate an effective system of monitoring, assessment, and evaluation of the care, treatment, and services provided within the Agency.
 - a. The Governing Body is ultimately responsible for the quality of patient care, treatment, and services provided.
 - i. The Governing Body requires staff, through the Performance Improvement Committee and Administration, to implement and report

Reference#	16001
Effective:	12/01/14
Last Revised:	12/27/17

on the activities and the mechanisms for monitoring, assessing, and evaluating patient safety practices and the quality of patient care, treatment, and services, for identifying and resolving problems and for identifying opportunities to improve patient care, treatment, and services or performance throughout the organization. This process addresses those departments/disciplines that have a direct or indirect effect on patient care, treatment, and services, including management and administrative functions.

- ii. The Governing Body, through the VP of Hospice and Hospice, Director of Clinical Service, and the Agency Administrator/Executive Director, provide for resources and support systems for the Quality Assurance Performance Improvement (QAPI) functions and risk management functions related to patient care, treatment, and services and safety.
- b. The governing body is responsible for guaranteeing;
 - i. The ongoing program for quality improvement and patient safety is defined, implemented, and maintained.
 - ii. The Hospice Agency wide quality assessment and performance improvement efforts address priorities for improved quality of care and patient safety, and that all improved actions are evaluated for effectiveness.
 - iii. That clear expectations for patient safety are established, implemented, and maintained.
 - iv. That any findings of fraud or waste are appropriately addressed

ANNUAL EVALUATION AND APPROVAL:

1. The organizational Quality Assurance Performance Improvement (QAPI) program is evaluated for effectiveness at least annually and revised as necessary to assure appropriateness of the approach to planning processes of improvement: setting priorities for improvement; assessing performance systematically; using statistically valid methods; implementing improvement activities on the basis of assessment; and sustaining achieved improvements.

CONFIDENTIALITY:

1. Information related to Quality Assurance Performance Improvement (QAPI) activities in accordance with this plan is confidential.
 - a. Confidential information may include, but is not limited to, staff committee meetings, Quality Assurance Performance Improvement (QAPI) Executive Report, electronic data gathering and reporting, medical record reviews, and untoward incident reporting.
 - b. Some information may be disseminated on a "need to know basis" as required by agencies such as federal review agencies, regulatory bodies, or another organization with a proven "need to know basis" as approved by the Agency's Administration and/or the Governing Body.

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 20
DOH 2019-2020 HOSPICE
NUMERIC NEED
METHODOLOGY**

Department of Health
2020-2021 Hospice Numeric Need Methodology
Posted October 30, 2020



WAC246-310-290(8)(a) Step 1:

Calculate the following two statewide predicted hospice use rates using department of health survey and vital statistics data:

WAC 246-310-290(8)(a)(i) The percentage of patients age sixty-five and over who will use hospice services. This percentage is calculated by dividing the average number of unduplicated admissions over the last three years for patients sixty five and over by the average number of past three years statewide total deaths age sixty-five and over.

WAC246-310-290(8)(a)(ii) The percentage of patients under sixty-five who will use hospice services. This percentage is calculated by dividing the average number of unduplicated admissions over the last three years for patients under sixty-five by the average number of past three years statewide total of deaths under sixty-five.

Hospice admissions ages 0-64	
Year	Admissions
2017	3,757
2018	4,114
2019	3,699
average: 3,857	

Deaths ages 0-64	
Year	Deaths
2017	14,113
2018	14,055
2019	14,047
average: 14,072	

Use Rates	
0-64	27.41%
65+	60.52%

Hospice admissions ages 65+	
Year	Admissions
2017	26,365
2018	26,207
2019	26,017
average: 26,196	

Deaths ages 65+	
Year	Deaths
2017	42,918
2018	42,773
2019	44,159
average: 43,283	

Department of Health
2020-2021 Hospice Numeric Need Methodology
 Posted October 30, 2020



WAC246-310-290(8)(b) Step 2:

Calculate the average number of total resident deaths over the last three years for each planning area by age cohort.

0-64				
County	2017	2018	2019	2017-2019 Average Deaths
Adams	38	28	35	34
Asotin	49	52	54	52
Benton	385	331	346	354
Chelan	124	130	137	130
Clallam	180	191	186	186
Clark	883	874	887	881
Columbia	19	6	7	11
Cowlitz	351	300	294	315
Douglas	71	51	63	62
Ferry	30	28	20	26
Franklin	133	145	123	134
Garfield	6	5	5	5
Grant	203	195	197	198
Grays Harbor	238	227	251	239
Island	166	135	167	156
Jefferson	69	64	72	68
King	3,256	3,264	3,275	3,265
Kitsap	485	515	557	519
Kittitas	91	68	90	83
Klickitat	63	58	46	56
Lewis	210	227	210	216
Lincoln	20	25	25	23
Mason	169	158	167	165
Okanogan	119	103	119	114
Pacific	88	64	66	73
Pend Oreille	34	43	31	36
Pierce	1,936	1,964	1,911	1,937
San Juan	18	19	20	19
Skagit	271	231	229	244
Skamania	16	27	19	21
Snohomish	1,483	1,533	1,533	1,516
Spokane	1,147	1,177	1,143	1,156
Stevens	96	113	112	107
Thurston	530	554	525	536
Wahkiakum	3	13	11	9
Walla Walla	123	110	118	117
Whatcom	367	360	394	374
Whitman	57	66	47	57
Yakima	586	601	555	581

65+				
County	2017	2018	2019	2017-2019 Average Deaths
Adams	78	72	93	81
Asotin	190	214	222	209
Benton	1,081	1,125	1,154	1,120
Chelan	556	573	626	585
Clallam	842	871	955	889
Clark	2,579	2,767	2,987	2,778
Columbia	116	43	52	70
Cowlitz	917	840	951	903
Douglas	232	255	270	252
Ferry	60	55	64	60
Franklin	284	278	313	292
Garfield	17	30	21	23
Grant	509	524	508	514
Grays Harbor	622	647	659	643
Island	630	675	642	649
Jefferson	308	336	338	327
King	10,039	9,917	10,213	10,056
Kitsap	1,780	1,713	1,811	1,768
Kittitas	237	239	266	247
Klickitat	151	158	160	156
Lewis	721	730	722	724
Lincoln	105	94	89	96
Mason	550	526	548	541
Okanogan	350	332	358	347
Pacific	262	279	265	269
Pend Oreille	133	130	125	129
Pierce	5,019	4,926	5,002	4,982
San Juan	115	114	127	119
Skagit	1,007	1,001	1,018	1,009
Skamania	65	56	87	69
Snohomish	4,118	4,055	4,081	4,085
Spokane	3,527	3,556	3,545	3,543
Stevens	376	373	345	365
Thurston	1,768	1,823	1,908	1,833
Wahkiakum	37	33	53	41
Walla Walla	501	445	450	465
Whatcom	1,329	1,252	1,461	1,347
Whitman	236	199	219	218
Yakima	1,471	1,517	1,451	1,480

Department of Health
2020-2021 Hospice Numeric Need Methodology
 Posted October 30, 2020



WAC246-310-290(8)(c) Step 3.

Multiply each hospice use rate determined in Step 1 by the planning areas' average total resident deaths determined in Step 2, separated by age cohort.

0-64		
County	2017-2019 Average Deaths	Projected Patients: 27.38% of Deaths
Adams	34	9
Asotin	52	14
Benton	354	97
Chelan	130	36
Clallam	186	51
Clark	881	242
Columbia	11	3
Cowlitz	315	86
Douglas	62	17
Ferry	26	7
Franklin	134	37
Garfield	5	1
Grant	198	54
Grays Harbor	239	65
Island	156	43
Jefferson	68	19
King	3,265	895
Kitsap	519	142
Kittitas	83	23
Klickitat	56	15
Lewis	216	59
Lincoln	23	6
Mason	165	45
Okanogan	114	31
Pacific	73	20
Pend Oreille	36	10
Pierce	1,937	531
San Juan	19	5
Skagit	244	67
Skamania	21	6
Snohomish	1,516	416
Spokane	1,156	317
Stevens	107	29
Thurston	536	147
Wahkiakum	9	2
Walla Walla	117	32
Whatcom	374	102
Whitman	57	16
Yakima	581	159

65+		
County	2017-2019 Average Deaths	Projected Patients: 61.04% of Deaths
Adams	81	49
Asotin	209	126
Benton	1,120	678
Chelan	585	354
Clallam	889	538
Clark	2,778	1,681
Columbia	70	43
Cowlitz	903	546
Douglas	252	153
Ferry	60	36
Franklin	292	177
Garfield	23	14
Grant	514	311
Grays Harbor	643	389
Island	649	393
Jefferson	327	198
King	10,056	6,086
Kitsap	1,768	1,070
Kittitas	247	150
Klickitat	156	95
Lewis	724	438
Lincoln	96	58
Mason	541	328
Okanogan	347	210
Pacific	269	163
Pend Oreille	129	78
Pierce	4,982	3,015
San Juan	119	72
Skagit	1,009	610
Skamania	69	42
Snohomish	4,085	2,472
Spokane	3,543	2,144
Stevens	365	221
Thurston	1,833	1,109
Wahkiakum	41	25
Walla Walla	465	282
Whatcom	1,347	815
Whitman	218	132
Yakima	1,480	896

Department of Health
2020-2021 Hospice Numeric Need Methodology
 Posted October 30, 2020



WAC246-310-290(8)(d) Step 4:

Using the projected patients calculated in Step 3, calculate a use rate by dividing projected patients by the three-year historical average population by county. Use this rate to determine the potential volume of hospice use by the projected population by age cohort using Office of Financial Management (OFM) data.

0-64								
County	Projected Patients	2017-2019 Average Population	2020 projected population	2021 projected population	2022 projected population	2020 potential volume	2021 potential volume	2022 potential volume
Adams	9	18,029	18,291	18,456	18,622	9	9	10
Asotin	14	16,779	16,652	16,596	16,540	14	14	14
Benton	97	166,554	169,415	171,026	172,638	99	100	101
Chelan	36	61,991	62,463	62,512	62,562	36	36	36
Clallam	51	52,550	52,439	52,233	52,027	51	51	50
Clark	242	405,282	417,273	421,901	426,529	249	251	254
Columbia	3	2,863	2,780	2,745	2,710	3	3	3
Cowlitz	86	85,717	85,917	85,843	85,769	87	86	86
Douglas	17	34,732	35,527	35,803	36,080	17	17	18
Ferry	7	5,680	5,577	5,541	5,506	7	7	7
Franklin	37	85,922	90,102	92,443	94,784	38	39	40
Garfield	1	1,602	1,560	1,541	1,522	1	1	1
Grant	54	84,909	87,158	88,240	89,322	56	56	57
Grays Harbor	65	57,817	56,958	56,679	56,401	64	64	64
Island	43	62,964	63,264	63,280	63,296	43	43	43
Jefferson	19	20,688	20,722	20,636	20,550	19	19	19
King	895	1,863,482	1,906,749	1,918,470	1,930,192	916	921	927
Kitsap	142	217,040	220,035	220,614	221,192	144	145	145
Kittitas	23	37,892	39,015	39,286	39,556	23	24	24
Klickitat	15	15,828	15,575	15,439	15,304	15	15	15
Lewis	59	62,398	63,001	63,164	63,327	60	60	60
Lincoln	6	7,923	7,805	7,751	7,698	6	6	6
Mason	45	50,142	51,122	51,397	51,672	46	46	47
Okanogan	31	32,545	32,183	32,087	31,991	31	31	31
Pacific	20	14,688	14,403	14,322	14,242	20	19	19
Pend Oreille	10	9,905	9,812	9,769	9,727	10	10	10
Pierce	531	747,538	765,139	769,918	774,696	543	547	550
San Juan	5	10,974	10,753	10,730	10,707	5	5	5
Skagit	67	100,076	101,537	101,887	102,236	68	68	68
Skamania	6	9,254	9,242	9,223	9,205	6	6	6
Snohomish	416	694,793	716,781	721,527	726,273	429	432	434
Spokane	317	421,066	425,447	426,740	428,033	320	321	322
Stevens	29	34,226	33,992	33,917	33,841	29	29	29
Thurston	147	234,880	241,500	243,867	246,235	151	153	154
Wahkiakum	2	2,555	2,441	2,405	2,368	2	2	2
Walla Walla	32	50,546	50,981	51,028	51,075	32	32	32
Whatcom	102	183,023	187,812	189,267	190,722	105	106	107
Whitman	16	43,137	43,308	43,315	43,322	16	16	16
Yakima	159	221,051	224,497	225,822	227,147	162	163	164

Source:
 Self-Report Provider Utilization Surveys for Years 2017-2019
 Vital Statistics Death Data for Years 2017-2019
 Prepared by DOH Program Staff

Department of Health
2020-2021 Hospice Numeric Need Methodology
 Posted October 30, 2020



WAC246-310-290(8)(d) Step 4:

Using the projected patients calculated in Step 3, calculate a use rate by dividing projected patients by the three-year historical average population by county. Use this rate to determine the potential volume of hospice use by the projected population by age cohort using Office of Financial Management (OFM) data.

65+								
County	Projected Patients	2017-2019 Average Population	2020 projected population	2021 projected population	2022 projected population	2020 potential volume	2021 potential volume	2022 potential volume
Adams	49	2,114	2,341	2,383	2,424	54	55	56
Asotin	126	5,619	6,005	6,175	6,344	135	139	143
Benton	678	29,821	32,150	33,373	34,597	731	759	786
Chelan	354	15,343	16,408	17,052	17,695	379	393	408
Clallam	538	21,334	22,267	22,901	23,535	562	578	594
Clark	1681	75,085	82,125	85,686	89,247	1,839	1,918	1,998
Columbia	43	1,202	1,269	1,287	1,304	45	46	46
Cowlitz	546	21,326	22,969	23,719	24,470	588	608	627
Douglas	153	7,595	8,358	8,666	8,974	168	174	180
Ferry	36	2,095	2,241	2,289	2,337	39	39	40
Franklin	177	8,765	9,610	10,083	10,557	194	203	213
Garfield	14	633	658	669	680	14	15	15
Grant	311	14,244	15,477	16,071	16,665	338	351	364
Grays Harbor	389	15,594	16,653	17,133	17,612	415	427	439
Island	393	19,701	20,777	21,412	22,047	414	427	440
Jefferson	198	11,252	11,924	12,323	12,722	210	217	224
King	6086	296,484	324,660	337,771	350,881	6,665	6,934	7,203
Kitsap	1070	51,788	55,878	58,185	60,492	1,155	1,202	1,250
Kittitas	150	7,351	7,943	8,266	8,589	162	168	175
Klickitat	95	5,570	6,088	6,268	6,448	103	106	110
Lewis	438	16,398	17,219	17,697	18,175	460	473	486
Lincoln	58	2,823	2,959	3,039	3,119	61	63	64
Mason	328	15,311	16,499	17,167	17,836	353	367	382
Okanogan	210	10,050	10,901	11,210	11,519	228	234	240
Pacific	163	6,584	6,910	7,035	7,159	171	174	177
Pend Oreille	78	3,742	4,107	4,239	4,371	86	89	91
Pierce	3015	125,262	136,114	142,422	148,729	3,277	3,429	3,580
San Juan	72	5,545	5,991	6,174	6,357	78	80	82
Skagit	610	26,595	29,168	30,314	31,460	670	696	722
Skamania	42	2,542	2,798	2,923	3,048	46	48	50
Snohomish	2472	113,447	125,219	131,978	138,737	2,729	2,876	3,023
Spokane	2144	84,343	91,361	94,670	97,979	2,323	2,407	2,491
Stevens	221	10,884	11,837	12,214	12,591	240	248	255
Thurston	1109	48,683	52,832	54,900	56,967	1,204	1,251	1,298
Wahkiakum	25	1,441	1,565	1,580	1,595	27	27	27
Walla Walla	282	10,944	11,068	11,350	11,632	285	292	299
Whatcom	815	39,164	42,640	44,217	45,794	888	921	953
Whitman	132	5,237	5,815	6,008	6,201	146	151	156
Yakima	896	36,670	38,391	39,475	40,559	938	964	991

Source:
 Self-Report Provider Utilization Surveys for Years 2017-2019
 Vital Statistics Death Data for Years 2017-2019
 Prepared by DOH Program Staff

Department of Health
2020-2021 Hospice Numeric Need Methodology
 Posted October 30, 2020



WAC246-310-290(8)(e) Step 5:

Combine the two age cohorts. Subtract the average of the most recent three years hospice capacity in each planning area from the projected volumes calculated in Step 4 to determine the number of projected admissions beyond the planning area capacity.

County	2020 potential volume	2021 potential volume	2022 potential volume	Current Supply of Hospice Providers	2020 Unmet Need Admissions*	2021 Unmet Need Admissions*	2022 Unmet Need Admissions*
Adams	64	65	66	45.33	18	19	20
Asotin	149	153	157	99.67	49	53	57
Benton	829	858	887	976.67	(147)	(118)	(90)
Chelan	415	430	444	398.67	16	31	46
Clallam	613	628	644	273.63	339	355	371
Clark	2,087	2,170	2,252	2,396.97	(310)	(227)	(145)
Columbia	48	48	49	23.33	24	25	26
Cowlitz	675	694	713	794.00	(119)	(100)	(81)
Douglas	185	192	198	147.67	38	44	50
Ferry	46	46	47	36.33	9	10	11
Franklin	232	242	253	171.33	61	71	82
Garfield	16	16	16	3.33	12	13	13
Grant	394	407	421	281.00	113	126	140
Grays Harbor	480	491	503	277.33	202	214	226
Island	457	470	483	389.67	68	80	93
Jefferson	229	236	243	188.00	41	48	55
King	7,580	7,855	8,130	7,517.23	63	338	613
Kitsap	1,299	1,347	1,395	1,303.97	(5)	43	91
Kittitas	185	192	199	171.67	13	20	27
Klickitat	118	121	124	277.57	(159)	(156)	(153)
Lewis	520	533	546	451.00	69	82	95
Lincoln	67	69	70	28.67	39	40	42
Mason	399	414	428	222.67	176	191	206
Okanogan	258	265	271	177.67	81	87	93
Pacific	190	193	196	107.00	83	86	89
Pend Oreille	96	98	101	64.33	31	34	37
Pierce	3,820	3,975	4,131	3,739.67	80	236	391
San Juan	83	85	87	79.00	4	6	8
Skagit	737	764	790	729.00	8	35	61
Skamania	52	54	56	27.00	25	27	29
Snohomish	3,157	3,308	3,458	2,950.87	207	357	507
Spokane	2,643	2,728	2,813	2,671.83	(29)	56	141
Stevens	269	277	284	150.00	119	127	134
Thurston	1,355	1,404	1,452	1,247.57	108	156	205
Wahkiakum	29	30	30	6.33	23	23	23
Walla Walla	317	324	332	285.00	32	39	47
Whatcom	993	1,027	1,060	1,042.97	(50)	(16)	17
Whitman	162	167	172	203.83	(42)	(37)	(32)
Yakima	1,099	1,127	1,154	1,182.67	(83)	(56)	(29)

*a negative number indicates existing hospice service capacity exceeds the projected utilization based on the statewide use rate.

Department of Health
2020-2021 Hospice Numeric Need Methodology
Posted October 30, 2020



WAC246-310-290(8)(f) Step 6:

Multiply the unmet need from Step 5 by the statewide average length of stay as determined by CMS to determine unmet need patient days in the projection years.

County	2020 Unmet Need Admissions*	2021 Unmet Need Admissions*	2022 Unmet Need Admissions*	Step 6 (Admits * ALOS) = Unmet Patient Days			
				Statewide ALOS	2020 Unmet Need Patient Days*	2021 Unmet Need Patient Days*	2022 Unmet Need Patient Days*
Adams	18	19	20	62.66	1,148	1,214	1,280
Asotin	49	53	57	62.66	3,092	3,328	3,564
Benton	(147)	(118)	(90)	62.66	(9,222)	(7,421)	(5,620)
Chelan	16	31	46	62.66	1,000	1,932	2,864
Clallam	339	355	371	62.66	21,238	22,228	23,217
Clark	(310)	(227)	(145)	62.66	(19,394)	(14,226)	(9,057)
Columbia	24	25	26	62.66	1,532	1,568	1,605
Cowlitz	(119)	(100)	(81)	62.66	(7,461)	(6,261)	(5,061)
Douglas	38	44	50	62.66	2,362	2,758	3,155
Ferry	9	10	11	62.66	582	631	681
Franklin	61	71	82	62.66	3,798	4,458	5,118
Garfield	12	13	13	62.66	774	788	802
Grant	113	126	140	62.66	7,055	7,911	8,766
Grays Harbor	202	214	226	62.66	12,688	13,418	14,147
Island	68	80	93	62.66	4,232	5,026	5,820
Jefferson	41	48	55	62.66	2,550	2,986	3,421
King	63	338	613	62.66	3,960	21,177	38,394
Kitsap	(5)	43	91	62.66	(326)	2,685	5,696
Kittitas	13	20	27	62.66	846	1,268	1,690
Klickitat	(159)	(156)	(153)	62.66	(9,971)	(9,788)	(9,605)
Lewis	69	82	95	62.66	4,325	5,135	5,945
Lincoln	39	40	42	62.66	2,414	2,515	2,616
Mason	176	191	206	62.66	11,053	11,965	12,877
Okanogan	81	87	93	62.66	5,058	5,456	5,855
Pacific	83	86	89	62.66	5,212	5,398	5,584
Pend Oreille	31	34	37	62.66	1,964	2,135	2,305
Pierce	80	236	391	62.66	5,039	14,766	24,493
San Juan	4	6	8	62.66	232	380	528
Skagit	8	35	61	62.66	520	2,183	3,847
Skamania	25	27	29	62.66	1,557	1,685	1,813
Snohomish	207	357	507	62.66	12,944	22,350	31,757
Spokane	(29)	56	141	62.66	(1,834)	3,498	8,830
Stevens	119	127	134	62.66	7,467	7,942	8,417
Thurston	108	156	205	62.66	6,736	9,782	12,827
Wahkiakum	23	23	23	62.66	1,440	1,454	1,468
Walla Walla	32	39	47	62.66	2,016	2,473	2,930
Whatcom	(50)	(16)	17	62.66	(3,137)	(1,028)	1,081
Whitman	(42)	(37)	(32)	62.66	(2,616)	(2,310)	(2,005)
Yakima	(83)	(56)	(29)	62.66	(5,230)	(3,511)	(1,793)

*a negative number indicates existing hospice service capacity exceeds the projected utilization based on the statewide use rate.

Department of Health
2020-2021 Hospice Numeric Need Methodology
 Posted October 30, 2020



WAC246-310-290(8)(g) Step 7:

Divide the unmet patient days from Step 6 by 365 to determine the unmet need ADC.

County				Step 7 (Patient Days / 365) = Unmet ADC		
	2020 Unmet Need Patient Days*	2021 Unmet Need Patient Days*	2022 Unmet Need Patient Days*	2020 Unmet Need ADC*	2021 Unmet Need ADC*	2022 Unmet Need ADC*
Adams	1,148	1,214	1,280	3	3	4
Asotin	3,092	3,328	3,564	8	9	10
Benton	(9,222)	(7,421)	(5,620)	(25)	(20)	(15)
Chelan	1,000	1,932	2,864	3	5	8
Clallam	21,238	22,228	23,217	58	61	64
Clark	(19,394)	(14,226)	(9,057)	(53)	(39)	(25)
Columbia	1,532	1,568	1,605	4	4	4
Cowlitz	(7,461)	(6,261)	(5,061)	(20)	(17)	(14)
Douglas	2,362	2,758	3,155	6	8	9
Ferry	582	631	681	2	2	2
Franklin	3,798	4,458	5,118	10	12	14
Garfield	774	788	802	2	2	2
Grant	7,055	7,911	8,766	19	22	24
Grays Harbor	12,688	13,418	14,147	35	37	39
Island	4,232	5,026	5,820	12	14	16
Jefferson	2,550	2,986	3,421	7	8	9
King	3,960	21,177	38,394	11	58	105
Kitsap	(326)	2,685	5,696	(1)	7	16
Kittitas	846	1,268	1,690	2	3	5
Klickitat	(9,971)	(9,788)	(9,605)	(27)	(27)	(26)
Lewis	4,325	5,135	5,945	12	14	16
Lincoln	2,414	2,515	2,616	7	7	7
Mason	11,053	11,965	12,877	30	33	35
Okanogan	5,058	5,456	5,855	14	15	16
Pacific	5,212	5,398	5,584	14	15	15
Pend Oreille	1,964	2,135	2,305	5	6	6
Pierce	5,039	14,766	24,493	14	40	67
San Juan	232	380	528	1	1	1
Skagit	520	2,183	3,847	1	6	11
Skamania	1,557	1,685	1,813	4	5	5
Snohomish	12,944	22,350	31,757	35	61	87
Spokane	(1,834)	3,498	8,830	(5)	10	24
Stevens	7,467	7,942	8,417	20	22	23
Thurston	6,736	9,782	12,827	18	27	35
Wahkiakum	1,440	1,454	1,468	4	4	4
Walla Walla	2,016	2,473	2,930	6	7	8
Whatcom	(3,137)	(1,028)	1,081	(9)	(3)	3
Whitman	(2,616)	(2,310)	(2,005)	(7)	(6)	(5)
Yakima	(5,230)	(3,511)	(1,793)	(14)	(10)	(5)

*a negative number indicates existing hospice service capacity exceeds the projected utilization based on the statewide use rate.

Source:
 Self-Report Provider Utilization Surveys for Years 2017-2019
 Vital Statistics Death Data for Years 2017-2019
 Prepared by DOH Program Staff

Department of Health
2020-2021 Hospice Numeric Need Methodology
 Posted October 30, 2020



WAC246-310-290(8)(h) Step 8:
 Determine the number of hospice agencies in the planning area that could support the unmet need with an ADC of thirty-five.

Application Year			Step 8 - Numeric Need		
County	2020 Unmet Need ADC*	2021 Unmet Need ADC*	2022 Unmet Need ADC*	Numeric Need?	Number of New Agencies Needed?***
Adams	3	3	4	FALSE	FALSE
Asotin	8	9	10	FALSE	FALSE
Benton	(25)	(20)	(15)	FALSE	FALSE
Chelan	3	5	8	FALSE	FALSE
Clallam	58	61	64	TRUE	1
Clark	(53)	(39)	(25)	FALSE	FALSE
Columbia	4	4	4	FALSE	FALSE
Cowlitz	(20)	(17)	(14)	FALSE	FALSE
Douglas	6	8	9	FALSE	FALSE
Ferry	2	2	2	FALSE	FALSE
Franklin	10	12	14	FALSE	FALSE
Garfield	2	2	2	FALSE	FALSE
Grant	19	22	24	FALSE	FALSE
Grays Harbor	35	37	39	TRUE	1
Island	12	14	16	FALSE	FALSE
Jefferson	7	8	9	FALSE	FALSE
King	11	58	105	TRUE	3
Kitsap	(1)	7	16	FALSE	FALSE
Kittitas	2	3	5	FALSE	FALSE
Klickitat	(27)	(27)	(26)	FALSE	FALSE
Lewis	12	14	16	FALSE	FALSE
Lincoln	7	7	7	FALSE	FALSE
Mason	30	33	35	TRUE	1
Okanogan	14	15	16	FALSE	FALSE
Pacific	14	15	15	FALSE	FALSE
Pend Oreille	5	6	6	FALSE	FALSE
Pierce	14	40	67	TRUE	1
San Juan	1	1	1	FALSE	FALSE
Skagit	1	6	11	FALSE	FALSE
Skamania	4	5	5	FALSE	FALSE
Snohomish	35	61	87	TRUE	2
Spokane	(5)	10	24	FALSE	FALSE
Stevens	20	22	23	FALSE	FALSE
Thurston	18	27	35	TRUE	1
Wahkiakum	4	4	4	FALSE	FALSE
Walla Walla	6	7	8	FALSE	FALSE
Whatcom	(9)	(3)	3	FALSE	FALSE
Whitman	(7)	(6)	(5)	FALSE	FALSE
Yakima	(14)	(10)	(5)	FALSE	FALSE

*a negative number indicates existing hospice service capacity exceeds the projected utilization based on the statewide use rate.

**The numeric need methodology projects need for whole hospice agencies only - not partial hospice agencies. Therefore, the results are rounded down to the nearest whole number.

Department of Health
2020-2021 Hospice Numeric Need Methodology
0-64 Population Projection

County	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Adams	17,637	17,768	17,899	18,029	18,160	18,291	18,456	18,622	18,787	18,953	19,118
Asotin	16,969	16,906	16,842	16,779	16,715	16,652	16,596	16,540	16,485	16,429	16,373
Benton	162,262	163,693	165,123	166,554	167,984	169,415	171,026	172,638	174,249	175,861	177,472
Chelan	61,284	61,520	61,755	61,991	62,227	62,463	62,512	62,562	62,611	62,661	62,710
Clallam	52,716	52,661	52,605	52,550	52,494	52,439	52,233	52,027	51,821	51,615	51,409
Clark	387,296	393,291	399,287	405,282	411,278	417,273	421,901	426,529	431,158	435,786	440,414
Columbia	2,988	2,947	2,905	2,863	2,822	2,780	2,745	2,710	2,675	2,640	2,605
Cowlitz	85,417	85,517	85,617	85,717	85,817	85,917	85,843	85,769	85,695	85,621	85,547
Douglas	33,540	33,938	34,335	34,732	35,130	35,527	35,803	36,080	36,356	36,633	36,909
Ferry	5,834	5,782	5,731	5,680	5,628	5,577	5,541	5,506	5,470	5,435	5,399
Franklin	79,651	81,742	83,832	85,922	88,012	90,102	92,443	94,784	97,124	99,465	101,806
Garfield	1,665	1,644	1,623	1,602	1,581	1,560	1,541	1,522	1,502	1,483	1,464
Grant	81,535	82,660	83,784	84,909	86,033	87,158	88,240	89,322	90,403	91,485	92,567
Grays Harbor	59,105	58,675	58,246	57,817	57,387	56,958	56,679	56,401	56,122	55,844	55,565
Island	62,514	62,664	62,814	62,964	63,114	63,264	63,280	63,296	63,312	63,328	63,344
Jefferson	20,636	20,653	20,670	20,688	20,705	20,722	20,636	20,550	20,463	20,377	20,291
King	1,798,581	1,820,215	1,841,848	1,863,482	1,885,115	1,906,749	1,918,470	1,930,192	1,941,913	1,953,635	1,965,356
Kitsap	212,548	214,045	215,543	217,040	218,538	220,035	220,614	221,192	221,771	222,349	222,928
Kittitas	36,206	36,768	37,330	37,892	38,453	39,015	39,286	39,556	39,827	40,097	40,368
Klickitat	16,208	16,082	15,955	15,828	15,702	15,575	15,439	15,304	15,168	15,033	14,897
Lewis	61,494	61,796	62,097	62,398	62,700	63,001	63,164	63,327	63,491	63,654	63,817
Lincoln	8,101	8,042	7,982	7,923	7,864	7,805	7,751	7,698	7,644	7,591	7,537
Mason	48,672	49,162	49,652	50,142	50,632	51,122	51,397	51,672	51,946	52,221	52,496
Okanogan	33,087	32,906	32,726	32,545	32,364	32,183	32,087	31,991	31,896	31,800	31,704
Pacific	15,115	14,972	14,830	14,688	14,545	14,403	14,322	14,242	14,161	14,081	14,000
Pend Oreille	10,045	9,998	9,952	9,905	9,859	9,812	9,769	9,727	9,684	9,642	9,599
Pierce	721,137	729,937	738,738	747,538	756,339	765,139	769,918	774,696	779,475	784,253	789,032
San Juan	11,305	11,194	11,084	10,974	10,863	10,753	10,730	10,707	10,684	10,661	10,638
Skagit	97,885	98,616	99,346	100,076	100,807	101,537	101,887	102,236	102,586	102,935	103,285
Skamania	9,272	9,266	9,260	9,254	9,248	9,242	9,223	9,205	9,186	9,168	9,149
Snohomish	661,812	672,806	683,800	694,793	705,787	716,781	721,527	726,273	731,019	735,765	740,511
Spokane	414,493	416,684	418,875	421,066	423,256	425,447	426,740	428,033	429,326	430,619	431,912
Stevens	34,576	34,459	34,343	34,226	34,109	33,992	33,917	33,841	33,766	33,690	33,615
Thurston	224,951	228,261	231,571	234,880	238,190	241,500	243,867	246,235	248,602	250,970	253,337
Wahkiakum	2,726	2,669	2,612	2,555	2,498	2,441	2,405	2,368	2,332	2,295	2,259
Walla Walla	49,893	50,111	50,328	50,546	50,763	50,981	51,028	51,075	51,121	51,168	51,215
Whatcom	175,840	178,234	180,629	183,023	185,418	187,812	189,267	190,722	192,178	193,633	195,088
Whitman	42,880	42,965	43,051	43,137	43,222	43,308	43,315	43,322	43,330	43,337	43,344
Yakima	215,882	217,605	219,328	221,051	222,774	224,497	225,822	227,147	228,473	229,798	231,123

2017-2019 Average Population
18,029
16,779
166,554
61,991
52,550
405,282
2,863
85,717
34,732
5,680
85,922
1,602
84,909
57,817
62,964
20,688
1,863,482
217,040
37,892
15,828
62,398
7,923
50,142
32,545
14,688
9,905
747,538
10,974
100,076
9,254
694,793
421,066
34,226
234,880
2,555
50,546
183,023
43,137
221,051

Department of Health
2020-2021 Hospice Numeric Need Methodology
65+ Population Projection

County	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2017-2019 Average Population
Adams	1,773	1,887	2,000	2,114	2,227	2,341	2,383	2,424	2,466	2,507	2,549	2,114
Asotin	5,041	5,233	5,426	5,619	5,812	6,005	6,175	6,344	6,514	6,683	6,853	5,619
Benton	26,328	27,492	28,657	29,821	30,986	32,150	33,373	34,597	35,820	37,044	38,267	29,821
Chelan	13,746	14,279	14,811	15,343	15,876	16,408	17,052	17,695	18,339	18,982	19,626	15,343
Clallam	19,934	20,401	20,867	21,334	21,800	22,267	22,901	23,535	24,168	24,802	25,436	21,334
Clark	64,524	68,044	71,564	75,085	78,605	82,125	85,686	89,247	92,807	96,368	99,929	75,085
Columbia	1,102	1,135	1,169	1,202	1,236	1,269	1,287	1,304	1,322	1,339	1,357	1,202
Cowlitz	18,863	19,684	20,505	21,326	22,148	22,969	23,719	24,470	25,220	25,971	26,721	21,326
Douglas	6,450	6,831	7,213	7,595	7,976	8,358	8,666	8,974	9,283	9,591	9,899	7,595
Ferry	1,876	1,949	2,022	2,095	2,168	2,241	2,289	2,337	2,386	2,434	2,482	2,095
Franklin	7,499	7,921	8,343	8,765	9,188	9,610	10,083	10,557	11,030	11,504	11,977	8,765
Garfield	595	607	620	633	645	658	669	680	692	703	714	633
Grant	12,395	13,011	13,628	14,244	14,861	15,477	16,071	16,665	17,258	17,852	18,446	14,244
Grays Harbor	14,005	14,535	15,064	15,594	16,123	16,653	17,133	17,612	18,092	18,571	19,051	15,594
Island	18,086	18,625	19,163	19,701	20,239	20,777	21,412	22,047	22,682	23,317	23,952	19,701
Jefferson	10,244	10,580	10,916	11,252	11,588	11,924	12,323	12,722	13,121	13,520	13,919	11,252
King	254,219	268,307	282,395	296,484	310,572	324,660	337,771	350,881	363,992	377,102	390,213	296,484
Kitsap	45,652	47,697	49,743	51,788	53,833	55,878	58,185	60,492	62,800	65,107	67,414	51,788
Kittitas	6,464	6,760	7,055	7,351	7,647	7,943	8,266	8,589	8,911	9,234	9,557	7,351
Klickitat	4,792	5,051	5,310	5,570	5,829	6,088	6,268	6,448	6,627	6,807	6,987	5,570
Lewis	15,166	15,576	15,987	16,398	16,808	17,219	17,697	18,175	18,652	19,130	19,608	16,398
Lincoln	2,619	2,687	2,755	2,823	2,891	2,959	3,039	3,119	3,200	3,280	3,360	2,823
Mason	13,528	14,123	14,717	15,311	15,905	16,499	17,167	17,836	18,504	19,173	19,841	15,311
Okanogan	8,773	9,198	9,624	10,050	10,475	10,901	11,210	11,519	11,827	12,136	12,445	10,050
Pacific	6,095	6,258	6,421	6,584	6,747	6,910	7,035	7,159	7,284	7,408	7,533	6,584
Pend Oreille	3,195	3,378	3,560	3,742	3,925	4,107	4,239	4,371	4,504	4,636	4,768	3,742
Pierce	108,983	114,409	119,836	125,262	130,688	136,114	142,422	148,729	155,037	161,344	167,652	125,262
San Juan	4,876	5,099	5,322	5,545	5,768	5,991	6,174	6,357	6,541	6,724	6,907	5,545
Skagit	22,735	24,021	25,308	26,595	27,881	29,168	30,314	31,460	32,607	33,753	34,899	26,595
Skamania	2,158	2,286	2,414	2,542	2,670	2,798	2,923	3,048	3,172	3,297	3,422	2,542
Snohomish	95,788	101,674	107,560	113,447	119,333	125,219	131,978	138,737	145,495	152,254	159,013	113,447
Spokane	73,817	77,325	80,834	84,343	87,852	91,361	94,670	97,979	101,288	104,597	107,906	84,343
Stevens	9,454	9,930	10,407	10,884	11,360	11,837	12,214	12,591	12,969	13,346	13,723	10,884
Thurston	42,459	44,534	46,608	48,683	50,757	52,832	54,900	56,967	59,035	61,102	63,170	48,683
Wahkiakum	1,254	1,316	1,379	1,441	1,503	1,565	1,580	1,595	1,611	1,626	1,641	1,441
Walla Walla	10,757	10,819	10,881	10,944	11,006	11,068	11,350	11,632	11,915	12,197	12,479	10,944
Whatcom	33,950	35,688	37,426	39,164	40,902	42,640	44,217	45,794	47,372	48,949	50,526	39,164
Whitman	4,370	4,659	4,948	5,237	5,526	5,815	6,008	6,201	6,395	6,588	6,781	5,237
Yakima	34,088	34,949	35,809	36,670	37,530	38,391	39,475	40,559	41,643	42,727	43,811	36,670

Department of Health
2020-2021 Hospice Numeric Need Methodology
Preliminary Death Data Updated October 12, 2020

County	0-64			65+		
	2017	2018	2019	2017	2018	2019
ADAMS	38	28	35	78	72	93
ASOTIN	49	52	54	190	214	222
BENTON	385	331	346	1,081	1,125	1,154
CHELAN	124	130	137	556	573	626
CLALLAM	180	191	186	842	871	955
CLARK	883	874	887	2,579	2,767	2,987
COLUMBIA	19	6	7	116	43	52
COWLITZ	351	300	294	917	840	951
DOUGLAS	71	51	63	232	255	270
FERRY	30	28	20	60	55	64
FRANKLIN	133	145	123	284	278	313
GARFIELD	6	5	5	17	30	21
GRANT	203	195	197	509	524	508
GRAYS HARBOR	238	227	251	622	647	659
ISLAND	166	135	167	630	675	642
JEFFERSON	69	64	72	308	336	338
KING	3,256	3,264	3,275	10,039	9,917	10,213
KITSAP	485	515	557	1,780	1,713	1,811
KITTITAS	91	68	90	237	239	266
KLICKITAT	63	58	46	151	158	160
LEWIS	210	227	210	721	730	722
LINCOLN	20	25	25	105	94	89
MASON	169	158	167	550	526	548
OKANOGAN	119	103	119	350	332	358
PACIFIC	88	64	66	262	279	265
PEND OREILLE	34	43	31	133	130	125
PIERCE	1,936	1,964	1,911	5,019	4,926	5,002
SAN JUAN	18	19	20	115	114	127
SKAGIT	271	231	229	1,007	1,001	1,018
SKAMANIA	16	27	19	65	56	87
SNOHOMISH	1,483	1,533	1,533	4,118	4,055	4,081
SPOKANE	1,147	1,177	1,143	3,527	3,556	3,545
STEVENS	96	113	112	376	373	345
THURSTON	530	554	525	1,768	1,823	1,908
WAHIAKUM	3	13	11	37	33	53
WALLA WALLA	123	110	118	501	445	450
WHATCOM	367	360	394	1,329	1,252	1,461
WHITMAN	57	66	47	236	199	219
YAKIMA	586	601	555	1,471	1,517	1,451

Department of Health
2020-2021 Hospice Numeric Need Methodology
Survey Responses

Note: Kindred Hospice in Whitman and Spokane Counties did not respond to the department's survey for 2018 data. As a result, the average of 2016 and 2017 data was used as a proxy for 2018.

Agency Name	License Number	County	Year	0-64	65+
Assured Home Health and Hospice (Central Basin/Assured Hospice)	IHS.FS.60092413	Adams	2017	4	30
Assured Home Health and Hospice (Central Basin/Assured Hospice)	IHS.FS.60092413	Grant	2017	44	209
Assured Home Health and Hospice (Central Basin/Assured Hospice)	IHS.FS.60092413	Lincoln	2017	3	22
Assured Home Health, Hospice & Home Care	IHS.FS.00000229	Clallam	2017	14	143
Assured Home Health, Hospice & Home Care	IHS.FS.00000229	Jefferson	2017	1	14
Assured Home Health, Hospice & Home Care	IHS.FS.00000229	Lewis	2017	17	257
Assured Home Health, Hospice & Home Care	IHS.FS.00000229	Mason	2017	8	43
Assured Home Health, Hospice & Home Care	IHS.FS.00000229	Thurston	2017	39	235
Astria Home Health and Hospice (Yakima Regional Home Health and Hospice)	IHS.FS.60097245	Yakima	2017	11	48
Central Washington Hospital Home Care Services	IHS.FS.00000250	Chelan	2017	44	319
Central Washington Hospital Home Care Services	IHS.FS.00000250	Douglas	2017	18	119
Community Home Health and Hospice CHHH Community Home Care Hospice	IHS.FS.00000262	Clark	2017	67	419
Community Home Health and Hospice CHHH Community Home Care Hospice	IHS.FS.00000262	Cowlitz	2017	116	630
Community Home Health and Hospice CHHH Community Home Care Hospice	IHS.FS.00000262	Wahkiakum	2017	1	4
Elite Home Health and Hospice	IHS.FS.60384078	Asotin	2017	7	85
Elite Home Health and Hospice	IHS.FS.60384078	Garfield	2017	1	1
Evergreen Health Home Care Services	IHS.FS.00000278	Island	2017	0	7
Evergreen Health Home Care Services	IHS.FS.00000278	King	2017	272	2393
Evergreen Health Home Care Services	IHS.FS.00000278	Snohomish	2017	82	478
Franciscan Hospice	IHS.FS.00000287	King	2017	90	1115
Franciscan Hospice	IHS.FS.00000287	Kitsap	2017	64	796
Franciscan Hospice	IHS.FS.00000287	Pierce	2017	181	2242
Frontier Home Health and Hospice (Okanogan Regional)	IHS.FS.60379608	Douglas	2017	1	10
Frontier Home Health and Hospice (Okanogan Regional)	IHS.FS.60379608	Grant	2017	0	7
Frontier Home Health and Hospice (Okanogan Regional)	IHS.FS.60379608	Okanogan	2017	34	132
Gentiva Hospice (Odyssey Hospice)	IHS.FS.60330209	King	2017	14	375
Harbors Home Health and Hospice	IHS.FS.00000306	Grays Harbor	2017	72	292
Harbors Home Health and Hospice	IHS.FS.00000306	Pacific	2017	17	106
Heart of Hospice	IHS.FS.00000185	Skamania	2017	2	11
Heart of Hospice	IHS.FS.00000185	Klickitat	2017	1	20
Heartlinks Hospice and Palliative Care (Lower Valley Hospice)	IHS.FS.00000369	Benton	2017	12	130
Heartlinks Hospice and Palliative Care (Lower Valley Hospice)	IHS.FS.00000369	Yakima	2017	28	197
Home Health Care of Whidbey General Hospital (Whidbey General)	IHS.FS.00000323	Island	2017	21	248
PeaceHealth Homecare and Hospice Southwest (Hospice SW)	IHS.FS.60331226	Clark	2017	165	1064
PeaceHealth Homecare and Hospice Southwest (Hospice SW)	IHS.FS.60331226	Cowlitz	2017	7	47
PeaceHealth Homecare and Hospice Southwest (Hospice SW)	IHS.FS.60331226	Skamania	2017	0	0
Horizon Hospice	IHS.FS.00000332	Spokane	2017	35	420
Hospice of Kitsap County	IHS.FS.00000335	Kitsap	2017	0	0
Hospice of Spokane	IHS.FS.00000337	Ferry	2017	7	37
Hospice of Spokane	IHS.FS.00000337	Lincoln	2017	0	0
Hospice of Spokane	IHS.FS.00000337	Pend Oreille	2017	8	55
Hospice of Spokane	IHS.FS.00000337	Spokane	2017	340	1722
Hospice of Spokane	IHS.FS.00000337	Stevens	2017	25	128
Hospice of Spokane	IHS.FS.00000337	Whitman	2017	0	1
Hospice of the Northwest (Skagit Hospice Service)	IHS.FS.00000437	Island	2017	11	77
Hospice of the Northwest (Skagit Hospice Service)	IHS.FS.00000437	San Juan	2017	3	70
Hospice of the Northwest (Skagit Hospice Service)	IHS.FS.00000437	Skagit	2017	61	616
Hospice of the Northwest (Skagit Hospice Service)	IHS.FS.00000437	Snohomish	2017	7	83
Jefferson Healthcare Home Health and Hospice (Hospice of Jefferson County)	IHS.FS.00000349	Jefferson	2017	13	153
Kaiser Permanente Continuing Care Services	IHS.FS.00000353	Clark	2017	50	415
Kaiser Permanente Continuing Care Services	IHS.FS.00000353	Cowlitz	2017	1	18
Kaiser Permanente Continuing Care Services	IHS.FS.00000353	Skamania	2017	0	0
Kaiser Permanente Home Health and Hospice (Group Health)	IHS.FS.00000305	King	2017	38	487
Kaiser Permanente Home Health and Hospice (Group Health)	IHS.FS.00000305	Kitsap	2017	7	107
Kaiser Permanente Home Health and Hospice (Group Health)	IHS.FS.00000305	Pierce	2017	27	189
Kaiser Permanente Home Health and Hospice (Group Health)	IHS.FS.00000305	Snohomish	2017	2	68
Kindred Hospice (Gentiva Hospice)	IHS.FS.60308060	Spokane	2017	22	325
Kindred Hospice (Gentiva Hospice)	IHS.FS.60308060	Whitman	2017	29	247
Kittitas Valley Home Health and Hospice	IHS.FS.00000320	Kittitas	2017	46	134
Klickitat Valley Home Health & Hospice (Klickitat Valley Health)	IHS.FS.00000361	Klickitat	2017	11	33
Kline Galland Community Based Services	IHS.FS.60103742	King	2017	13	301
Memorial Home Care Services	IHS.FS.00000376	Yakima	2017	149	717
MultiCare Home Health, Hospice and Palliative Care	IHS.FS.60639376	King	2017	42	149
MultiCare Home Health, Hospice and Palliative Care	IHS.FS.60639377	Kitsap	2017	33	253
MultiCare Home Health, Hospice and Palliative Care	IHS.FS.60639378	Pierce	2017	211	925
Providence Hospice (Hospice of the Gorge)	IHS.FS.60201476	Klickitat	2017	5	29
Providence Hospice (Hospice of the Gorge)	IHS.FS.60201476	Skamania	2017	2	10
Providence Hospice and Home Care of Snohomish County	IHS.FS.00000418	Island	2017	3	32
Providence Hospice and Home Care of Snohomish County	IHS.FS.00000418	King	2017	5	14
Providence Hospice and Home Care of Snohomish County	IHS.FS.00000418	Snohomish	2017	238	1440
Providence Hospice of Seattle	IHS.FS.00000336	King	2017	387	1888
Providence Hospice of Seattle	IHS.FS.00000336	Snohomish	2017	10	15
Providence SoundHomeCare and Hospice	IHS.FS.00000420	Lewis	2017	28	163
Providence SoundHomeCare and Hospice	IHS.FS.00000420	Mason	2017	26	189
Providence SoundHomeCare and Hospice	IHS.FS.00000420	Thurston	2017	105	664
Tri-Cities Chaplaincy	IHS.FS.00000456	Benton	2017	98	745
Tri-Cities Chaplaincy	IHS.FS.00000456	Franklin	2017	15	122

Department of Health
2020-2021 Hospice Numeric Need Methodology
Survey Responses

Walla Walla Community Hospice	IHS.FS.60480441	Columbia	2017	1	17
Walla Walla Community Hospice	IHS.FS.60480441	Walla Walla	2017	45	276
Wesley Homes	IHS.FS.60276500	King	2017	1	17
Whatcom Hospice (Peacehealth)	IHS.FS.00000471	Whatcom	2017	139	766
Assured Home Health and Hospice (Central Basin/Assured Hospice)	IHS.FS.60092413	Adams	2018	6	34
Assured Home Health and Hospice (Central Basin/Assured Hospice)	IHS.FS.60092413	Grant	2018	40	254
Assured Home Health and Hospice (Central Basin/Assured Hospice)	IHS.FS.60092413	Lincoln	2018	6	28
Assured Home Health, Hospice & Home Care	IHS.FS.00000229	Clallam	2018	16	186
Assured Home Health, Hospice & Home Care	IHS.FS.00000229	Jefferson	2018	1	11
Assured Home Health, Hospice & Home Care	IHS.FS.00000229	Lewis	2018	35	280
Assured Home Health, Hospice & Home Care	IHS.FS.00000229	Mason	2018	4	44
Assured Home Health, Hospice & Home Care	IHS.FS.00000229	Thurston	2018	24	273
Astria Home Health and Hospice (Yakima Regional Home Health and Hospice)	IHS.FS.60097245	Yakima	2018	41	8
Central Washington Hospital Home Care Services	IHS.FS.00000250	Chelan	2018	34	386
Central Washington Hospital Home Care Services	IHS.FS.00000250	Douglas	2018	10	133
Community Home Health and Hospice CHHH Community Home Care Hospice	IHS.FS.00000262	Clark	2018	54	383
Community Home Health and Hospice CHHH Community Home Care Hospice	IHS.FS.00000262	Cowlitz	2018	87	524
Community Home Health and Hospice CHHH Community Home Care Hospice	IHS.FS.00000262	Wahkiakum	2018	2	5
Elite Home Health and Hospice	IHS.FS.60384078	Asotin	2018	6	121
Elite Home Health and Hospice	IHS.FS.60384078	Garfield	2018	1	2
Evergreen Health Home Care Services	IHS.FS.00000278	Island	2018	1	9
Evergreen Health Home Care Services	IHS.FS.00000278	King	2018	348	1989
Evergreen Health Home Care Services	IHS.FS.00000278	Snohomish	2018	79	690
Franciscan Hospice	IHS.FS.00000287	King	2018	102	921
Franciscan Hospice	IHS.FS.00000287	Kitsap	2018	141	693
Franciscan Hospice	IHS.FS.00000287	Pierce	2018	331	2110
Frontier Home Health and Hospice (Okanogan Regional)	IHS.FS.60379608	Douglas	2018	0	3
Frontier Home Health and Hospice (Okanogan Regional)	IHS.FS.60379608	Grant	2018	1	7
Frontier Home Health and Hospice (Okanogan Regional)	IHS.FS.60379608	Okanogan	2018	21	148
Gentiva Hospice (Odyssey Hospice)	IHS.FS.60330209	King	2018	37	180
Harbors Home Health and Hospice	IHS.FS.00000306	Grays Harbor	2018	35	180
Harbors Home Health and Hospice	IHS.FS.00000306	Pacific	2018	13	71
Heart of Hospice	IHS.FS.00000185	Skamania	2018	0	10
Heart of Hospice	IHS.FS.00000185	Klickitat	2018	1	23
Heartlinks Hospice and Palliative Care (Lower Valley Hospice)	IHS.FS.00000369	Benton	2018	6	137
Heartlinks Hospice and Palliative Care (Lower Valley Hospice)	IHS.FS.00000369	Yakima	2018	24	219
Home Health Care of Whidbey General Hospital (Whidbey General)	IHS.FS.00000323	Island	2018	20	235
Homecare and Hospice Southwest (Hospice SW)	IHS.FS.60331226	Clark	2018	243	1305
Homecare and Hospice Southwest (Hospice SW)	IHS.FS.60331226	Cowlitz	2018	20	76
Homecare and Hospice Southwest (Hospice SW)	IHS.FS.60331226	Skamania	2018	1	1
Horizon Hospice	IHS.FS.00000332	Spokane	2018	31	389
Hospice of Kitsap County	IHS.FS.00000335	Kitsap	2018	0	0
Hospice of Spokane	IHS.FS.00000337	Ferry	2018	6	29
Hospice of Spokane	IHS.FS.00000337	Lincoln	2018	1	1
Hospice of Spokane	IHS.FS.00000337	Pend Oreille	2018	8	53
Hospice of Spokane	IHS.FS.00000337	Spokane	2018	346	1593
Hospice of Spokane	IHS.FS.00000337	Stevens	2018	30	121
Hospice of Spokane	IHS.FS.00000337	Whitman	2018	none reported	none reported
Hospice of the Northwest (Skagit Hospice Service)	IHS.FS.00000437	Island	2018	6	60
Hospice of the Northwest (Skagit Hospice Service)	IHS.FS.00000437	San Juan	2018	6	79
Hospice of the Northwest (Skagit Hospice Service)	IHS.FS.00000437	Skagit	2018	48	680
Hospice of the Northwest (Skagit Hospice Service)	IHS.FS.00000437	Snohomish	2018	2	67
Jefferson Healthcare Home Health and Hospice (Hospice of Jefferson County)	IHS.FS.00000349	Jefferson	2018	20	144
Kaiser Permanente Continuing Care Services	IHS.FS.00000353	Clark	2018	39	436
Kaiser Permanente Continuing Care Services	IHS.FS.00000353	Cowlitz	2018	none reported	none reported
Kaiser Permanente Continuing Care Services	IHS.FS.00000353	Skamania	2018	none reported	none reported
Kaiser Permanente Home Health and Hospice (Group Health)	IHS.FS.00000305	King	2018	25	416
Kaiser Permanente Home Health and Hospice (Group Health)	IHS.FS.00000305	Kitsap	2018	14	96
Kaiser Permanente Home Health and Hospice (Group Health)	IHS.FS.00000305	Pierce	2018	35	198
Kaiser Permanente Home Health and Hospice (Group Health)	IHS.FS.00000305	Snohomish	2018	14	94
Kindred Hospice (Gentiva Hospice)	IHS.FS.60308060	Spokane	2018	23	265.5
Kindred Hospice (Gentiva Hospice)	IHS.FS.60308060	Whitman	2018	19	226.5
Kittitas Valley Home Health and Hospice	IHS.FS.00000320	Kittitas	2018	15	135
Klickitat Valley Home Health & Hospice (Klickitat Valley Health)	IHS.FS.00000361	Klickitat	2018	5	40
Kline Galland Community Based Services	IHS.FS.60103742	King	2018	29	368
Memorial Home Care Services	IHS.FS.00000376	Yakima	2018	183	750
MultiCare Home Health, Hospice and Palliative Care	IHS.FS.60639376	King	2018	32	158
MultiCare Home Health, Hospice and Palliative Care	IHS.FS.60639377	Kitsap	2018	25	232
MultiCare Home Health, Hospice and Palliative Care	IHS.FS.60639378	Pierce	2018	177	867
Providence Hospice (Hospice of the Gorge)	IHS.FS.60201476	Klickitat	2018	4	18
Providence Hospice (Hospice of the Gorge)	IHS.FS.60201476	Skamania	2018	1	9
Providence Hospice and Home Care of Snohomish County	IHS.FS.00000418	Island	2018	11	44
Providence Hospice and Home Care of Snohomish County	IHS.FS.00000418	King	2018	none reported	none reported
Providence Hospice and Home Care of Snohomish County	IHS.FS.00000418	Snohomish	2018	316	1772
Providence Hospice of Seattle	IHS.FS.00000336	King	2018	407	1959
Providence Hospice of Seattle	IHS.FS.00000336	Snohomish	2018	11	13
Providence SoundHomeCare and Hospice	IHS.FS.00000420	Lewis	2018	21	140
Providence SoundHomeCare and Hospice	IHS.FS.00000420	Mason	2018	10	117
Providence SoundHomeCare and Hospice	IHS.FS.00000420	Thurston	2018	90	663
Tri-Cities Chaplaincy	IHS.FS.00000456	Benton	2018	112	750
Tri-Cities Chaplaincy	IHS.FS.00000456	Franklin	2018	30	155

Department of Health
2020-2021 Hospice Numeric Need Methodology
Survey Responses

Walla Walla Community Hospice	IHS.FS.60480441	Columbia	2018	1	23
Walla Walla Community Hospice	IHS.FS.60480441	Walla Walla	2018	24	227
Wesley Homes	IHS.FS.60276500	King	2018	29	368
Whatcom Hospice (Peacehealth)	IHS.FS.00000471	Whatcom	2018	117	770
IRREGULAR-COMMUNITY HOME HEALTH & HOSPICE	IHS.FS.00000262	Pacific	2018	0	1
IRREGULAR-MULTICARE	IHS.FS.60639376	Clallam	2018	0	1
Alpha Home Health	IHS.FS.61032013	Snohomish	2019	0	0
Alpowa Healthcare Inc. d/b/a Elite Home Health and Hospice	IHS.FS.60384078	Asotin	2019	9	71
Alpowa Healthcare Inc. d/b/a Elite Home Health and Hospice	IHS.FS.60384078	Garfield	2019	1	4
Central Washington Homecare Services	IHS.FS.00000250	Chelan	2019	28	385
Central Washington Homecare Services	IHS.FS.00000250	Douglas	2019	19	125
Chaplaincy Health Care 2018	IHS.FS.00000456	Benton	2019	96	700
Chaplaincy Health Care 2018	IHS.FS.00000456	Franklin	2019	26	164
Community Home Health/Hospice	IHS.FS.00000262	Cowlitz	2019	98	636
Community Home Health/Hospice	IHS.FS.00000262	Wahkiakum	2019	0	7
Community Home Health/Hospice	IHS.FS.00000262	Clark	2019	60	453
Continuum Care of King LLC	IHS.FS.61058934	King	2019	0	0
Continuum Care of Snohomish LLC	IHS.FS.61010090	Snohomish	2019	0	0
Envision Hospice of Washington	IHS.FS.60952486	Thurston	2019	2	22
EvergreenHealth	IHS.FS.00000278	King	2019	225	2025
EvergreenHealth	IHS.FS.00000278	Snohomish	2019	53	471
EvergreenHealth	IHS.FS.00000278	Island	2019	1	11
Franciscan Hospice	IHS.FS.00000287	King	2019	92	921
Franciscan Hospice	IHS.FS.00000287	Kitsap	2019	118	757
Franciscan Hospice	IHS.FS.00000287	Pierce	2019	364	2236
Frontier Home Health & Hospice	IHS.FS.60379608	Okanogan	2019	27	171
Frontier Home Health & Hospice	IHS.FS.60379608	Douglas	2019	0	5
Frontier Home Health & Hospice	IHS.FS.60379608	Grant	2019	4	8
Harbors Home Health and Hospice	IHS.FS.00000306	Grays Harbor	2019	41	212
Harbors Home Health and Hospice	IHS.FS.00000306	Pacific	2019	15	98
Heartlinks	IHS.FS.00000369	Benton	2019	7	137
Heartlinks	IHS.FS.00000369	Yakima	2019	21	180
Heartlinks	IHS.FS.00000369	Franklin	2019	0	2
Horizon Hospice	IHS.FS.00000332	Spokane	2019	30	393
Hospice of Jefferson County, Jefferson Healthcare	IHI.FS.00000349	Jefferson	2019	26	172
Hospice of Spokane	IHS.FS.00000337	Spokane	2019	289	1692
Hospice of Spokane	IHS.FS.00000337	Stevens	2019	20	126
Hospice of Spokane	IHS.FS.00000337	Ferry	2019	5	25
Hospice of Spokane	IHS.FS.00000337	Pend Oreille	2019	4	65
Hospice of the Northwest	IHS.FS.00000437	Island	2019	14	56
Hospice of the Northwest	IHS.FS.00000437	San Juan	2019	6	73
Hospice of the Northwest	IHS.FS.00000437	Skagit	2019	77	705
Hospice of the Northwest	IHS.FS.00000437	Snohomish	2019	5	58
Inspiring Hospice Partners of Oregon dba Heart of Hospice	IHS.FS.60741443	Skamania	2019	0	17
Inspiring Hospice Partners of Oregon dba Heart of Hospice	IHS.FS.60741443	Klickitat	2019	2	24
Inspiring Hospice Partners of Oregon dba Heart of Hospice	IHS.FS.60741443	Clark	2019	0	3
Inspiring Hospice Partners of Oregon dba Heart of Hospice	IHS.FS.60741443	Snohomish	2019	0	0
Kaiser Continuing Care Services Hospice	IHS.FS.00000353	Clark	2019	43	387
Kaiser Permanente Home Health and Hospice	IHS.FS.00000305	King	2019	37	489
Kaiser Permanente Home Health and Hospice	IHS.FS.00000305	Kitsap	2019	18	123
Kaiser Permanente Home Health and Hospice	IHS.FS.00000305	Pierce	2019	25	176
Kaiser Permanente Home Health and Hospice	IHS.FS.00000305	Snohomish	2019	7	62
Kindred Hospice	IHS.FS.60330209	King	2019	6	217
Kittitas Valley Healthcare Home Health and Hospice	IHS.FS.00000320	Kittitas	2019	16	169
Klickitat Valley Hospice	IHS.FS.00000361	Klickitat	2019	1	44
Kline Galland Community Based Services	IHS.FS.60103742	King	2019	35	345
Memorial Home Care Services	IHS.FS.00000376	Yakima	2019	148	730
MultiCare Hospice	IHS.FS.60639376	King	2019	27	149
MultiCare Hospice	IHS.FS.60639376	Pierce	2019	167	758
MultiCare Hospice	IHS.FS.60639376	Kitsap	2019	37	194
Northwest Healthcare Alliance, Inc. d/b/a Assured Home Health & Hospice	IHS.FS.00000229	Clallam	2019	23	234
Northwest Healthcare Alliance, Inc. d/b/a Assured Home Health & Hospice	IHS.FS.00000229	Jefferson	2019	0	9
Northwest Healthcare Alliance, Inc. d/b/a Assured Home Health & Hospice	IHS.FS.00000229	Lewis	2019	17	244
Northwest Healthcare Alliance, Inc. d/b/a Assured Home Health & Hospice	IHS.FS.00000229	Mason	2019	6	45
Northwest Healthcare Alliance, Inc. d/b/a Assured Home Health & Hospice	IHS.FS.00000229	Thurston	2019	22	240
Olympic Medical Hospice	IHS.FS.00000393	Clallam	2019	0	0
PeaceHealth Hospice	IHS.FS.60331226	Clark	2019	184	1217
PeaceHealth Hospice	IHS.FS.60331226	Cowlitz	2019	23	99
PeaceHealth Hospice	IHS.FS.60331226	Skamania	2019	0	1
Providence Hospice	IHS.FS.60201476	Klickitat	2019	9	22
Providence Hospice	IHS.FS.60201476	Skamania	2019	1	15
Providence Hospice	IHS.FS.60201476	Clark	2019	0	0
Providence Hospice and Home Care of Snohomish County	IHS.FS.00000418	Snohomish	2019	272	1613
Providence Hospice and Home Care of Snohomish County	IHS.FS.00000418	Island	2019	1	29
Providence Hospice of Seattle	IHS.FS.00000336	King	2019	338	2083
Providence Hospice of Seattle	IHS.FS.00000336	Snohomish	2019	5	10
Providence Sound HomeCare and Hospice	IHS.FS.00000420	Thurston	2019	91	685
Providence Sound HomeCare and Hospice	IHS.FS.00000420	Mason	2019	28	148
Providence Sound HomeCare and Hospice	IHS.FS.00000420	Lewis	2019	33	118
Puget Sound Hospice	IHS.FS.61032138	Thurston	2019	0	0
Walla Walla Community Hospice	IHS.FS.60480441	Walla Walla	2019	41	242

Department of Health
2020-2021 Hospice Numeric Need Methodology
Survey Responses

Walla Walla Community Hospice	IHS.FS.60480441	Columbia	2019	3	25
Washington HomeCare and Hospice of Central Basin, LLC d/b/a Assured Hospice	IHS.FS.60092413	Adams	2019	8	54
Washington HomeCare and Hospice of Central Basin, LLC d/b/a Assured Hospice	IHS.FS.60092413	Grant	2019	41	228
Washington HomeCare and Hospice of Central Basin, LLC d/b/a Assured Hospice	IHS.FS.60092413	Lincoln	2019	3	22
WhidbeyHealth Home Health, Hospice	IHS.FS.00000323	Island	2019	27	245
Yakima HMA Home Health, LLC	IHS.FS.60097245	Yakima	2019	6	88
PeaceHealth Whatcom		0 Whatcom	2019	138	995
Wesley Homes	IHS.FS.60276500	King	2019	5	86
Kindred Hospice	IHS.FS.60308060	Spokane	2019	10	90
Kindred Hospice	IHS.FS.60308060	Whitman	2019	12	77

Department of Health
2020-2021 Hospice Numeric Need Methodology
Admissions - Summarized

0-64 Total Admissions by County

Sum of 0-64	Column Labels		
Row Labels	2017	2018	2019
Adams	4	6	8
Asotin	7	6	9
Benton	110	118	103
Chelan	44	34	28
Clallam	14	16	23
Clark	282	336	287
Columbia	1	1	3
Cowlitz	124	107	121
Douglas	19	10	19
Ferry	7	6	5
Franklin	15	30	26
Garfield	1	1	1
Grant	44	41	45
Grays Harbor	72	35	41
Island	35	38	43
Jefferson	14	21	26
King	862	1,009	765
Kitsap	104	180	173
Kittitas	46	15	16
Klickitat	17	10	12
Lewis	45	56	50
Lincoln	3	7	3
Mason	34	14	34
Okanogan	34	21	27
Pacific	17	13	15
Pend Oreille	8	8	4
Pierce	419	543	556
San Juan	3	6	6
Skagit	61	48	77
Skamania	4	2	1
Snohomish	339	422	342
Spokane	397	400	329
Stevens	25	30	20
Thurston	144	114	115
Wahkiakum	1	2	0
Walla Walla	45	24	41
Whatcom	139	117	138
Whitman	29	19	12
Yakima	188	248	175

65+ Total Admissions by County

Sum of 65+	Column Labels		
Row Labels	2017	2018	2019
Adams	30	34	54
Asotin	85	121	71
Benton	875	887	837
Chelan	319	386	385
Clallam	143	187	234
Clark	1,898	2,124	2,060
Columbia	17	23	25
Cowlitz	695	600	735
Douglas	129	136	130
Ferry	37	29	25
Franklin	122	155	166
Garfield	1	2	4
Grant	216	261	236
Grays Harbor	292	180	212
Island	364	348	341
Jefferson	167	155	181
King	6,739	6,359	6,315
Kitsap	1,156	1,021	1,074
Kittitas	134	135	169
Klickitat	82	81	90
Lewis	420	420	362
Lincoln	22	29	22
Mason	232	161	193
Okanogan	132	148	171
Pacific	106	72	98
Pend Oreille	55	53	65
Pierce	3,356	3,175	3,170
San Juan	70	79	73
Skagit	616	680	705
Skamania	21	20	33
Snohomish	2,084	2,636	2,214
Spokane	2,467	2,248	2,175
Stevens	128	121	126
Thurston	899	936	947
Wahkiakum	4	5	7
Walla Walla	276	227	242
Whatcom	766	770	995
Whitman	248	227	77
Yakima	962	977	998

Total Admissions by County - Not Adjusted for New

County	2017	2018	2019	Average
Adams	34	40	62	45.33
Asotin	92	127	80	99.67
Benton	985	1,005	940	976.67
Chelan	363	420	413	398.67
Clallam	157	203	257	205.67
Clark	2,180	2,460	2,347	2329.00
Columbia	18	24	28	23.33
Cowlitz	819	707	856	794.00
Douglas	148	146	149	147.67
Ferry	44	35	30	36.33
Franklin	137	185	192	171.33
Garfield	2	3	5	3.33
Grant	260	302	281	281.00
Grays Harb	364	215	253	277.33
Island	399	386	384	389.67
Jefferson	181	176	207	188.00
King	7,601	7,368	7,080	7349.67
Kitsap	1,260	1,201	1,247	1236.00
Kittitas	180	150	185	171.67
Klickitat	99	91	102	97.33
Lewis	465	476	412	451.00
Lincoln	25	36	25	28.67
Mason	266	175	227	222.67
Okanogan	166	169	198	177.67
Pacific	123	85	113	107.00
Pend Oreill	63	61	69	64.33
Pierce	3,775	3,718	3,726	3739.67
San Juan	73	85	79	79.00
Skagit	677	728	782	729.00
Skamania	25	22	34	27.00
Snohomish	2,423	3,058	2,556	2679.00
Spokane	2,864	2,648	2,504	2671.83
Stevens	153	151	146	150.00
Thurston	1,043	1,050	1,062	1051.67
Wahkiakur	5	7	7	6.33
Walla Wall	321	251	283	285.00
Whatcom	905	887	1,133	975.00
Whitman	277	246	89	203.83
Yakima	1,150	1,225	1,173	1182.67

Total Admissions by County - Adjusted for New

Adjusted Cells Highlighted in YELLOW

County	2017	2018	2019	Average
Adams	34	40	62	45.33
Asotin	92	127	80	99.67
Benton	985	1,005	940	976.67
Chelan	363	420	413	398.67
Clallam	157	203	461	273.63
Clark	2,180	2,460	2,551	2,396.97
Columbia	18	24	28	23.33
Cowlitz	819	707	856	794.00
Douglas	148	146	149	147.67
Ferry	44	35	30	36.33
Franklin	137	185	192	171.33
Garfield	2	3	5	3.33
Grant	260	302	281	281.00
Grays Harb	364	215	253	277.33
Island	399	386	384	389.67
Jefferson	181	176	207	188.00
King	7,787	7,368	7,397	7,517.23
Kitsap	1,260	1,201	1,451	1,303.97
Kittitas	180	150	185	171.67
Klickitat	282	271	280	277.57
Lewis	465	476	412	451.00
Lincoln	25	36	25	28.67
Mason	266	175	227	222.67
Okanogan	166	169	198	177.67
Pacific	123	85	113	107.00
Pend Oreill	63	61	69	64.33
Pierce	3,775	3,718	3,726	3,739.67
San Juan	73	85	79	79.00
Skagit	677	728	782	729.00
Skamania	25	22	34	27.00
Snohomish	2,423	3,058	3,372	2,950.87
Spokane	2,864	2,648	2,504	2,671.83
Stevens	153	151	146	150.00
Thurston	1,043	1,254	1,446	1,247.57
Wahkiakun	5	7	7	6.33
Walla Wall	321	251	283	285.00
Whatcom	905	887	1,337	1,042.97
Whitman	277	246	89	203.83
Yakima	1,150	1,225	1,173	1,182.67

Department of Health
2020-2021 Hospice Numeric Need Methodology
Admissions - Summarized

35 ADC * 365 days per year = 12,775 default patient days
12,775 patient days/62.66 ALOS = 203.9 default admissions
203.9 Default

For affected counties, the actual volumes from these recently approved agencies will be subtracted, and default values will be added.

Recent approvals showing default volumes:

Wesley Homes Hospice - King County. Approved in 2015, operational since 2017. 2018 volumes exceed "default" - no adjustment for 2018. Adjustments in 2017 and 2019.

Heart of Hospice - Klickitat County. Approved in August 2017. Operational since August 2017. Default volumes in 2017-2019.

Envision Hospice - Thurston County. Approved in September 2018. Default volumes in 2018-2019.

Continuum Care of Snohomish - Snohomish County. Approved in July 2019. Default volumes in 2019.

Olympic Medical Center - Clallam County. Approved in September 2019. Default volumes for 2019.

Symbol Healthcare - Thurston County. Approved in November 2019. Default volumes for 2019.

Heart of Hospice - Snohomish County. Approved in November 2019. Default volumes for 2019.

Envision Hospice - Snohomish County. Approved in November 2019. Default volumes for 2019.

Glacier Peak Healthcare - Snohomish County. Approved in November 2019. Default volumes for 2019.

Providence Hospice - Clark County. Approved in 2019. Default volumes in 2019.

Envision Hospice - King County. Approved in 2019. Default volumes for 2019.

EmpRes Healthcare Group - Whatcom County. Approved in 2019 review cycle. No adjustment possible for 2020, adjustment in 2019 as proxy.

Envision Hospice - Kitsap County. Approved in 2019 review cycle. No adjustment possible for 2020, adjustment in 2019 as proxy.

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 23
KING COUNTY HEALTH NEEDS
ASSESSMENT 2018-2019**

King County Community Health Needs Assessment

2018/2019



King County
Hospitals
for a **Healthier**
Community

APPENDIX 23

KING HEALTH NEED ASSESSMENT 2018/2019

Contents

3	Acknowledgements
5	Introduction
13	Executive Summary
25	Community Identified Priorities
34	Description of Community
53	Life Expectancy & Leading Causes of Death
58	Chronic Illnesses
65	Access to Healthcare & Use of Preventive Services
72	Mental Health
75	Alcohol, Tobacco, Marijuana, & Other Drugs
80	Pregnancy & Birth
84	Physical Activity, Nutrition, & Weight
90	Violence & Injury Prevention
94	End Notes
98	Appendix A: Methods - Identification of Health Needs and Selection of Indicators
102	Appendix B: Report Definitions & Structure
107	Appendix C: About King County Hospitals for a Healthier Community

Acknowledgements



Public Health-Seattle & King County

Gloria Albetta, Kaylin Bolt, Anne Buher, Louise Carter, Nadine Chan, Susan Hernandez, Joie Hsu, Eli Kern, Susan Kinne, Amy Laurent, Jay Marshall, Alastair Matheson, Marguerite Ro, Sara Jaye Sanford, Mike Smyser, Lin Song, Kim Tippens, Mariko Toyoji, and Eva Wong

EvergreenHealth

Trisha West and Susan Dyson

CHI Franciscan Health

Kathy Schmidt

St. Elizabeth Hospital
St. Francis Hospital
Highline Medical Center
Regional Hospital

Kaiser Permanente

Kim Wicklund and Victoria Garcia

MultiCare Health System

Lois Bernstein and Kristin Gilman

Auburn Medical Center
Covington Medical Center

Navos

Megan Kelly

Overlake Medical Center

Cynthia Eichner

Seattle Cancer Care Alliance

Madeline Grant

Seattle Children's

Elizabeth "Tizzy" Bennett and Lara Sim

Swedish Medical Center

Sherry Williams

Ballard Campus
Cherry Hill Campus
First Hill Campus
Issaquah Campus

UW Medicine

Elise Chayet and Tracy Gooding

Harborview Medical Center
Northwest Hospital & Medical Center
UW Medical Center
Valley Medical Center

Virginia Mason

Ingrid Ougland Sellie

Washington State Hospital Association

Chelene Whiteaker



Acknowledgements

Continued

We also wish to thank those who provided input to this report:

King County Department of Community & Human Services

*Brad Finegood
Noa Kay
Adam Schmid*

King County Information Technology – Design and Civic Engagement

*Wendy Gable Collins
Laurel Preston*

King County Executive Office – Performance, Strategy and Budget

Chandler Felt

Public Health – Seattle & King County

*YiChao Cao
Nicolas Dundas
Sara Glick
Nazmah Hasaan
Julia Hood
Blishda Lacet
Claire M. Magbanua
Ingrid McDonald
Nancy McGroder
Darren Robertson
Kirsten Wysen*

Photo credits:

Cover, Eli Brownell, Ned Ahrens, Childcare Resources

Pg. 2, Audra Mulkern

Pg. 3, MultiCare Health System

Pg. 5, FEEST

Pg. 13, Auston James

Pg. 25, Ned Ahrens

Pg. 34, Living Well Kent

Pg. 53, Wendy Dore

Pg. 58, Tilth Alliance

Pg. 65, Auston James

Pg. 75, Ned Ahrens

Pg. 90, Seattle Children's © 2017

Pg. 107, Seattle Children's © 2017

Introduction



King County hospitals play a valuable role in maintaining the health of the population. Our regional hospitals are committed to providing high-quality healthcare as well as supporting community health through specific initiatives designed to meet the needs of their constituents.

HISTORY

The King County Hospitals for a Healthier Community (HHC) collaborative is comprised of 11 hospital/health systems and Public Health - Seattle & King County (see Appendix C for full list of hospitals). The formation of the King County Hospitals for a Healthier Community collaborative in 2013 was notable in both the intent and effort of the hospitals to collectively examine regional health priorities. In addition to conducting a county-wide community health needs assessment, the collaborative allowed partners to dive deeper into health issues that they were addressing in common, e.g. health insurance enrollment and healthy eating. More importantly, the HHC has become a collective table for the sector in addressing population health, with representatives now sitting at King County's Health Enrollment Leadership Circle and the Governing Board of the King County Accountable Community of Health (KCACH).

VISION

The HHC vision is to participate in a collaborative approach that identifies community needs, assets, resources, and strategies towards assuring better health and health equity for all King County residents.

Each member recognized that the collective impact of working together could greatly exceed the work that any one hospital could achieve on its own. The collaborative was created to eliminate duplicative efforts; lead to the creation of an effective, sustainable process and stronger relationships between hospitals and public health; and, identify opportunities for joint efforts to improve the health and well-being of our communities. This shared approach to assessing needs helps hospital community benefit programs focus available resources to address the community's most critical health needs.

COMMITMENT TO HEALTH EQUITY

HHC members remain committed to working in pursuit of the "quadruple aim" of achieving health equity, optimizing health system performance by enhancing the patient experience of care, improving the health of populations, and reducing healthcare costs.

Introduction

Continued

King County
Community Health
Needs Assessment
2018/2019

6

PURPOSE

This report documents the community health needs of King County and provides a foundation to meet the Affordable Care Act (ACA) and Washington state requirement for non-profit hospitals to conduct a Community Health Needs Assessment (CHNA) every three years. This is the second CHNA conducted by the HHC. The collaborative CHNA is designed to highlight strengths and areas of need that cut across geographies, thereby presenting opportunities for collaboration between public health, hospitals, health systems, community organizations, and communities.

The 2018 CHNA also fulfills part of the Accountable Community of Health's Regional Health Needs Inventory (RHNI) requirements - another value to having over-arching cross-sector tables that can avoid redundancy, and that can make connections among related efforts.

REPORT METHODS

In crafting their approach to this report, HHC members defined health broadly and used a population-based community health framework to identify health needs and establish criteria for selecting key indicators within each health topic. Social, cultural, and environmental factors that affect health were considered throughout the process. Because health services account for only around 20 percent of overall health, this report highlights community health needs that will require clinical as well as non-clinical approaches by hospitals and health systems and their partners. This joint CHNA report provides baseline data on community health indicators for all hospitals to use and import for their own CHNA. This work also supports the hospital community benefit programs by providing data to describe community needs and highlight disparities, which can inform focused strategies to target communities experiencing inequities.

While hospitals and health systems reached consensus on a core set of topic areas, each hospital may also gather additional information specific to its service area.

Introduction

Continued

In accordance with the Affordable Care Act, this report includes:

- 1. Community description**
- 2. Leading causes of death**
- 3. Levels of chronic illness**

In addition, this report provides quantitative information about the following identified health needs:

- 4. Access to healthcare and use of preventive services**
- 5. Mental health**
- 6. Alcohol, tobacco, marijuana, and other drugs**
- 7. Pregnancy and birth**
- 8. Physical activity, nutrition, and weight**
- 9. Violence and injury prevention**

Additional indicators for each health need as well as data for other health topics are online at www.kingcounty.gov/health/indicators. Detailed data are reported, when available, for neighborhoods, cities, and regions in King County, and by race/ethnicity, age, income/poverty, gender, and other demographic breakdowns. When possible, comparisons are also made to the Washington state average and Healthy People 2020 objectives for the health of all Americans (www.healthypeople.gov).

Community themes and priorities were gleaned from an inventory of over 40 community assessment/engagement reports conducted over the past 3 years. This year's report will include, as an addendum, a spotlight on the lesbian, gay, bisexual, transgender, and queer (LGBTQ) communities of King County. The addendum will examine the health disparities impacting this population. Three methods were used for the LGBTQ CHNA report addendum:

- Analysis of the Behavioral Risk Factor Surveillance System (BRFSS) survey data for the LGB adult population; and, analysis of the Healthy Youth Survey (HYS) data for the LGB school-age population
- Listening sessions with LGBTQ youth and young adults throughout the county
- Key informant interviews with thought leaders in the LGBTQ community

More details about the CHNA methodology are included in Appendix A.

REPORT LIMITATIONS

There are some notable limitations to this report. First, for some topics of interest, we have incomplete or inadequate quantitative data and a lack of qualitative data to contextualize findings. The exception is the forthcoming LGBTQ spotlight, which will include qualitative findings from youth listening sessions and key informant interviews held throughout the county. Second, racial/ethnic comparisons are made using broad race categories based on a narrow range of options for self-identification in surveys. It is important to report data by race/ethnicity to track progress towards health equity. However, the vast diversity within race/ethnicity categories does not allow us to distinguish among ethnic groups or nationalities within categories. Our ability to report data by the many ethnic groups and nationalities living in King County is limited by sufficient sample sizes and how various surveys collect self-reported racial/ethnic data. Additionally, for some data sources, the most recently available data comes from 2015, not 2016 or 2017.

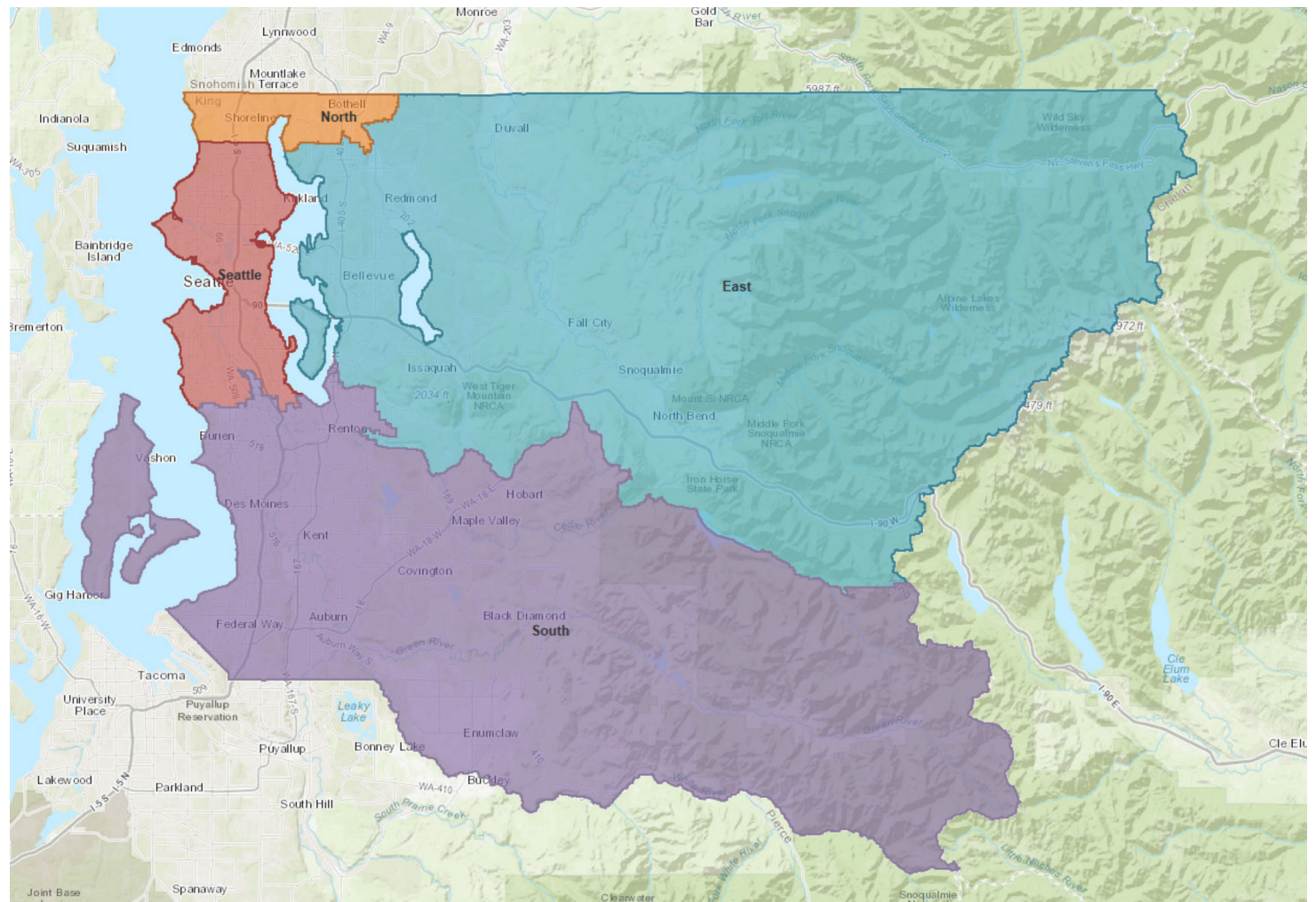
Finally, space and resource limitations prevent us from mentioning all of the valuable organizations and assets in our communities. A continuously updated statewide database of health and human service information and referrals for Washington state can be found at <https://resourcehouse.info/win211/Index>.

COMMUNITY STRENGTHS AND CHALLENGES

King County is often noted for its unique geographic location, providing close proximity to attractive outdoor features like the Puget Sound, many freshwater lakes, and the Cascade Range. In addition, the county includes both high-density cities like Seattle, as well as many rural areas where residents live and work. Overall, King County ranks among the top counties in the nation on measures of socioeconomic status, health, and well-being. Increasing racial/ethnic diversity, driven in part by immigration, contribute to the unique cultural strengths and assets that benefit the entire region.

Nevertheless, county residents continue to experience stark differences by place, race, and income. The places where we live, work, and play are major predictors of our life experiences. Together, these experiences greatly influence our ability to reach our full potential and thrive as productive members of society. In many ways, “place” is a proxy for opportunity, influencing our access to work, education, healthcare, food, and recreation.¹ Evaluating regional differences in health indicators helps identify neighborhoods with the greatest opportunities for improving health.

King County regions



People of color and low-income residents are at disproportionate risk of being uninsured and having poor health and social outcomes. Many health and social indicators—such as housing quality, alcohol-related deaths, obesity, lack of health insurance, and smoking—show regional patterns of inequity. South King County is home to some of the most racially and

ethnically diverse communities in our county, and experiences disparities in multiple health and social indicators. As development moves south, many low-income families will need to relocate to find affordable housing, likely increasing their distance from jobs, educational opportunities, and other resources.

APPENDIX 23

KING HEALTH NEED ASSESSMENT 2018/2019

Introduction

Continued

Despite these challenges, our county has an opportunity to learn how to better serve all residents in an era of rapidly expanding prosperity. Washington state and King County leadership continue to stand behind strategies to improve the health and well-being of local residents. This includes embracing the diversity of our communities and partnering with state and local government, community-based organizations, and others to be vocal about healthcare as a key value and priority in King County. Sustaining the gains in health coverage over the past 3 years is a key aspect of this work. Working together, hospitals, health systems, public health, community organizations and communities can improve living conditions and residents' ability to lead healthy lives and achieve their full potential. The success of any effort to fundamentally address health inequities will require meaningful consideration of the impacts of racial, social and economic factors on the health of King County residents. As an overarching assessment of health in King County, the county-wide CHNA provides a foundation for future community partnerships and well-aligned strategies that will succeed in responding to the inequities that it identifies.

King County
Community Health
Needs Assessment
2018/2019

WORKING TOGETHER TOWARDS HEALTHIER COMMUNITIES

Over the past three years, a number of King County initiatives have been implemented to address some of the key health challenges and disparities that face our community. The last CHNA report identified the need for increased collaboration among community-based organizations, governmental agencies, advocacy organizations, hospitals and health systems, and the private sector. The initiatives described below are notable as they are explicit in their engagement to assure cross-sector representation, where different stakeholders work collectively for a common purpose, commit to authentic community engagement, and strive to understand and support community-driven solutions.

King County Accountable Community of Health

The King County Accountable Community of Health (KCACH), partnering with the Healthier Washington initiative, seeks to transform health and healthcare by addressing social drivers of health via practice transformation, value-based purchasing, and use of performance measures. The emphasis is on prevention and recovery, coupled with a firm commitment

Introduction

Continued

to racial equity. As one of the state's nine ACHs, King County's regional partnership has identified four Medicaid transformation projects for which the KCACH will be accountable:

- Integrate health system and community approaches to better manage and control chronic disease;
- Reduce opioid-related death and illness through prevention, treatment and recovery support;
- Implement diversion strategies to promote more appropriate use of emergency care services and person-centered care through increased access to primary care and social services; and,
- Improve coordination of care for Medicaid enrollees through better integration of financing and delivery of physical and behavioral health services through Managed Care Organizations.

A major focus of the KCACH is bringing together diverse stakeholders and partners to implement the Medicaid transformation project demonstration in our county. This is a strategic opportunity to attract significant federal investment to our region to improve health outcomes and address the social and economic factors that impact health.

Physical and Behavioral Health Integration

An integrated healthcare system is one that is able to meet the physical and behavioral healthcare needs of an individual in a holistic, culturally responsive fashion where the individual is engaged in their care. The KCACH is moving forward with expanding bi-directional integration of physical and behavioral healthcare and including integration of oral health to offer more coordinated, whole-person care. This project reflects the KCACH's vision of "having a system that provides whole-person, patient-centered care" with a primary strategy of "building a bridge between medical, behavioral health, and community providers."

Bi-directional integration of healthcare will:

- Improve access to behavioral health through enhanced screening and treatment of behavioral health disorders in primary care settings;
- Expand access to physical health services for individuals with chronic behavioral health conditions through increased screening, identification, and treatment of physical health disorders in behavioral healthcare settings
- Improve active coordination of care among medical and behavioral health providers as well as addressing barriers to care; and

Introduction

Continued

- Align new bi-directional integration with existing, successful community efforts including addressing the social determinants of health.

Bi-directional integration of healthcare is the cornerstone of health systems transformation. Lack of care coordination is a significant driver of avoidable healthcare costs and poor outcomes for Medicaid beneficiaries as well as other consumers. Strengthening providers' ability and capacity to provide client-centered whole-person care, including stronger alignment with social determinant needs, will improve outcomes for the target population and strengthen the foundation for transforming the delivery system.

BEST STARTS FOR KIDS

The transformation called for by the 2013 King County Health and Human Services Transformation Plan to shift from a crisis and sick-care oriented system, to one focused on prevention, wellness, and the elimination of disparities, is now in action. King County voters approved the Best Starts for Kids (BSK) Levy (Ordinance 18088) in late 2015, creating a vital source of funding to build healthier communities. BSK is the most comprehensive approach to early childhood development in the nation. BSK invests in programs to promote healthier, more resilient families and communities, starting with prenatal support and continuing through teenage years. The levy generates \$65 million annually for investments in prevention and early intervention for children, youth, families, and communities. After a year of community-informed planning in 2016, the Best Starts for Kids initiative established a Children and Youth Advisory Board.

While many BSK strategies are addressing access to services, some investments will focus on making systemic changes that drive health outcomes. These include investments in addressing the inequitable over-representation of youth of color in our juvenile justice system. This means changing practices and policies to do a better job of providing alternative pathways to success for our youth by re-building connections for youth within the education system and the economy.

Executive Summary



King County
Community Health
Needs Assessment
2018/2019

For the first time, more than half of King County children are children of color.

This Community Health Needs Assessment (CHNA) is a King County Hospitals for a Healthier Community (HHC) collaborative product that fulfills Section 9007 of the Affordable Care Act.

In accordance with those requirements, the report presents a detailed **description of the community**, analyses of data on **life expectancy and leading causes of death**, and a review of levels of **chronic illness** throughout King County. In addition, this report provides quantitative information about additional community health needs that were identified by the HHC.

COMMUNITY INPUT

Local community needs assessments, strategic plans, and reports from the past three years were reviewed to identify community health needs and to provide context to the quantitative data presented. Key themes that emerged from these assessments of community health are presented in the Community Identified Priorities section of the report.

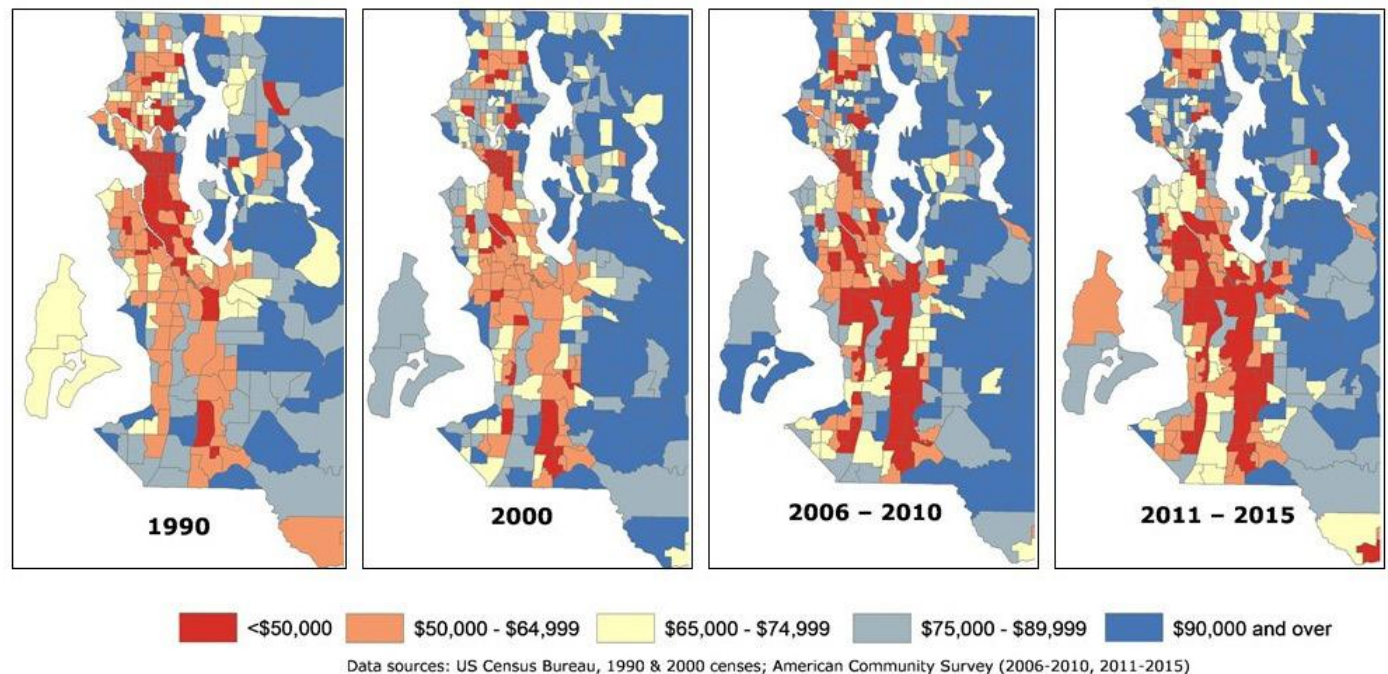
In addition, this year's spotlight on the lesbian, gay, bisexual, transgender, and queer (LGBTQ) communities of King County will examine the health disparities impacting these populations. The spotlight which will be released as an addendum to this report will include analyses of Behavioral Risk Factor Surveillance System (BRFSS) survey data for the LGB adult population; Healthy Youth Survey (HYS) data for the LGB school-age population; and qualitative findings from a series of listening sessions with LGBTQ youth and young adults throughout the county, and key informant interviews with thought leaders in LGBTQ communities.

KING COUNTY'S CHANGING POPULATION

In the past three years, King County has experienced a substantial growth spurt – in population and diversity. For the first time, more than half of King County children are children of color. The population boom has occurred in tandem with rapid rises in the cost of housing – and in homelessness.

As housing costs skyrocketed, poverty has become more concentrated in South Region where, at least until recently, housing has been more affordable, especially for families with children. Life expectancy and a host of other health outcomes are linked to income – a link that may help explain why South Region residents often experience poorer health than residents of other regions. In addition, although babies born in King County in 2015 are expected to live longer than those born in 1990, national data suggest that improvements in life expectancy for those in the top income quartile are 2.5 times greater than for those in the bottom income quartile,² a difference that, over time, tends to magnify existing disparities.

Median household income by King County neighborhood, 1990-2015



The population is aging: by 2040 almost 1 in 4 King County residents is projected to be age 60 or older – up from 1 in 7 in 2000.³ The fastest-growing segment will be those 85 and older. Disability rates are highest for older adults (40% in King County), and per-person healthcare expenditures for adults age 65 and older have historically been 5 times greater than expenditures for children and 3 times greater than those for working-age adults.⁴ Healthcare systems need to prepare for this important demographic shift with adequate workforce capacity and accessible services.

ACROSS KING COUNTY OVERALL, WHAT'S GETTING BETTER?

Although disparities remain, three county-wide successes stand out. These improvements occurred in the context of supportive policy changes – at the federal, state, county, city, and/or school levels.

- Since implementation of the Affordable Care Act, **health insurance coverage** has improved dramatically – for all ages, racial/ethnic groups, and cities.
- **Cigarette smoking** – still the leading preventable cause of death in the United States – has declined across regions, age groups, and racial/ethnic groups. The decline in youth smoking was accompanied by a county-wide decline in **youth substance use**.

- Fewer students in 8th, 10th, and 12th grades are **drinking sugar-sweetened beverages daily**, mirroring a national trend among high school students.⁵

ACROSS KING COUNTY OVERALL, WHAT'S FAILING TO IMPROVE OR GETTING WORSE?

Although many indicators showed little or no improvement, the following have special relevance for healthcare providers:

- In the context of escalating housing prices, **student homelessness in King County** has more than doubled since 2008, reaching 8,411 (nearly 3% of enrolled students) in the 2015-16 school year. More than half of the students were in elementary school or pre-kindergarten. In addition, the 2017 Point-In-Time Count identified 11,643 individuals experiencing homelessness, 50% of whom had one or more disabling conditions.
- **Insufficient physical activity** is associated with obesity, which in turn is linked to diabetes and other chronic diseases (including 4 in 10 cancers diagnosed in the United States).⁶ Fewer than 1 in 4 adults and youth get the recommended amount of exercise. This represents no change for adults, and modest but inadequate improvement for 8th, 10th, and 12th graders, given the importance of physical activity to health.

Executive Summary

Continued

King County
Community Health
Needs Assessment
2018/2019

16

■ The overall **obesity** rate for King County adults has been flat since 2009 (at more than 1 in 5 adults). Nationally, adult obesity levels rose for decades, stabilized between 2003 and 2012, then rose again slightly for women.⁷ At 22%, the 2015 adult obesity rate in King County was significantly lower than the Washington state rate of 26%, and the national rate of 29% (although the 2011-2015 rate in South Region matches the national rate, at 29%).⁸ For King County youth, obesity has held steady around 9% since 2004 except in South Region, where it has increased. In comparison, high school students nationally experienced a steady increase in obesity from 1999 to 2013, which appeared to level off at a higher rate -14% in 2015.

■ **Although new data about food insecurity have not been collected since 2013**, we know that use of food assistance services is often associated with food insecurity. By 2016, participation in the Basic Food program (formerly food stamps) had not returned to pre-recession levels and was increasing for older adults, especially in South Region. A similar pattern was found for visits to King County food banks.

■ Regarding **mental health**, 30% of youth reported feeling sad or hopeless for 2 or more consecutive weeks, to the extent that they stopped doing some of their usual activities; this has gotten worse since 2004 in King County overall, driven by increases in this indicator among youth in South Region. Among adults, the percentage experiencing psychological distress has not changed since the last report.

■ **Drug-related deaths**, especially those related to heroin and methamphetamine, increased dramatically between 2010 and 2016.

HOW IS INCOME LINKED TO HEALTH?

Despite overall improvements in some areas, we find consistent income/poverty gradients in health outcomes (also often reflected in racial/ethnic differences). Many of these patterns tell a story in which inequitable access to care and prevention – especially early in life – sets the stage for later health concerns. The following sets of indicators showed robust links to measures of economic prosperity; usually median income or neighborhood poverty (family economic data were not available for measures of health-related behaviors and outcomes for youth).

Income Gradients for Determinants of Health

■ **Access to care and use of preventive services:** Notable differences by income included *health insurance coverage* (a 7-fold difference between adults in high- and low-poverty neighborhoods, even after implementation of the Affordable Care Act); having *unmet medical needs* due to cost (8-fold difference between adults in the highest and lowest income tiers), *incomplete childhood vaccines*, meeting *screening guidelines for colorectal cancer* (adults), having had a *dental visit in the past year* (adults), and *having dental caries* before 3rd grade (young children).

APPENDIX 23

KING HEALTH NEED ASSESSMENT 2018/2019

Executive Summary

Continued

■ **Pregnancy, childbirth, and the first years of life:** Income differences favoring higher incomes were found for *early and adequate prenatal care, low birth weight, and infant mortality.*

■ **Adult physical activity and weight:** Adults in the lowest income tier were 1.5 times as likely to be *obese* as those with the highest incomes, and high-income adults were 1.6 times as likely as those with the lowest incomes to *meet physical activity guidelines.*

■ **Tobacco:** Adults with the lowest incomes were 4 times as likely as those with the highest incomes to *smoke cigarettes.*

Income Gradients for Health Outcomes

■ **Chronic diseases:** Adults with the lowest incomes were at least twice as likely as those with the highest incomes to have a *disability*, or diagnoses of *diabetes* or *asthma.*

■ **Mental health:** Adults in the lowest income tier were almost 15 times as likely as high-income adults to have experienced *serious psychological distress* in the past month.

■ **Hospitalizations:** Residents in high-poverty neighborhoods were most likely to be hospitalized for *unintentional injuries* and for *suicide attempts.*

Life expectancy and types of cancer:

Consistent with national findings, King County residents of low-poverty neighborhoods live longer than those in high-poverty neighborhoods. And residents of high-poverty neighborhoods are most likely to be diagnosed with lung and kidney cancers (both strongly associated with smoking, one of the income-linked behavioral determinants of health).

HOW IS PLACE RELEVANT TO HEALTH?

Recent analyses also found persistent (and increasing) disparities by geographic location, or place. We focus primarily on King County's South Region, which also has the highest concentration of poverty, plus disproportionate representations of people of color and immigrants (half of whom settle in South Region), and significant linguistic diversity. One in four South Region adults has a bachelor's degree, compared to more than half of adults in each of the county's other regions. Not surprisingly, a close look at South Region reveals some of the same disparities that emerged when we focused on poverty.

Determinants of Health by Location

Access to care and use of preventive services:

South Region residents had the lowest rates of *health insurance* and *annual dental visits by adults*, and the highest rate of *unmet medical needs* due to cost.

Pregnancy, childbirth, and the first years of life:

South Region mothers were least likely to get *early and adequate prenatal care*; South Region also had the highest rates of *infant mortality* and *incomplete vaccines*. Also, the proportion of East Region mothers getting *early and adequate prenatal care* has declined sharply.

Physical activity, weight, and nutrition: Daily consumption of sugar-sweetened beverages by youth was highest among South Region youth, and South Region was the only region where youth obesity was getting worse.

Tobacco: South Region had the highest rate of adult smoking, and was the only region where the county-wide decline in adult smoking did not continue after 2006.

Health Outcomes by Location

Chronic diseases: South Region adults had the county's highest rates of *disability* and *diabetes*, and the *diabetes* rate is rising in South and East regions. There were no regional differences for child or adult asthma.

Mental health: South Region youth are increasingly likely to experience *depressive feelings*.

Hospitalizations and suicide deaths: The rate of *unintentional injury hospitalizations* is decreasing county-wide. The rate in South Region remains higher than other regions. The rate of *suicide death* is increasing in South Region.

Analyses often spotlight South Region as an area of concern, in part because of concentrated poverty. Drilling a bit deeper into the most recent data, we find meaningful differences among South Region neighborhoods. For example, while the rate for *early and adequate prenatal care* was below the county average in most South King County neighborhoods near the I-5 corridor (all neighborhoods in Auburn, Federal Way, and Kent, 2 of Renton's 3 neighborhoods, and SeaTac/Tukwila), South Region neighborhoods that did not differ from the county average included those with Puget Sound waterfront (Burien, Des Moines/Normandy Park, Vashon Island) and more rural areas considerably inland from I-5 (Black Diamond/Enumclaw/SE County, Covington/Maple Valley, Fairwood).

Health concerns are not confined to South Region. For example, the proportion of mothers receiving *early and adequate prenatal care* in East Region has declined significantly since 2000. According to the most recent data, mothers in Seattle and North Region were more likely than East Region mothers to get *early and adequate prenatal care*. Closer examination revealed that 3 of the 14 King County neighborhoods with rates below the 2011-2015 county average were in Bellevue. In another departure from the focus on South Region, *suicide hospitalization* was most likely for residents of Seattle and North Region, and the East Region rate increased significantly from 2000 to 2015.

HOW ARE RACE AND ETHNICITY RELEVANT TO HEALTH?

Racial and ethnic disparities in health and social outcomes persist throughout the county.

People of color in King County are more likely to be uninsured and to have poor health outcomes. Across a number of health and social indicators, both whites and Asians fare better than others. However, national data suggest that the aggregate category of “Asians” masks disparities within the Asian category. There is a large body of evidence that demonstrates disparities in health outcomes, particularly for Southeast Asians compared to other Asian ethnicities. This is true of

other races as well. For example, existing data do not permit us to disaggregate Somali, Ethiopian, and other emerging African communities from multi-generational African-American communities. Nevertheless, the presence of disparities by race/ethnicity underscore the need to further explore the causes of inequities that result in disparate outcomes and identify solutions.

Determinants of Health by Race/Ethnicity

■ **Access to care and use of preventive services:** Although *health insurance coverage* has improved overall, most communities of color remain disproportionately uninsured. In 2016, Hispanic adults were least likely of all racial/ethnic groups to have healthcare coverage, with an uninsured rate nearly 3 times the county average. Black and Hispanic residents were most likely to report having *unmet medical needs* due to cost.

■ **Pregnancy, childbirth, and the first years of life:** American Indian/Alaska Native, Black, Hispanic, and Native Hawaiian/Pacific Islander mothers were less likely than Asians and whites to get *early and adequate prenatal care*. Black and American Indian/Alaska Native infants experienced the highest rates of *low birth weight* and *infant mortality*. Rates of *low birth weight* among Asian infants were also higher than the county average; however, they had the lowest rates of *infant mortality*.

Executive Summary

Continued

■ **Physical activity, weight, and nutrition:** Adult *obesity* rates were lowest for Asians and highest for American Indians/Alaska Natives; among youth, *obesity* rates were lowest for Asians and whites and significantly higher for all other groups. Asian and Hispanic youth were least likely to meet *physical activity* standards.

■ **Tobacco:** Among 8th, 10th, and 12th graders, American Indian/Alaska Native youth were significantly more likely than white, Black, Hispanic, and Asian youth to use *tobacco* – nearly 4 times as likely as Asian youth to smoke cigarettes.

Health Outcomes by Race/Ethnicity

■ **Chronic diseases:** *Diabetes* rates among Black adults were significantly higher than the county average and nearly twice the rate among Asian adults. The rate of *asthma* among American Indians/Alaska Natives is 4 times that of Asian adults.

■ **Mental health:** Hispanic, Native Hawaiian/Pacific Islander, American Indian/Alaska Native, and multiple-race youth were more likely than Asian, Black, and white youth to experience *depressive feelings*.

■ **Suicide and homicide deaths:** *Suicide deaths* were higher than the county average for whites and American Indians/Alaska Natives in King County. Homicide deaths, however, were much higher for Black residents than for any other group, at more than 5 times the county average.

■ **Life expectancy, causes of death, and types of cancer:** At 86.3 years, life expectancy is highest among Hispanic and Asian residents; Native Hawaiian/Pacific Islanders (75.0 years) have the lowest life expectancy of all racial/ethnic groups in King County. All racial/ethnic groups share heart disease and cancer as the top 2 causes of death. Among types of cancer, liver cancer is most common among American Indians/Alaska Natives; prostate cancer most prevalent among Black males; cervical cancer highest for Hispanic and Black women. Breast cancer is highest among white women – although Black women are most likely to die from breast cancer. Although the numbers are low due to low population size, Native Hawaiians/Pacific Islanders have strikingly high rates of breast, lung, colorectal, and uterine cancers.

Executive Summary

Continued

King County
Community Health
Needs Assessment
2018/2019

SUMMARY OF HEALTH TOPICS

Determinants of Health

Access to Care and Use of Preventive Services:

Access to *health insurance* improved substantially after implementation of the Affordable Care Act (ACA), and in the year after ACA implementation fewer adults reported *not being able to see a doctor because of cost*. Children who live in high-poverty neighborhoods were least likely to have completed the *vaccinations recommended for young children* by 35 months. More than 1 in 3 adults age 50-75 failed to meet *colorectal cancer screening guidelines*. Low-income adults were least likely to use preventive services such as colorectal cancer screening and *regular dental visits*. Adults in South Region were least likely to report seeing a dentist in the past year – a trend that is getting worse, but only in South Region. About 4 in 10 King County preschoolers, kindergarteners, and 2nd and 3rd graders had experienced *dental caries*. White children were less likely than children of all other races/ethnicities to have had dental caries.

Pregnancy, childbirth, and the first years of life:

Seven in 10 of King County's expectant mothers received *early and adequate prenatal care*, but substantial disparities by poverty and race/ethnicity persist. Pregnant women in South Region were significantly less likely than those in other regions to

get early and adequate prenatal care (67.3%), and the rate of *early and adequate prenatal care* in East Region has decreased since the last report. Disparities in birth outcomes reported in 2015/2016 have not diminished.

Physical Activity, Weight, & Nutrition: While the proportion of 8th, 10th, and 12th grade students meeting federal standards for *physical activity* has increased, fewer than 1 in 4 students met the criteria – the same rate as adults (who showed no improvement). Among even the highest-income adults, only 26% met federal standards. Although there were no racial/ethnic differences among adults, Asian and Hispanic students were least likely to meet physical activity standards. For youth, physical activity did not differ by region, but South Region adults were significantly less likely to meet standards.

Almost 1 in 10 King County students in 8th, 10th, and 12th grades were *obese*, with males and students who identify as lesbian, gay, or bisexual having rates above the county average. Student obesity rates have been flat since 2004 or falling in all regions of the county except South Region where it is rising. Adults were more than twice as likely as youth to be obese, with highest rates for those with the lowest incomes, American Indians/Alaska Natives and Blacks, and those age 45-64. Unlike youth, obesity in adults did not differ by gender or sexual orientation.

Executive Summary

Continued

King County
Community Health
Needs Assessment
2018/2019

22

Fifteen percent of youth reported *drinking sugar-sweetened beverages (SSB) daily*. Females, Asians, and whites reported the lowest rates of daily SSB consumption, while students in South Region were most likely to drink sugary beverages.

Tobacco & Other Drugs: *Cigarette smoking* has dropped for youth and adults across all age groups and regions, although the South Region decline for adults has stalled since 2006. Among both youth and adults, American Indians/Alaska Natives reported the highest rates. While there were no gender differences among youth, male adults were more likely than females to smoke. For youth and adults, those who identified as lesbian, gay, or bisexual (LGB) were more likely than heterosexuals to smoke cigarettes. Combining 8th, 10th, and 12th graders, only 5% smoked cigarettes; for 12th graders alone, 10% reported smoking. Adults in the lowest income tier were 4 times more likely to smoke than adults with the highest incomes.

The proportion of 8th, 10th, and 12th graders who reported *using alcohol, marijuana, painkillers (to get high) or any illicit drugs* – 1 in 4 – has declined since 2004. As with other risky behaviors, youth substance use increased with age, with a 4-fold difference between the rates for 12th graders and 8th graders. Although there were no gender differences, substance use among LGB youth was 1.5 times the rate for heterosexual youth.

King County *deaths related to prescription opioids* dropped from 2010 to 2016. During the same period, deaths related to heroin more than doubled, and those related to methamphetamine increased more than 6-fold. According to a recent survey, heroin and other opiates were injection drug users' drugs of choice; 20% of respondents had experienced a non-fatal overdose in the past year. Although almost 8 out of 10 respondents expressed interest in reducing or stopping opioid use, fewer than 3 in 10 were currently in treatment.

Health Outcomes

Life expectancy and leading causes of death:

An infant born in King County in 2015 can expect to live to age 81.9 – longer than in most parts of the United States, but no different from King County life expectancy in 2009. Within the county, differences in *life expectancy* are linked to poverty and location and can be as great as 10 years. Similarly, age-adjusted *death rates*, which declined for decades, plateaued after 2010, possibly because the decrease in deaths from cardiovascular disease was offset by increases in deaths from Alzheimer's disease. Cancer and heart disease are still the *leading causes of death* in King County. In childhood and early adulthood (younger than 45), males are much more likely than females to die. There are also notable disparities by neighborhood poverty.

APPENDIX 23

KING HEALTH NEED ASSESSMENT 2018/2019

Executive Summary

Continued

King County
Community Health
Needs Assessment
2018/2019

23

Chronic Illnesses: In King County 7% of adults have been told by a doctor that they have *diabetes*. Disparities by income, geography, and race/ethnicity were substantial: at least 10% of Blacks, American Indians/Alaska Natives, and Native Hawaiians/Pacific Islanders reported a diabetes diagnosis. Diabetes rates are rising in South and East Regions and for Hispanics and whites.

Seven percent of King County children and 9% of adults had *asthma*, although no age or regional differences were identified in either group. Although income was not linked to childhood asthma, adult asthma was most common in low-income households. Asians had the lowest rate of adult asthma -- the only significant racial/ethnic difference in either children or adults. Between 2000 and 2015, however, asthma rates increased only for white adults. In adults only, females were more likely than males to have asthma. Adults who identified as lesbian, gay, or bisexual were more likely than heterosexual adults to suffer from asthma.

The *leading causes of adult hospitalization* are pregnancy/childbirth, heart disease, injuries, and mental illness. Males are still more likely than females to be hospitalized for heart disease. *Leading causes of hospitalization for children* are respiratory infections, injuries, and mental illness.

The top three types of cancer in King County are lung, prostate, and breast cancer. Native Hawaiians/Pacific Islanders, Blacks, and whites had the highest rates of breast, prostate, colon, and lung cancers.

Mental Health: The proportion of *youth with depressive feelings* has increased across the county. Rates were higher than the county average for female and LGB students, as well as those who live in South Region and those who were Hispanic, Native Hawaiian/Pacific Islander, American Indian/Alaska Native and multiple-race. Although the proportion of King County adults with *serious psychological distress* was considerably lower (4%), there was a 15-fold difference between the lowest and highest income groups and a 2-fold difference between LGB and heterosexual adults. Of all racial/ethnic groups, Asian adults had the lowest rates of serious psychological distress.

Violence and Injury Prevention: *Hospitalization for unintended injuries* was most likely for males, for adults age 65 and older, for residents of high-poverty neighborhoods, and for residents of South Region. The overall decline in King County *suicide hospitalizations* since 2000 masks opposing regional trends – a significant increase in East Region and a decrease in South Region. Suicide hospitalization rates were highest in Seattle and North Region, lowest in East Region. Adults age 18-24 had higher rates

Executive Summary

Continued

than all other age groups, and adults in high-poverty neighborhoods were almost twice as likely as those in low-poverty neighborhoods to be hospitalized after a suicide attempt.

Although there were no regional differences in *suicide deaths*, this rate has been rising in South Region since 2000. In King County, males were 3 times more likely than females to commit suicide. Older adults (ages 45-64 and 65+) were most likely to commit suicide. Unlike suicide hospitalizations, suicide deaths did not differ by poverty level. King County's most recent suicide rate (12.2 per 100,000 population) was 4.5 times the rate of homicides (2.7 deaths per 100,000). Among racial/ethnic groups, whites were most likely (13.8 per 100,000), while Asians (6.6 per 100,000) and Blacks (7.4 per 100,000) were least likely to commit suicide. The opposite pattern was found for homicide deaths, where the rate for Black residents was 14.1 per 100,000 – more than 5 times the county average.

HOSPITALS FOR A HEALTHIER COMMUNITY (HHC) PRIORITIES

By aligning hospital/health system priorities with the community identified priorities that were gathered through various focus groups, interviews, and community conversations – the Hospitals for a Healthier Community collaborative works jointly as well as individually to address the following areas:

- 1. Mental health & substance use disorders**
- 2. Access to care & transportation**
- 3. Physical health with a focus on obesity, cancer, & diabetes**
- 4. Housing & homelessness**

HHC members continue to create opportunities to collaborate between public health, health systems, community organizations, as well as communities. In addition, efforts to leverage and align goals across many other initiatives, such as HealthierHere (King County's Accountable Community of Health) encourages agencies to collectively invest in data, programs, and policies that create equitable and targeted interventions for these identified health areas.

Community Identified Priorities



King County
Community Health
Needs Assessment
2018/2019

25

To enhance our understanding of King County residents' priorities, we reviewed over 40 community needs assessments, strategic plans, or reports – many with community engagement components and all conducted over the past three years. Themes shared across the documents included:

- Support for youth and families
- Support for older adults
- Equity and social determinants of health
- Housing and homelessness
- Access to healthcare

A variety of community engagement activities conducted by community and governmental organizations confirmed the themes as priorities and enabled King County residents to elaborate on them. These exchanges also identified strategies, community assets, and resources. Though not a comprehensive list of all assets and resources, examples of work being done around the shared themes are highlighted in the sections below. Beyond specific programs and policies, most King County communities share a broad set of assets that help shift the balance toward health and well-being.

Nearly every community report highlighted the need for safe and affordable housing as an important issue.

APPENDIX 23

KING HEALTH NEED ASSESSMENT 2018/2019

Community Identified Priorities

Continued

King County
Community Health
Needs Assessment
2018/2019

SUPPORT FOR YOUTH AND FAMILIES

Community conversations revealed strong interest in services that support King County infants, youth, and families, especially early learning opportunities that were both more affordable and culturally relevant.

Communities called for:

- **More Early Head Start programs.** Limited access to child care subsidies for those who don't qualify for current Head Start or ECEAP subsidies was mentioned as a significant barrier.
- **More free and low-cost options for child care.**
- **Access to child care services for children with special needs,** as well as options for crisis and respite care.
- **Keeping kids engaged through after-school programs and summer activities.** Middle-school-aged children especially need safe spaces after school and strong mentorship opportunities, since this is a crucial transition stage.

■ Supporting youth to develop into confident and productive adults.

This includes:

- » A focus on socio-emotional development with training in communication, decision-making, self-advocacy, skill building, and healthy relationships
- » Substance abuse and violence prevention
- » Dropout re-engagement programs
- » Academic support to increase graduation rates
- » College preparation and career planning

Assets

King County voters approved the Best Starts for Kids (BSK) Levy (Ordinance 18088) in late 2015, creating a vital source of funding to build healthier communities. While many BSK strategies address access to services, BSK is also investing in systemic changes that provide alternative paths to success for our youth. This means changing practices and policies to do a better job of re-building connections for youth with the education system and the economy. It is considered the most comprehensive approach to childhood development in the United States.

Community Identified Priorities

Continued

King County
Community Health
Needs Assessment
2018/2019

27

SUPPORT FOR OLDER ADULTS

A common set of concerns for older adults emerged in the priorities highlighted by cities, the county, local aging support services, and in community conversations. These included:

- Increase in older adults experiencing poverty and food insecurity
- Need for affordable housing
- Need for assistance with navigation of the healthcare system
- Need for appropriate transportation
- Need for sustainable systems of caregiving
- Addressing the needs of aging women

Housing was a major concern for older adults, especially those with low, and often fixed, incomes. King County seniors who participated in community conversations described additional barriers to affordable housing based on personal histories – such as past evictions, debts, or poor credit. Economic security can help buffer the challenges of growing older. Without economic security, older adults may experience hunger and a variety of negative health and social outcomes that are exacerbated by poverty.

Many older adults also need support in navigating the healthcare system – from understanding their health insurance coverage to

scheduling appointments. Participants in community conversations stressed the importance of culturally competent health and human services. Case management and navigation assistance were also priorities, especially for those in vulnerable groups like veterans and people with disabilities.

Many older adults are challenged by limited transportation options and physical isolation from their communities – either because they live in rural areas or because of physical circumstances that limit their mobility. Residents of rural, suburban, and urban settings emphasized the importance of creating more sustainable systems of caregiving by (a) ensuring that caregivers are paid well and given adequate support, and (b) decreasing reliance on volunteer service, which can be inconsistent.

The needs of aging women were highlighted, as women have longer life expectancies than men and often face greater financial hardship since they generally earn less than men. These pay gaps particularly affect women of color and LGBTQ women. Older women in the workforce are especially vulnerable to economic hardship, as they routinely take on caregiving responsibilities for other family members (typically unpaid), and can lose their income due to changes in their mobility, personal health, or access to transportation and other support systems.

Community Identified Priorities

Continued

King County
Community Health
Needs Assessment
2018/2019

Assets

Several assets for supporting older adults were identified:

- In late 2017, King County voters renewed the existing Veterans and Human Services Levy and broadened it to support older adults and their caregivers. The new Veterans, Seniors and Human Services Levy increases investments in housing stability, healthy living, social engagement, financial stability, and support systems for older adults.
- With an extensive network of community partners, Community Living Connections – Seattle & King County helps adults dealing with aging and disability issues (including older adults, adults with disabilities, caregivers, families, and professionals) get the information and support they need by streamlining access to programs and services through a “no wrong door” model.
- Washington’s new Medicaid Transformation Demonstration Waiver includes two innovative programs, Medicaid Alternative Care (MAC) and Tailored Support for Older Adults (TSOA), to support unpaid family caregivers.

- In The Washington State Plan to Address Alzheimer’s Disease and other Dementias, consumer and public-private stakeholders are working to prepare the state to meet the challenges of dementia and Alzheimer’s disease, which in King County is expected to increase more than 2-fold, from 27,887 residents in 2015 to 67,797 residents in 2040.

Community Identified Priorities

Continued

King County
Community Health
Needs Assessment
2018/2019

EQUITY & SOCIAL DETERMINANTS OF HEALTH

To strengthen communities and improve the health of King County residents, we need to address **deeply rooted inequities by race and place**, repeatedly documented in this report. The seeds of many disparities were sown by a history of selective disinvestment in certain communities. Multiple community reports stressed the importance of:

- **Providing resources equitably**
- **Incorporating equity into all community efforts**
- **Targeting support to groups with the highest needs**

Input from across the county revealed concerns over racial and socioeconomic disparities in education, health and human services, environment, transportation, justice and public safety, and economic development. Community members noted:

- **Racial inequities in school dropout rates, disciplinary actions, and matriculation to higher education.**
- **Difficulties in accessing health and human services** for people of color, undocumented immigrants, and members of tribal communities.
- **Worse environmental conditions** for people of color and residents of lower-income neighborhoods, which were described as requiring longer commutes and having less access to healthy food, fewer trees, more traffic, and more harmful environmental exposures than more prosperous neighborhoods.
- **Lack of transportation services in rural areas, especially for people with disabilities.**
- **Diversion of city services** towards gentrified neighborhoods.
- **Overrepresentation in the prison population of people of color**, who were also more likely to be profiled by law enforcement.

Community Identified Priorities

Continued

Unequal access to economic opportunity was expressed as a concern, particularly in a county experiencing a rapid expansion of population and jobs. Community members called out the higher poverty rates experienced by immigrants, refugees, African Americans, Hispanics, and Native populations, and noted that unequal access to jobs was an ongoing challenge for residents of color in King County. Enduring power inequities, as reflected in the history of redlining and current gentrification trends in parts of Seattle, have limited opportunities for African Americans to purchase homes, develop wealth, and sustain stable communities.

Access to affordable and healthy food is a shared priority across King County communities. In many communities, problems with access to food are compounded by low wages, unaffordable housing, and the increasing costs of other basic needs such as childcare, transportation, and healthcare. Community members reporting on this issue made it clear that food insecurity cannot be separated from systemic problems of poverty, transportation, and housing.

Assets

Across the county, concerned government bodies, non-profit organizations, faith organizations, and community members are investing in efforts to better understand and respond to these inequities, addressing issues such as food justice, housing access, and economic opportunity.

■ The **Communities of Opportunity** (COO) initiative, launched in 2014 by the **Seattle Foundation** and King County, focuses on places, policies, and systems changes to strengthen community connections and lead to more equitable health, housing, and economic outcomes. Through investments in community-led partnerships, COO supports organizations working to increase health, housing, and economic opportunities through policy and systems reform. Importantly, communities are driving the initiative, which is governed by a coalition of leaders from communities, philanthropy, and county government.

HOUSING & HOMELESSNESS

Nearly every community report highlighted housing affordability as a key issue. Summaries of community members' input described the crucial role that stable and safe housing plays in maintaining a sense of community connection and overall quality of life. Residents in parts of South King County, where housing costs are relatively lower than other regions, expressed concerns over impending displacement as housing costs continue to rise.

Local organizations assessing the needs of LGBTQ residents called out housing and personal safety as major concerns. Many prioritized reducing the overrepresentation of youth who identify as LGBTQ and youth of color among those experiencing homelessness.

More broadly, community members expressed grave concern about homelessness and the disproportionate distribution of its burden across King County communities. While acknowledging that the county struggles to develop sufficient resources to meet the needs of our homeless populations, many residents were dismayed that, in the midst of our region's robust "economic recovery," homelessness continues to increase.

Assets

In late 2017, Best Starts for Kids announced that, after only one year in operation, partners in its Youth and Family Homelessness Prevention Initiative had prevented more than 3,000 people from becoming homeless. BSK's flexible approach enabled case managers to meet the specific needs of people on the verge of homelessness, such as assistance with landlord negotiations, employment, and utility bills.

Community Identified Priorities

Continued

King County
Community Health
Needs Assessment
2018/2019

ACCESS TO HEALTHCARE

King County has an abundance of healthcare resources – specifically a high ratio of primary care physicians per capita and the existence of several large hospital systems. However, community residents who participated in a local hospital needs assessments ranked **“access to healthcare” as their number one health need**, and described problems including:

- Lack of mental health services
- Language barriers
- System navigation
- Transportation and location of facilities
- Wait times and hours of operation
- Access to specialty care services
- Inability to pay

Mental, behavioral, and addiction services were repeatedly cited as insufficient and difficult to access. In Seattle, residents described steep cultural barriers, as mental health remains a taboo topic in many populations. Rural and suburban residents complained that sufficient mental health resources simply do not exist, especially for school-aged children in Maple Valley, Enumclaw, and Covington.

Despite the expansion of Medicaid and health insurance marketplaces, specific barriers to accessing care persist for residents in rural areas, low-income residents, and some communities of color. These issues were especially noted among American Indian/Alaska Native children and residents of low-income households and the South King County area. Many residents said they could get coverage, but were not eligible for subsidies or Medicaid and could not afford the premiums. Even among those with coverage, many face ongoing challenges with finding specialty care, adult dental care, and behavioral health services. High deductibles and co-pays still impede access to care when residents are forced to choose between healthcare and other basic needs.

Community Identified Priorities

Continued

King County
Community Health
Needs Assessment
2018/2019

Assets

The King County Accountable Community of Health (KCACH) will be a major driver of healthcare delivery system reform in the coming years. This new, cross-sector entity is charged with regional implementation of the Medicaid Transformation Demonstration Project, an 1115 Medicaid waiver. The KCACH brings together leaders from the hospital industry, managed care organizations, community clinics, community-based organizations, local government and more to work collaboratively on innovative approaches to providing whole-person care. The KCACH is launching a portfolio of four key projects focused on health promotion and prevention and healthcare delivery system redesign. The focus for these projects includes, 1) bi-directional integration of physical and behavioral health; 2) transitional care for Medicaid beneficiaries leaving hospitals, jail, or psychiatric inpatient care; 3) addressing the opioid crisis; and 4) coordination of care for chronic disease prevention and control. The KCACH will also address cross-cutting needs related to workforce development, health information technology, and support for the move to value-based purchasing.

COMMUNITY VOICES: A CONTEXT FOR UNDERSTANDING

This review of community reports and perspectives has enhanced our appreciation for the diverse experiences of the many populations living in our county. We can paint a truer and more comprehensive portrait of health in King County when we're able to pair our quantitative estimates for community health indicators with the voices of the people who live, work, and play here. These subjective insights provide the context needed to interpret the patterns we see in the data and are especially important in a county that is growing and changing so rapidly. Incorporating the insights of community residents and workers into our understanding of health needs will help us design interventions that are appropriately targeted and sustainable on a community level.

Description of Community



King County
Community Health
Needs Assessment
2018/2019

34

Since the last CHNA, the economic boom has been acutely felt by longtime residents and new arrivals alike. While we see greater diversity in our county, the diverse communities in the North and South are not the same as those in Seattle and East Regions. Driving this boom is the strong tech sector that is dramatically reshaping our population demographics. The increase in tech jobs has sparked record setting growth, with an influx of young, highly educated, high income earners in the Seattle and East Regions, creating one of the most competitive housing markets in the nation.⁹ This influx has resulted in displacement of many residents further North and South in search of affordable housing options. The impacts of displacement include: increased time spent commuting rather than being home with family, shopping for, preparing and eating meals together, or having time and access to opportunities for physical activity – all of which contribute to disproportionate rates of chronic disease and early death. The effects of these complex challenges to wellness can be seen in regional and economic disparities in health outcomes outlined throughout the report. Although disparities remain in many health indicators, some county-wide successes stand out as well, as described in the Executive Summary and corresponding report sections.

Economic development favors those who can take advantage of it, while marginalizing those at lower economic strata and increasing their health risks.

APPENDIX 23

KING HEALTH NEED ASSESSMENT 2018/2019

INTRODUCTION

King County is the 13th most populous county in the United States, with an estimated 2016 population of over 2 million and growing. In

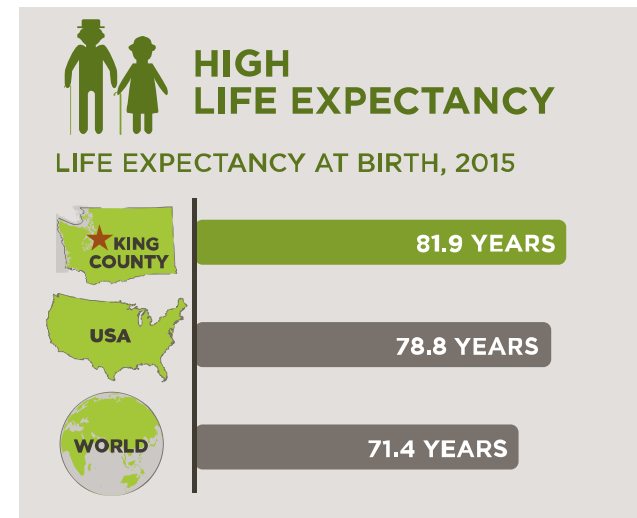
addition to Seattle, King County includes 38 cities and several unincorporated areas, making it the largest metropolitan county in the State of Washington in population, number of cities, and employment.¹⁰ The county is divided into four geographic regions.¹¹ With an estimated 741,000 residents, South Region is home to over a third of the county's population – more than Seattle (687,000), East Region (549,000), and North Region (128,000).¹ Across the four regions, 20 school districts and 11 hospital and health systems serve King County families.

King County ranks among the top counties in the U.S. on measures of health and wealth.

Life expectancy is in the 95th percentile among US counties, at 82 years.¹² The population is highly educated, with 48% of residents having at least a bachelor's degree, compared to 31% nationally. King County has been at the center of Washington's economic recovery since 2010, following the most recent national recession.¹³ With multiple booming industries and unemployment at its lowest rate since 2008,¹⁴ many families are thriving. Median household income has steadily increased, reaching more than \$25,000 higher than the national average in 2015.

¹Washington State Office of Financial Management, Forecasting & Research Division. State of Washington 2016 Population Trends [report] and Small Area Estimates Program (SAEP) estimates. 2016. <https://www.ofm.wa.gov/washington-data-research/population-demographics/population-estimates/small-area-estimates-program>. Accessed December 1, 2017.

However, the success of all residents is challenged by geographic, racial/ethnic, and socioeconomic disparities that negatively impact many communities. Despite high rankings on measures of socioeconomic status and health, county residents continue to experience stark differences in social and health outcomes by place, race, and income. Life expectancy varies widely by neighborhood, with gaps of more than 10 years between neighborhoods with the highest and lowest life expectancies. People in affluent areas have greater access to environments and other resources that encourage healthy behaviors. The convergence of these factors, plus disparities in educational attainment, household income, and health insurance coverage can profoundly influence the health of our communities.



Source: WA State Department of Health, Center for Health Statistics, death certificates

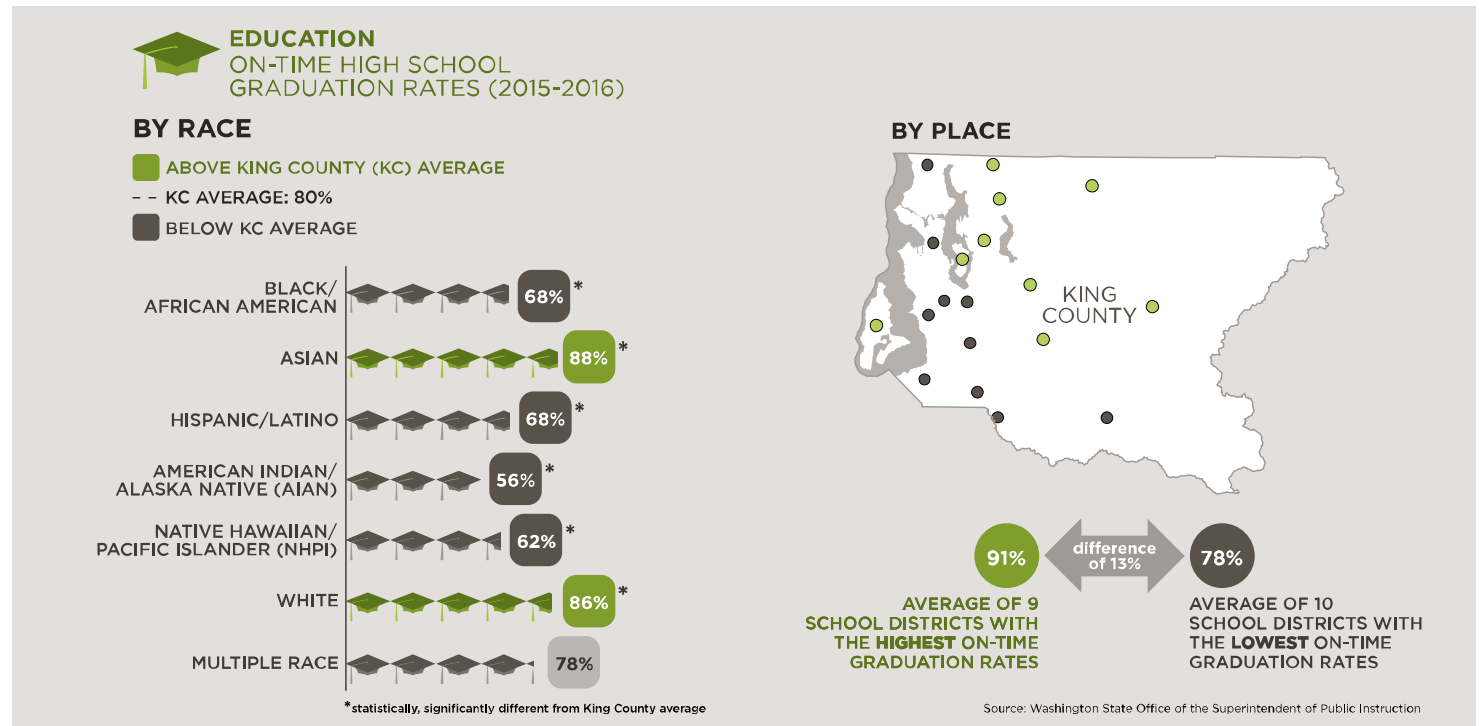
Description of Community

Continued

Educational Attainment

While nearly half of King County residents had at least a bachelor's degree in 2011-2015, this level of educational attainment was significantly lower in South Region at 27%. The proportion of adults with a bachelor's degree dropped to less than 1 in 4 among individuals living in poverty.

High school students in 6 South Region districts, and in Seattle, are the least likely to graduate on time compared to those in other districts. Apart from Asian and multiple-race students, fewer than 7 in 10 high school students of color graduate from high school on time. Racial and regional disparities in high school graduation rates reflect ongoing challenges with equity in education.

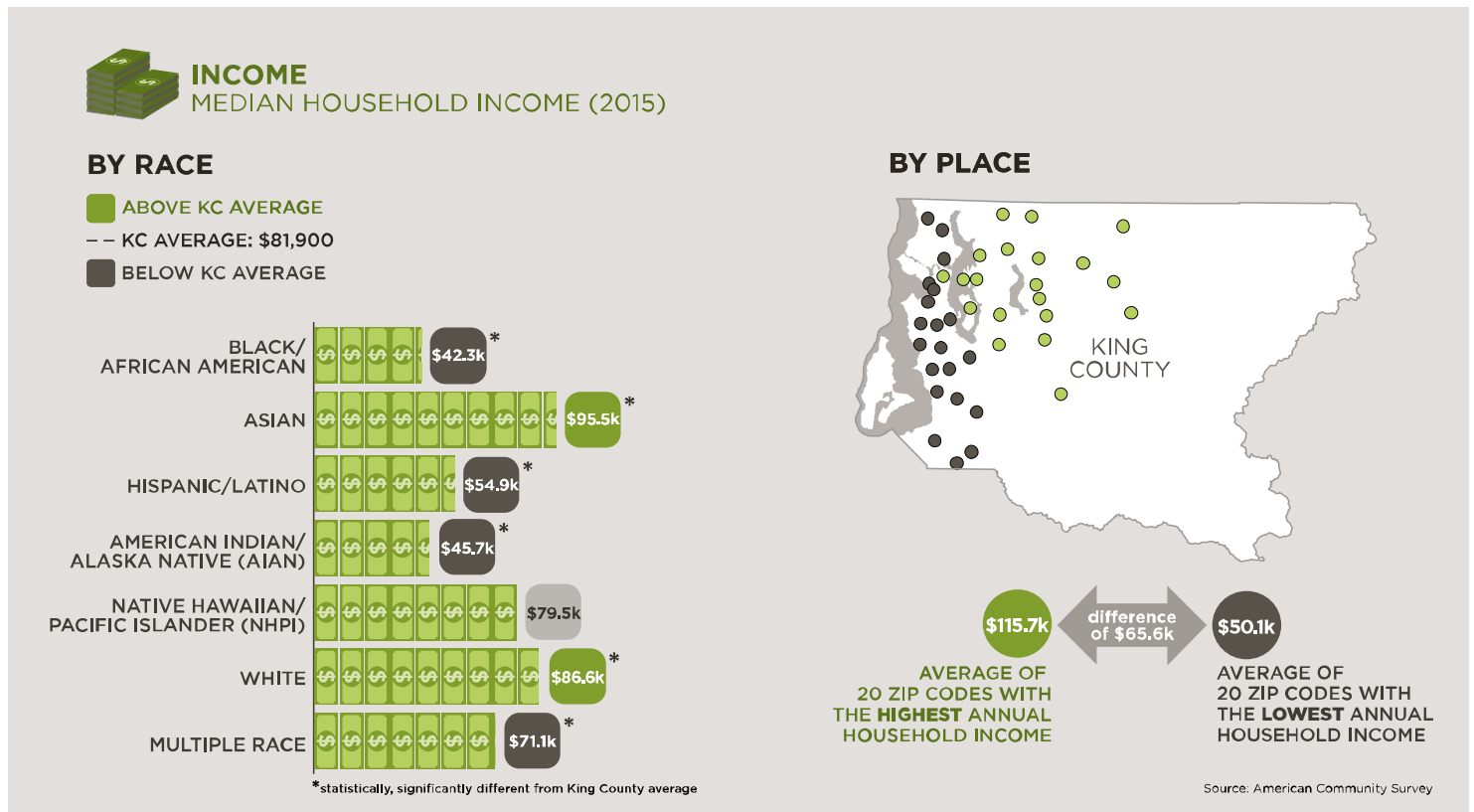


Description of Community

Continued

Household Income

In 2015, Black households in King County reported annual household income less than half that of whites and Asians, and significantly lower than Hispanic and multiple-race households. At just under \$35,000 per year, household income among young adults ages 18 to 24 was less than half that of adults 25 to 64. Income among adults over 65 is also significantly lower than the county average, leaving residents in these two age groups vulnerable to rapidly increasing costs of living.

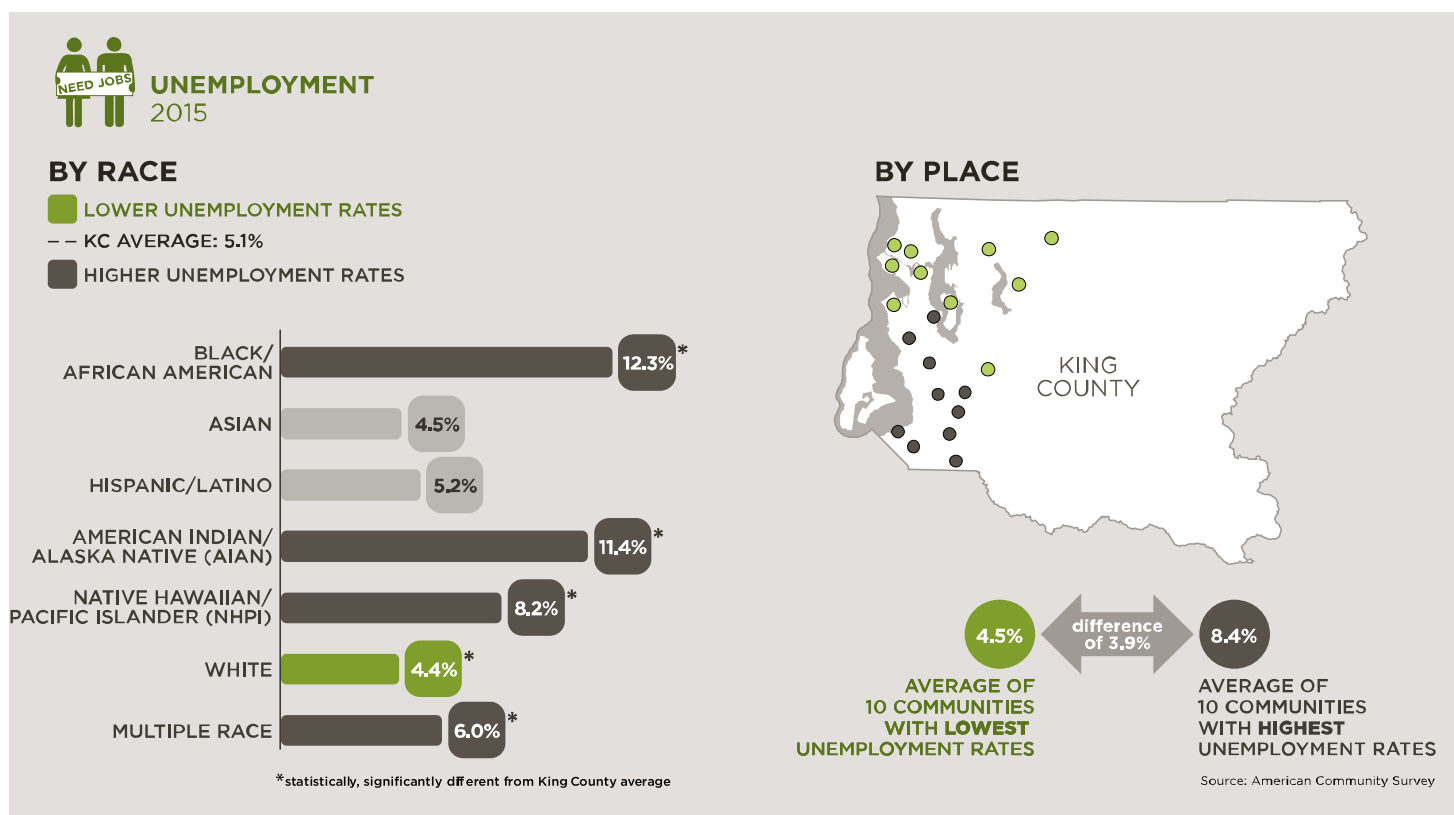


Description of Community

Continued

Unemployment

Data from 2015 show stark racial and geographic disparities in King County unemployment rates. The rate of unemployment among Black and American Indian/Alaska Native residents was more than 2.5 times the unemployment rates of white and Asian residents. South Region communities had some of the highest unemployment rates in the county. Two years later, the county unemployment rate had fallen to 3.9% (September, 2017),¹⁵ reflecting steady recovery from the economic recession.



Health Insurance Coverage

Health insurance coverage rates have improved across the board.

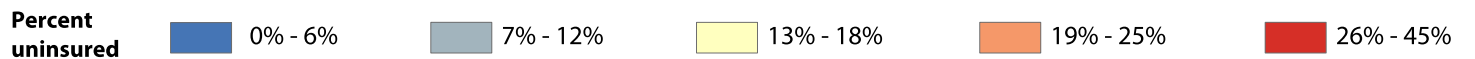
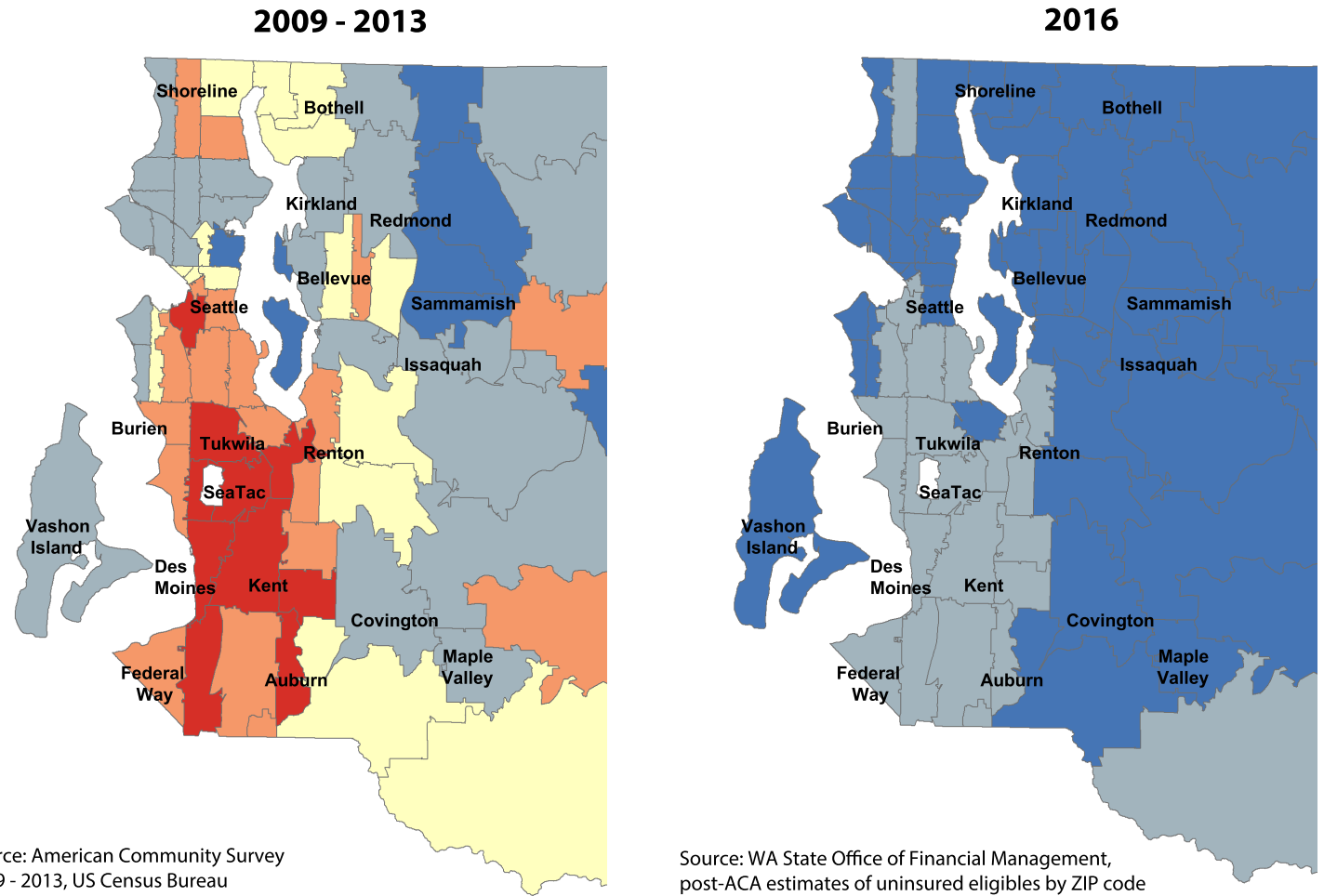
In 2013, 16.4% of King County adults did not have health insurance; in 2016 – after implementation of the Affordable Care Act – 6.7% lacked coverage. Since the first open-enrollment period for the Affordable Care Act in 2014, King County hospitals and health systems have played a key role in helping families access free and low-cost health insurance options. Initiatives such as the *Coverage is Here King County* campaign, and targeted activities of hospitals, health centers, and community-based organizations were key in getting residents enrolled. South Region cities such as Tukwila, SeaTac, Kent, Des Moines, and Auburn have experienced the largest increases in coverage. Reaching this historic low

rate of uninsurance, King County's success has been recognized as one of the best in the nation.¹⁶

Despite improvements in insurance coverage since implementation of the Affordable Care Act, disparities persist. Those least likely to have health insurance include low-income adults, the unemployed, and most communities of color. Work remains to be done to increase access to insurance among the groups who are least likely to be insured. As healthcare reform remains at the forefront of national conversations, any future healthcare act will need to maintain and expand access to health insurance for all.

The Access to Care & Use of Preventive Services section of this report presents a more detailed description of disparities in insurance coverage.

Before and after the Affordable Care Act: Uninsured adults age 18-64 by ZIP code in King County, Washington



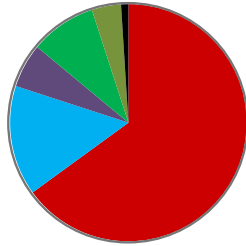
CHANGING DEMOGRAPHICS

The population of King County continues to experience dramatic growth and increasing diversity.

Since 2010, the county has grown by more than 173,000 residents, with most of the increase attributable to people of color. The population is now 38% people of color, nearly tripling in the past 35 years. Increases in the Asian population accounted for 34% of the population growth in King County from 2010 to 2016. Hispanic/Latino communities have also grown rapidly in King County, accounting for 23% of the increase since 2010.

King County, 2010

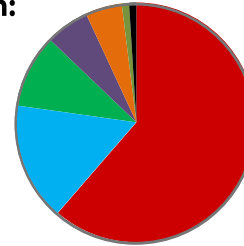
Population:
1,931,249



White/non-Hispanic	65%
Asian/non-Hispanic	15%
Hispanic/Latino	9%
Black/African American non-Hispanic	6%
Multiple race	4%
American Indian/Alaska Native/non-Hispanic	1%
Native Hawaiian/Pacific Islander/non-Hispanic	1%

King County, 2016

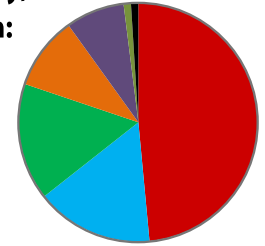
Population:
2,105,100



White/non-Hispanic	62%
Asian/non-Hispanic	16%
Hispanic/Latino	10%
Black/African American non-Hispanic	6%
Multiple race	5%
American Indian/Alaska Native/non-Hispanic	1%
Native Hawaiian/Pacific Islander/non-Hispanic	1%

Population under age 18, King County, 2016

Population:
441,454



White/non-Hispanic	49%
Asian/non-Hispanic	16%
Hispanic/Latino	16%
Multiple race	10%
Black/African American non-Hispanic	8%
American Indian/Alaska Native/non-Hispanic	1%
Native Hawaiian/Pacific Islander/non-Hispanic	1%

Data source: US Census Bureau, Census 2010, WA State Office of Financial Management 2016

Percentages may not add up to 100% due to rounding

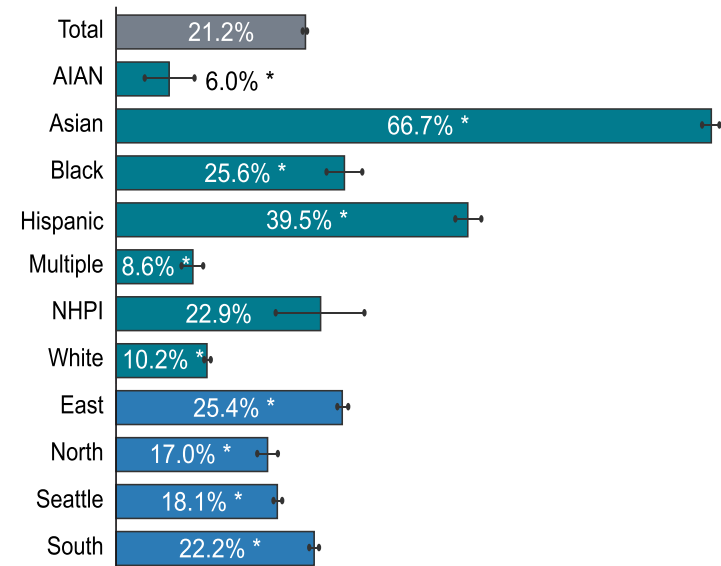
Description of Community

Continued

Immigration from multiple countries contributes to growing cultural and linguistic diversity in the county. Foreign-born residents, including immigrants and refugees, account for almost half of the population growth in King County in the past 25 years. As of 2015, the population of King County was 21.7% foreign born, compared to 13.5% nationally. Of all race or ethnic groups in the county, the Asian community had the highest proportion of foreign-born residents. In 2015, the largest local population of foreign-born residents was in Bellevue, at 39.1%, more than double the 17.5% in Seattle.

Foreign-born residents

King County (average: 2011-2015)



Source: American Community Survey Public Use Micro Sample (PUMS)

* = statistically, significantly different from King County average

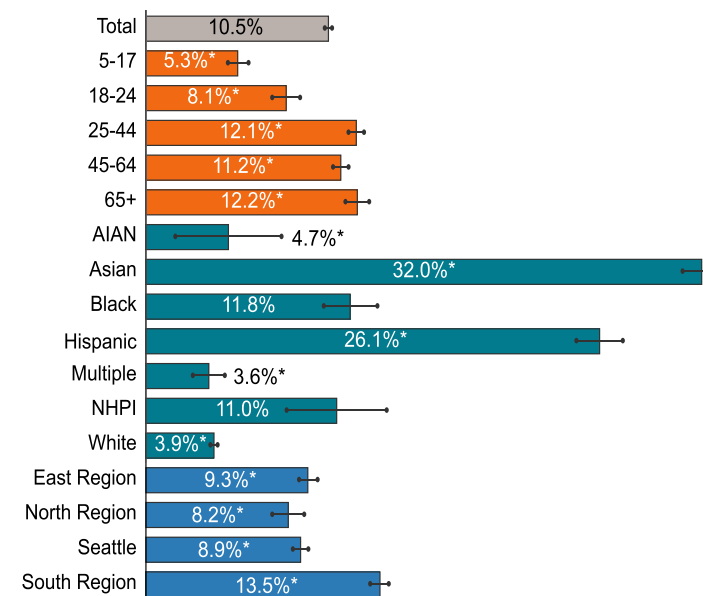
Description of Community

Continued

Approximately 170 languages are spoken in King County, and more than 1 of every 4 King County residents speaks a language other than English at home (versus speaking *only* English at home). Among these are Spanish (the most frequently spoken language), Chinese, Vietnamese, Tagalog, Korean, French, and African languages (most commonly Somali, Tigrinya and Amharic).¹⁷ While this linguistic diversity greatly enriches the broader community, 4 in 10 of our foreign-born residents report that they speak English less than “very well.” Language barriers can severely limit access to education, employment, and healthcare, making it difficult for immigrant families to maintain health and flourish in the community.

Percent age 5 and older who speak English less than “very well”

King County (average: 2011-2015)



Source: American Community Survey Public Use Micro Sample (PUMS)

* = statistically, significantly different from King County average

Description of Community

Continued

King County
Community Health
Needs Assessment
2018/2019

44

Immigrants have been and continue to be a vital part of our county's health and prosperity,

contributing to our workforce, economy, and rich cultural heritage. Promoting and maintaining health in this growing population are necessary features of a robust community. The national political climate, influenced in part by changes in federal immigration policy, has led some immigrants to avoid seeking medical care.¹⁸ Fear of deportation and disruption of families among both lawful and undocumented immigrants contributes to stress, anxiety, and depression. Irrespective of social class, these challenges can contribute to negative health outcomes for large numbers of King County residents.

Our burgeoning racial and ethnic diversity is most visible among King County children, of whom 51.1% were non-white in 2016.

Children (from birth through 17 years) represent 21.0% of the King County population. Students in King County schools speak dozens of different languages;¹⁹ and the Tukwila School District has been dubbed “the most diverse school district in the nation.”²⁰ The county's fast-growing southern suburbs include several school districts that are “majority minority”—where children of color make up more than half of the student population.

King County's population of older adults will continue to grow as baby boomers age.

The population of adults 65 and older comprised 12% of the county's population in 2016, and is projected to reach 15% by the year 2020.²¹ From a longer-term perspective, the number of 65-and-older adults in the King County population is expected to more than double, from the 2010 Census count of 210,679 (11% of total population) to a projected 477,754 in 2040 (20% of total). In addition to these substantial increases in the number and proportion of older adults, the age distribution of King County's older adults is expected to flip, with the majority shifting from the 65-74 age group to those 75 and olderⁱⁱ. Since disability and many serious health conditions are associated with increasing age, and per-person healthcare costs for this age group are dramatically higher than for any other age group, this demographic trend will significantly impact demands on King County healthcare systems.

ⁱⁱ A group that comprised 46% of older adults in 2010 but will swell to 53% of the 65+ population – more than a quarter of a million individuals – in 2040.²¹

APPENDIX 23

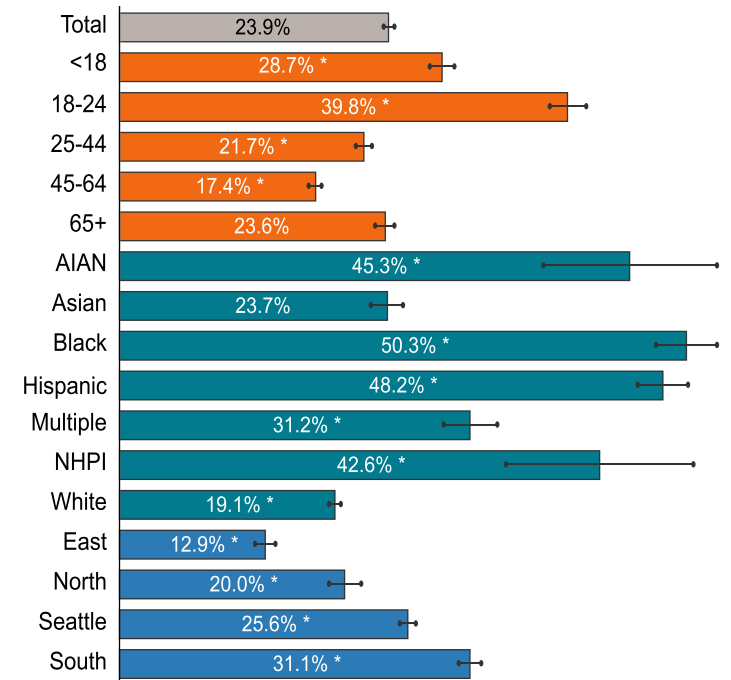
KING HEALTH NEED ASSESSMENT 2018/2019

PERSISTENT DISPARITIES RELATED TO POVERTY

Poverty continues to impact at least 1 of every 5 residents. After a period of increase between 2008 and 2013, the percentage of King County residents living in poverty has slowly declined. From 2011 to 2015, an average of more than 500,000 adults and children lived in or near poverty in King County (below 200% of the Federal Poverty Level); childhood poverty rates have remained fairly stable in recent years.

Urban economic development in the county's largest cities has shaped demographics across the county. The South Region is home to the majority of the county's low-income households, especially families with children. Not surprisingly, staggering racial and regional differences in poverty mirror disparities observed in most chronic disease indicators, disproportionately burdening communities of color and South Region families.

**Poverty and near poverty
King County (average: 2011-2015)**



Source: American Community Survey Public Use Micro Sample (PUMS)

* = statistically, significantly different from King County average

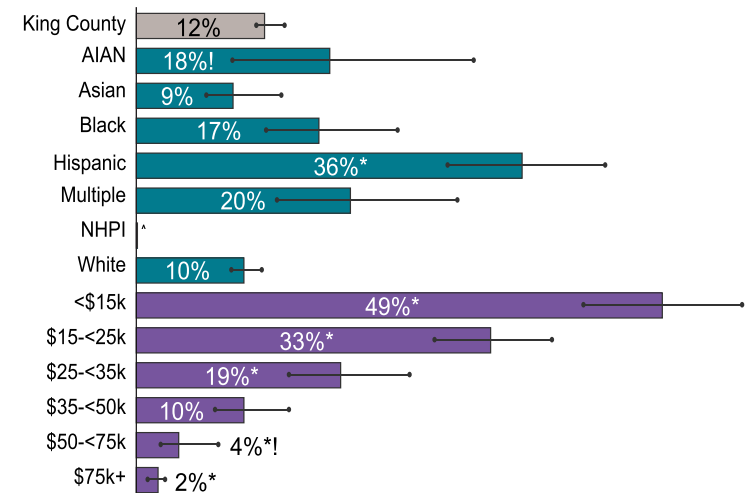
Uncertainty about Food

Residents living in poverty cannot always afford to feed their families. Food insecurity (the uncertainty of having enough money to adequately feed all family members)ⁱⁱⁱ is associated with obesity and stress, all of which are more prevalent among low-income populations and are risk factors for several chronic health conditions.²² Access to affordable healthy foods is essential for adult and child health. Averaging data from three survey years, more than 1 in 10 King County adults reported that within the past 12 months they ran out of food and didn't have money to buy more. South Region residents were more likely than those in other regions to report this kind of food hardship, which also affected 1 in 3 Hispanic households. By 2016, participation in the Basic Food program by King County residents still had not returned to pre-recession levels, and was increasing for older adults, especially in South Region cities.²³ A similar pattern was found for visits to King County food banks.²⁴

ⁱⁱⁱ United States Department of Agriculture, Economic Research Service. Definitions of Food Security. <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security/>. Updated October 4, 2017. Accessed November 1, 2017.

Food insecurity

King County (average: 2010, 2011, & 2013)



Source: Behavioral Risk Factor Surveillance System

* = Significantly different from King County average

! = Interpret with caution; sample size is small, so estimate is imprecise

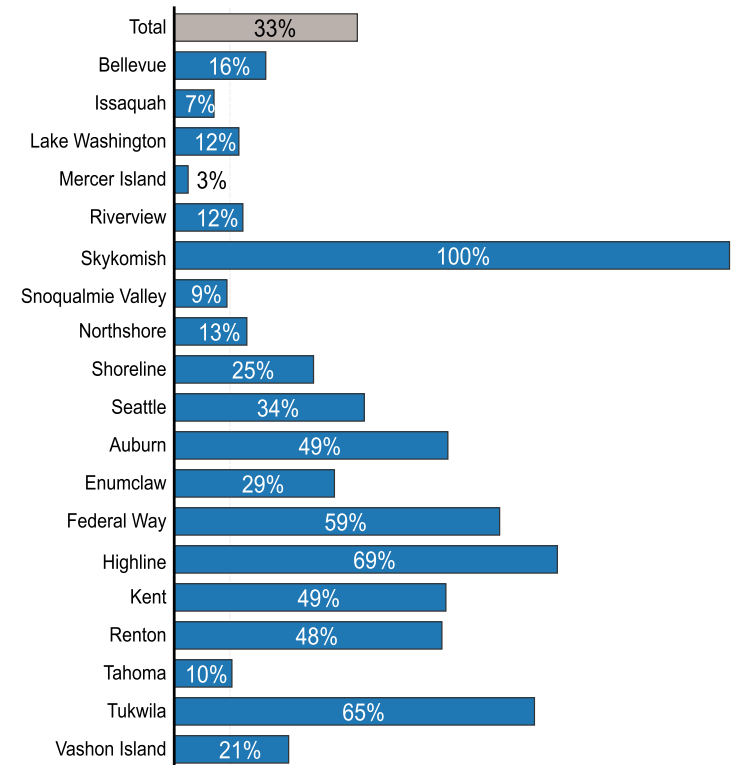
^ = Data suppressed if too few cases to protect confidentiality and/or report reliable rates

Description of Community

Continued

Eligibility for the Free or Reduced-Price Meal program – another marker for poverty and food insecurity – varied widely in the 2016-2017 school year – from 10% of students in the Tahoma School District to nearly 70% in Highline and Tukwila. With the exception of the small, rural district of Skykomish, all districts with 50% or more students in the Free or Reduced-Price Meal programs were located in South Region.

Students eligible for free/ reduced price meal
King County (2016-2017 school year)



Source: Washington State Office of the Superintendent of Public Instruction

Unaffordable Housing

Escalating housing prices disproportionately burden older adults, communities of color, and people living in poverty. Lack of affordable housing contributes to a multidimensional cycle of poverty and displacement that drastically changes communities. With explosive growth of local businesses and the influx of new residents, rental and home prices continue to rise throughout the county. During 2011-2015, almost half of renters and over one third of owners with a mortgage in King County were paying at least 30% of their household income on housing, a level deemed unaffordable by the U.S. Department of Housing and Urban Development. The majority of those living at or near poverty are bearing this level of “housing cost burden” -- more than 8 in 10 renters and 9 out of 10 mortgage-paying home owners.

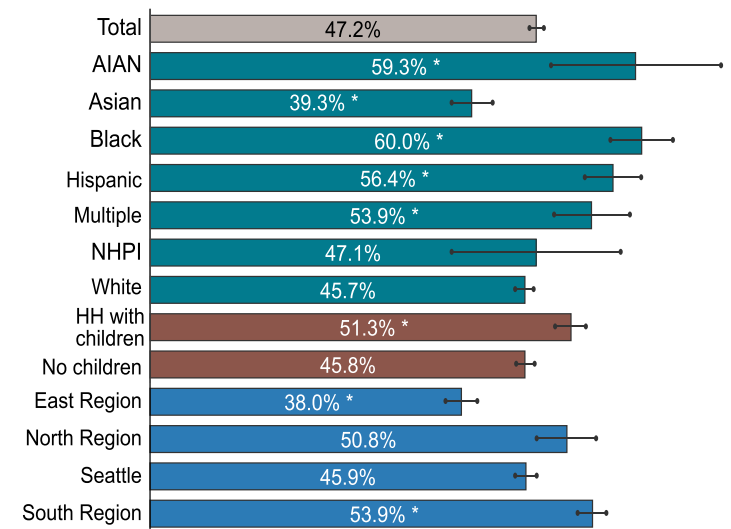
Over 64% of renters and 50.1% of mortgage-paying owners over the age of 65 experience cost burden associated with housing.

Female homeowners are significantly more likely than males to experience mortgage-related cost burden. The gender disparity is even wider among renters, where more than half of female renters (54.4%) experience housing cost burden compared to 40.5% of males.

Cost burden affects more than half of renters with children.

Cost-burdened renters

King County (average: 2011-2015)



Source: American Community Survey Public Use Micro Sample (PUMS)

* = statistically, significantly different from King County average

Renters and homeowners alike have turned to South Region to find affordable housing, but that comes at a price as well – the cost, in time and money, of traveling longer distances to work, usually in a car. Light rail offers a convenient, affordable alternative to driving, but until recently served one South Region community -- Tukwila. Five years after light rail came to King County, use of public transit by Tukwila commuters more than doubled (from 7% to 16%); at the same time, the share of Tukwila residents who drove to work alone dropped from 73% to 65%. Commute modes did not change in South Region cities without light rail service. In Kent and Auburn, for example, 3 out of 4 commuters were still driving to work, and only 6% used public transit.²⁵

Increasing Homelessness

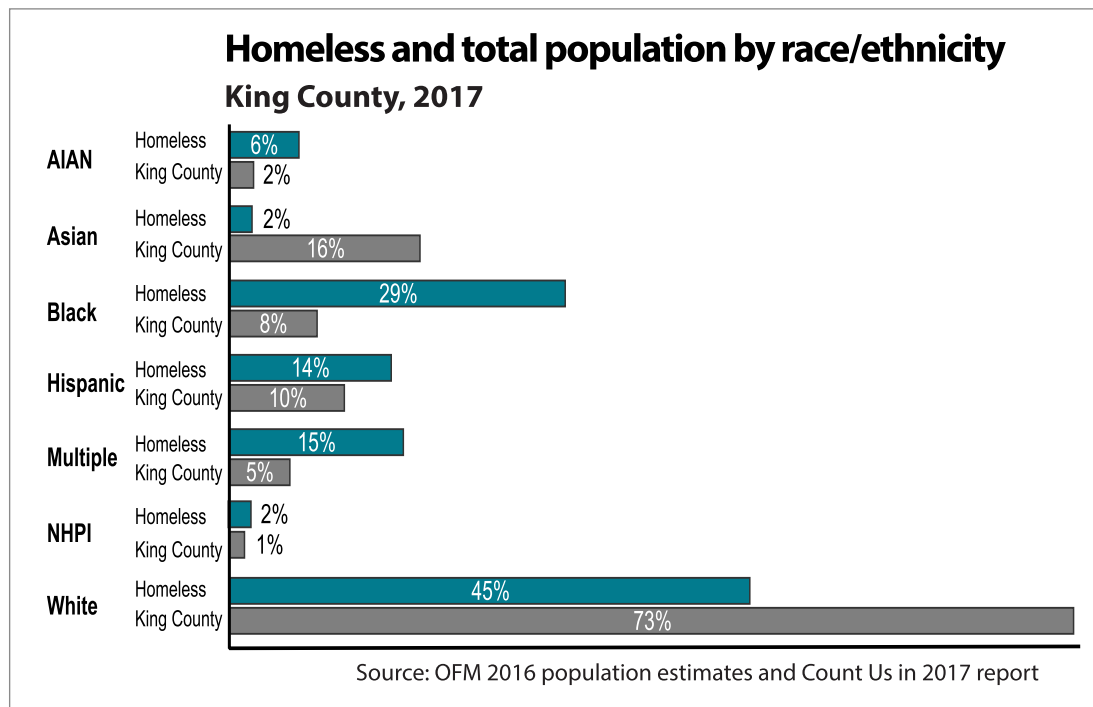
Homelessness in King County is a growing concern, affecting families, communities, and agencies in multiple regions.

The 2017 Point-In-Time Count identified 11,643 individuals, youth, and members of families experiencing homelessness in King County, with the majority in Seattle.²⁶ Nearly half of that count was unsheltered -- living on the streets, in abandoned buildings, in vehicles, or in tents. Unaccompanied youth and young adults under the age of 25 made up 13% of the individuals counted. Almost a quarter of the individuals identified were experiencing chronic homelessness,^{iv} compared to fewer than 10% in 2015 and 2016. Key findings from the report include:

- Issues with housing affordability were identified as primary contributors to homelessness for nearly 1 out of 4 respondents, and more than 70% called out affordable housing and rental assistance as crucial to ending their homelessness.
- 50% of homeless individuals had one or more disabling conditions.
- 17% of homeless individuals reported serious mental illness.

■ 40% of homeless individuals reported a history of domestic violence or partner abuse; this was true of 58% of survey respondents who identified as lesbian, gay, bisexual, transgender, or queer (LGBTQ).

■ Homelessness disproportionately impacts people of color (55% of respondents identified as a person of color). Black individuals are overrepresented in the homeless population by more than 3-fold.



^{iv} Chronic homelessness is defined as sleeping in places not meant for human habitation or staying in emergency shelters for a year or longer, or experiencing at least four such episodes of homelessness in the last three years, and also living with a disabling condition such as a chronic health problem, psychiatric or emotional condition, or

For families and children, residential instability can rupture social ties, hinder academic performance, and damage physical and emotional health.

Student homelessness may be our most sensitive indicator of family homelessness, as it captures a range of social challenges related to being without stable housing. In King County, student homelessness has more than doubled since 2008, reaching 8,411 (nearly 3% of enrolled students) in the 2015-16 school year.²⁷ In most school districts at least half of the homeless students were in elementary school or pre-kindergarten. Although student homelessness has increased county-wide, it varies considerably across school districts. The Tukwila District had the highest rate, at 1 in 9 students, compared to fewer than 1 in 100 in Mercer Island, Issaquah, Northshore, Tahoma, and Vashon Island school districts.²⁷ While the majority of homeless students were “doubled up” with friends or extended family, 3% were unsheltered.

Disparities in Out-of-Home Placements

At about 5 per 1,000, the rate of King County children in out-of-home placements has remained fairly stable over the past ten years.

As of January 2017, just over 1,400 King County children had been placed in care outside their immediate family (in residential centers, foster and adoptive homes, group homes and detention centers, and relative placements).²⁸ Although racial/ethnic disparities have narrowed over the past decade, rates of out-of-home care are still higher in many communities of color, hovering around 9 out of every 1,000 Black and Native Hawaiian/Pacific Islander children and 19 per 1,000 American Indian/Alaska Native children.

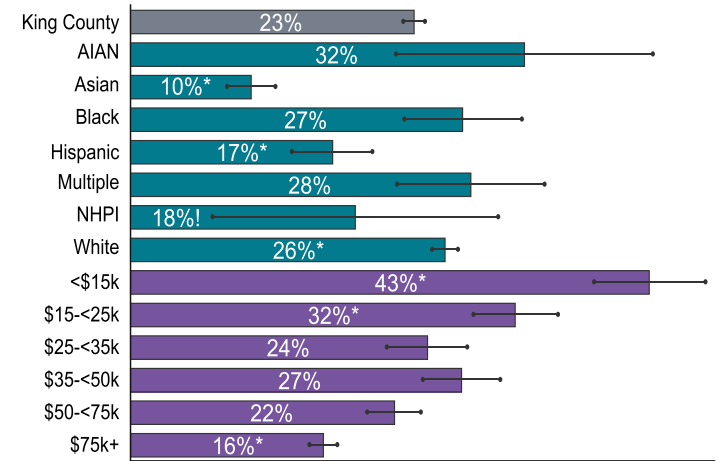
Youth and young adults with a history of child welfare involvement face a high risk of homelessness. Nearly 1 in 5 respondents in the 2017 Point In Time survey reported a history of foster care.²⁶ Rates of foster-care involvement were highest among LGBTQ respondents (33%) and unaccompanied young people under 25 years of age (29%). Less than 1% reported that they were living in foster care immediately prior to becoming homeless.

Disparities in Disability

Nearly 1 in 4 King County adults reported having a physical, mental, or emotional impairment or condition that limits their function or ability to perform major activities of life. Disability rates in King County have remained relatively unchanged over the past 10 years, consistently impacting some communities more than others. Disability prevalence increases with age – from 13% for the youngest adults to 40% for those 65 and older. As previously mentioned, both the size and the expected life span of King County’s older adult population are increasing. At one quarter of the population, the health and social needs of residents affected by disabilities must be considered in all healthcare planning.

- At 26%, disability rates are highest in South Region, exceeding the overall rate of the county.
- Adults who identify as bisexual are significantly more likely to report disability than those who identify as heterosexual.
- Disability is lowest among Asian and Hispanic residents, compared to most other racial/ethnic groups.
- Lower income is associated with higher disability rates. Just as disability may limit employment opportunities and thus income, the limited and sometimes dangerous circumstances of poverty may increase risk for disability.

Disability (adult) King County (average: 2011-2015)



Source: Behavioral Risk Factor Surveillance System

* = Significantly different from King County average

! = Interpret with caution; sample size is small, so estimate is imprecise

Description of Community

Continued

King County
Community Health
Needs Assessment
2018/2019

52

RECURRING THEMES: INCOME, PLACE, AND RACE

Throughout King County, people of color and low-income residents are more likely to have poor health and social outcomes. While these outcomes cannot be attributed to any one factor, we know that economic development favors those who can take advantage of it, while marginalizing those at lower economic strata, increasing their health risks. Systemic racism – like exposure to toxins, social support, and a living wage – is a determinant of health. The impacts of racism can be deep and long-lasting, affecting health through structural and social processes that are not moderated by age, sex, birthplace, or education level,²⁹⁻³¹ and should not be confused with the idea of race. More than half of all Black and Hispanic King County residents live in South Region, where health outcomes are below the county average on almost every indicator. The effects of these inequities spread far beyond South Region, challenging the health and prosperity of all King County residents. The social and economic determinants of health – shaped by local distributions of money, power, and resources – cannot be ignored if we hope to improve healthcare and health outcomes.

APPENDIX 23

KING HEALTH NEED ASSESSMENT 2018/2019

Life Expectancy & Leading Causes of Death



King County
Community Health
Needs Assessment
2018/2019

Life expectancy and leading causes of death are broad foundational health measures often used to assess the health of the population and monitor progress in preventing disease and disability, as well as reducing health disparities.

Although life expectancy in King County is higher than it was in 1990, there have been no significant improvements since 2009. Similarly, age-adjusted death rates stopped their decades-long decline in 2010. This stalemate may result from two competing factors – a sharp decline in cardiovascular disease in many age groups countered by an increase in deaths from Alzheimer’s disease among those age 85 and older.

Hispanic and Asian residents in King County live an average of 11 years longer than Native Hawaiians/Pacific Islanders.

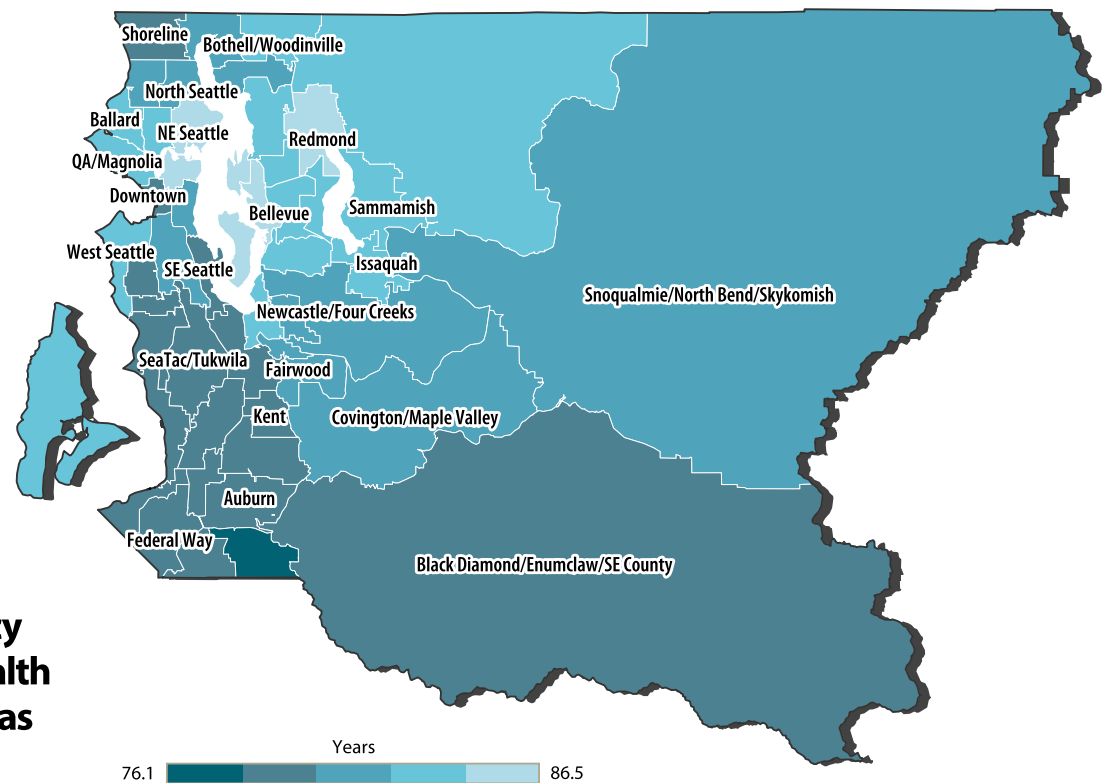
Life Expectancy & Leading Causes of Death

Continued

LIFE EXPECTANCY

This indicator shows life expectancy at birth – the number of years a newborn can expect to live. Life expectancy increased in King County from 79.5 in 2000, to 81.9 in 2010, but has plateaued since then (the 2015 life expectancy was 81.9 years). While King County’s life expectancy exceeds the national average, variations within the county reflect noteworthy differences in life expectancy by place and race/ethnicity. For 2011-2015, average life expectancy at birth was 81.8 years in King County.

- Residents of NE Seattle are expected to live an average of 10.4 years longer than those in South Auburn.
- Life expectancy is highest among Hispanic (86.3 years) and Asian (86.1 years) residents. Native Hawaiian/Pacific Islander (75 years) residents have the lowest life expectancy of all racial/ethnic groups in King County.
- Residents living in low-poverty neighborhoods live an average of 5 years longer than those in high-poverty areas.



Data source: Washington State Department of Health, Center for Health Statistics, Death Certificates.

APPENDIX 23

Life Expectancy & Leading Causes of Death

Continued

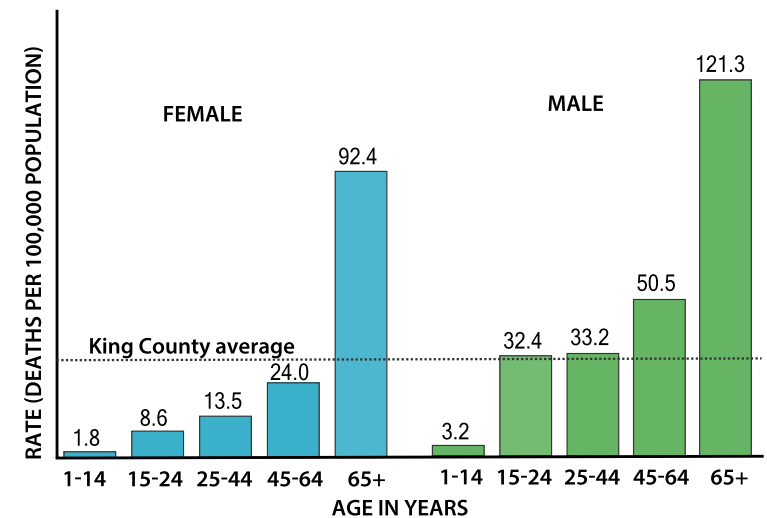
King County
Community Health
Needs Assessment
2018/2019

LEADING CAUSES OF DEATH

- Despite reductions in the rate of death from cardiovascular disease (CVD), heart disease was still – with cancer – 1 of the top 2 leading causes of death in King County from 2011 to 2015. Leading causes of death varied by age. While cancer and heart disease were leading causes of deaths for adults over age 45, unintentional injuries and suicides were leading causes of death among children, teens, and young adults.
- With the exception of Alzheimer’s disease, the rank order of causes of death has been fairly stable over time. Alzheimer’s moved from #10 in the 1991-1995 period, to #4 in 2001-2005, and finally to #3 in 2011-2015. It is unclear whether the change in rank is due to additional attribution of deaths to Alzheimer’s versus other conditions or an actual increase in the condition.
- Averaged across the life span, men in King County die at 1.4 times the rate for women. Life expectancy for men (79.5 years) is significantly lower than for women (83.9 years).

- In the 15-24 age group (notoriously high for risk-taking among males), males die at a rate 2.7 times that of females. In the same age group, the average death rate from unintentional injury among males is nearly 4 times the rate among females.
- The male suicide rate is 2 to 3 times the female rate in each age group, starting as early as 15-24 years old and up to age 64.

Unintentional injury death rate by age King County (average: 2011-2015)



Data source: WA State Department of Health, Death Certificate Data

APPENDIX 23

KING HEALTH NEED ASSESSMENT 2018/2019

Life Expectancy & Leading Causes of Death

Continued

- Males are also more likely than females to be killed by someone else, with a homicide rate 2.3 times the female rate in 15-24 year-olds, and 3.6 among those age 25-44.

- Among leading causes of death, Alzheimer's disease is the only exception where women are more likely to die of the disease than men. Among adults older than 65, the female rate of death from Alzheimer's was 1.8 times the rate among males. Even among adults of all ages, females are 1.3 times more likely than males to die of Alzheimer's disease.

- Cancer was the leading cause of death among women between the ages of 25-44. It is the third leading cause of death among men of that age group, following unintentional injury and suicide.

- Heart disease death rates among men are 1.6 times those among women.

- The rate of heart disease among Native Hawaiians/Pacific Islanders (NHPI) is 3.3 times the rate among Asians, although the overall number of these deaths in NHPI (an average of 17 deaths per year) is small.

- The top three causes of death among Native Hawaiians/Pacific Islanders are related to obesity (heart disease, cancer, and diabetes) – this group has the 3rd highest obesity rates (28%) behind American Indians/Alaska Natives (AIAN) (44%) and Blacks (33%) – although the precision of estimates among the NHPI and AIAN groups is limited by small sample sizes.

- The rate of unintentional injury death for American Indians/Alaska Natives (n=14) is 1.9 times the rate for Blacks (n=46), 2.2 times the rate for whites (n=533), and 4 times the rate for Asians (n=44).

Leading causes of death, King County (average: 2011-2015) (ranked by the number of deaths)

Rank	Total	BY RACE/ETHNICITY						
		AIAN	Asian	Black	Hispanic	Multiple race	NHPI	White
All	All 619.5 (12,409)	All 857.7 (113)	All 436.1 (1,006)	All 796.6 (738)	All 432.0 (277)	All 341.3 (113)	All 963.4 (67)	All 634.1 (10,337)
1	Cancer 147.7 (2,941)	Cancer 140.1 (19)	Cancer 117.2 (288)	Cancer 191.3 (178)	Cancer 96.0 (61)	Cancer 84.1 (26)	Heart disease 270.0 (17)	Cancer 150.4 (2,410)
2	Heart disease 125.7 (2,534)	Heart disease 156.9 (18)	Heart disease 80.9 (180)	Heart disease 154.9 (134)	Heart disease 89.5 (43)	Heart disease 65.0 (16)	Cancer 217.6 (16)	Heart disease 129.6 (2,163)
3	Alzheimer's disease 41.5 (832)	Unintentional 72.8 (14)	Stroke 33.9 (75)	Unintentional injury 38.4 (46)	Unintentional injury 20.8 (27)	Unintentional injury 16.6 (12)	Diabetes 62.2 (4)	Alzheimer's disease 44.7 (762)
4	Unintentional injury 31.7 (654)	Chronic liver disease 44.8 (9)	Unintentional injury 17.7 (44)	Diabetes 50.3 (44)	Stroke 27.2 (14)	Suicide 7.1 (6)	Unintentional injury 21.7 (4)	Unintentional injury 33.8 (533)
5	Stroke 30.6 (605)	Chronic lower resp. disease 67.0 (7)	Alzheimer's disease 19.1 (38)	Stroke 41.6 (35)	Chronic liver disease 10.4 (11)	Chronic lower resp. disease 28.3 (6)	Stroke 73.1 (3)	Chronic lower resp. disease 31.9 (503)
6	Chronic lower resp. disease 29.8 (571)	Diabetes 31.7 (4)	Diabetes 16.6 (38)	Chronic lower resp. disease 27.0 (24)	Diabetes 18.2 (11)	Diabetes 12.2 (4)	Chronic lower resp. disease 62.7 (2)	Stroke 29.3 (484)
7	Diabetes 18.5 (370)	Stroke 42.8 (4)	Chronic lower resp. disease 12.8 (28)	Alzheimer's disease 35.5 (24)	Suicide 5.5 (10)	Alzheimer's disease 19.7 (3)	Septicemia 19.5 (2)	Diabetes 17.0 (275)
8	Suicide 12.2 (255)	Suicide 14.7 (3)	Suicide 6.6 (21)	Homicide 14.1 (19)	Alzheimer's disease 26.3 (8)	Stroke 12.0 (3)	Nephritis 28.7 (1)	Suicide 13.8 (213)
9	Chronic liver disease 9.5 (210)	Alzheimer's disease 31.2 (2)	Influenza/pneumonia 9.0 (19)	Essential hypertension 19.4 (16)	Homicide 3.2 (6)	Influenza/pneumonia 8.2 (2)	Suicide 6.6 (1)	Chronic liver disease 10.4 (179)
10	Influenza/pneumonia 9.0 (183)	Influenza/pneumonia 14.0 (2)	Parkinson's disease 8.1 (17)	Nephritis 15.9 (14)	Pneumonitis 12.4 (5)	Homicide 1.5 (2)	Influenza/pneumonia 11.9 (1)	Influenza/pneumonia 8.9 (150)

CAUSE CATEGORY:

- All causes
- Chronic disease
- Infectious disease
- Other
- Injury/violence

Data source: WA State Department of Health, Death Certificate Data.

Note: For each cause, the first number shown is the 5-year average rate per 100,000 and the number in parentheses is the average annual count for that cause over the 5-year period. For leading causes by age, the rates are age-specific. All other rates are age-adjusted.

Chronic Illnesses



Chronic illnesses are among the leading causes of death, disability, and hospitalization in King County. They are common and costly, underscoring the need for targeted prevention and health-promotion strategies. This section focuses on two chronic illnesses – asthma and diabetes – for which the healthcare system plays a key role in prevention, screening, and treatment. We also review leading causes of hospitalization and leading causes of cancer incidence.

South Region adults were more likely to have diabetes than adults in all other regions, a disparity that has not changed since 2013.

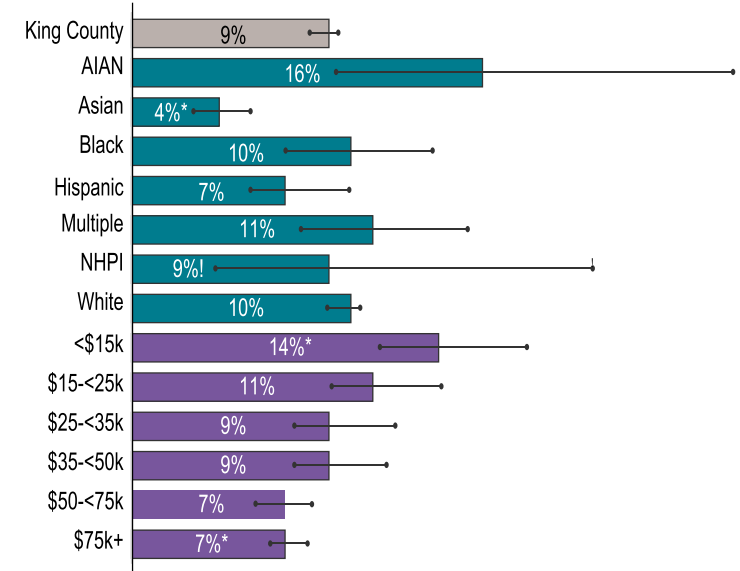
ASTHMA

Adult Asthma

From 2011 to 2015, 9% of King County adults reported i) they had been told by a health professional at some point in their life that they had asthma and ii) they still had asthma. Adult asthma rates reported in 2015 have not significantly changed throughout the county since 2000.

- Women were 1.6 times as likely as men to have asthma.
- Adults with annual household income below \$15,000 were 1.6 to 2.0 times as likely to have asthma as those with income above \$50,000, demonstrating a growing income disparity in asthma prevalence.

Asthma (adults)
King County (average: 2011-2015)



Source: Behavioral Risk Factor Surveillance System

* Significantly different from King County average

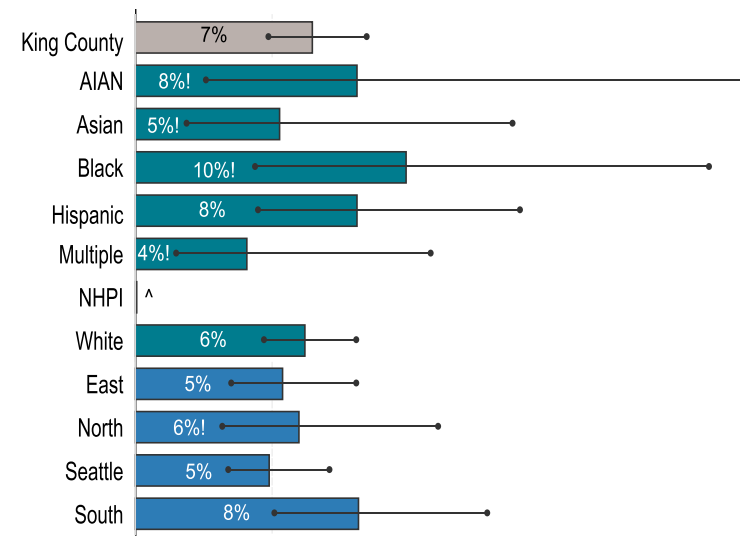
! Interpret with caution; sample size is small, so estimate is imprecise

Childhood Asthma

From 2011 to 2014, 7% of King County children age 0-17 had asthma.

- Since the last report (reporting asthma rates from 2009-2013), the distributions of childhood asthma by race and place have not changed significantly.
- Children age 10-14 had 2.8 times the asthma rate of children age 5-9.

Current asthma among children age 0-17 King County (average: 2011-2014)



Source: Behavioral Risk Factor Surveillance System

! Interpret with caution; sample size is small, so estimate is imprecise

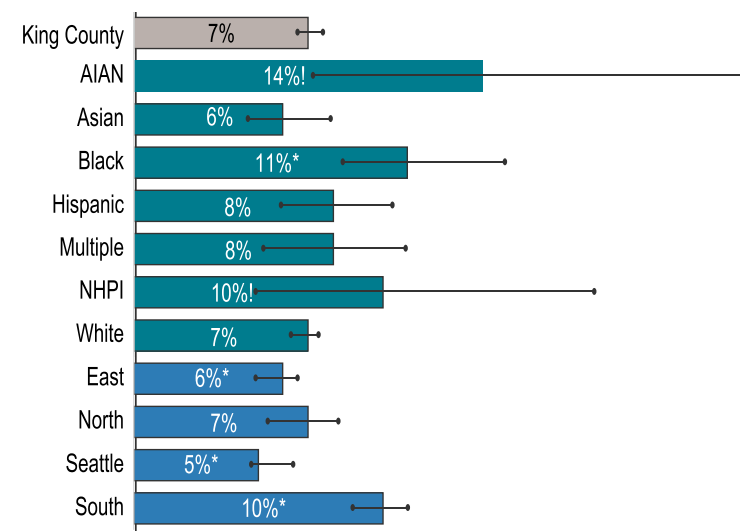
^ Data suppressed if too few cases to protect confidentiality and/or report reliable rates

DIABETES

From 2011 to 2015, 7% of King County adults reported having been told by a doctor that they had diabetes (excluding “pre-diabetes” and diagnoses during pregnancy), the same rate as from 2009 to 2013.

- Diabetes prevalence increases with age. Diabetes rates among adults over age 65 are 2.6 times the county average.
- Black adults were 1.8 times as likely as Asian adults to have diabetes.
- Adults with annual income greater than \$75,000 were less likely than those with lower incomes to have diabetes. South Region adults were more likely to have diabetes than adults in all other regions.

Diabetes (adults) King County (average: 2011-2015)



Source: Behavioral Risk Factor Surveillance System

* Significantly different from King County average

! Interpret with caution; sample size is small, so estimate is imprecise

LEADING CAUSES OF HOSPITALIZATION

Hospitalization data from 2011 to 2015 provide a valuable perspective on the public health impact of chronic diseases and injuries in King County.

- The leading causes of hospitalization among adults were pregnancy/childbirth-related, heart disease, injuries, and mental illness.

- The hospitalization rate for heart disease was 54% higher among men than women – unchanged since the 2008-2012 report period.

- For children ages 1 to 14, the leading causes of hospitalization were respiratory infections, injuries, and mental illness.

- Infants were most frequently hospitalized during birth and for respiratory infections and jaundice.

King County, (2011-2015) (ranked by the number of hospitalizations)

Rank	Total	Female	Male
All	All	All	All
All	8,324.7 (167,527)	9,334.9 (97,568)	7,421.5 (69,958)
1	Pregnancy/ childbirth-related 1,177.7 (25,117)	Pregnancy/ childbirth-related 2,403.4 (25,116)	Heart disease 754.7 (6,933)
2	Heart disease 611.2 (12,400)	Heart disease 489.0 (5,466)	Mental illness 524.2 (5,392)
3	Unintentional injuries 530.8 (10,711)	Unintentional injuries 489.9 (5,443)	Unintentional injuries 562.2 (5,268)
4	Mental illness 517.8 (10,699)	Mental illness 512.6 (5,307)	Septicemia 397.7 (3,631)
5	Cancer and benign tumors 372.4 (7,750)	Cancer and benign tumors 390.7 (4,202)	Cancer and benign tumors 361.4 (3,547)
6	Septicemia 356.5 (7,265)	Septicemia 325.8 (3,633)	Osteoarthritis 253.7 (2,538)
7	Osteoarthritis 290.8 (6,144)	Osteoarthritis 322.9 (3,605)	Lower GI disorders 246.3 (2,371)
8	Lower GI disorders 239.6 (4,881)	Urinary system disease 242.8 (2,683)	Urinary system disease 235.3 (2,074)
9	Urinary system disease 238.9 (4,757)	Lower GI disorders 233.0 (2,509)	Stroke 217.3 (1,925)
10	Stroke 196.6 (3,941)	Stroke 178.9 (2,016)	Respiratory infections 212.9 (1,862)

Cause category

■ Total
 ■ Birth/ pregnancy
 ■ Injury/ violence
■ Chronic Disease
 ■ Infectious Disease
 ■ Other

See next page for notes and data source

Notes: Leading causes of hospitalization

King County, 2011-2015

(ranked by the number of hospitalizations)

Note: Rate = Hospitalizations per 100,000 population, age-adjusted to the 2000 U.S. population.

The leading causes of hospitalization are ranked by the number of hospitalizations over the 5-year period (second number in parentheses).

Data Source: Washington State Department of Health, Center for Health Statistics, Hospital Discharge Data (CHARS) 1987-2015.

Pregnancy and childbirth-related includes normal childbirth as well as complications such as prolonged pregnancy and high blood pressure (e.g. preeclampsia, eclampsia).

Heart disease: Major sub-causes include congestive heart failure, cardiac dysrhythmias, acute myocardial infarction (i.e. heart attack), and coronary artery disease.

Unintentional injuries: Major sub-causes include falls, motor vehicle accidents, and poisoning.

Mental illness: Major sub-causes include bipolar disorder, depression, schizophrenia, and alcohol and substance-related disorders.

Cancer and benign tumors: Major sub-causes include uterine cancer, colorectal cancer, prostate cancer, lung cancer, and lymphatic cancer.

Septicemia, also known as sepsis, occurs when a bacterial infection enters the bloodstream and the body's response to the infection triggers widespread inflammation.

Osteoarthritis is a common and painful disease caused by degeneration of the protective cartilage in joints.

Lower gastrointestinal disorders: Major sub-causes include intestinal obstruction without hernia, appendicitis, and diverticulitis.

Urinary system diseases include bladder and urinary tract infections, kidney stones, kidney failure, incontinence, and interstitial cystitis.

Stroke occurs when blood flow to the brain stops, due either to blockage by a blood clot or the rupture and bleeding of a blood vessel.

Respiratory infections: Major sub-causes include pneumonia and acute bronchitis.

Cancer Incidence

Except in the first year of life, cancer and benign growths are among the top 5 causes of hospitalization. The incidence and types of cancer vary substantially by age, gender, race/ethnicity, and neighborhood poverty.

- Cancer rates are highest for those age 65 and older. Rank ordered by the number of new cases per year in this age group, the top three are cancers of the breast (females), prostate (males), and lung.

- Although the numbers are low due to low population size, Native Hawaiians/Pacific Islanders have strikingly high rates of breast, lung, colorectal, and uterine cancers. Black males have the highest rate of prostate cancer; American Indians/Alaska Natives have the highest rate of liver cancer; and whites have the highest rate of melanoma (skin) cancer.

- The incidence of lung and kidney cancers – both linked to cigarette smoking – increase with neighborhood poverty (and liver cancer makes the list of top-10 cancer sites only in high-poverty neighborhoods). Breast and prostate cancers show the opposite pattern, with higher rates in more prosperous neighborhoods, possibly reflecting the longer life expectancies associated with wealth.

Most common cancer types (new cases) King County (average: 2010-2014) (ranked by the number of cases)

Rank	Total	Male	Female
1	Breast (Female) 144.0 (1,553)	Prostate (Male) 121.7 (1,178)	Breast (Female) 144.0 (1,553)
2	Prostate (Male) 121.7 (1,178)	Lung 57.8 (488)	Lung 47.0 (489)
3	Lung 51.6 (977)	Colorectal 39.7 (370)	Colorectal 31.7 (339)
4	Colorectal 35.3 (709)	Skin Melanoma 34.3 (321)	Uterine (Female) 25.8 (289)
5	Skin Melanoma 28.2 (580)	Non-Hodgkin Lymphoma 27.2 (248)	Skin Melanoma 24.0 (259)
6	Non-Hodgkin Lymphoma 21.9 (438)	Oral/Pharynx 16.9 (170)	Thyroid 19.8 (209)
7	Uterine (Female) 25.8 (289)	Leukemia 19.0 (168)	Non-Hodgkin Lymphoma 17.4 (190)
8	Leukemia 14.9 (289)	Liver 15.1 (155)	Ovary (Female) 12.4 (136)
9	Kidney 13.9 (282)	Brain 8.3 (80)	Leukemia 11.6 (121)
10	Thyroid 13.3 (279)	Stomach 8.9 (78)	Oral/Pharynx 7.3 (80)

Note: Under each cancer site, the first number shown is the 5-year average age-adjusted rate per 100,000 and the number in the parentheses is the average annual count from that cause over the 5-year period. The table presents cancers at the invasive stages only. Cancers at the in situ stage are excluded.

Data Source: Washington State Cancer Registry

Access to Healthcare & Use of Preventive Services



King County
Community Health
Needs Assessment
2018/2019

65

Access to health services is defined as “the timely use of personal health services to achieve the best health outcomes.”³² Access to comprehensive, high-quality healthcare facilitates prevention and early detection of disease. Health insurance coverage is a key component of entry to the healthcare system. In general, people without health insurance receive less medical care and have worse health outcomes. As such, disparities in insurance coverage perpetuate disparities in health and quality of life.

Following implementation of the Affordable Care Act (ACA), healthcare coverage increased dramatically – statewide and in King County. Beginning in October 2010, more young adults were allowed to remain on their parents’ health insurance plans. From 2010 to 2016, lack of health insurance dropped by more than 2/3 among young adults ages 18-24. With the initiation of the individual mandate in 2014, access to private insurance was expanded and more adults became eligible for Medicaid.

King County hospitals played an important role in helping families access health insurance, partnering with other organizations on the Coverage Is Here King County campaign to enroll community members in qualified health plans. As a member of the partnership, Public Health-Seattle & King County developed

After implementation of the Affordable Care Act, the percentage of King County residents without health insurance decreased by half.

a network of enrollment navigators who offered enrollment assistance at libraries, food banks, and other public places in communities with the highest rates of uninsured residents. These cooperative efforts paid off. After ACA implementation for additional age groups in 2014, lack of insurance among the unemployed dropped from 42.8% in 2013 to 18.8% in 2016 ; foreign-born naturalized citizens saw a 10.3% absolute decline in lack of coverage.³³

APPENDIX 23

KING HEALTH NEED ASSESSMENT 2018/2019

UNINSURED ADULTS

Expansion of coverage through the ACA has reduced the rate of uninsured adults from 16.4% in 2013 (prior to the ACA individual mandate) to 6.7% in 2016. Despite widespread and collective outreach efforts, significant disparities persist.

- Most communities of color remain disproportionately uninsured (American Indians/Alaska Natives, Blacks, and Hispanics/Latinos are all significantly less likely than whites to have coverage). For example, in 2016, Hispanic adults were 6.5 times as likely as non-Hispanic whites to be without coverage.

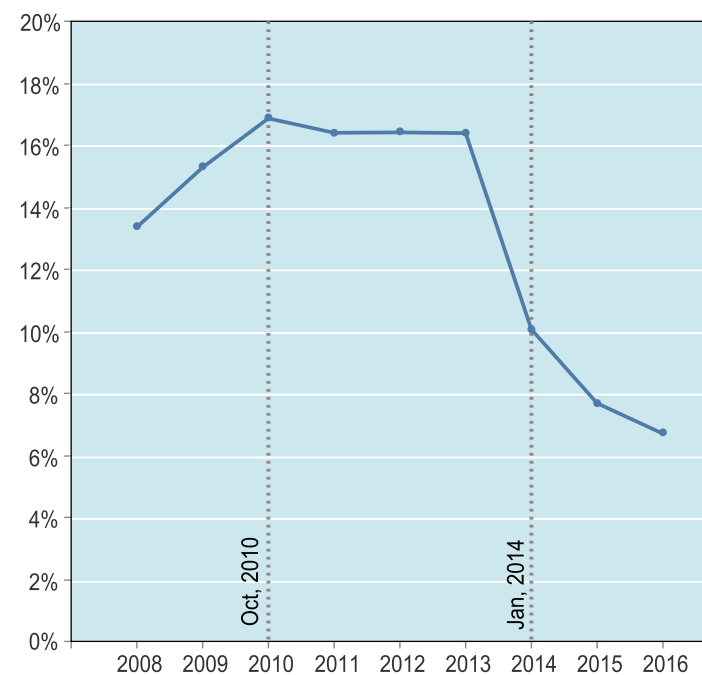
- Although coverage improved considerably in South Region cities from 2013 to 2016, residents of these cities were still more likely than residents of other areas to be uninsured in 2016.

- In 2016, low-income adults (household income below 200% of the Federal Poverty Level) were more than 7 times as likely as those in the highest income households to be uninsured.

- Lack of insurance coverage decreased with age, from a high of 8.1% for 18- to 24-year olds to 4.9% for adults age 55-64.

It will be a few years before we can combine multiple years of “before-ACA” and “after-ACA” data to make stronger comparisons of geographic and racial disparities.

**Adults age 18-67 with no health insurance
King County (2008-2016)**



Source: American Community Survey

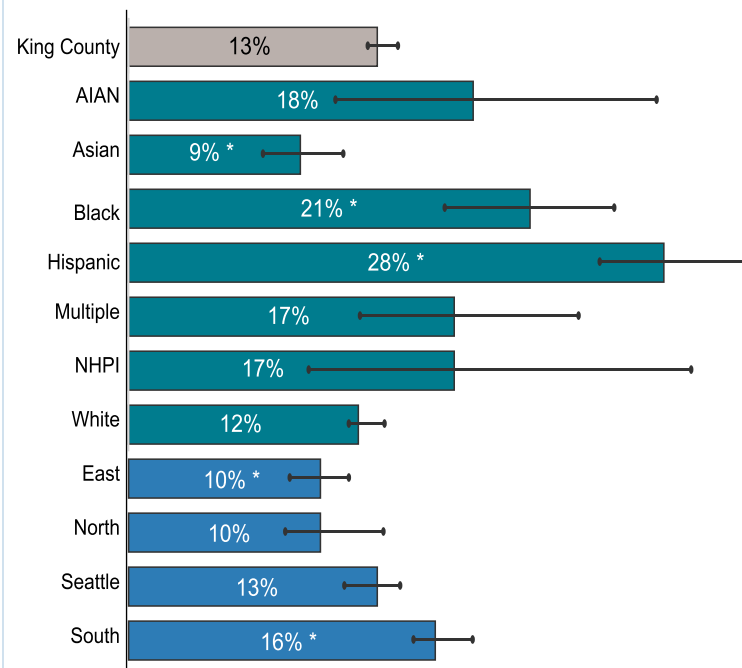
UNMET MEDICAL NEEDS

Uninsured adults are more likely to have unmet needs due to cost. Costs are a barrier to seeking needed medical care for 1 in 7 King County adults. Many adults and children in the county do not receive recommended clinical preventive services or regular oral healthcare services.

From 2011 to 2015, an average of 13% of King County adults reported they needed to see a doctor in the past 12 months but could not, due to cost. Unmet medical needs were significantly lower in 2015 (the year after implementation of the ACA, and the latest year for which data are available) than in 2013 (the year before ACA implementation). Disparities across the implementation period are shown in 5-year averages for 2011-2015.

- Adults age 25-44 were more likely (16%) than any other age group to report unmet healthcare needs. Only 4% of adults 65 and older reported unmet needs due to cost.
- Asian residents were the least likely of any racial/ethnic group to report having unmet medical needs. Black residents were twice as likely and Hispanics were 3 times more likely than Asians to report unmet medical needs.
- Adults with household income below \$15,000 were 8 times as likely as those earning more than \$75,000 to report unmet medical needs.

Unmet medical needs (adults) King County (average: 2011-2015)



Source: Behavioral Risk Factor Surveillance System

* Statistically, significantly different from King County average

INCOMPLETE VACCINES

Despite improvements, King County still does not meet the Healthy People 2020 objective of reducing incomplete vaccination coverage to 20% of children age 19-35 months. Vaccination rate estimates are based on vaccination records submitted by healthcare providers to the Washington State Immunization Information System (WSIIS). According to the most recent WSIIS report, infant vaccination rates have improved in King County. Analysis of WSIIS data reported as of February 1, 2017 revealed the following:

- In 2014, 38% of King County children age 19-35 months had not completed the recommended set of immunizations for young children; by 2017, the percentage had dropped to 33%.
- Seattle leads King County regions in completion of vaccinations for young children with the county's lowest rate (27%) of incomplete vaccinations by 35 months. Vaccination rates in the North Region of the county have improved since 2014 (41% incomplete in 2014 compared to 31% in 2017).
- Incomplete vaccination rates are highest in low-income neighborhoods.
- In the 98022 zip code – covering parts of Enumclaw and neighboring areas to the East – 59% of children 19-35 months old have not received the complete series of childhood vaccines. This is the highest rate in King County. At 55%, Vashon Island also has one of the county's highest incomplete vaccination rates.

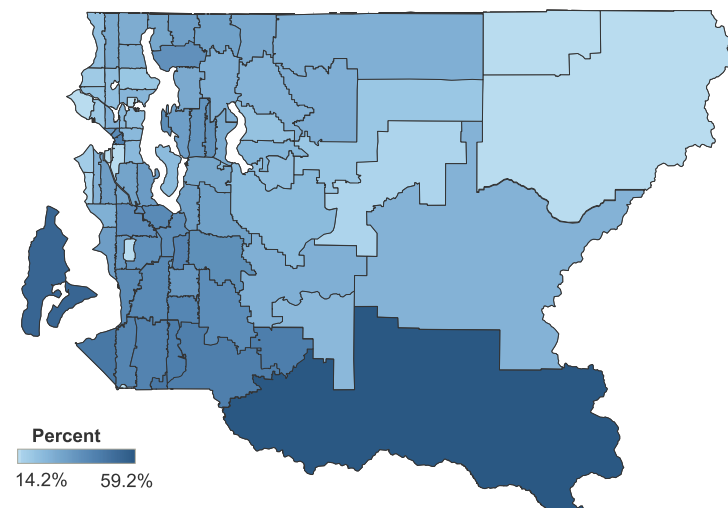
APPENDIX 23

KING HEALTH NEED ASSESSMENT 2018/2019

Incomplete vaccination coverage, age 19-35 months,

King County (2017)

King County overall (2017): 33.4%



Data suppressed if too few cases to protect confidentiality and/or report reliable rates, suppressed areas will appear gray in map.

Source: WA State Immunization Information System (Child Profile Health Promotion & Immunization Registry System) PHSKC, APDE; 08/2017

4:3:1:3:3:1:4 series is defined as 4 or more doses of diphtheria, tetanus, acellular pertussis (DTaP) vaccine; 3 or more doses of polio vaccine; 1 measles vaccine; 3 or more doses of Haemophilus influenzae type b (Hib) vaccine; 3 or more doses of hepatitis B (Hep B) vaccine; 1 or more doses of varicella vaccine; and 4 or more doses of pneumococcal conjugate vaccine (PCV).

WSIIS estimates of vaccination coverage may underestimate true coverage due to i) incomplete submission of vaccine records, and ii) retention of vaccine records of children after they have moved to another area. Children may not receive vaccines for a variety of reasons, including i) barriers to accessing clinical preventive services, and ii) family choices to not have children vaccinated.

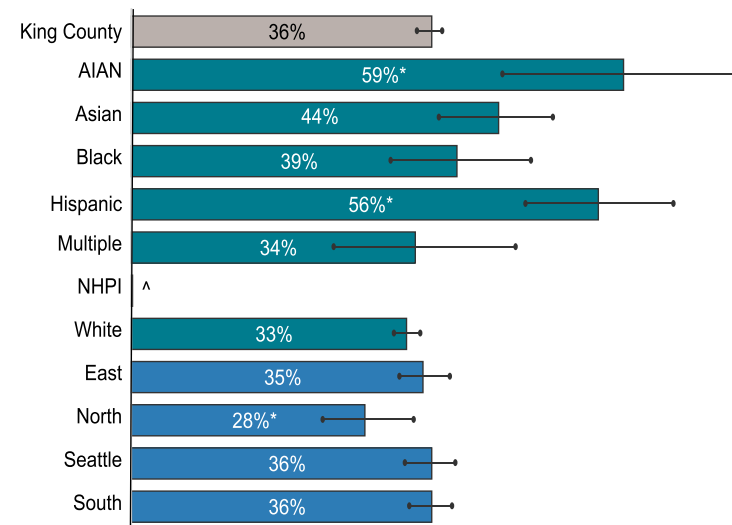
COLORECTAL CANCER SCREENING

From 2011 to 2015, more than 1 in 3 King County adults age 50-75 failed to meet colorectal cancer screening guidelines.

- More than half of adults with a household income below \$15,000 failed to meet screening guidelines
- Adults with household income of \$75,000 or more were significantly more likely to meet screening guidelines than those with household incomes below \$50,000.
- Of all cities and neighborhoods, SeaTac/Tukwila and North East Bellevue shared the highest rate – 47% -- of adults who had not met screening guidelines. At 18%, Bothell/Woodinville had the lowest rate.

Did not meet colorectal cancer screening guidelines (age 50-75)

King County (average: 2011-2015)



Source: Behavioral Risk Factor Surveillance System

* Significantly different from King County average

^ Data suppressed if too few cases to protect confidentiality and/or report reliable rates

Access to Healthcare & Use of Preventive Services

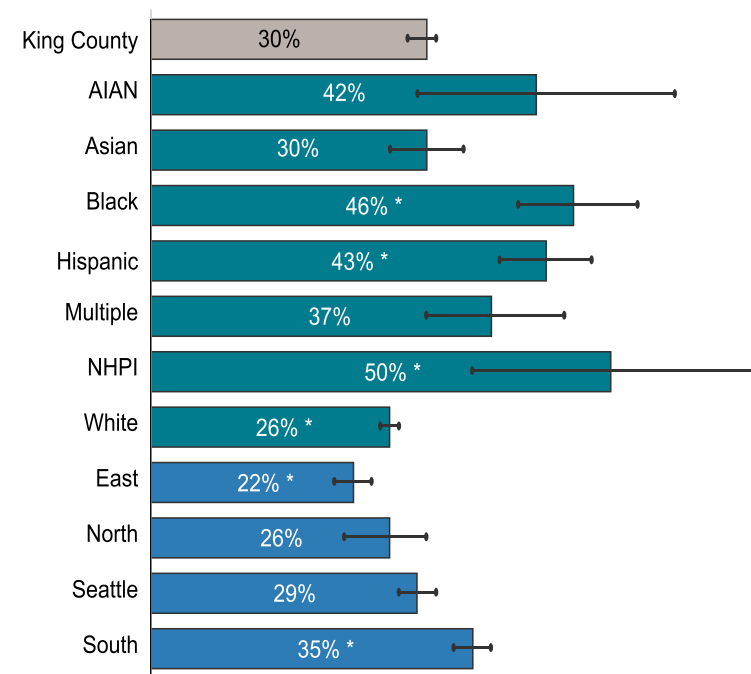
Continued

ADULT DENTAL VISITS

From 2011 to 2015, an average 30% of King County adults reported they did not visit a dentist or dental clinic in the past year. This rate has not changed significantly since 2009.

- More than half of adults with household income below \$25,000 had not visited a dentist in the past year, reflecting no change in income disparities for dental care since the 2008-2012 reporting period.
- Whites were significantly more likely than all other racial/ethnic groups, with the exception of Asians, to have had a dental visit in the previous year.
- Regional comparisons show that adults in South Region were most likely (35%) to report that they had not seen a dentist in the previous year. The percentage of adults without consistent dental care has risen over the past 10 years in South Region, while remaining relatively flat in other King County regions.

No dental checkup in past year (adults) King County (average: 2011-2015)



Source: Behavioral Risk Factor Surveillance System

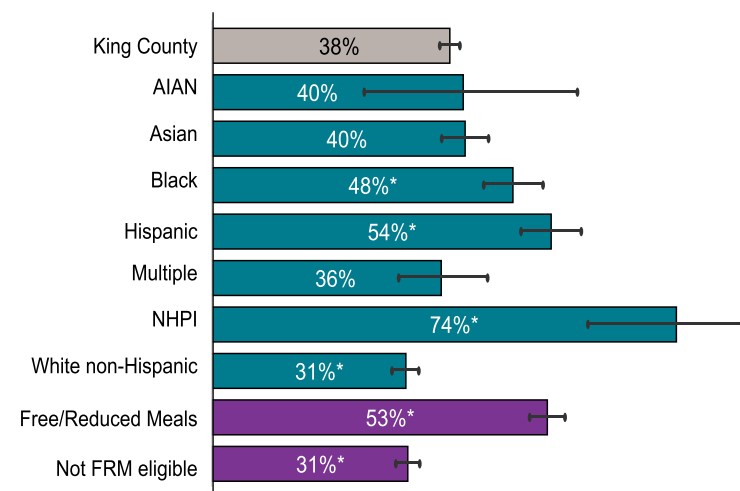
* Statistically, significantly different from King County average

CHILDHOOD DENTAL CARIES

The presence of dental caries (cavities) is a marker of dental health and access to care among children. Childhood experiences with caries – treated or untreated – have not changed much in recent years. In 2015, 38% of children in King County had caries – about the same as the 40% reported in 2010. Among a sample of preschoolers, kindergarteners, and 2nd and 3rd graders, rates were highest for children in grades 2 and 3. Noteworthy disparities in childhood caries warrant targeted outreach related to dental health.

- At a rate 2.4 times that of white children, Native Hawaiian/Pacific Islander children were significantly more likely to have had caries than children in other racial/ethnic groups. Asian, Black, Hispanic, and multiple-race children were also more likely than white children to have had caries.
- More than half of children who are eligible for free/reduced lunch have had caries.
- At 33%, students from English-speaking households were significantly less likely to have had caries than those from households where the primary language was Spanish (54%) or another non-English language (47%).

Childhood cavities King County (2015)



Source: Smile Survey 2015

* Differs significantly from King County average

Mental Health



Mental illness is a broad term that covers a range of conditions affecting emotion, thinking, and behavior.

Common mental health conditions are depression, anxiety, and substance use disorders. Like other health conditions, mental illness is treatable. In general, a mentally healthy person functions well at home, work, and school, and is able to cope with the challenges of daily living. People experiencing “adult serious psychological distress” or “youth with depressive feelings” (the two mental health indicators below) may benefit from consultation with a mental health professional.

Since 2004, youth rates of depressive feelings have increased in King County overall and in South Region.

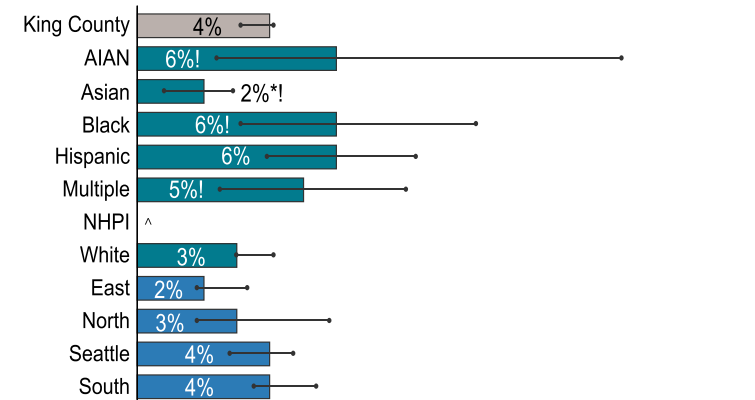
ADULT SERIOUS PSYCHOLOGICAL DISTRESS

From 2011 to 2015, 4% of adults in King County experienced “serious psychological distress” (determined by responses to survey questions about the frequency, over the past 30 days, of feeling nervous, hopeless, restless, worthless, that everything was an effort, and so depressed that nothing could cheer them up). Rates of this indicator have not significantly changed throughout the county since 2009.

- At 15%, the rate for adults with household income below \$15,000 was almost 4 times the county average and 15 times the rate for adults with household income at or above \$75,000. Income did not just differentiate those at the extremes of the distribution. Adults with income below \$25,000 were 3.5 to 7 times more likely than those making \$35,000 or more to experience serious psychological distress.

- Adults who identified as lesbian, gay, or bisexual (LGB) were more than twice as likely as heterosexual adults to report serious psychological distress. This was true for both males and females. While stable throughout the county overall, the rate of this indicator among LGB adults has increased significantly since 2009.

Serious psychological distress (adults) King County (average: 2011-2015)



Source: Behavioral Risk Factor Surveillance System

* Significantly different from King County average

! Interpret with caution; sample size is small, so estimate is imprecise

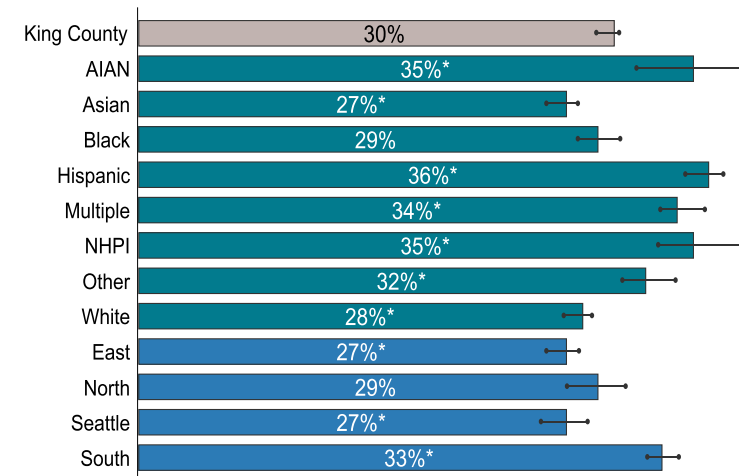
^ Data are suppressed if too few cases to protect confidentiality and/or report reliable rates

YOUTH WITH DEPRESSIVE FEELINGS

Averaging data from 2014 and 2016, close to 1 in 3 (30%) of King County 8th, 10th, and 12th grade students experienced depressive feelings. Students were considered to have had depressive feelings if they reported that, almost every day for 2 or more consecutive weeks during the past year, they had felt so sad or hopeless that they stopped doing some of their usual activities.

- Female students were 1.7 times as likely as males to report depressive feelings.
- Hispanic, Native Hawaiian/Pacific Islander, American Indian/Alaska Native, and multiple-race youth were more likely than Asian, Black, and white youth to report depressive feelings.
- Youth in South Region were more likely than those in Seattle, East, and North regions to experience depressive feelings.
- From 2004 to 2016, youth rates of depressive feelings increased in King County overall and in South Region. Rates also increased for white and multiple-race students, but declined for Asian students.

Youth with depressive feelings (school - age) King County (average: 2014 & 2016)



Source: Healthy Youth Survey

* Significantly different from King County average

Alcohol, Tobacco, Marijuana, & Other Drugs



King County
Community Health
Needs Assessment
2018/2019

75

While cigarette smoking is the leading preventable cause of death in the United States, excessive use of alcohol is also linked to health risks and premature death. Because tobacco use and alcohol abuse pose significant risks to public health, monitoring these indicators is an ongoing priority in King County.

Youth substance use is a particularly pressing public health concern. The brain is still developing through the early to mid-20s, and regular use of marijuana by youth has been associated with risks for addiction and negative effects on school performance.^v Driving while under the influence of marijuana and alcohol is especially concerning, given the impact of these substances on the skill necessary for safe driving. Washington state law prohibits giving or selling tobacco to minors under the age of 18, and prohibits selling or giving alcohol or marijuana to minors younger than 21. Given recent changes in state policy decriminalizing recreational marijuana use among adults, monitoring its use and impact on youth is a public health priority.

The opioid epidemic has garnered national headlines as a public health emergency. Preventing opioid addiction, improving access to treatment, and reducing fatal overdoses are areas of targeted action in King County.

^vCenters for Disease Control and Prevention (CDC). *What Parents Need to Know About Marijuana Use and Teens*. 2017. <https://www.cdc.gov/marijuana/pdf/Marijuana-Teens-508.pdf>. Accessed Oct. 20, 2017.

Across all King County regions, youth cigarette smoking has decreased by half since 2004.

APPENDIX 23

KING HEALTH NEED ASSESSMENT 2018/2019

Alcohol, Tobacco, Marijuana, & Other Drugs

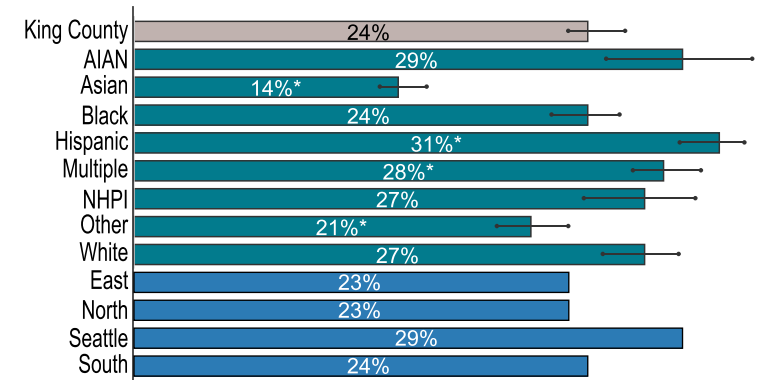
Continued

YOUTH SUBSTANCE USE

Tobacco, alcohol, and marijuana are all potentially addictive, as are many prescription drugs. Laws are in place to help protect youth during the years when their brains are most susceptible to addiction. This substance use indicator reports on 8th, 10th, and 12th graders' use of alcohol, marijuana, painkillers (to get high), or any illicit drug (other than alcohol, tobacco, and marijuana) in the past 30 days.

- Averaging data from 2014 and 2016, 24% of King County youth attending public schools in the 8th, 10th and 12th grades reported using alcohol, marijuana, painkillers, or any illicit drug in the past 30 days.
- Nearly 4 out of 10 students in 12th grade engaged in alcohol, marijuana, painkillers, or any illicit drug use in the past 30 days.
- There was no gender difference in substance use.
- Lesbian, gay, and bisexual students were 1.5 times more likely than heterosexual students to report substance use.
- The substance use rate for 12th-grade youth was 4.3 times that of the 8th graders and 1.6 times the county average for students of all grades.
- From 2004 to 2016, youth substance use rates declined for the county overall.

Alcohol, marijuana, painkiller, or any illicit drug use (school-age) King County (average: 2014 & 2016)



Source: Healthy Youth Survey

* Significantly different from King County average

Alcohol, Tobacco, Marijuana, & Other Drugs

Continued

TOBACCO USE

According to the Centers for Disease Control and Prevention, “cigarette smoking harms nearly every organ of the body, causes many diseases, and reduces the health of smokers in general.” One of the most encouraging findings in this report is that smoking rates continue to go down for both adults and youth.

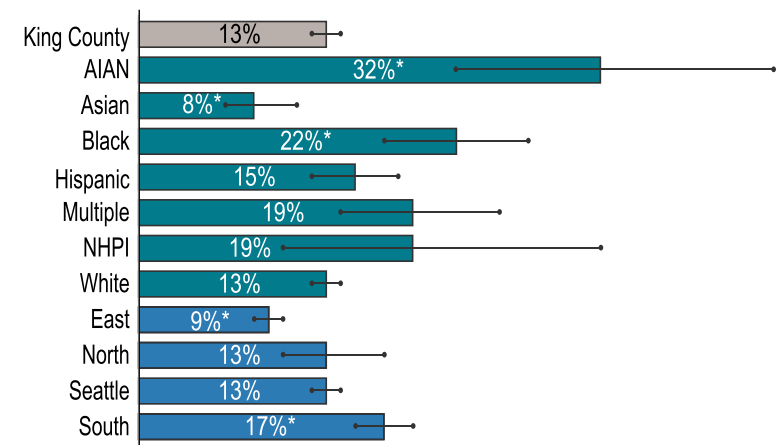
Adult Smoking

Due in part to policy changes and associated cultural shifts, adult cigarette smoking has declined dramatically since the year 2000. From 2011 to 2015, 13% of King County adults reported that they currently smoked cigarettes every day or on some days.

- Adults with household income less than \$15,000 were 4 times more likely than those with income at or above \$75,000 to be current smokers.
- Males were 1.3 times more likely than females to smoke cigarettes.
- Lesbian, gay, and bisexual adults were almost twice as likely as heterosexual adults to be current smokers.
- Approximately 3 out of 10 American Indian/Alaska Native residents were cigarette smokers.
- Adults in South Region were almost twice as likely as those in East Region to be current smokers.

- From 2000 to 2015, adult smoking rates declined by 43% for the county overall and for all regions except South Region, where the rate declined between 2000 and 2006 and leveled out between 2006 and 2015. Still, the adult smoking rate in South Region declined by 38% over the 15-year period.

Cigarette smoking (adults)
King County (average: 2011-2015)



Source: Behavioral Risk Factor Surveillance System

* Significantly different from King County average

APPENDIX 23

Alcohol, Tobacco, Marijuana, & Other Drugs

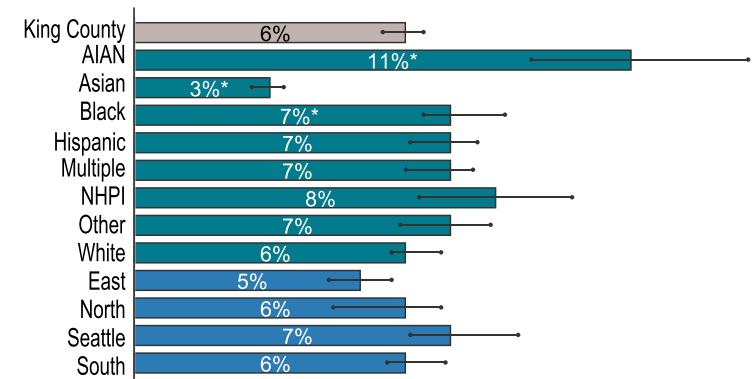
Continued

Youth Smoking

School-age students were considered cigarette smokers if they had smoked in the last month. This indicator did not include use of other tobacco products. Averaging data from 2014 and 2016, 6% of King County youth attending public schools in the 8th, 10th and 12th grades were current cigarette smokers.

- Among 12th graders, 1 in 10 were smokers, more than 3 times the rate for 8th graders.
- Although smoking did not differ by gender, lesbian, gay, and bisexual youth were more than 3 times as likely as heterosexual youth to smoke cigarettes.
- American Indian/Alaska Native students were almost 4 times more likely than Asian students to be cigarette smokers.
- From 2004 to 2016, rates of youth cigarette smoking fell by about half – for King County overall, all 4 of the county’s regions, and all racial/ethnic groups.

Cigarette smoking (school-age) King County (average: 2014 & 2016)



Source: Healthy Youth Survey

* Significantly different from King County average

Alcohol, Tobacco, Marijuana, & Other Drugs

Continued

King County
Community Health
Needs Assessment
2018/2019

OPIOID AND OTHER DRUG-RELATED DEATHS

The overall number of drug overdose deaths in King County has increased in recent years. The number of overdose deaths was 332 in 2016, compared to 244 in 2010. Prescription opioid deaths have decreased but heroin- and methamphetamine-involved deaths have increased.

- There were 107 prescription opioid-involved deaths in 2016, compared to 138 in 2010.
- Heroin-involved deaths have more than doubled – from 51 to 118 – between 2010 and 2016.
- Methamphetamine-involved deaths in King County have increased dramatically in recent years, from 15 deaths in 2010 to 98 deaths in 2016.

INJECTION DRUG USE

Public Health-Seattle & King County (PHSKC) conducts a biannual survey of needle-exchange clients to monitor demographics, health, and behavior trends among people who inject drugs. In June 2017, PHSKC needle-exchange staff surveyed 427 needle-exchange clients. Among these respondents:

- The primary drug of choice was heroin or other opiates (64% of respondents), followed by methamphetamine (17%), or methamphetamine and heroin combined (10%).
- 20% of respondents had experienced a non-fatal overdose in the past 12 months.
- 62% reported owning a naloxone opioid overdose reversal kit in the past 12 months, an increase from 47% in 2015. In 2017, 30% of all respondents reported using naloxone to reverse an overdose.
- While 78% were interested in reducing or stopping opioid use and 62% were interested in stopping or reducing stimulant use, only 28% were currently in treatment for substance use disorder.

Pregnancy & Birth



King County
Community Health
Needs Assessment
2018/2019

A healthy community is one that ensures that all children thrive and reach their full potential. A mother's mental, physical, emotional, and socioeconomic well-being – before, during, and after pregnancy – can affect outcomes in infancy, childhood, and adulthood. Improving the health of mothers, infants, and children is a global public health concern and a priority in King County. Successful pregnancies and births are markers of overall community health. While King County has made progress in decreasing rates of poor birth outcomes, disparities persist, particularly among Black and American Indian/Alaska Native populations.

Infants born to Black or American Indian/Alaska Native mothers were more than twice as likely as those born to Asian or white mothers to die before their first birthday.

EARLY AND ADEQUATE PRENATAL CARE

Starting prenatal care early in pregnancy and continuing with regular visits improves the chances of a healthy pregnancy and birth. This indicator measures births for which i) prenatal care started before the end of the 4th month and ii) 80% or more of the recommended number of visits occurred.

From 2011 to 2015, more than 7 out of 10 expectant mothers (71.7%) received early and adequate prenatal care, a slight increase from the 2008-2012 average (69.7%) reported previously. King County has not yet achieved the Healthy People 2020 objective that at least 77.6% of pregnant women receive early and adequate prenatal care.

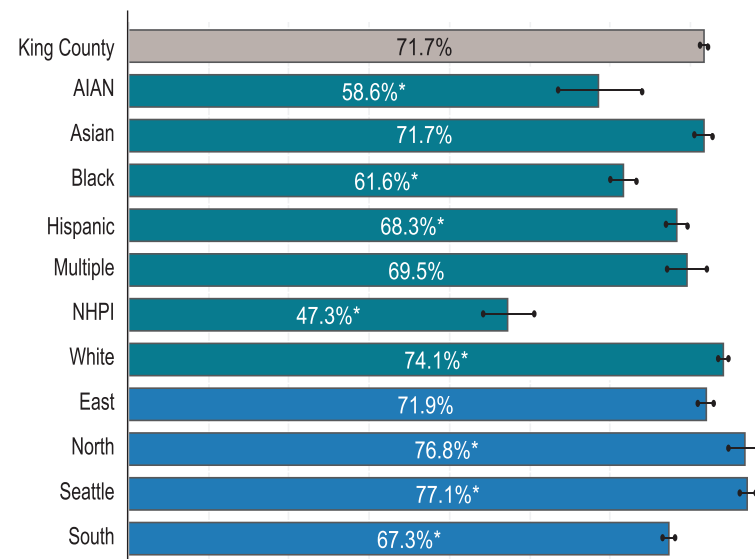
- The chances of receiving early and adequate prenatal care increased with age, from a low of 55.2% among mothers younger than 18 to 77.2% for mothers age 40 and older.

- American Indian/Alaska Native, Black, Hispanic, and Native Hawaiian/Pacific Islander mothers were less likely than Asian and white mothers to receive early and adequate prenatal care. These disparities have not changed since the previous report.

- The probability of mothers receiving early and adequate prenatal care was lowest in high-poverty neighborhoods and highest in the most prosperous neighborhoods.

- Since 2000, early and adequate care has increased in Seattle and decreased in East Region. After a 7-year decline, South Region has rebounded to its 2000 level.

**Early and adequate prenatal care
King County (average: 2011-2015)**



Source: Birth certificate data, Washington State Department of Health, Center for Health Statistics

* Significantly different from King County average

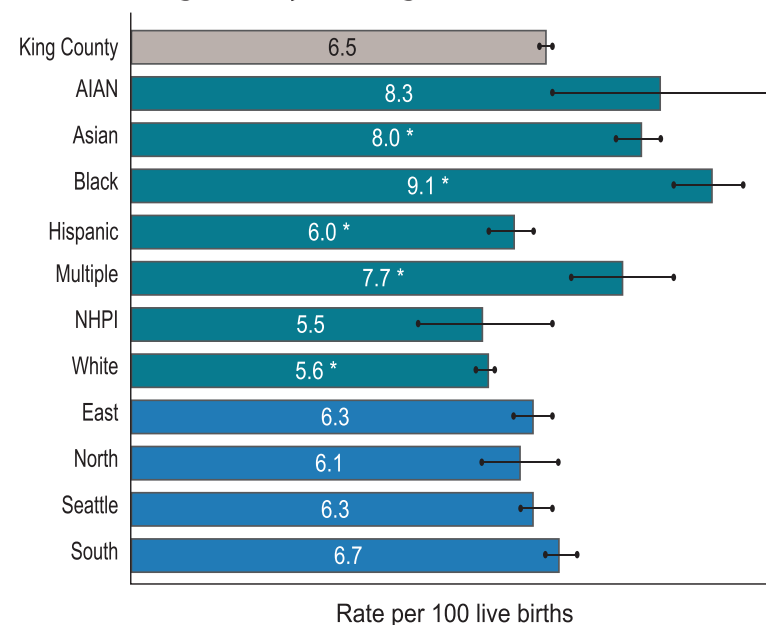
LOW BIRTH WEIGHT

Any infant born weighing less than 2500 grams (about 5.5 pounds) is considered low birth weight. Low birth weight infants are at higher risk of infant mortality, respiratory disorders, and neurodevelopmental disabilities.

From 2011 to 2015, 6.5% of infants born in King County were low birth weight – unchanged since the previous report.

- Although King County meets the Healthy People 2020 objective of 7.8% or fewer infants born at low weight, 1,646 low birth weight babies were born in King County in 2015.
- Infants born to Black mothers were more likely to be low birth weight than infants born to mothers of all other racial/ethnic groups (except American Indians/Alaska Natives).
- After increasing in the early 2000s, rates of low birth weight in King County plateaued from 2006 to 2015. Although patterns vary somewhat across King County regions, in no region has the rate of low birth weight infants consistently declined.

**Low birth weight (all births)
King County (average: 2011-2015)**



Source: Birth certificate data, Washington State Department of Health, Center for Health Statistics

* Significantly different from King County average

INFANT MORTALITY

The infant mortality rate is the number of babies who die before their first birthday per 1,000 live births in a given year. More than half of infant deaths are associated with labor and delivery-related conditions, birth defects, and prematurity. Because many of these deaths are preventable, infant mortality is a measure of the overall health of a population.

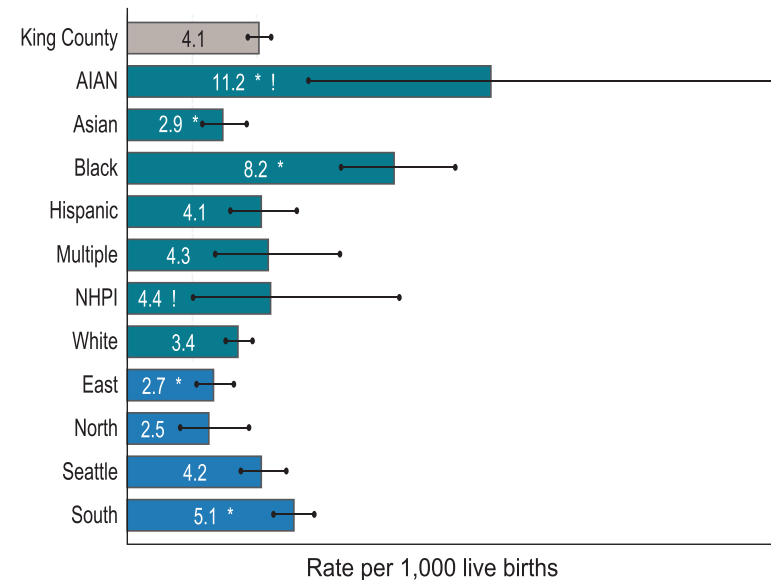
From 2011 to 2015, King County’s average infant mortality rate was 4.1 deaths per 1,000 live births – representing no change since the last report. Infant mortality in King County has declined since 2000.

- Infants born to Black or American Indian/Alaska Native mothers were more than 2.5 times as likely as those born to Asian or white mothers to die before their first birthday. In a change from the last report, babies born to multiple-race mothers were no more likely than those born to white mothers to die in infancy.

- The infant mortality rate in low-poverty neighborhoods was just 60% of the rate in high-poverty neighborhoods. An increasing proportion of King County’s high-poverty neighborhoods are in South Region, where the infant mortality rate exceeds the rates for East and North Regions.

- Infants born to mothers age 24 and younger are more likely than those born to older mothers to die in their first year.

Infant mortality
King County (average: 2011-2015)



Source: Linked birth-death certificate data, Washington State Department of Health, Center for Health Statistics

* Significantly different from King County average

! Interpret with caution; sample size is small, so estimate is imprecise

Physical Activity, Nutrition, & Weight



King County
Community Health
Needs Assessment
2018/2019

Physical inactivity, unhealthy diet, and obesity – all have been identified as risk factors for heart disease, cancer, and stroke, which are leading causes of death in King County. Physical inactivity, unhealthy diet, and obesity can also increase the risk of developing type 2 diabetes – the leading cause of blindness and kidney failure in the United States. Each of these risk factors is an appropriate target for prevention-focused interventions. As with many leading causes of death and disability, disparities by race/ethnicity, economic status, and geographic location are common and in some instances are increasing.

Fewer than 1 in 4 students in 8th, 10th, and 12th grades get the recommended 60 or more minutes of daily physical activity.

Physical Activity, Nutrition, & Weight

Continued

PHYSICAL ACTIVITY: YOUTH AND ADULTS

Regular physical activity helps control weight, strengthen bones and muscles, and boosts mental health and academic performance. It also reduces the risks of many chronic illnesses and, for older adults, improves their ability to conduct daily activities and helps prevent falls.

Youth Physical Activity

In 2014 and 2016, fewer than 1 in 4 students in 8th, 10th, and 12th grades got the recommended 60 or more minutes of daily physical activity. The Healthy People 2020 goal is 31.6% of adolescents meeting physical activity requirements.

■ As grade level increased, student participation in physical activity declined; by 12th grade, only 18% of students met recommendations.

■ At all grade levels, female students were significantly less likely than male students to meet physical activity recommendations; by 12th grade, only 12% of female students met recommendations.

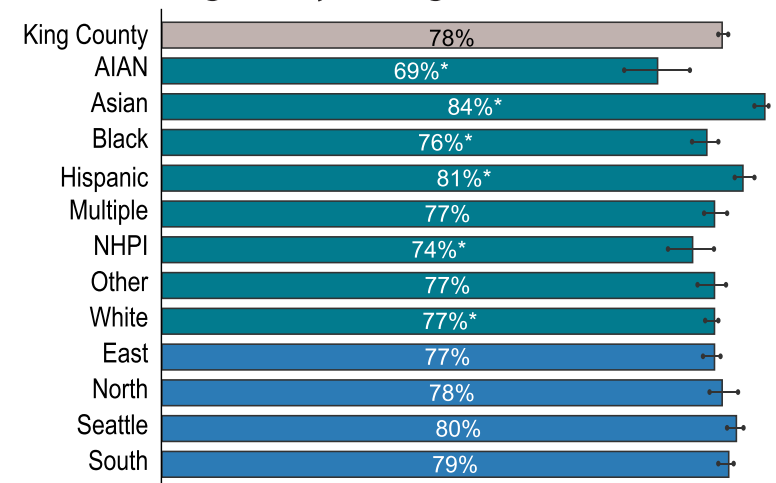
■ Since 2006, the proportions of students meeting physical activity recommendations have increased for the county, in all 4 regions, and for all racial/ethnic groups. But the rate of improvement is slow, and there is still a long way to go to reach suggested standards.

APPENDIX 23

KING HEALTH NEED ASSESSMENT 2018/2019

Physical activity recommendation not met (school-age)

King County (average: 2014 & 2016)



Source: Healthy Youth Survey

* Significantly different from King County average

Physical Activity, Nutrition, & Weight

Continued

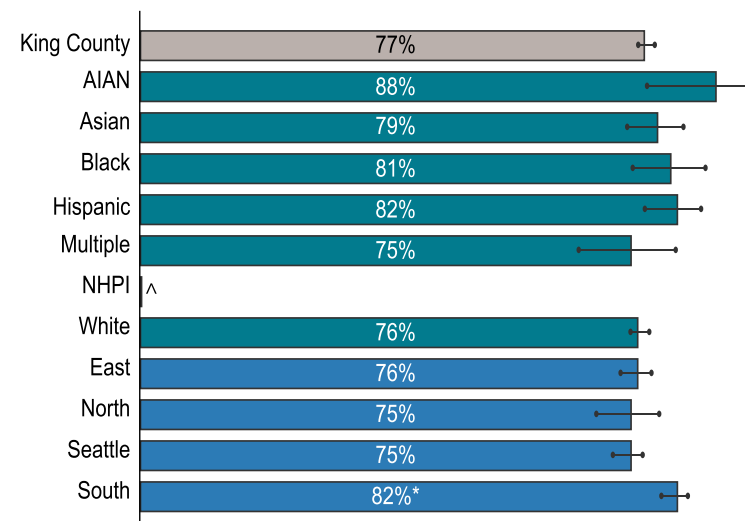
Adult Physical Activity

As with youth, fewer than 1 in 4 King County adults met federal physical activity recommendations (between 2011 and 2015), defined as muscle-strengthening exercises on 2 or more days per week and either 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity aerobic activity per week.

- This rate has been consistent, without significant improvement since 2009.
- There were no significant differences by race/ethnicity – in no group did more than 25% of adults meet physical activity recommendations.

Physical activity recommendation not met (adults)

King County (average: 2011-2015)



Source: Behavioral Risk Factor Surveillance System

* Significantly different from King County average

^ Data is suppressed if too few cases to protect confidentiality and/or report reliable rates

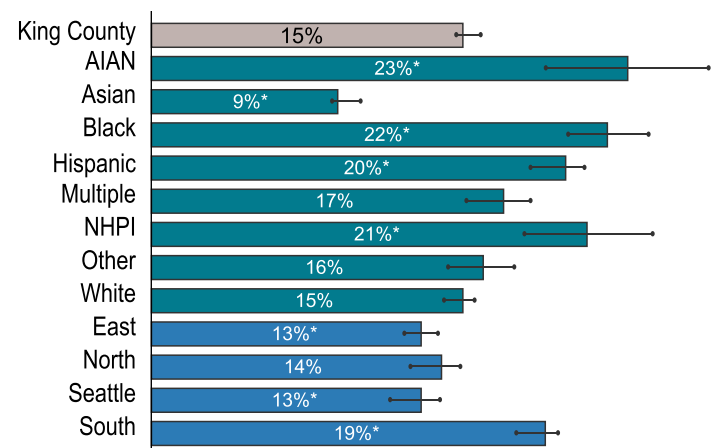
SUGAR-SWEETENED BEVERAGE CONSUMPTION: YOUTH

Drinking sugar-sweetened beverages is associated with weight gain, dental cavities, and several chronic illnesses. In 2014 and 2016, an average of 15% of King County students in 8th, 10th, and 12th grades consumed sodas or sugar-sweetened beverages daily. This appears to continue a steady decline from 2004, when almost half of King County students reported drinking at least one soda on the previous day (changes in the question’s recall period – previous day vs. the previous week – precludes direct comparison or trend analysis). To further curb consumption of these beverages, as of January, 2018, Seattle joins Philadelphia, San Francisco, and other cities in taxing sodas and other sugary drinks.

- Male students were 1.7 times more likely than females to drink sodas or sugar-sweetened beverages daily.
- Hispanic, Native Hawaiian/Pacific Islander, Black, American Indian/Alaska Native, and multiple-race students were more likely than Asians and whites to consume sodas or sugar-sweetened drinks every day.
- South Region students were more likely to report consuming soda daily than students in the other 3 regions.

Drank soda or sugar sweetened beverage daily (school-age)

King County (average: 2014 & 2016)



Source: Healthy Youth Survey

* Significantly different from King County average

OBESITY: YOUTH AND ADULTS

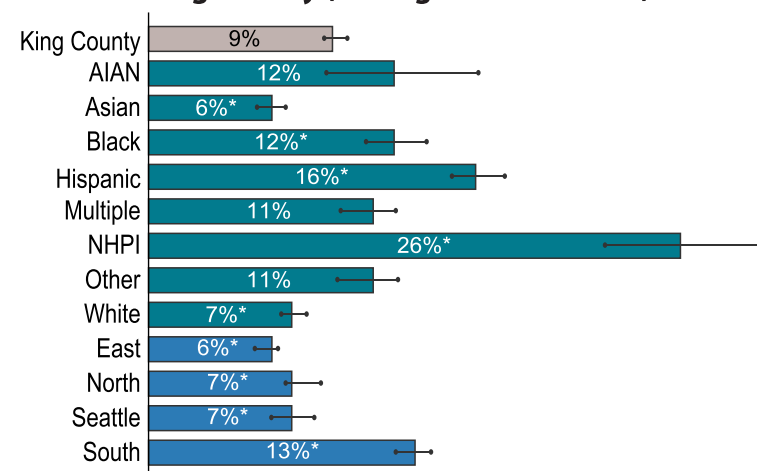
Obesity affects more than a third of American adults and is associated with excess individual medical costs and increased risk of premature death. If obesity trends continue to increase, the United States will be responsible for nearly half of global costs associated with overweight and obesity, which are projected to reach 1.2 trillion by 2025.³⁴

Youth Obesity

Youth are considered obese if their Body Mass Index (BMI) is in the top 5% for their age and gender. Averaging 2014 and 2016 survey data, 9% of King County students attending public schools in 8th, 10th, and 12th grades were obese.

- Asian and white students were less likely to be obese than students of all other racial/ethnic groups. At all three grade levels, Native Hawaiian/Pacific Islander students were 3 to 4 times more likely than Asian or white students to be obese.
- Male students were more likely than female students to be obese.
- At all grade levels, students who identified as lesbian, gay or bisexual were significantly more likely to be obese than heterosexual students.
- While student obesity rates for the county as a whole have been flat since 2004, obesity rates for students in South Region have increased.

Obesity (school-age)
King County (average: 2014 & 2016)



Source: Healthy Youth Survey

* Significantly different from King County average

Physical Activity, Nutrition, & Weight

Continued

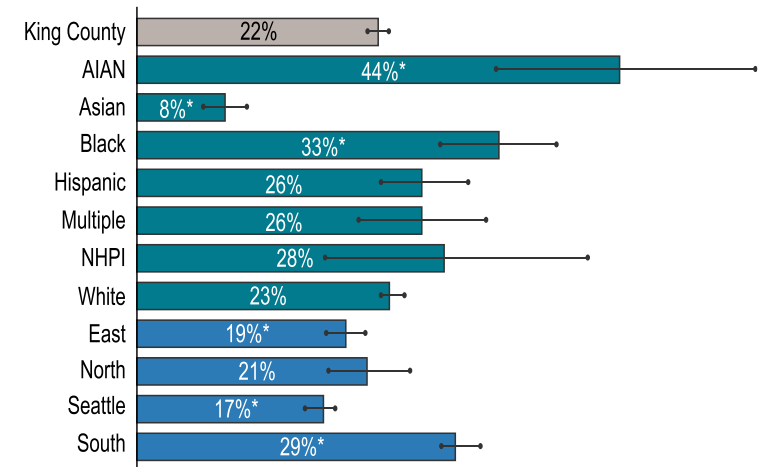
Adult Obesity

Obesity rates among King County adults increased from 2000 to 2009, but have been relatively stable since 2009. In the 2011-2015 period, as in previous years, 22% of King County adults were obese, reporting a Body Mass Index (BMI) greater than or equal to 30.

- Asian residents had the lowest obesity rates. With the highest rates in the county, American Indian/Alaska Native residents were 5.5 times more likely than Asians, and twice as likely as whites, to be obese.
- At 28%, obesity is most prevalent among residents with the lowest annual household incomes (less than \$15,000), and least prevalent among those with annual household income greater than \$75,000 (19%).
- Although the overall obesity rate in King County plateaued after 2009, obesity rates among Hispanic and American Indian/Alaska Native residents continued to increase through 2015.

Obesity (adults)

King County (average: 2011-2015)



Source: Behavioral Risk Factor Surveillance System

* Significantly different from King County average

Violence & Injury Prevention



King County
Community Health
Needs Assessment
2018/2019

This section reports on hospitalizations from unintentional injuries and on hospitalizations and deaths related to suicide. Unintentional injuries account for 82% of the total injury hospitalizations in King County, with falls accounting for the majority of those hospitalizations. Suicide measures presented here are also relevant to mental health. For every case that results in hospitalization or death, many more injuries and suicide attempts are never reported. Hospitalization data exclude cases where emergency department treatment was received but the patient was not admitted to the hospital.

Data describing additional causes of hospitalization and death from intentional and unintentional injuries are available at <http://www.kingcounty.gov/health/indicators>.

The rate of suicide in King County is almost 5 times the homicide rate.

Violence & Injury Prevention

Continued

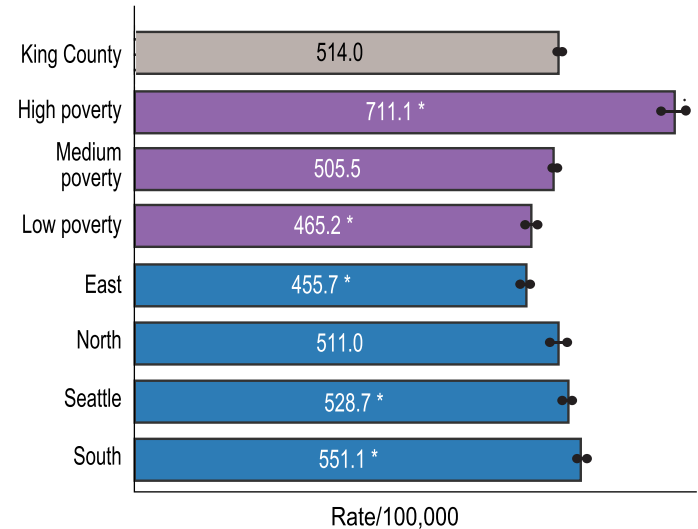
UNINTENTIONAL INJURY HOSPITALIZATIONS

In 2015, the most recent year for which we have data, King County hospitals reported a total of 10,832 admissions for unintentional injuries^{vi} (excluding deaths) – a rate of 519.4 hospitalizations per 100,000 population. The county’s 2011-2015 average annual rate was 514 per 100,000, down from the 2008-2012 average annual rate of 526.9 per 100,000 population.

- Adults in high-poverty neighborhoods were more likely than those in medium- or low-poverty neighborhoods to be hospitalized for unintentional injuries.
- For adults age 65 and older, the rate of hospitalization for unintentional injury was 4.2 times the county average.
- Overall, the county rate has declined since 2000, driven in part by a significant decline in South Region, though South Region rates remain higher than the other regions.

^{vi}Included are injuries due to falls, fire, firearms, drowning, motor vehicle collision, poisoning, and suffocation.

Unintentional injury hospitalizations King County (average: 2011-2015)



Source: Washington State Department of Health, Office of Hospital and Patient Data Systems

* Differs significantly from King County average

SUICIDE DEATHS

From 2011-2015, an average of 255 suicide deaths occurred in King County each year. The 2011-2015 average suicide death rate in King County was 12.2 per 100,000 population, compared to 11.5 per 100,000 population in 2008-2012.

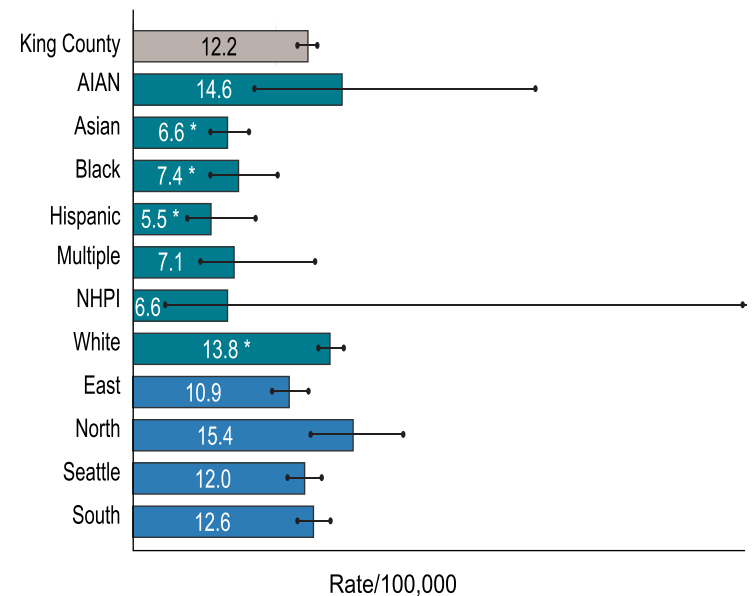
- Over the same 2011-2015 period, King County's average annual suicide rate was 4.5 times the homicide rate, which was 2.7 deaths per 100,000 population.
- The suicide death rate for adults age 45 and older was 1.5 times the county average.
- Males were 2.8 times more likely than females to die from suicide.
- The suicide rates for Hispanic, Asian, and Black populations were significantly lower than the county average, while the rate for whites exceeded the county average at 13.8 per 100,000. A very different pattern emerged for homicide deaths, where the average annual rate for Black residents (14.1 per 100,000 population) was 5.2 times the county average.
- The average suicide rate among American Indians/Alaska Natives (AIAN) was 14.6 per 100,000 population – the highest of all racial/ethnic groups, but this

difference failed to reach statistical significance, at least partially due to the small size of King County's AIAN population.

- The King County suicide death rate has been rising since 2000, driven primarily by a steady upward trend in South Region.

Suicide

King County (average: 2011-2015)



Source: Washington State Department of Health, Center for Health Statistics, Death Certificates

*Differs significantly from King County average

SUICIDE HOSPITALIZATIONS

From 2011-2015, an average of 808 non-fatal suicide hospitalizations occurred in King County each year, for an average rate of 39.6 per 100,000 population. The 2008-2012 average rate was 41.5 per 100,000 population.

- The suicide hospitalization rate among adults age 18-24 was significantly higher than all other age groups, and 1.7 times the county average. County residents in the youngest (less than 18 years old) and oldest (65+ years) age groups were least likely to be hospitalized for suicide.

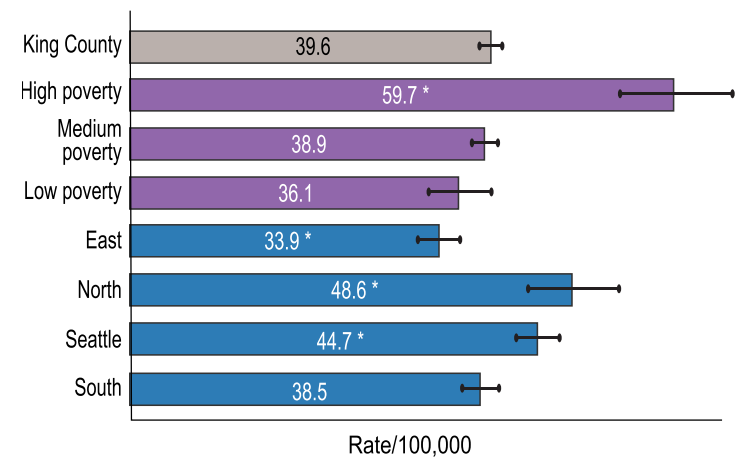
- Adults living in high-poverty neighborhoods were 1.7 times more likely than those in low-poverty areas to be hospitalized for suicide.

- Female residents were 1.6 times more likely than males to be hospitalized after a suicide attempt – the reverse of the pattern for suicide completions.

- Adults in North Region and Seattle were more likely than those in South and East regions to be hospitalized for suicide.

- Suicide hospitalization rates for the county as a whole decreased from 2000-2015. Over the same period, rates increased in East Region and decreased in South Region.

**Suicide hospitalizations
King County (average: 2011-2015)**



Source: Washington State Department of Health, Office of Hospital and Patient Data Systems

* Differs significantly from King County average

REFERENCES

1. Angela Glover Blackwell on the American Dream. Moyers & Company. 2012. <http://billmoyers.com/segment/angela-glover-blackwell-on-the-american-dream/>. Accessed October 28, 2017.
2. Deaton A. On death and money: History, facts, and explanations. *JAMA*. 2016; 315(16):1703-5.
3. Aging in King County: Profile of the Older Population. Area Agency on Aging for Seattle and King County - Aging and Disability Services. <http://www.agingkingcounty.org/data-reports/age-related-population-data/>. Published 2017. Accessed October 29, 2017.
4. Centers for Medicare & Medicaid Services. National Health Expenditure Fact-Sheet. National Health Expenditure Data. <https://www.cms.gov/research-statistics-data-and-systems/statistics-trends-and-reports/nationalhealthexpenddata/nhe-fact-sheet.html>. Published 2017. Accessed October 29, 2017.
5. Miller G, Merlo C, Demissie Z, Sliwa S, Park S. Trends in beverage consumption among high school students — United States, 2007–2015. *MMWR*. 2017;66(4):112-116.
6. Centers for Disease Control and Prevention. Cancers Associated with Overweight and Obesity Make up 40 percent of Cancers Diagnosed in the United States. CDC Online Newsroom. <https://www.cdc.gov/media/releases/2017/p1003-vs-cancer-obesity.html>. Published 2017. Accessed October 29, 2017.
7. Christopher GC, Harris CM, Harris RT, et al. *The State of Obesity: Better Policies for a Healthier America, 2017*. Trust for America's Health; 2017.
8. Nutrition, Physical Activity, and Obesity. Data, Trends, and Maps. Centers for Disease Control and Prevention. https://nccd.cdc.gov/dnpao_dtm/rdPage.aspx?rdReport=DNPAO_DTM.ExploreByLocation&rdRequestForwarding=Form. Accessed November 9, 2017.
9. Balk G. Seattle once again nation's fastest-growing big city; population exceeds 700,000. *Seattle Times*. May 25, 2017: <https://www.seattletimes.com/seattle-news/data/seattle-once-again-nations-fastest-growing-big-city-population-exceeds-700000/>. Accessed November 15, 2017.

End Notes

Continued

10. *Statistical Profile on King County, 2015*. County Executive, Dow Constantine. King County, WA. <http://www.kingcounty.gov/~media/depts/executive/performance-strategy-budget/regional-planning/Demographics/KC-profile2016.ashx?la=en>. Accessed September 21, 2017.
11. Maps of Regions & Cities, Cities & Neighborhoods, School Districts, Census Tracts. King County Geographies. Communities Count: Social & Health Indicators Across King County. <http://www.communitiescount.org/index.php?page=maps-of-regions-cities-health-planning-areas>. Published 2015. Accessed November 2, 2017.
12. Dwyer-Lindgren L, Stubbs RW, Bertozzi-Villa A, et al. Variation in life expectancy and mortality by cause among neighbourhoods in King County, WA, USA, 1990–2014: A census tract-level analysis for the Global Burden of Disease Study 2015. *Lancet Public Health*. 2017;2(9):e400-e410.
13. Vance-Sherman A. King County Profile. *City Profiles*. Employment Security Department, Washington State. 2015. <https://fortress.wa.gov/esd/employmentdata/reports-publications/regional-reports/county-profiles/king-county-profile>. Updated September 2015. Accessed November 2, 2017.
14. U.S. Bureau of Labor Statistics. Unemployment Rate in King County, WA. FRED, Federal Reserve Bank of St. Louis. <https://fred.stlouisfed.org/series/LAUCN530330000000003A>. Published September 8, 2017. Accessed October 25, 2017.
15. Workforce Information and Technology Services. *Monthly Employment Report for October 2017*. Washington State Employment Security Department; 2017.
16. Lewis C. How King County Became one of the Best Affordable Care Act Success Stories in the Country. Executive News. <http://www.kingcounty.gov/elected/executive/constantine/news/release/2016/September/22-uninsured-rate-record.aspx>. Published 2016. Accessed November 3, 2017.
17. Felt C. *King County's Changing Demographics: Investigating Our Increasing Diversity*. Seattle, WA; 2016.
18. De Luna R. Afraid to Get Baby Formula: Immigrants Fear Trump Policies. *KUOW*. <http://kuow.org/post/afraid-get-baby-formula-immigrants-fear-trump-policies>. Published July 23, 2017. Accessed September 15, 2017.

APPENDIX 23

KING HEALTH NEED ASSESSMENT 2018/2019

End Notes

Continued

19. Dorn RI, Kanikeberg K, Burke A. *Educating English Language Learners in Washington State 2009–10 Report to Legislature*. Olympia, WA: Migrant and Bilingual Education - Office of Superintendent of Public Instruction; 2011.
20. Gebeloff R, Evans T, Scheinkman A. Diversity in the Classroom. *New York Times*. December 6, 2016. Accessed September 17, 2017.
21. *2012 Projections - County Growth Management Population Projections by Age and Sex: 2010-2040*. Olympia, WA: Washington State Office of Financial Management, Forecasting Division; 2012.
22. Pan L, Sherry B, Njai R, Blanck HM. Food insecurity is associated with obesity among US adults in 12 states. *J Acad Nutr Diet*. 2012;112(9):1403-1409.
23. Basic Food Participation by Age, King County Cities (2002-2016). Communities Count: Social & Health Indicators Across King County. <http://www.communitiescount.org/index.php?page=basic-food-viz>. Published 2017. Accessed November 2, 2017.
24. Food Bank Visits, King County (2002-2016). Communities Count: Social & Health Indicators Across King County. <http://www.communitiescount.org/index.php?page=food-bank-visits>. Published 2017. Accessed November 2, 2017.
25. Light Rail Transforms Tukwila Commute. Communities Count: Social & Health Indicators Across King County. <http://www.communitiescount.org/news/?m=201606>. Published 2016. Accessed November 2, 2017.
26. Applied Survey Research. *Count Us In: Seattle/King County Point-In-Time Count of Persons Experiencing Homelessness*. Seattle, WA: All Home; 2017.
27. Student Homelessness: Summary & Data Highlights. Communities Count: Social & Health Indicators Across King County. <http://www.communitiescount.org/index.php?page=student-homelessness>. Published 2017. Accessed October 12, 2017.
28. Partners for Our Children. Children in Out-of-Home Care (Count). Child Well-Being Data Portal. <http://www.vis.pocdata.org/graphs/ooh-counts>. Published 2017. Accessed November 2, 2017.
29. Paradies Y, Ben J, Denson N, et al. Racism as a determinant of health: A systematic review and meta-analysis. *PLoS One*. 2015;10(9):e0138511.
30. Williams DR, Mohammed SA. Discrimination and racial disparities in health: Evidence and needed research. *J Behav Med*. 2009;32(1):20-47.

APPENDIX 23

KING HEALTH NEED ASSESSMENT 2018/2019

End Notes

Continued

31. Bailey ZD, Krieger N, Agénor M, Graves J, Linos N, Bassett MT. Structural racism and health inequities in the USA: Evidence and interventions. *Lancet*. 2017;389(10077):1453-1463.
32. Institute of Medicine (US). Committee on Monitoring Access to Personal Health Care Services; Millman ML, editor. *Access to Health Care in America*. Washington (DC): National Academies Press (US); 1993. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK235888/>
33. Health Insurance. Communities Count: Social & Health Indicators Across King County. <http://www.communitiescount.org/index.php?page=health-insurance>. Published 2015. Accessed October 12, 2017.
34. Boseley S. 2025, Global cost of obesity-related illness to hit \$1.2tn a year from 2025. *The Guardian*. <https://www.theguardian.com/society/2017/oct/10/treating-obesity-related-illness-will-cost-12tn-a-year-from-2025-experts-warn>. Published October 9, 2017. Accessed October 20, 2017.

Appendix A: Methods

APPENDIX A: IDENTIFICATION OF HEALTH NEEDS & SELECTION OF INDICATORS

For the previous 2015/2016 King County Community Health Needs Assessment, a committee of representatives from Hospitals for a Healthier Community (HHC), facilitated by Public Health-Seattle & King County (PHSKC) staff, used a community health framework and population-based approach for the report to identify health needs and develop criteria for indicators used to measure health needs. The group finalized the selection of indicators with feedback from public health and hospital staff.

Committee members planned a succinct report focused on key indicators that relate to the hospitals' and communities' assets and resources and inform future collective strategies. These indicators were to be focused on population-based preventive strategies and promote policy/systems/environmental change for maximum population health impact. It was also recognized that partnerships between hospitals, community organizations, and communities are key to successful strategies to address common health needs.

Committee members from HHC and other representatives served as subject matter experts and helped identify population-level health needs.

To identify community concerns and assets, they interviewed stakeholders, consulted recent community-based reports, and pulled information from previous hospital CHNAs. The group reached consensus to focus particularly on access to care, preventable causes of death, maternal and child health, behavioral health, and violence & injury prevention. While hospitals and health systems reached consensus on a core set of topic areas, each hospital may also gather additional information specific to its service area.

Recognizing that the CHNA is not intended to provide comprehensive data for each specialized topic, indicators were selected according to the following criteria:

1. Availability of high-quality data that are population-based (where possible), measurable, accurate, reliable, and regularly updated. Data should focus on rates rather than counts.
2. Ability to make valid comparisons to a baseline or benchmark.
3. Prevention orientation with clear sense of direction for action by hospitals for individual, community,

APPENDIX 23

KING HEALTH NEED ASSESSMENT 2018/2019

Appendix A: Methods

Continued

system, health service, or policy interventions that will lead to community health improvement.

4. Ability to measure progress of a condition or process that can be improved by intervention/policy/system change, and there exists a capacity to affect change.
5. Ability to address health equity, particularly by age, gender, race/ethnicity, geography, socioeconomic status, although not all demographic breakdowns may be available for all indicators.
6. Alignment with local and national healthcare reform efforts including the triple aim.

For the purpose of the 2018/2019 King County CHNA, a committee of HHC representatives, facilitated by PHSKC staff, revisited the original list of indicators and opted to remove a short list of 12 indicators for which timely and/or actionable data are not currently available in King County. A few additional indicators were added to the CHNA to reflect emerging or more widely accepted community health needs, such as the opioid epidemic. All removal and addition of indicators was conducted in a manner consistent with the aforementioned selection criteria.

The final set of indicators were analyzed, using appropriate statistical methods, by Public Health-Seattle & King County. Data were compiled from local, state, and national sources such as the U.S. Census Bureau, U.S. Centers for Disease Control and Prevention, Washington State Department of Health, and King County.

Appendix A: Methods

Continued

King County
Community Health
Needs Assessment
2018/2019

100

Community Assessments and Reports

For the 2018/2019 CHNA, recent reports including broad community needs assessments, strategic plans, or reports on specific health needs were reviewed for context and relevant assets, resources, and opportunities. The following reports were reviewed:

1. [Advancing Equity and Opportunity for King County Immigrants and Refugees: A Report from the King County Immigrant and Refugee Task Force July 7, 2016](#)
2. [Aging and Disability Services 2014 Community Engagement](#)
3. [Aging the LGBTQ Way: A Forum on Equity, Respect & Inclusion, 2017](#)
4. [Allyship 2015 Housing & Safety Survey](#)
5. [Area Plan – Area Agency on Aging, Seattle-King County, 2016-2019](#)
6. [City of Seattle Health and Equity Assessment, June 2016](#)
7. [City of Seattle 2016 Homeless Needs Assessment](#)
8. [Count Us In – Seattle / King County Point-In-Time Count of Persons Experiencing Homelessness, 2017](#)
9. [Creating an Equitable Future in Washington State – Black Well-being and Beyond, 2015](#)
10. [Community Dialogues 2015-2016 Report](#)
11. [Group Health Cooperative Community Health Needs Assessment, 2016-2018](#)
12. [Food Assessment – Kent Washington, September 2016](#)
13. [Generations Aging with Pride: Focus Groups and Town hall feedback](#)
14. [Growing in Solidarity: Examining Food Inequities in Auburn](#)
15. [How King County Tackles Health Food Affordability, Stanford Center on Longevity. 2017](#)
16. [King County, Best Starts for Kids Community Conversations, 2016](#)
17. [King County Equity and Social Justice Strategic Plan, 2016-2022](#)
18. [King County Equity and Social Justice Strategic Plan Community Engagement Report \(December 2015\)](#)
19. [King County Local Food Initiative, 2016 Annual Report](#)
20. [King County Department of Community and Human Services, Unpublished data from community outreach, June – December, 2016](#)
21. [King County Update to Regional Health Improvement Plan, April 2016](#)

APPENDIX 23

KING HEALTH NEED ASSESSMENT 2018/2019

Appendix A: Methods

Continued

22. [King County Youth Action Plan, 2015](#)
23. Living Well Kent Focus Group Executive Summary, December 2015
24. [MultiCare Auburn Medical Center - Community Health Needs Assessment and Implementation Strategy, 2016](#)
25. [Northwest Hospital & Medical Center Community Health Needs Assessment 2016](#)
26. [Overlake Medical Center, Community Health Needs Assessment 2014-2015](#)
27. [Positive Aging – Sound Generations 2015-2016 Annual Report](#)
28. [2017 Seattle Chinatown-International District Public Safety Survey Report](#)
29. [Seattle Cancer Care Alliance Community Health Needs Assessment, 2016](#)
30. [Seattle Children’s Hospital 2016 Community Health Assessment](#)
31. [Seattle Chinatown-International District 2020 Healthy Community Action Plan](#)
32. [Seattle Youth Violence Prevention Needs Assessment, 2015](#)
33. [Swedish Community Health Needs Assessment 2016-2018](#)
34. [Swedish Community Health Needs Assessment – Ballard, 2016-2018](#)
35. [Swedish Community Health Needs Assessment – Edmonds, 2016](#)
36. [Swedish Community Health Needs Assessment – First Hill Campus and Cherry Hill Campus, 2016-2018](#)
37. [Swedish Community Health Needs Assessment – Issaquah, 2016-2018](#)
38. [Swedish Community Health Needs Assessment – Swedish Cancer Institute, 2016-2018](#)
39. [Transportation and Health Tool \(US Department of Transportation\)](#). Updated October 27, 2015
40. [Valley Medical Center 2017 Community Health Needs Assessment](#)
41. [Virginia Mason Community Health Needs Assessment 2016-2018](#)
42. [Voices Rising: African American Economic Security in King County, February 2017](#)
43. [Washington Hospital Healthcare System Community Health Needs Assessment, 2016](#)
44. [2015 Washington State Housing Needs Assessment](#)
45. [White Center Community Development Association, 2016 Community Survey Report](#)

APPENDIX 23

KING HEALTH NEED ASSESSMENT 2018/2019

Appendix B: Report Definitions & Structure



For each indicator, this report includes:

- A description of the indicator
- Overall estimate for King County
- Multiple-year averaged estimates for select sub-populations (e.g. race/ethnicity and region) in either a bar chart or map
- Narrative interpretation that highlights important findings – typically of disparities (by race, place, income, gender, or sexual orientation) and trends

The Community Health Indicators website includes enhanced information for each indicator in the report and additional indicators including (where applicable):

- King County estimate from the most recent year available, including rate and number of people affected (this estimate may differ from the multiple-year averaged estimates presented in the report).
NOTE: This is typically the only single-year data presented; for most analyses, data from multiple years are combined to improve the reliability of the estimates.

- A bar chart that shows multiple-year averaged estimates for all demographic breakdowns (e.g. age, gender, region, race/ethnicity, and income or neighborhood poverty level as a measure of socioeconomic status).
- A map of multiple-year averaged estimates by neighborhoods/cities, ZIP codes, or regions.
- A line chart of rolling-averaged estimates for King County and each region over time to show trends (please see definition of rolling averages below).
- More detail about each data point appears in a tool tip box when the pointer hovers on a bar or line.
- The following symbols are used in graphs throughout the report (*, ^, !):
 - * Denotes values that are significantly different from the King County average
 - ^ There are too few cases to protect confidentiality and/or report reliable rates
 - ! While rates are presented, there are too few cases to meet a precision standard, and results should be interpreted with caution.
- To protect confidentiality, presentation of data follows reliability and suppression guidelines.

Appendix B: Report Definitions & Structure

Continued

King County
Community Health
Needs Assessment
2018/2019

103

Confidence Interval (also known as error bar) is the range of values that includes the true value 95% of the time. If the confidence intervals of two groups do not overlap, the difference between groups is considered statistically significant (meaning that chance or random variation is unlikely to explain the difference). For some indicators, primarily those from the Census or the American Community Survey, results are reported with a 90% confidence interval, showing the range that includes the true value 90% of the time.

Confidence intervals on the CHI website are turned off by default. Users may turn them on by clicking the appropriate radio button.

Crude, Age-Specific, and Age-Adjusted Rates

- Rates are usually expressed as the number of events per 100,000 population. When this applies to the total population (all ages), the rate is called the **crude rate**.
- Infant mortality, maternal smoking, and other maternal/child health measures are calculated with live births as the denominator and presented as a rate per 1,000 live births (infant mortality) or percent of births (preterm, low birth weight, etc.).
- When the rate applies to a specific age group (e.g., age 15-24), it is called the **age-specific rate**.

- The crude and age-specific rates present the actual magnitude of an event within a population or age group.
- When comparing rates between populations, it is useful to calculate a rate that is not affected by differences in the age composition of the populations. This is the **age-adjusted rate**. For example, if a neighborhood with a high proportion of older people also has a higher-than-average death rate, it will be difficult to determine if that neighborhood's death rate is higher than average for residents of all ages or if it simply reflects the higher death rate that naturally occurs among older people. The age-adjusted rate mathematically removes the effect of the population's age distribution on the indicator.
- Prevalence rates from the Behavioral Risk Factor Surveillance Survey (BRFSS) are expressed as percent of the adult population, usually ages 18+. Exceptions to the age range are noted. These rates are not age-adjusted.
- Prevalence rates from the Healthy Youth Survey (HYS) are for public school students in the specified grades, and weighted to the population. HYS is only asked of students in grades 6 (abbreviated version), 8, 10, and 12 every other year.

APPENDIX 23

Appendix B: Report Definitions & Structure

Continued

King County
Community Health
Needs Assessment
2018/2019

104

Geographies: Whenever possible, indicators are reported for King County as a whole and for 4 regions within the county. If enough data are available for a valid analysis, they may also be reported by smaller geographic areas (cities, neighborhoods within large cities, and groups of smaller cities and unincorporated areas). Education data are reported by school district. For more detail, plus maps, see [About King County Geographies](#) or our geographic definitions page.

Cities/Neighborhoods (also known as Health Reporting Areas or HRAs): In 2011, new King County Health Reporting Areas (HRAs) were created to coincide with city boundaries in King County. These areas, recently re-named “Cities/Neighborhoods,” are based on aggregations of U.S. Census Bureau-defined blocks. Where possible, Cities/Neighborhoods correspond to cities and, for larger cities, to neighborhoods within cities, and delineate unincorporated areas of King County. These geographical designations were created to help cities and planners as they consider issues related to local health status or health policy. Cities/Neighborhoods are used whenever we have sufficient sample size to present the data. These are represented in the report as “city/neighborhood” data.

Federal Poverty Guidelines, issued by the Department of Health and Human Services, are a simplified version of the federal poverty thresholds.

The guidelines are used to determine financial eligibility for various federal, state, and local assistance programs. For a family of 4, the federal poverty guideline was \$24,250 in 2015; in 2016 it was \$24,300.

Neighborhood poverty levels are based on the proportion of households in a Census tract in which annual household income (as reported in the U.S. Census Bureau’s American Community Survey) falls below the federal poverty threshold.

- **High poverty:** 20% or more households in the neighborhood below poverty threshold. Using this criterion, 14.0% of King County households are in high-poverty neighborhoods.
- **Medium poverty:** 5% to 19% of households below poverty threshold. Using this criterion, 62.7% of King County households are in medium-poverty neighborhoods.
- **Low poverty:** fewer than 5% of households below poverty threshold. Using this criterion, 23.3% of King County households are in low-poverty neighborhoods.

*An interactive [map of King County census tracts](#) can be found on the Communities Count website (<http://www.communitiescount.org/>)

This neighborhood-level characteristic is used where individual measures of income or poverty level are not available. The high-poverty area follows the

Appendix B: Report Definitions & Structure

Continued

definition of a Federal Poverty Area. The 5% limit for low-poverty areas was chosen to create a group markedly different from Federal Poverty Areas, and thus sensitive to differences in health outcomes that may be associated with socio-economic differences, while maintaining enough tracts in each group for robust comparisons.

For area-based measures of poverty, a census tract is considered a neighborhood. Data sources where census tract information are not available use ZIP codes to designate the neighborhood.

Race/Ethnicity and Discrimination: Race and ethnicity are markers for complex social, economic, and political factors that can influence community and individual health in important ways. Many communities of color have experienced social and economic discrimination and other forms of racism that can negatively affect the health and well-being of these communities. We continue to analyze and present data by race/ethnicity because we believe it is important to be aware of racial and ethnic group disparities in these indicators.

Race/Ethnicity Terms: Federal standards mandate that race and ethnicity (Hispanic origin) are distinct concepts requiring 2 separate questions when collecting data from an individual. "Hispanic origin" is meant to capture the heritage, nationality group,

lineage, or country of birth of an individual (or his/her parents) before arriving in the United States. Persons of Hispanic ethnicity can be of any race. 2010 Census terms: (One race) white, Black or African-American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, Some Other Race; (Two or more races); Hispanic or Latino origin, White alone (Not Hispanic or Latino). Persons of Hispanic ethnicity are also counted in their preferred race categories. Racial/ethnic groups are sometimes combined when sample sizes are too small for valid statistical comparisons of more discrete groups. For small groups (American Indian and Alaska Native, Native Hawaiian and Other Pacific Islander) in which a high proportion of King County residents are that race and one or more others, the grouping, "(race) alone or in combination" is sometimes used to include all who identify as that group.

Some surveys collect racial/ethnic information using only one question on race. These terms are:

Terms: Hispanic, white non-Hispanic, Black, American Indian/Alaska Native (AIAN), Asian, Native Hawaiian/Pacific Islander (NHPI), white, and Multiple Race (Multiple).

Appendix B: Report Definitions & Structure

Continued

King County
Community Health
Needs Assessment
2018/2019

106

Limitations of Race/Ethnicity Categories: When asked to identify their race and ethnicity in surveys, respondents are often offered a narrow range of options (see terms above); those broad categories are then used to make expansive racial/ethnic comparisons. The vast diversity within racial/ethnic categories does not allow us to distinguish among ethnic groups or nationalities within categories.

Combining groups with wide linguistic, social, and cultural differences – such as African immigrants and Black Americans; Vietnamese, Korean, and East Indians in one Asian category; and white Americans with eastern Europeans, for example – does not allow for a careful analysis of the potential disparities within groups, or the varied sociocultural influences on those disparities. In addition, some racial/ethnic samples in King County are too small for meaningful comparisons or generalizations.

Rolling Averages: When the frequency of an event varies widely from year to year, or sample sizes are small, the yearly rates are aggregated into averages – often in 3-year intervals – to smooth out the peaks and valleys of the yearly data in trend lines. For example, for events occurring from 2001 to 2015, rates may be graphed as three-year rolling averages: 2001-2003, 2002-2004...2011-2015. Adjacent data points will contain overlapping years of data. Statistical tests comparing data points with overlapping times are not appropriate. Increases or decreases in rates are determined statistically using data for single years.

Rounding Standards: Rates from the Behavioral Risk Factor Surveillance Survey (BRFSS) and Heathy Youth Survey (HYS) are rounded to the nearest full integer (for example, 15%). Vital statistics and hospitalization rates are rounded to one decimal point (for example, 15.4%), as are estimates from the American Community Survey (ACS)/Census.

Statistical Significance: Differences between sub-population groups and the overall county are examined for each indicator. Unless otherwise noted, all differences mentioned in the text are statistically significant (unlikely to have occurred by chance).

The potential to detect differences and relationships (termed the statistical power of the analysis) is dependent in part on the number of events and size of the population, or, for surveys, the number of respondents, or sample size. Differences that do not appear to be significant might reach significance with a large enough population or sample size.

Citation Request:

The data published in this Community Health Needs Assessment report and on the Community Health Indicators website may be reproduced without permission. Please use the following citation when reproducing:

*“Retrieved (date) from Public Health – Seattle & King County, Community Health Indicators.
www.kingcounty.gov/health/indicators”*

Appendix C: About Hospitals for a Healthier Community



King County
Community Health
Needs Assessment
2018/2019

107

A collaborative of hospitals and health systems and Public Health - Seattle & King County have joined forces to identify the greatest needs of the communities they serve and develop plans to address them. Working together they leverage their expertise and resources to address the most critical health needs in our county. A shared approach to community benefits can avoid duplication and focus available resources on a community's most important health needs.

Current Priorities

Access to care: Members continue to prioritize Medicaid expansion and ensure that residents have access to health insurance through Washington Healthplanfinder (<https://www.wahealthplanfinder.org/>).

Needs assessment: Members are working together to assess the health needs of our King County communities and will develop strategies to address these priority areas. The collaborative report will be presented and available to the public in 2018. Individual hospitals will also be publishing their own community health needs assessments.

Participating Hospitals and Health Systems

EvergreenHealth

CHI Franciscan Health

St. Elizabeth Hospital
St. Francis Hospital
Highline Medical Center
Regional Hospital

Kaiser Permanente

MultiCare Health System

Auburn Medical Center
Covington Medical Center

Navos

Overlake Medical Center

Seattle Cancer Care Alliance

Seattle Children's

Swedish Medical Center

Ballard Campus
Cherry Hill Campus
First Hill Campus
Issaquah Campus

UW Medicine

Harborview Medical Center
Northwest Hospital & Medical Center
UW Medical Center
Valley Medical Center

Virginia Mason

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 24
MELANOMA SURVIVAL &
COSTS**

Survival and Cost-Effectiveness of Hospice Care for Metastatic Melanoma Patients

May 20, 2014

[Jinhai Huo, PhD, MD, MPH](#) , [David R. Lairson, PhD](#) , [Xianglin L. Du, MD, PhD](#) , [Wenyaw Chan, PhD](#) , [Thomas A. Buchholz, MD](#) , [B. Ashleigh Guadagnolo, MD, MPH](#)

The American Journal of Managed Care, May 2014, Volume 20, Issue 5



Hospice care is associated with improved median survival time for the patients diagnosed with metastatic melanoma, accompanied by decreased end-of-life costs.

Objectives

We analyzed the association of hospice use with survival and healthcare costs among patients diagnosed with metastatic melanoma.

Methods

We used the Surveillance, Epidemiology, and End Results (SEER)- Medicare-linked databases to identify patients 65 years or older with metastatic melanoma who died between 2000 and 2009. We analyzed claims data to ascertain cancer treatment utilization and costs. Survival, end-of-life costs, and incremental cost-effectiveness ratio were evaluated using propensity score methods. Costs were analyzed from the payer perspective in 2009 dollars.

Results

Of 862 patients, 225 (26%) received no hospice care, 523 (61%) received 1 to 3 days of hospice care, and 114 (13%) received 4 or more days of hospice care. The median survival time was 6.1 months for patients with no hospice care, 6.5 months for patients enrolled in hospice for 1 to 3 days, and 10.2 months for patients enrolled for 4 or more days ($P < .001$). The hazard ratio for survival among patients with 4 or more days of hospice use was 0.66; 95% confidence interval, 0.54-0.81, $P < .0001$ in the propensity score—matched model. Patients with 4 or more days of hospice care incurred lower end-of-life costs than the comparison groups (\$14,594 vs \$22,647 for the 1-to-3-days hospice care, and \$28,923 for patients with no hospice care; $P < .0001$).

Conclusions

Patients diagnosed with metastatic melanoma who enrolled in 4 or more days of hospice care had longer survival than those who had 1 to 3 days of hospice or no hospice care, and this longer overall survival was accompanied by lower end-of-life costs.

Am J Manag Care. 2014;20(5):366-373

- Patients who enrolled in hospice for 4 or more days showed longer median survival than patients who did not use hospice care or who enrolled in hospice care for only 1 to 3 days after diagnosis with metastatic melanoma.
- Among patients who were enrolled in 4 or more days of hospice care, the end-of-life costs decreased by \$14,680 in the model with the original cohort, and by \$9576 in the model with the propensity score—matched cohort.

APPENDIX 24

- The incremental cost was \$29,426 per life-year gained for patients who received 4 or more days of hospice care.

The 5-year survival rate for patients with melanoma detected at the earliest stages is approximately 95%,¹ but falls precipitously to 15% for patients diagnosed with metastatic disease.² Melanoma also places a significant economic burden on society and patients.³ The estimated annual cost of melanoma care in the United States is \$249 million and the average lifetime disease-associated cost for a patient from the time of diagnosis with melanoma until death is approximately \$28,210.³ Furthermore, 40% of the annual cost is attributed to stage 4 melanoma, which includes only around 3% of melanoma patients.³

Since stage 4 melanoma is rarely curable, most medical treatment for these patients—including surgery, radiation therapy, chemotherapy, and biologic therapy—is prescribed with limited expectations for long-term survival, and often with palliative intent. Increasingly, hospice care has become an acceptable alternative for patients with metastatic cancer. Hospices provide the necessary care, pain management, and emotional support to provide a comfortable end-of-life experience. The use of hospice also likely results in a decrease in utilization of surgery, radiation therapy, and chemotherapy,⁴ thus likely leading to a decrease in medical costs, although this has not been studied among patients with metastatic melanoma. Other investigators have shown that hospice utilization does not result in shortened survival for other terminal illnesses such as advanced lung cancer and pancreatic cancer.^{5,6} However, no studies have examined whether survival is reduced when patients elect hospice care for metastatic melanoma. Our goal is to examine the associations of use of hospice care with survival and costs among patients with metastatic melanoma and to analyze the cost-effectiveness for different durations of hospice care in patients with this disease.

METHODS

Data Source and Cohort Definition

We conducted this study using data from the National Cancer Institute’s Surveillance, Epidemiology, and End Results (SEER)-Medicare-linked databases. This database covers 17 geographic areas in the United States and encompasses approximately 28% of the US population.⁷ The SEER registries are linked to the Medicare claims databases, which are updated biennially and include 97% of US citizens 65 years and older.⁸ All available Medicare claims files were used to obtain information on treatments and costs of care. The Patient Entitlement and Diagnosis Summary File (PEDSF) contains 1 record per person linked via encrypted identifiers to a corresponding file in the SEER database and provides basic information on sociodemographic and tumor characteristics. All data were de-identified such that no protected health information could be linked to individual patients. The institutional review board from the University of Texas MD Anderson Cancer Center, Houston, Texas, and the University of Texas Health Science Center, Houston, Texas, exempted this study.

We identified patients 65 years and older who were diagnosed with pathologically confirmed malignant melanoma (stage 4) between January 1, 2000, and December 31, 2009. Patients were excluded if their death year and month in the SEER data set and Medicare data sets did not match, or if their cancer diagnosis came from either an autopsy or death certificate. Patients were excluded if they did not have continuous coverage through enrollment in Medicare Part A and Part B from the date of melanoma diagnosis until death or if they had health maintenance organization coverage during this time.

Dependent Variables

Overall survival was defined as the time from diagnosis of melanoma to the patient’s death due to the melanoma. The costs incurred in the last 3 months were used to estimate the incremental cost-effectiveness ratio, defined as cost per life-year gained.

Independent Variables

Independent variables in the analysis included age at diagnosis, sex, marital status, neighborhood income and education levels, geographic region, comorbidity score, and hospice density. Hospice density, defined as the

number of hospice facilities available within each patient's health service area, was obtained from the Area Resource File.⁹ The Charlson Comorbidity Index score was calculated from an algorithm developed by Klabunde and colleagues.^{10,11} The use of hospice care was identified based on any hospice service date after the melanoma diagnosis date. Based on information relayed by hospice staff, Kris and colleagues concluded that 3 or fewer days was an insufficient amount of time for patients and hospice staff to fully communicate on the planning and implementation of hospice care, so we adopted this common classification approach whereby the number of hospice service days was categorized into 3 groups: no hospice care, 1 to 3 days of hospice care, and 4 or more days of hospice care.^{6,12}

Statistical Analysis

We conducted a univariate analysis using χ^2 test. Multivariate analysis was performed with a standard of $P < .05$ to determine the significance of association of outcomes and variables. A Cox proportional hazards model controlling for potential explanatory variables was used to assess the relationship between hospice use and overall survival. All hazard ratios (HRs) were calculated with 2-sided P value and 95% confidence intervals (CIs). Survival rates were calculated from Kaplan-Meier estimation. Since all patients died within the observation window, no censored cases occurred. The generalized linear model with a gamma distribution was used for validating the outcome of the Cox model.

To minimize potential selection bias, we used propensity score—based 1:N match (1 case matched with N controls) in the survival and cost models. Since a 3-group propensity score—matching algorithm is not available, and survival for patients with no hospice care was similar to that of patients who used 1 to 3 days hospice, we combined these 2 groups into 0 to 3 days of hospice use and further matched with patients who used 4 or more days of hospice care by applying a propensity score—based 1:N match algorithm developed by Parsons.¹³ In this algorithm, all the demographic variables were included in the propensity score logistic model to generate the predicted probability that is used for matching. To maximize the sample size from a 5-matching scenario (1:N, N is 1 to 5), we used a 1:5 match-optimized cohort by using an 8-to-1-digit matching algorithm.¹³ In the matched cohort, a Cox proportional hazards model stratified by matched pair evaluated the associations between 4 or more days of hospice care or 0 to 3 days of hospice care and overall survival time in months.

To conduct the economic analysis, we divided the total cost of care after diagnosis into 3 phases based on the phase-of-care approach developed by Riley and colleagues.¹⁴ The majority of resources are typically consumed in the initial phase, when a patient's disease is diagnosed and treated, and during the final (end-of-life) phase, when extensive efforts are employed to extend the patient's life or to improve quality of life. Thus, the costs calculated from this method would follow a U-shaped pattern, with the highest costs on the 2 end points. In our study, the initial phase, which lasts an average of 3 months, was defined as the period during which medical intervention was implemented for advanced melanoma and might include the times of diagnosis, surgery, chemotherapy, and radiation therapy. The end-of-life phase is defined as the last 3 months immediately preceding death. The interim months of continuing care after the initial phase include surveillance and routine therapy costs.

We calculated the cost difference by comparing the total Medicare payments incurred by patients receiving 4 or more days of hospice care with those incurred by patients not receiving hospice care prior to death and those patients receiving 1 to 3 days of hospice care. The total cost of care for patients was calculated as the sum of reimbursements authorized by Medicare. Medicare claims reimbursements were adjusted for inflation to 2009 dollars using the Prospective Pricing Index for Part A claims and the Medicare Economic Index for Part B claims.¹⁵ Costs were adjusted for geographic variation using the geographic adjustment factor for Part A claims and the geographic practice cost index for Part B claims.¹⁵ These adjusting factors are acquired from direct communication with the National Cancer Institute's Health Services and Economics Branch of the Applied Research Program. These indices were matched via the state and county codes for each patient and then multiplied with the costs from each file in the database. Since the median survival time for metastatic melanoma patients is less than 1 year, discounting was not applied to cost or survival time. Costs were further analyzed in a

generalized linear model with a gamma distribution controlling for patient demographic and clinical covariates.¹⁶

The cost-effectiveness analysis utilized the mean of costs from all 3 phases of cancer care and survival. The incremental cost-effectiveness ratio (ICER) = $(C_1 - C_2) / (E_1 - E_2) = \Delta C / \Delta E$, where C_x equals cost of group x and E_x is effectiveness at group x, with the quotient representing cost per life-year gained. In the cost-effectiveness model, a bootstrap simulation analysis was implemented to assess the statistical uncertainty. We performed an analysis with 1000 bootstrap estimates of the ICER in both the original cohort and the 1:5 matched cohort. Statistical analysis was conducted using SAS version 9.3 (SAS Institute, Inc, Cary, North Carolina).

RESULTS Patient and Tumor Characteristics

Table 1

Characteristics of the entire cohort and matched cohort as well as univariate analysis of hospice use and patient characteristics are shown in . Of 862 patients, 225 (26%) had no hospice care after diagnosis, 523 (61%) had 1 to 3 days of hospice care, and 114 (13%) had 4 or more days of hospice care. All covariates were evenly balanced in the matched cohort.

Overall Survival

Figure 1A

Figure 1B

Table 2

At the end of the 60-month study period, the unadjusted survival curves for the entire cohort categorized by hospice use are shown in . The median survival time was 6.1 months for patients who did not enroll in hospice, 6.5 months for patients who enrolled in hospice for 1 to 3 days, and 10.2 months for patients who enrolled in hospice for 4 or more days. The survival curves for the propensity score—matched cohort after combining the groups of patients with no hospice use or only 1 to 3 days of hospice use are shown in . The overall survival rates at all-time points for the patients enrolling in 4 or more days of hospice care were significantly better than those for the comparison group (log-rank test, $P < .001$). In Cox proportional hazards models, 4 or more days of hospice care was associated with an improvement in survival when adjusting for other characteristics (). The estimated improvements in survival for 4 or more days of hospice use were similar in the original-cohort Cox proportional hazards model (HR, 0.63; 95% CI, 0.52-0.77, $P < .0001$) and propensity score—matched model (HR, 0.66; 95% CI, 0.54-0.81, $P < .0001$). Patients enrolled in 4 or more days of hospice care had 3.9 months longer median survival time in the unmatched cohort model ($P < .0001$), and 3.3 months longer median survival time in the propensity score—matched cohort model ($P < .0001$). The findings were similar across various models and cohorts, suggesting that the overall association between 4 or more days of hospice use and reduced mortality was not affected by statistical modeling methods.

Cost Analysis

Figure 2

A

B

C

The mean overall costs of care from diagnosis until death for patients with metastatic melanoma was \$56,266 for patients who received no hospice care, \$49,411 for patients enrolled in 1 to 3 days of hospice care, and \$66,022

for patients enrolled in 4 or more days of hospice care. As shown in (, , and), patients with 4 or more days of hospice care had lower costs in the last 3 months of life than did patients from the other 2 groups ($P < .0001$, \$14,594 vs \$22,647 for the patients with 1-3 days of hospice care, vs \$28,923 for patients with no hospice care). The end-of-life costs of care for patients with 1 to 3 days of hospice care were also lower than those of patients who received no hospice care.

Predictors of End-of-Life Cost

We found age and use of hospice care to be the only factors significantly associated with end-of-life costs. Among patients who were enrolled in 4 or more days of hospice care, the end-of-life costs decreased by \$14,680 ($P < .0001$) in the model with the original cohort, and by \$9576 ($P < .0001$) in the model with propensity score—matched cohort.

Cost-Effectiveness Analysis

Figure 3B

As shown in **Figure 3A**, mean incremental cost was \$29,426 (95% CI, \$723-\$63,634) per life-year gained for patients who received 4 or more days of hospice care. The incremental cost increased to \$33,209 (95% CI, \$12,852- \$66,280) per life-year gained in the propensity score—matched cohort in .

DISCUSSION

We observed that patients who enrolled in hospice for 4 or more days experienced longer median survival than patients who did not use hospice care or who enrolled in hospice care for only 1 to 3 days after being diagnosed with metastatic melanoma. We performed sensitivity analyses to examine the survival time for a relatively homogeneous cohort in which we excluded patients who died within 3 months of diagnosis to eliminate those with particularly rapid pace of disease. The positive association between 4 or more days of hospice use and longer survival was similar to that for the initial study cohort.

Our results are consistent with those of previous studies showing that election of hospice care does not shorten survival after metastatic cancer diagnosis.^{5,6} In a study by Connor and colleagues, patients with congestive heart failure, lung cancer, or pancreatic cancer who enrolled in hospice experienced significantly longer median overall survival than those who did not. Our findings that median survival time did not differ between patients who received no hospice care and those who only received 1 to 3 days of hospice care is consistent with results from Earle and colleagues,¹⁷ suggesting that a short stay in hospice may not impact survival.^{7,18-20}

We also found that the costs of care in the final 3 months of life were lower among patients who received 4 or more days of hospice care after metastatic melanoma diagnosis. Other researchers have shown that patients close to the end of life who received hospice care incurred less cost than other patients.^{21,22} Pyenson and colleagues analyzed Medicare claims from 1999 to 2000 and found that hospice enrollment was a significant predictor of lower costs among patients with congestive heart failure, liver cancer, and pancreatic cancer, even when controlling for age and gender.²¹ The cost difference we observed between the patients receiving 4 or more days of hospice care and those who received 0 to 3 days of hospice care is consistent with that observed by Pyenson and colleagues. Furthermore, our observed incremental cost-effectiveness ratio for patients who received 4 or more days of hospice care (\$29,000 per life-year gained) lies well below the current willingness- to-pay thresholds.²³

Our study has current policy relevance given that the proportion of Medicare expenditures during the last year of life has been stable for 20 years, with 26.9% to 30.6% of all Medicare expenditures occurring during that interval.²⁴ Furthermore, Lubitz and colleagues found that 70% of total costs of care is attributable to the consumption of healthcare resources in the last 6 months of life, with the largest percentage of this cost burden falling to Medicare (61% of costs), followed by Medicaid (10%), other payers (12%), and patients or families (paying the remaining 18% out of pocket).^{24,25} Taylor and colleagues quantified the cost savings for the

Medicare patients who received hospice care²⁶ and found the average cost savings for hospice users to be \$2309 for the last year of life compared with the costs of care for patients not receiving hospice care.²⁶

Emanuel²⁷ challenged studies showing cost savings with hospice care, noting that several methodological issues could invalidate the findings of cost savings for hospice care, such as selection bias, different time frames for assessing costs, fewer cost components evaluated, and generalizability of the studies. Since that 1996 report, the methodology for analyzing cost implications of hospice care has improved—for instance, more medical cost data are available for evaluation compared with the 1990s, when only Medicare Part A was available. Moreover, the author concluded that the use of hospice does not increase costs and does yield better quality of life and increased autonomy at the end of life.²⁷ Of the inherent limitations to the use of retrospective claims data, our study's main limitation was inability to obtain data on patient and provider preferences regarding hospice election. Another limitation is that the outcome variable examined was limited to survival time, which does not capture effects on quality of life; therefore, quality-adjusted life-years, the preferred measure in cost-effectiveness studies, cannot be estimated. This measure is of particular value for patients at the end of life. Hospice care aims to provide a better quality of life, and indeed, previous studies have shown better quality of life for patients who enroll in hospice care.²⁸⁻³⁰ However, that the survival time of patients enrolled in hospice was longer than that of patients not electing hospice remains notable. Another consideration is that patients who survived longer might have had more opportunity to use hospice care and for longer durations than those who survived for a shorter period of time. Finally, the years encompassed by our study predate the diffusion of targeted molecular agents such as vemurafenib and ipilimumab, which have recently been shown to improve outcomes for patients with metastatic melanoma.³¹ Therefore, it remains to be seen whether continued treatment with newer lifeprolonging treatments such as those mentioned might mitigate the survival improvement associated with 4 or more days of hospice use observed in our study.

CONCLUSIONS

Our study showed a significantly longer median survival time for the patients diagnosed with metastatic melanoma who enrolled in 4 or more days of hospice care compared with those who had 0 to 3 days of hospice care, and this improved overall survival was accompanied by lower end-of-life costs. Our evaluation of the survival times and costs of care contributes to the understanding of the potential clinical and economic effects of hospice care on outcomes for patients with metastatic melanoma. Implications of our findings are that communication and education regarding the benefits of hospice care should be a particular priority for patients diagnosed with metastatic melanoma. **Author Affiliations:** Department of Health Services Research, University of Texas, MD Anderson Cancer Center, Houston, TX (JH); Division of Management, Policy and Community Health, University of Texas School of Public Health, Houston, TX (JH, DRL, XLD); Division of Epidemiology and Disease Control, University of Texas School of Public Health, Houston, TX (XLD); Division of Biostatistics, University of Texas School of Public Health, Houston, TX (WC); Department of Radiation Oncology, University of Texas MD Anderson Cancer Center, Houston, TX (TAB, BAG).

Source of Funding: This study was supported in part by a grant from the Agency for Healthcare Research and Quality (grant # R01-HS018956) and in part by a grant from the Cancer Prevention and Research Institute of Texas (Multi-Investigator Award grant # RP101207).

Author Disclosures: The authors report no relationship or financial interest with any entity that would pose a conflict of interest with the subject matter of this article.

Authorship Information: Concept and design (JH, DRL, TAB, BAG); analysis and interpretation of data (JH, XLD, WC, BAG); drafting of the manuscript (JH, XLD, TAB, BAG); critical revision of the manuscript for important intellectual content (JH, DRL, XLD, WC, TAB, BAG); statistical analysis (JH, XLD, WC, BAG); administrative, technical, or logistic support (JH); supervision (DRL, BAG).

Address correspondence to: B. Ashleigh Guadagnolo, MD, MPH, Department of Radiation Oncology, MD Anderson Cancer Center, 1515 Holcombe Blvd, Houston, TX 77030. E-mail: aguadagn@mdanderson.org.1.

APPENDIX 24

Balch CM, Gershenwald JE, Soong SJ, et al. Final version of 2009 AJCC melanoma staging and classification. *J Clin Oncol*. 2009;27(36): 6199-6206.

2. Cancer Facts & Figures 2011. American Cancer Society website.

<http://www.cancer.org/Research/CancerFactsFigures/CancerFactsFigures/cancer-facts-figures-2011>. Accessed April 14, 2012.

3. Seidler AM, Pennie ML, Veledar E, Culler SD, Chen SC. Economic burden of melanoma in the elderly population: population-based analysis of the surveillance, epidemiology, and end results (SEER)- Medicare data. *Arch Dermatol*. 2010;146(3):249-256.

4. Huo J, Du XL, Lairson DR, et al. Utilization of surgery, chemotherapy, radiation therapy, and hospice at the end of life for patients diagnosed with metastatic melanoma [published online May 2, 2013]. *Am J Clin Oncol*.

5. Connor SR, Pyenson B, Fitch K, Spence C, Iwasaki K. Comparing hospice and nonhospice patient survival among patients who die within a three-year window. *J Pain Symptom Manage*. 2007;33(3):238-246.

6. Saito A, Landrum M, Neville B, Ayanian J, Weeks J, Earle C. Hospice care and survival among elderly patients with lung cancer. *J Palliat Med*. 2011;14(8):929-939.

7. McCarthy EP, Burns RB, Ngo-Metzger Q, Davis RB, Phillips RS. Hospice use among Medicare managed care and fee-for-service patients dying with cancer. *JAMA*. 2003;289(17):2238-2245.

8. Bach PB, Guadagnoli E, Schrag D, Schussler N, Warren JL. Patient demographic and socioeconomic characteristics in the SEER-Medicare database: applications and limitations. *Med Care*. 2002;40(8):19-25.

9. US Department of Health and Human Services. Area Resource File (ARF): 2010. Health Resources and Services Administration website. <http://arf.hrsa.gov/overview.htm>. Accessed May 1, 2012.

10. Klabunde CN, Potosky AL, Legler JM, Warren JL. Development of a comorbidity index using physician claims data. *J Clin Epidemiol*. 2000;53(12):1258-1267.

11. Cancer Facts & Figures 2010. American Cancer Society website.

<http://www.cancer.org/research/cancerfactsfigures/cancerfactsfigures/cancer-facts-and-figures-2010>. Accessed April 14, 2012.

12. Kris AE, Cherlin EJ, Prigerson H, et al. Length of hospice enrollment and subsequent depression in family caregivers: 13-month follow-up study. *Am J Geriatr Psychiatry*. 2006;14(3):264-269.

13. Parsons L. Performing a 1:N case-control match on propensity score: proceedings of the twenty-ninth Annual SAS Users Group International (SUGI) Conference, SAS Institute; 2004; Cary, NC.

14. Riley G, Potosky A, Lubitz J, Kessler L. Medicare payments from diagnosis to death for elderly cancer patients by stage at diagnosis. *Med Care*. 1995;33(8):828-841.

15. Warren JL, Yabroff KR, Meekins A, Topor M, Lamont EB, Brown ML. Evaluation of trends in the cost of initial cancer treatment. *J Natl Cancer Inst*. 2008;100(12):888-897.

16. Blough DK, Ramsey SD. Using generalized linear models to assess medical care costs. *Health Serv Outcomes Res Methodol*. 2000;1(2): 185-202.

17. Earle CC, Neville BA, Landrum MB, Ayanian JZ, Block SD, Weeks JC. Trends in the aggressiveness of cancer care near the end of life. *J Clin Oncol*. 2004;22(2):315-321.

18. Rickerson E, Harrold J, Kapo J, Carroll JT, Casarett D. Timing of hospice referral and families' perceptions of services: are earlier hospice referrals better? *J Am Geriatr Soc*. 2005;53(5):819-823.

APPENDIX 24

SURVIVAL & COST EFFECTIVENESS OF HOSPICE CARE FOR METASTATIC MELANOMA PATIENTS

19. Ngo-Metzger Q, Phillips RS, McCarthy EP. Ethnic disparities in hospice use among Asian-American and Pacific Islander patients dying with cancer. *J Am Geriatr Soc.* 2008;56(1):139-144.
20. Miller SC, Kinzbrunner B, Pettit P, Williams JR. How does the timing of hospice referral influence hospice care in the last days of life? *J Am Geriatr Soc.* 2003;51(6):798-806.
21. Pyenson B, Connor S, Fitch K, Kinzbrunner B. Medicare cost in matched hospice and non-hospice cohorts. *J Pain Symptom Manage.* 2004;28(3):200-210.
22. Blecker S, Anderson GF, Herbert R, Wang N-Y, Brancati FL. Hospice care and resource utilization in Medicare beneficiaries with heart failure. *Med Care.* 2011;49(11):985-991.
23. Shiroywa T, Sung Y-K, Fukuda T, Lang H-C, Bae S-C, Tsutani K. International survey on willingness-to-pay (WTP) for one additional QALY gained: what is the threshold of cost effectiveness? *Health Econ.* 2010;19(4):422-437.
24. Hogan C, Lunney J, Gabel J, Lynn J. Medicare beneficiaries' costs of care in the last year of life. *Health Aff.* 2001;20(4):188-195.
25. Lubitz JD, Riley GF. Trends in Medicare payments in the last year of life. *N Engl J Med.* 1993;328(15):1092-1096.
26. Taylor Jr DH, Ostermann J, Van Houtven CH, Tulsy JA, Steinhauser K. What length of hospice use maximizes reduction in medical expenditures near death in the US Medicare program? *Soc Sci Med.* 2007;65(7):1466-1478.
27. Emanuel EJ. Cost savings at the end of life. *JAMA.* 1996;275(24): 1907-1914.
28. Teno JM, Clarridge BR, Casey V, et al. Family perspectives on end-of-life care at the last place of care. *JAMA.* 2004;291(1):88-93.
29. Wright A, Zhang B, Ray A, et al. Associations between end-of-life discussions, patient mental health, medical care near death, and caregiver bereavement adjustment. *JAMA.* 2008;300(14):1665-1673.
30. Wright A, Keating N, Balboni T, Matulonis U, Block S, Prigerson H. Place of death: correlations with quality of life of patients with cancer and predictors of bereaved caregivers' mental health. *J Clin Oncol.* 2010;28(29):4457-4464.
31. Curti B, Urba WJ. Integrating new therapies in the treatment of advanced melanoma. *Curr Treat Options Oncol.* 2012;13(3):327-339.

Related Content:

[Publications](#) | [Clinical](#)

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 25
HALF OF OLDER AMERICANS
SEEN IN EMERGENCY
DEPARTMENT IN LAST MONTH
OF LIFE**

Half Of Older Americans Seen In Emergency Department In Last Month Of Life; Most Admitted To Hospital, And Many Die There

Alexander Smith, Ellen McCarthy, [...], and Kenneth Covinsky

Abstract

Emergency department use contributes to high end-of-life costs and is potentially burdensome for patients and family members. We examined emergency department use in the last months of life for patients age sixty-five or older who died while enrolled in a longitudinal study of older adults in the period 1992–2006. We found that 51 percent of the 4,158 decedents visited the emergency department in the last month of life, and 75 percent in the last six months of life. Repeat visits were common. A total of 77 percent of the patients seen in the emergency department in the last month of life were admitted to the hospital, and 68 percent of those who were admitted died there. In contrast, patients who enrolled in hospice at least one month before death rarely visited the emergency department during that period. Policies that encourage the preparation of patients and families for death and early enrollment in hospice may prevent emergency department visits at the end of life.

Emergency departments are not designed to provide end-of-life care and in many ways are poorly suited to do so. Nonetheless, they are visited with surprising frequency by severely ill patients whose deaths are approaching.⁽¹⁾ The often overcrowded and seemingly chaotic nature of the emergency department may add to the stress that patients and their families feel.

Most people say they prefer to receive end-of-life care at home.^(2, 3) But pain, worsening symptoms, or other urgent needs may force an emergency department visit. In such cases, patients often arrive in the emergency department acutely ill, with their care plan uncertain and their families deeply anxious at the approach of a dreaded event.^(1, 3, 4)

Emergency department care is expensive, and it is a major component of escalating costs of care at the end of life.⁽⁵⁾ Most patients who are hospitalized at that point are admitted through the emergency department, and it is there that care pathways are often determined, including the balance between palliative and life-sustaining treatments.^(6, 7)

We used a nationally representative data set linked to Medicare claims data to study emergency department use by older adults at the end of life. The objective of this study was to use these data to describe the prevalence and frequency of, and factors associated with, emergency department use in the last months of life, as well as care following the visit, including hospitalization and death in the hospital.

Study Data And Methods

Setting And Participants

The Health and Retirement Study was designed to examine changes in health and wealth as people age.⁽⁸⁾ It provided a data set that enabled us to assess patient characteristics and health status as well as family-level end-of-life concerns that can be linked to dying patients' emergency department visits.

Health and Retirement Study participants are more than fifty years old and living in the community at the time of enrollment in the study, which began in 1992. Participants are interviewed every two years following enrollment. Additional participants are added every six years so that the study remains representative of the US population over fifty. Follow-up rates are very high (84–93 percent), and date of death is determined for 99 percent of participants using the National Death Index, a centralized record of death certificate information maintained by the National Center for Health Statistics.⁽⁹⁾

The study's interviews are conducted over the phone. For participants who are age eighty or older, are too sick to be interviewed by phone, or do not have access to a phone, interviews are conducted in person. If participants are too sick or cognitively unable to complete the interview, interviews are conducted with proxies. Interviews after death are conducted with participants' next of kin. Details of the sampling frame and complex survey design are available elsewhere.⁽¹⁰⁾

We linked Health and Retirement Study data to Medicare claims to ascertain emergency department use, using previously described methods.⁽¹¹⁾ Because the timing of death is often unpredictable, we examined the relationship between emergency department use and death in two directions.

For the first analysis, we included 8,338 participants age sixty-five or older who were continuously enrolled in Medicare fee-for-service Parts A and B from 1992 to 2006 and visited the emergency department. For these participants, we asked what percentage of older adults died within six months of

visiting the emergency department.

For the second analysis, we focused on the subset of 4,585 participants who died, and for whom there were 4,158 next-of-kin interviews completed with the measures necessary for our analysis. For these participants, we asked what percentage of older adults who died had visited the emergency department in the last 6 months and last month before death.

Finally, we matched each decedent participant to a Health and Retirement Study subject who was alive at the time the participant died, categorized by age group (65–74, 75–84, and 85 or older) and sex. This allowed us to compare decedents' and nondecedents' rates of emergency department use.

This study was approved by the Institutional Review Board of the University of California, San Francisco.

Measures

We used Medicare claims to measure emergency department use, hospitalization, and intensive care unit use.⁽¹²⁾ We examined factors that might be correlated with emergency department use in the last months of life, based on our clinical experience and review of the literature. Demographic factors included age, sex, race or ethnicity, and net worth.

Clinical factors were drawn from Health and Retirement Study interviews with next of kin conducted after the subject's death. Next of kin were asked to describe the participant's clinical condition during the last three months life. Factors included the presence or absence of four chronic conditions (cancer, lung disease, stroke, and heart condition), need for help in activities of daily living, cognitive impairment, and the presence of moderate or severe pain.

Health system factors included census region, urban versus rural residence, hospice use prior to the last month of life (hereafter referred to as "early hospice use"), nursing home residence, and year of death. We examined what we categorized as "anticipatory/preparatory" factors—for example, whether the subject's next of kin reported that the death was expected or unexpected at the time it occurred and whether or not there was an advance directive.

Statistical Analysis

First, using the sample of 10,364 patients (both living and deceased), we calculated the percentage of emergency department visits by patients who died within six months of the visit.

The remainder of our analysis focused on the 4,158 decedents. We began by determining the proportion of these older people who visited the emergency department in the last six months and in the last month of life.

To understand which factors were independently associated with emergency department use by participants in the last month of life, we created a multivariable model adjusted for the demographic and clinical factors described above. The results of the multivariable logistic regression are presented as probabilities of emergency department use across different levels for each predictor of interest adjusted for age, sex, race or ethnicity, net worth, chronic conditions, physical dependency, cognitive impairment, and pain. We present time trends in emergency department use in the last month of life adjusted for variations in age of the Health and Retirement Study decedent sample across years and increasing rates of early hospice use (Appendix Exhibit 1).⁽¹¹⁾



Appendix 1

Time trends in emergency department (ED) use in the last month of life 1994 to 2006 are displayed. Sample sizes of decedents were too small in 1992 and 1993 to generate reliable estimates. Panel A: Time trends in ED use adjusted for age at death. Panel

We examined care patterns following emergency department visits in the last month of life. Specifically, we examined hospitalization following the emergency department visit, intensive care unit use, and location of death.

The Health and Retirement Study purposely oversamples certain key subpopulations and also carefully tracks nonresponse rates by subpopulation. To produce nationally representative statistical estimates and to attach correct standard errors to these estimates, we performed a survey-weighted analysis using weights provided by the Health and Retirement Study.^(13, 14) The statistical analyses were performed using the statistical software Stata, version 10.1, and the statistical analysis software SAS, version 9.2.

Limitations

We were unable to discern the specific reason for emergency department visits. A diagnostic code for congestive heart failure, for example, is not particularly informative as to the reason for the emergency department visit, such as shortness of breath, or the reasons that led to that condition, such as difficulty contacting an outpatient provider, lack of access to medications for symptom relief, or a family that was unprepared to manage end-of-life

APPENDIX 25

HALF OF OLDER AMERICANS SEEN IN ER LAST MONTH OF LIFE - MOST ADMITTED DIE THERE

symptoms. Similarly, we could not definitively state that certain emergency department visits were avoidable. Finally, although our findings suggest that changes over time have been modest, the latest available Medicare claims data files are from 2006, and practice may have changed since that time.

Study Results

In this nationally representative study of older adults, 8,338 living and dead participants visited the emergency department. Of the total, 15 percent, or about one out of every seven emergency department visits, were made by a patient who died in the six months after that visit. Among the oldest participants (those over age eighty-four), the proportion was 24 percent, or about one out of four. Among the 4,158 participants who died, seventy-five percent transited through the emergency department in the last six months of life (Exhibit 2); half did so in the last month of life

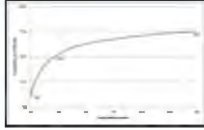


Exhibit 2

Cumulative Incidence of emergency department (ED) visits during the last 6 months of life, noting the incidence on the last day of life (9%), and the cumulative incidence at 30 days before death (51%) and 180 days before death (75%)

The rate of emergency department use in the last month of life was much higher than the rate among participants matched by age and sex to the subject who were alive at the time the subject died. In the matched group, only 4 percent visited the emergency department in a one-month time period.

Focusing on decedents, we found that the mean age of the 4,158 participants who had died was eighty-three (standard deviation eight), and 47 percent were women (Exhibit 1). Among the decedents, the burden of chronic conditions, functional dependency, and cognitive impairment was high: The mean number of chronic diseases was 1.4 (out of 4); 77 percent of patients were dependent in at least one activity of daily living, and 67 percent were in three or more (data not shown). In addition, over one-third were cognitively impaired, experienced moderate or severe pain, and resided in a nursing home (Exhibit 1). The top three primary diagnoses for emergency department visits in the last six months of life were congestive heart failure (8.0 percent of visits), pneumonia (6.6 percent), and acute stroke (4.9 percent) (see Appendix Exhibit 2 for the rest of the top ten primary diagnoses).(15

Exhibit 1

Characteristics Of Decedents In The Health and Retirement Study, 1992–2006

Appendix 2

Leading Primary Diagnoses for the 6,824 Emergency Department Visits that Occurred During the Last Six Months of Life for the 4,158 Decedents *

Routine visits were common. In fact, 41 percent of the 4,158 participants who died had made more than one visit in that time period, and 12 percent had gone to the emergency department more than once in the last month of life (data not shown).

Hospitalization also was common following an emergency department visit toward the end of life. Among the 2,157 participants who visited the emergency department in the last month of life, 77 percent were subsequently hospitalized. Of those who were hospitalized, 39 percent were admitted to an intensive care unit, and 68 percent died in the hospital (Appendix Exhibit 3) (15)



Exhibit 3

Flow diagram outlining emergency department, hospitalization, and location of death among the 4,58 patients in the Health and Retirement Study (HRS) who died between 1992 and 2006. Early hospice use indicates hospice use prior to the last month of life

Early hospice use and death in the home, nursing home, or other setting outside the hospital was more common among participants who did not visit the emergency department in the last month of life (Appendix Exhibit 3) (15)

APPENDIX 25

HALF OF OLDER AMERICANS SEEN IN ER LAST MONTH OF LIFE - MOST ADMITTED DIE THERE

Exhibit 3 shows emergency department use in the last month of life by various characteristics, after adjustment for demographic and clinical factors. For example, patients who were African American or Latino were more likely to visit the emergency department than white patients. (for a complete list of factors, see Appendix Exhibit 4).(15) After adjustment, patients who experienced moderate or severe pain were 4 percent more likely to visit the emergency department in the last month of life than patients who had less pain. Having an advance directive had little effect after adjustment. These differences were modest in comparison to those between patients who did and did not enroll in hospice early.

Characteristic	1992-1993	1994-2006	p-value
Age	0.01	0.01	0.001
Gender	0.01	0.01	0.001
Race	0.01	0.01	0.001
Ethnicity	0.01	0.01	0.001
Marital status	0.01	0.01	0.001
Insurance	0.01	0.01	0.001
Region	0.01	0.01	0.001
Year of death	0.01	0.01	0.001
Expected death	0.01	0.01	0.001
Hospice enrollment	0.01	0.01	0.001
Pain	0.01	0.01	0.001
Advance directive	0.01	0.01	0.001
Functional dependency	0.01	0.01	0.001
Cognitive impairment	0.01	0.01	0.001
Illness burden	0.01	0.01	0.001

The rise in emergency department use between 1994 and 2006 was marginally significant in analyses adjusted for age (p for trend = 0.048) (Appendix Exhibit 1).(15) However, when adjusting for early utilization of hospice, there was a modest increase in emergency department use over time (p for trend < 0.001), suggesting that a rise in early utilization of hospice (5 percent in 1994; 15 percent in 2006) may have blunted what would have otherwise been a greater increase in emergency department use over time (Appendix Exhibit 1).(15)

Discussion

High Rates Of Emergency Department Use

As noted above, seventy-five percent of the decedents in our study transited through the emergency department in the last six months of life, and half in the last month of life. Yet we also found substantial variation in emergency department use in the last month of life by age, race or ethnicity, illness burden, functional dependency, cognitive impairment, pain, region, year of death, and whether or not death was expected. Early enrollment in hospice was by far the strongest predictor of emergency department use or lack thereof. Specifically, emergency department use was relatively rare among people enrolled in hospice at least one month before death.

Improving The Quality Of Outpatient Care

These high rates of emergency department use in the last months of life suggest opportunities for improvement in the outpatient setting. As was the case in our sample, the last months of life for older adults are often characterized not by sudden death, but by chronic illness, pain, functional decline, and cognitive impairment.(16, 17) Many health problems and symptoms in late life are predictable, and some visits to the emergency department could potentially be avoided with access to high-quality outpatient care.(18, 19)

Most people prefer to die at home, and rates of end-of-life hospitalization are unlikely to decrease without reducing rates of emergency department use. The emergency department is seldom the best place for discussions about the goals of care.

Primary providers can plan for the eventuality of death by preparing patients and families for end-of-life symptoms, engaging in discussions about goals of care, arranging treatment that matches the patient's wishes, and documenting preferences in ways that will be accessible to emergency department providers.(20–24) To this end, recent policy initiatives, such as those passed in 2008 in California(25) and 2010 in New York(26) that require physician disclosure of prognosis, may reduce costly and potentially burdensome use of the emergency department at the end of life.

Federal Initiatives

At the federal level, legislation that would have provided reimbursement under Medicare for physicians to address end-of-life planning was stripped from national health reform amid a furor over so-called death panels. In our study, advance directives were not associated with emergency department visits after adjustment.

Advance care planning is much more than the advance directive document, however. It also includes the discussion of and planning and preparation for future events by patients, caregivers, and physicians. There is some evidence to suggest that such discussions have an effect on high-cost, high-intensity health services.(27)

The Medicare hospice benefit was recently criticized for spending increases primarily caused by increases in lengths-of-stay over the past decade.(28, 29) However, these critiques do not account for the avoidance of costly acute care services by early enrollees in hospice.(29) In our study, early enrollment was associated with 80 percent less use of the emergency department in the last month of life, and dramatically reduced rates of hospitalization and of death in the hospital, compared to the rates for patients who did not enroll early. Although hospice use at the end of life has increased over the past decade, most patients enroll in hospice late, less than a month before death.(30)

APPENDIX 25

HALF OF OLDER AMERICANS SEEN IN ER LAST MONTH OF LIFE - MOST ADMITTED DIE THERE

Many analysts have viewed this delayed entry into hospice as a problem in the quality of end-of-life care.(30, 31) In fact, the type of care that patients receive in hospice—such as symptom control, family support, and discussion of preferences—are of benefit long before the final days of life.

The Medicare hospice benefit is available to all adults age sixty-five or older, and rising rates of early hospice use are encouraging. Yet we found that only 9 percent of the older adults in our study who died had enrolled in hospice before the last month of life. Policy initiatives should be directed toward increasing early hospice enrollment among elderly patients. Strong consideration should be given to removing from the Medicare hospice benefit the requirement of a prognosis of six months or less to live, basing eligibility and reimbursement instead on need for hospice services.(32

The Role Of Palliative Care

Part of the Affordable Care Act directs support to chronically ill elderly people in the outpatient setting, avoiding high-cost repeat emergency department visits and hospital readmissions. Potential avenues for supporting chronically ill elderly people on an outpatient basis include promoting early hospice use and mandating that inpatient and outpatient palliative care services are incorporated into accountable care organizations.(33, 34)

Palliative care is focused on improving quality of life for patients with serious illness. Its major areas of expertise include pain and symptom management and communication about goals of care. Palliative care is ideally initiated at the time of diagnosis of advanced heart disease, dementia, cancer, or other serious conditions, and can be delivered concurrently with life-prolonging care. Specialized palliative care is delivered by interdisciplinary palliative care teams.

Early enrollment in outpatient palliative care services has shown great promise in improving the quality of life for patients with serious illness, but access to these services remains limited.(19, 20, 35)Prognosis is inherently challenging, and even when prognosis is limited, some patients may elect not to enroll in hospice early. Our research suggests that many of these patients will transit through the emergency department at the end of life, and palliative care needs to be integrated into emergency services.

The majority of palliative care in emergency departments, however, is delivered not by palliative care specialists but by emergency department doctors, nurses, and social workers.(21) Hospice, in contrast, is a specific palliative service and Medicare benefit for patients with a prognosis of six months or less.

Emergency departments should be supported in their growing efforts to improve palliative care for patients, such as the well-respected Education on Palliative and End-of-Life Care Project curriculum, newly developed for training emergency medicine professionals.(36) The American Board of Emergency Medicine is one of 11 specialty boards that cosponsors palliative medicine as a recognized subspecialty.(37)

In qualitative research, emergency providers and terminally ill patients and their caregivers suggested a change in emergency care, recognizing that the goals of patients near the end of life often do not fit well within the traditional emergency department model.(1, 3, 38, 39) Some providers suggested that emergency protocols could be modified by creating an explicit triage category of supportive care focused on symptom stabilization.

Structural barriers to change need to be overcome, including a pervading fear of litigation among emergency physicians, logistical hurdles to emergency providers rapidly coordinating home or hospice services with outpatient clinicians, and a general lack of access to palliative medicine consultation services in the emergency department, particularly at night and on weekends.(3, 39, 40)

Conclusion

Emergency department visits are common at the end of life, and a substantial minority of all visits to the emergency department by older adults are made by patients who will die within six months of the visit. For patients whose terminal trajectories are clear, we can do better in the outpatient setting.(22–24) Outpatient providers can help prepare families for the eventuality of death, including by giving them early referrals to hospice and, where available, outpatient palliative care services. Policies that require physicians to disclose a terminal prognosis and that provide reimbursement for advance care planning should be encouraged.

For other older adults, serious illness is unexpected and emergency department visits are unavoidable.(41) Therefore, emergency departments should be supported in their efforts to incorporate palliative and end-of-life care principles into their practices. Ultimately clinicians and policy makers need to work together to ensure high-quality care experiences for patients and families seen in the emergency department during a vulnerable time.

Acknowledgments

Acknowledgment/Disclosure

Alexander Smith was supported by career development grants from the National Palliative Care Research Center and the National Center for Research Resources UCSF-CTSI (UL1 RR024131). Kenneth Covinsky was supported by a K-24 grant from the National Institute on Aging (K24AG029812).

Footnotes

Early versions of this article were presented in oral abstract form at the annual meetings of the Society of General Internal Medicine in Minneapolis, Minnesota, April 29 2010, and the American Geriatrics Society in Orlando, Florida, May 13 2010

Article information

Health Aff (Millwood). Author manuscript; available in PMC 2013 Aug 7.

Published in final edited form as:

Health Aff (Millwood). 2012 Jun; 31(6): 1277–1285.

doi: [10.1377/hlthaff.2011.0922](https://doi.org/10.1377/hlthaff.2011.0922)

PMCID: PMC3736978

NIHMSID: NIHMS453115

PMID: 22665840

Alexander Smith, Ellen McCarthy, Ellen Weber, Irena Stijacic Cenzer, John Boscardin, Jonathan Fisher, and Kenneth Covinsky

University of California, San Francisco, Beth Israel Deaconess Medical Center, University of California, San Francisco, University of California, San Francisco, UNIVERSITY OF CALIFORNIA, SAN FRANCISCO, Beth Israel Deaconess Medical Center, University of California, San Francisco

Copyright notice

The publisher's final edited version of this article is available at [Health Aff \(Millwood\)](#)

This article has been corrected See the correction in volume 31 on page 1650

See other articles in PMC that [cite](#) the published article.

NOTES

- 1 Smith AK, Schonberg MA, Fisher J, Pallin DJ, Block SD, Forrow L, et al. Emergency department experiences of acutely symptomatic patients with terminal illness and their family caregivers. *J Pain Symptom Manage*. 2010 Jun;39(6):972–981. [PMC free article] [PubMed] [Google Scholar]
- 2 Higginson IJ, Sen-Gupta GJ. Place of care in advanced cancer: a qualitative systematic literature review of patient preferences. *J Palliat Med*. 2000 Fall;3(3):287–300. [PubMed] [Google Scholar]
3. Smith AK, Fisher J, Schonberg MA, Pallin DJ, Block SD, Forrow L, et al. Am I doing the right thing? Provider perspectives on improving palliative care in the emergency department *Ann Emerg Med* 2009 Jul;54(1) 86–93 e1 [PubMed] [Google Scholar]
- 4 Christakis N. *Death Foretold: Prophecy and Prognosis in Medical Care*. Chicago, IL: University of Chicago Press; 1999 [Google Scholar]
5. *Hospital-Based Emergency Care: At the Breaking Point (Future of Emergency Care)*. Washington: The National Academies Press; 2007. Committee on the Future of Emergency Care in the United States Health System. [Google Scholar]
- 6 Beemath A, Zalenski RJ. Palliative emergency medicine: resuscitating comfort care? *Ann Emerg Med* 2009 Jul;54(1) 103–105 [PubMed] [Google Scholar]
- 7 Chan GK. End of life and palliative care in the emergency department: a call for research, education, policy and improved practice in this frontier area. *J Emerg Nurs*. 2006 Feb;32(1):101–103. [PubMed] [Google Scholar]
8. Juster FT, Suzman R. An Overview of the Health and Retirement Study. *J Hum Resour*. 1995;30(suppl):S7–S56. [Google Scholar]
- 9 National Center for Health Statistics. National Death Index 2012 May 9; Available from http://www.cdc.gov/nchs/data_access/ndi/about_ndi.htm
- 10 Walter LC, Lewis CL, Barton MB. Screening for colorectal, breast, and cervical cancer in the elderly: a review of the evidence. *Am J Med* 2005 Oct;118(10):1078–1086. [PubMed] [Google Scholar]
11. Earle CC, Landrum MB, Souza JM, Neville BA, Weeks JC, Ayanian JZ. Aggressiveness of cancer care near the end of life: is it a quality-of-care issue? *J Clin Oncol*. 2008 Aug 10;26(23):3860–3866. [PMC free article] [PubMed] [Google Scholar]
12. Knaus WA, Harrell FE, Jr, Lynn J, Goldman L, Phillips RS, Connors AF, Jr, et al. The SUPPORT prognostic model. Objective estimates of survival for seriously ill hospitalized adults. Study to understand prognoses and preferences for outcomes and risks of treatments. *Ann Intern Med*. 1995 Feb 1;122(3):191–203. [PubMed] [Google Scholar]
13. Health and Retirement Study Sample Evolution: 1992–1998. Ann Arbor, MI: The University of Michigan; 2008. [2/20/2012]; Available from: <http://hrsonline.isr.umich.edu/sitedocs/surveydesign.pdf> [Google Scholar]

APPENDIX 25

HALF OF OLDER AMERICANS SEEN IN ER LAST MONTH OF LIFE - MOST ADMITTED DIE THERE

14. Rhee SH, Corley RP, Friedman NP, Hewitt JK, Hink LK, Johnson DP, et al. The etiology of observed negative emotionality from 14 to 24 months. *Front Genet.* 2012;3:9. [PMC free article] [PubMed] [Google Scholar]
15. To access the Appendix click on the Appendix link in the box to the right of the article online [Google Scholar]
16. Mitchell SL, Teno JM, Kiely DK, Shaffer ML, Jones RN, Prigerson HG, et al. The clinical course of advanced dementia. *N Engl J Med.* 2009 Oct 15;361(16):1529–1538. [PMC free article] [PubMed] [Google Scholar]
17. Gill TM, Gahbauer EA, Han L, Allore HG. Trajectories of disability in the last year of life. *N Engl J Med.* 2010 Apr 1;362(13):1173–1180. [PMC free article] [PubMed] [Google Scholar]
18. Burge F, Lawson B, Johnston G. Family physician continuity of care and emergency department use in end-of-life cancer care. *Med Care.* 2003 Aug;41(8):992–1001. [PubMed] [Google Scholar]
19. Temel JS, Greer JA, Muzikansky A, Gallagher ER, Admane S, Jackson VA, et al. Early palliative care for patients with metastatic non-small-cell lung cancer. *N Engl J Med.* 2010 Aug 19;363(8):733–742. [PubMed] [Google Scholar]
20. Morrison RS, Meier DE. Clinical practice. Palliative care. *N Engl J Med.* 2004 Jul 17;350(25):2582–2590. [PubMed] [Google Scholar]
21. von Gunten CF. Secondary and tertiary palliative care in US hospitals. *JAMA.* 2002 Feb 20;287(7):875–881. [PubMed] [Google Scholar]
22. Ahalt C, Walter LC, Yourman L, Eng C, Perez-Stable EJ, Smith AK. "Knowing is Better": Preferences of Diverse Older Adults for Discussing Prognosis. *J Gen Intern Med.* 2011 Nov 30; [PMC free article] [PubMed] [Google Scholar]
23. Smith AK, Williams BA, Lo B. Discussing overall prognosis with the very elderly. *N Engl J Med.* 2011 Dec 8;365(23):2149–2151. [PMC free article] [PubMed] [Google Scholar]
24. Yourman LC, Lee SJ, Schonberg MA, Widera EW, Smith AK. Prognostic indices for older adults: a systematic review. *JAMA.* 2012 Jan 11;307(2):182–192. [PMC free article] [PubMed] [Google Scholar]
25. Drame M, Novella JL, Lang PO, Somme D, Jovenin N, Laniece I, et al. Derivation and validation of a mortality-risk index from a cohort of frail elderly patients hospitalised in medical wards via emergencies: the SAFES study. *Eur J Epidemiol.* 2008;23(12):783–791. [PubMed] [Google Scholar]
26. Fischer SM, Gozansky WS, Sauaia A, Min SJ, Kutner JS, Kramer A. A practical tool to identify patients who may benefit from a palliative approach: the CARING criteria. *J Pain Symptom Manage.* 2006;31(4):285–292. [PubMed] [Google Scholar]
27. Wright AA, Zhang B, Ray A, Mack JW, Trice E, Balboni T, et al. Associations between end-of-life discussions, patient mental health, medical care near death, and caregiver bereavement adjustment. *JAMA.* 2008 Oct 8;300(14):1665–1673. [PMC free article] [PubMed] [Google Scholar]
28. Iglehart JK. A new era of for-profit hospice care--the Medicare benefit. *N Engl J Med.* 2009 Jun 25;360(26):2701–2703. [PubMed] [Google Scholar]
29. Hackbarth GM. Report to the Congress: Medicare payment policy. Washington, DC: Medicare Payment Advisory Commission; 2009. [cited 2011 April 18, 2011]; Available from: http://www.medpac.gov/documents/Mar09_March%20report%20testimony_WM%20FINAL.pdf. [Google Scholar]
30. Christakis NA, Escarce JJ. Survival of Medicare patients after enrollment in hospice programs. *N Engl J Med.* 1996 Jul 18;335(3):172–178. [PubMed] [Google Scholar]
31. McCarthy EP, Burns RB, Ngo-Metzger Q, Davis RB, Phillips RS. Hospice use among Medicare managed care and fee-for-service patients dying with cancer. *JAMA.* 2003 May 7;289(17):2238–2245. [PubMed] [Google Scholar]
32. Groninger H. A gravely ill patient faces the grim results of outliving her eligibility for hospice benefits. *Health Aff (Millwood)* 2012 Feb;31(2):452–455. [PubMed] [Google Scholar]
33. Silveira MJ, Kim SY, Langa KM. Advance directives and outcomes of surrogate decision making before death. *N Engl J Med.* 2010 Apr 1;362(13):1211–1218. [PMC free article] [PubMed] [Google Scholar]
34. Widera E. Palliative Care and Accountable Care Organizations. *GerIPal: A Geriatrics and Palliative Care Blog.* 2010 [updated November 26, 2010 March 11, 2011]; Available from: <http://www.geripal.org/2010/11/palliative-care-and-accountable-care.html>.
35. Rabow MW, Dibble SL, Pantilat SZ, McPhee SJ. The comprehensive care team: a controlled trial of outpatient palliative medicine consultation. *Arch Intern Med.* 2004 Jan 12;164(1):83–91. [PubMed] [Google Scholar]

APPENDIX 25

HALF OF OLDER AMERICANS SEEN IN ER LAST MONTH OF LIFE - MOST ADMITTED DIE THERE

36. Emanuel LL, Ferris FD, von Gunten CF. EPEC. Education for Physicians on End-of-Life Care. *Am J Hosp Palliat Care*. 2002 Jan-Feb;19(1):17. discussion-8. [PubMed] [Google Scholar]
37. Quest TE, Marco CA, Derse AR. Hospice and palliative medicine: new subspecialty, new opportunities. *Ann Emerg Med*. 2009 Jul;54(1):94–102. [PubMed] [Google Scholar]
38. Lamba S, Quest TE. Hospice care and the emergency department: rules, regulations, and referrals. *Ann Emerg Med*. 2011 Mar;57(3):282–290. [PubMed] [Google Scholar]
39. Grudzen CR, Richardson LD, Hopper SS, Ortiz JM, Whang C, Morrison RS. Does palliative care have a future in the emergency department? Discussions with attending emergency physicians. *J Pain Symptom Manage*. 2012 Jan;43(1):1–9. [PMC free article] [PubMed] [Google Scholar]
40. Meier DE, Beresford L. Fast response is key to partnering with the emergency department. *J Palliat Med*. 2007 Jun;10(3):641–645. [PubMed] [Google Scholar]
41. Becker G, Murphy K, Philipson T. The Value of Life Near Its End and Terminal Care. 2007 Available from: <http://www.nber.org/papers/w13333.pdf>.

APPENDIX 25

HALF OF OLDER AMERICANS SEEN IN ER LAST MONTH OF LIFE - MOST ADMITTED DIE THERE

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 26
LENGTH OF STAY &
PERCEPTION OF TOO LATE
REFERRAL**

NHPCO *Original Article*

Timing of Referral to Hospice and Quality of Care: Length of Stay and Bereaved Family Members' Perceptions of the Timing of Hospice Referral

Joan M. Teno, MD, MS, Janet E. Shu, BS, David Casarett, MD, Carol Spence, RN, MSN, Ramona Rhodes, MD, MPH, and Stephen Connor, PhD

The Warren Alpert Medical School of Medicine at Brown University (J.M.T., J.E.S., R.R.), Providence, Rhode Island; Home & Hospice Care of Rhode Island (J.M.T., R.R.), Pawtucket, Rhode Island; University of Pennsylvania School of Medicine (D.C.), Philadelphia, Pennsylvania; National Hospice and Palliative Care Organization (C.S., S.C.), Alexandria, Virginia; and Rhode Island Hospital (R.R.), Providence, Rhode Island, USA

Abstract

Previous research has noted that many persons are referred to hospice in the last days of life. The National Hospice and Palliative Care Organization collaborated with Brown Medical School to create the Family Evaluation of Hospice Care (FEHC) data repository. In 2005, 106,514 surveys from 631 hospices were submitted with complete data on the hospice length of stay and bereaved family member perceptions of the timing of hospice care. Of these surveys, 11.4% of family members believed that they were referred "too late" to hospice. This varied from 0 to 28.1% among the participating hospice programs with 30 or more surveys. Among those with hospice lengths of stay of less than a month, only 16.2% reported they were referred "too late." Although the bereaved family member perceptions of the quality of end-of-life care did not vary by length of stay for each of the FEHC domains, the perception of being referred "too late" was associated with more unmet needs, higher reported concerns, and lower satisfaction. Our results suggest that family members' perception of the timing of hospice referral—not the length of stay—is associated with the quality of hospice care. This perception varies substantially among the participating hospice programs. Future research is needed to understand this variation and how hospice programs are delivering high quality of care despite short length of stay. J Pain Symptom Manage 2007;34:120–125. © 2007 U.S. Cancer Pain Relief Committee. Published by Elsevier Inc. All rights reserved.

Key Words

Hospice, quality of end-of-life care, timing of referral

This research was made possible by a grant from the Robert Wood Johnson Foundation for the creation of the Family Evaluation of Hospice Care and the web-based data repository. Funding was also provided by a grant from the National Alzheimer's Association (IRG-05-13412).

Address reprint requests to: Joan M. Teno, MD, Center for Gerontology and Health Care Research, the Warren Alpert Medical School at Brown University, 2 Stimson Street, Providence, RI 02912, USA. E-mail: Joan_teno@brown.edu

Accepted for publication: April 29, 2007.

Introduction

Hospice was developed to provide comprehensive services that allow dying persons to live their lives to the fullest. Originally, the concept of hospice was introduced as an ongoing program to ease suffering during the transition between life and death. Although many experts recommend a hospice stay of at least three months to provide adequate services,¹ the average length of stay is less than 60 days. In the United States, the median length of stay declined from 29 days in 1995 to 26 days in 2005, with 30% of those served by hospice dying in 7 days or less (www.nhpco.org). Short hospice stays are not desirable due to their impact on the dying persons' and the caregivers' quality of life and the quality of end-of-life care. Recent studies have shown lower satisfaction with hospice services was correlated with family members' reports of late referrals,² and shorter length of stay was associated with family members' reports of decreased number of services provided.³ Furthermore, although many patients prefer to die at home,⁴ patients with hospice enrollment less than 7 days are less likely to receive care at home.⁵

Over the past 10 years, the Brown Medical School Center for Gerontology and Health Care Research has collaborated with the National Hospice and Palliative Care Organization (NHPCO) to create an actionable tool to measure consumer perceptions of the quality of end-of-life care. The Family Evaluation of Hospice Care (FEHC) has been validated⁶ and used in the national study of dying in the United States.⁷ The survey is currently used as part of an ongoing NHPCO performance measurement program, with a web-based repository that allows hospice programs to submit their data and receive a 30-page quarterly report regarding their quality of end-of-life care.⁸ As of 2006, nearly 1000 hospices are submitting their data online. The FEHC data repository allows us to examine at a national level the relationship of length of stay, perceived timing of hospice referral, and quality of end-of-life care.

Methods

Development of Survey

Based on expert opinion, a structured review of existing guidelines, and consumer focus

groups, Teno and colleagues developed the FEHC.⁹ The original instrument was shortened and a mode test was conducted that found the survey could be self-administered, with similar results to telephone administration. The FEHC is based on a conceptual model of patient-focused, family-centered medical care. Under this model, a health care institution provides excellent end-of-life care when it: 1) provides the desired physical comfort and emotional support; 2) supports shared decision making; 3) treats the patient with respect; 4) attends to the needs of the family for emotional support and the needed information; and 5) coordinates care effectively. Detailed information on how to calculate the problem and modified domain score is available in the paper by Connor and colleagues.⁸ Although the analysis was done with full problem scores, we summarize the findings by reporting the percent of persons who report one or more concerns with the quality of care.

In this study, our goal was to examine the association of the perceptions of the quality of care with both hospice length of stay and bereaved family members' perceptions of the timing of hospice referral. For the latter, respondents were asked the following question, "In your opinion, was [PATIENT] referred to hospice too early, at the right time, or too late during the course of [HIS/HER] final illness?" Hospice length of stay was based on the bereaved family member report.

Data Collection

Brown Medical School's Center for Gerontology and Health Care Research, in collaboration with the NHPCO, developed a Web site for hospices to submit data for the repository used by this report. The Web site was piloted at Brown and then modified by the NHPCO. Participation in the FEHC survey is voluntary, although the NHPCO has encouraged all hospices nationwide to take part. Hospices or third-party vendors contact bereaved family members between one to three months after the patient's death to invite them to participate in the survey. The surveys are usually completed by paper and pencil and returned to the hospice program or a data vendor hired to compile the results. The response rate as calculated based on the one-year total number of surveys completed over the number mailed out is 45%.

APPENDIX 26

LENGTH OF STAY AND PERCEPTION OF TOO LATE REFERRAL

Table 1
Characteristics of Decedents
 (n = 106,514 Surveys)

Characteristics	Decedents n = 106,514 (%)	Perceived Appropriate Timing of Referral	Perceived Late Referral
		n = 92,899 (%)	n = 12,182 (%)
Age 85 years and older at time of patient's death	49.1	32.6	47.1
Sex			
Male	41.3	41.4	41.7
Primary illness leading to hospice admission			
Cancers—all types	42.7	43.0	39.9
Heart & circulatory disease	9.9	9.8	10.2
Lung & breathing disease	7.6	7.5	8.4
Kidney disease	2.2	2.2	2.3
Liver disease	1.6	1.6	1.5
Stroke	3.9	4.03	3.3
Dementia & Alzheimer's disease	7.8	7.7	7.8
AIDS & other infectious diseases	0.2	0.2	0.2
Frailty & decline due to old age	5.7	5.7	5.6
Other illness	4.2	4.04	5.2
Highest grade or level of school completed			
8th grade or less	8.9	9.01	8.1
Race			
American Indian or Alaskan Native	0.7	0.6	0.8
Asian or Pacific Islander	0.7	0.7	0.7
Black or African American	3.3	3.4	2.6
White	82.9	83.0	82.5
Another race or multiracial	1.6	1.2	1.4
Length of time patient received hospice services			
2 days or less	10.0	8.2	24.7
3–7 days	21.7	20.4	32.5
8–14 days	15.08	15.0	15.9
15–29 days	11.5	11.9	9.7
1–3 months	25.7	27.3	14.1
4–6 months	8.2	9.0	2.0
7–9 months	3.0	3.3	0.6
10–12 months	1.9	2.0	0.3
>1 year	2.8	3.0	0.3

Analytic Approach

For this study, we report the descriptive results and examine the association of length of stay, bereaved family member of the timing of hospice referral, and the perception of quality of end-of-life care with each of the

domains of the FEHC. Because of the large number of cases, even minor differences achieve statistical significance; we set a threshold of 5% difference as being clinically relevant. For those hospices contributing 30 or more surveys to the repository, we reported the variation in bereaved family members' report that referral to hospice was "too late."

Results

Perception of Timeliness of Hospice Referral

Eighty-seven percent reported that the patient was referred at the right time, whereas 11.4% felt that hospice services were initiated "too late." Only 1.4% (n = 1433) reported that the patient was referred at a time too early for hospice services (Table 1). There were no statistically significant differences in perception of appropriate vs. late referrals when patients were grouped by age at time of death, sex, primary illness leading to hospice admission, education, race, or ethnicity.

Length of Stay, Perception of Being Referred "Too Late," and Perceived Quality of End-of-Life Care

Fig. 1 depicts the association between length of stay and the quality-of-care domains in the FEHC. For each domain and overall satisfaction, there is essentially a flat line, indicating the lack of an association between hospice lengths of stay and bereaved family members' perceptions of the quality of care. In contrast, bereaved family members who believed their relative was referred "too late" reported more unmet needs, higher reported number of concerns, and lower satisfaction with the quality of end-of-life care than those who indicated referral was made at the "right time" (Table 2). More family members who felt that the referral was "too late" reported unmet needs of the patient for management of pain (9.7 vs. 5.0%), dyspnea (10.0 vs. 4.1%), and emotional support (18.2 vs. 8.1%). Similarly, family members reported having greater unmet needs for their own emotional support (18.8 vs. 10.0%). More family members also felt that they were less informed about what to expect (41.4 vs. 25.2%) and about management of symptoms (17.9 vs. 9.0%). Furthermore, family members who perceived a late

APPENDIX 26

LENGTH OF STAY AND PERCEPTION OF TOO LATE REFERRAL

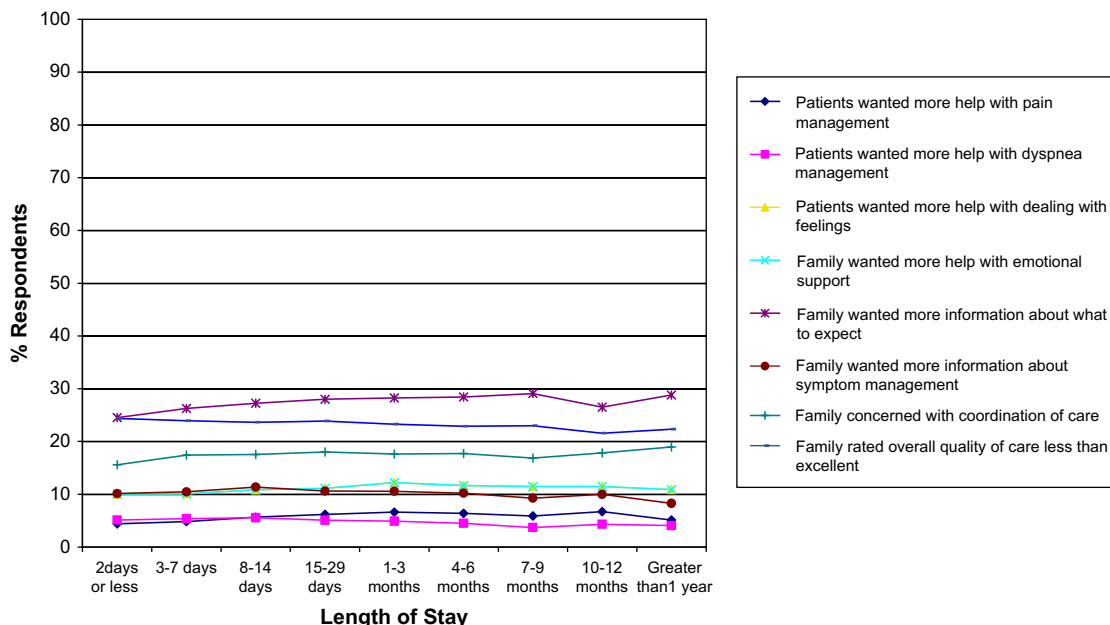


Fig. 1. Length of stay and reported hospice outcomes.

referral were more dissatisfied with the coordination of care (23.7 vs. 16.4%) and the overall quality of care (33.5 vs. 21.9%). This trend of unmet needs and greater dissatisfaction with care among those who reported referral that was “too late” was also found with reports of hospice staff not always treating the patient with respect, although the difference was less marked (5.4 vs. 2.8%).

Geographic and Hospice Variation of Perceptions of Late Referrals

Bereaved family member perceptions of being referred “too late” varied by both state and hospice program. Fig. 2 shows variation of perceptions of late referrals by a state-by-state basis, ranging from 7.8% in Vermont to 15.0% in South Carolina. Among the 521 hospices with 30 or more surveys, the variation of the

Table 2
Bereaved Family Members’ Perceptions of Timing of Referral and Quality of Care

	“At the Right Time” n = 92,899 (%)	“Too Late” n = 12,182* (%)
<i>Provide desired physical comfort and emotional support</i>		
Patient did not receive appropriate amount of help with		
Pain	5.03	9.66
Dyspnea	4.14	9.96
Dealing with feelings	8.14	18.18
<i>Treat dying person with respect</i>		
Not always treating patient with respect	2.77	5.43
<i>Attend to the needs of the family: one or more concerns with</i>		
Emotional support	9.96	18.77
Being informed about what to expect	25.18	41.37
Being informed about symptoms	9.03	17.77
<i>Coordination of care</i>		
One or more concerns	16.41	23.73
<i>Overall quality of care</i>		
Response less than excellent	21.86	33.48

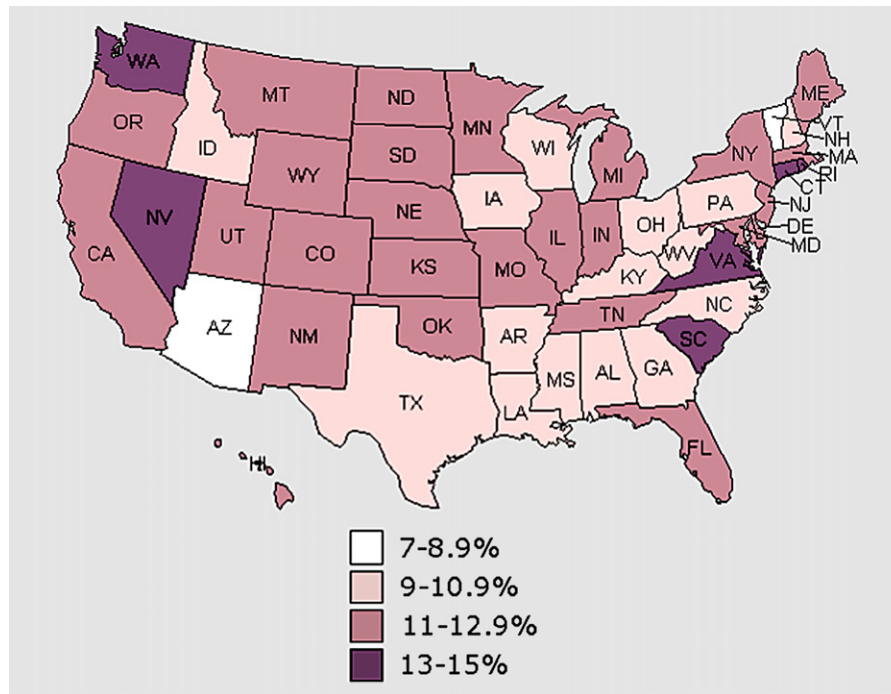


Fig. 2. Depicted is the state variation in bereaved family member response that their dying relative was referred "too late." Among the 819 participating hospices, 12,182 (11.4%) bereaved family members believe their loved one was referred "too late" to hospice services. This varied from 7.8% (VT) to 15.0% (SC).

perception of being referred "too late" ranged from 0 to 28.1% (mean 11.5%, 25th percentile 9.2, 75th percentile 14.0%).

Discussion

Slightly less than one in five bereaved family members with a hospice length of stay of less than one month stated that their family member was referred "too late" to hospice services. Unfortunately, this result raises more questions than it answers. Why aren't more bereaved family members reporting they were referred "too late" despite a short length of stay? It would appear that families need to be educated about the importance of a longer hospice length of stay. However, in some cases, an earlier hospice referral may not be possible. Waldrop et al.¹⁰ used open-ended interviews with 59 bereaved caregivers of hospice patients who died with short lengths of stay and found that 44% were diagnosed too late and 17% refused hospice services at an earlier time point. Schockett and colleagues² found that about one in four cases referred "too late" to hospice may not be easily changed to access hospice at

an earlier point in time, in that 13% of dying persons refused an earlier hospice referral and 10% were diagnosed at a late point in their illness. Based on these two studies, the rate of short stays that *could not* have been referred earlier to hospice varied between 23% and 61%. These two small studies suggest that it might not be possible for some dying persons to have been referred at an earlier time point.

Our data suggest that the perception of being referred "too late," rather than length of stay, is associated with greater unmet needs, more concerns, and lower satisfaction. One could hypothesize that hospice programs have become very adept at "rallying the troops" to provide excellent end-of-life care for those persons with short lengths of stay. The perception of being referred "too late" is not easily predicted by the existing sociodemographic data available in this data set. This perception of being referred "too late" varied between 0% and 28% among hospice programs with 30 or more surveys completed in 2005.

The striking variation in the perception of being referred "too late" calls for research to

APPENDIX 26

LENGTH OF STAY AND PERCEPTION OF TOO LATE REFERRAL

understand whether hospices are using different organizational interventions to improve access to hospice services. For example, many hospices are now adopting “open access” policies to allow dying patients to receive potentially “life-prolonging treatment.” This intervention potentially could improve access to hospice services, reducing bereaved family members’ perceptions that their dying relatives or friends were referred “too late” to hospice services. Future research is needed to characterize this variation by hospice program in regard to whether there are different processes of care, consumer education efforts, and/or different hospice policies that lead to improved perceptions of the quality of care.

When interpreting these results, certain limitations of this study should be kept in mind. Data were collected from family members of deceased hospice patients using self-administered surveys. Respondents may have inaccurately perceived patients’ unmet needs for emotional support and pain management. A recent review of studies on the reliability of information provided by proxies found that they were more reliable regarding observable symptoms and quality of services than subjective features of the patient experience.¹¹ However, it is unlikely that this discrepancy would be different among this study’s comparison groups. Also, the response rate is 45%, thus adding a concern of possible selection bias.

In conclusion, the majority of respondents believed they were referred to hospice “at the right time,” despite a reported short length of stay. Short hospice lengths of stay were not associated with perceptions of poor quality end-of-life care. Rather, the family members’ perception that they were referred “too late” to hospice was associated with lower satisfaction, more unmet needs, and higher reported concerns. This perception of late referral varied by state and by hospice program. An important opportunity exists to educate the public about the benefits of longer hospice lengths of stay. Future research should seek to understand whether there are differences in state policies and regulations that may be contributing to late hospice referrals. Additionally, research is needed to understand whether hospices with lower rates of persons

being referred “too late” are using innovative programs to better meet the needs of dying patients and their families.

Acknowledgments

The authors thank Cindy Williams for her assistance in manuscript preparation.

References

1. Christakis NA, Iwashyna TJ. Impact of individual and market factors on the timing of initiation of hospice terminal care. *Med Care* 2000;38:528–541.
2. Schockett ER, Teno JM, Miller SC, Stuart B. Late referral to hospice and bereaved family member perception of quality of end-of-life care. *J Pain Symptom Manage* 2005;30:400–407.
3. Rickerson E, Harrold J, Kapo J, Carroll JT, Casarett D. Timing of hospice referral and families’ perceptions of services: are earlier hospice referrals better? *J Am Geriatr Soc* 2005;53:819–823.
4. Pritchard RS, Fisher ES, Teno JM, et al. Influence of patient preferences and local health system characteristics on the place of death. SUPPORT investigators. Study to understand prognoses and preferences for risks and outcomes of treatment. *J Am Geriatr Soc* 1998;46(10):1242–1250.
5. Miller SC, Weitzen S, Kinzbrunner B. Factors associated with the high prevalence of short hospice stays. *J Palliat Med* 2003;6:725–736.
6. Teno JM, Clarridge B, Casey V, Edgman-Levitan S, Fowler J. Validation of toolkit after-death bereaved family member interview. *J Pain Symptom Manage* 2001;22:752–758.
7. Teno JM, Clarridge BR, Casey V, et al. Family perspectives on end-of-life care at the last place of care. *JAMA* 2004;291:88–93.
8. Connor SR, Teno J, Spence C, Smith N. Family evaluation of hospice care: results from voluntary submission of data via website. *J Pain Symptom Manage* 2005;30:9–17.
9. Teno JM, Casey VA, Welch L, Edgman-Levitan S. Patient-focused, family-centered end-of-life medical care: views of the guidelines and bereaved family members. *J Pain Symptom Manage* 2001;22:738–751.
10. Waldrop DP, Milch RA, Skretny JA. Understanding family responses to life-limiting illness: in-depth interviews with hospice patients and their family members. *J Palliat Care* 2005;21:88–96.
11. McPherson C, Addington-Hall J. Judging the quality of care at the end of life: can proxies provide reliable information. *Soc Sci Med* 2003;56:95–109.

APPENDIX 26

LENGTH OF STAY AND PERCEPTION OF TOO LATE REFERRAL

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

APPENDIX 27

**WASHINGTON STATE HOSPICE
COST, QUALITY & OUTCOMES
STUDY**

August 2019

Report for Washington Managed Fee-for-Service (MFFS)

Final Demonstration Year 3 and Preliminary Demonstration Year 4 Medicare Savings Estimates: Medicare-Medicaid Financial Alignment Initiative

Prepared for

**Sai Ma
Nancy Chiles Shaffer
Thomas Shaffer**

Centers for Medicare & Medicaid Services
Center for Medicare & Medicaid Innovation
Mail Stop WB-06-05
7500 Security Boulevard
Baltimore, MD 21244-1850

Submitted by

Edith Walsh, PhD
RTI International
1440 Main Street, Suite 310
Waltham, MA 02451-1623

RTI Project Number 0212790.003.002.007/008

REPORT FOR WASHINGTON MANAGED FEE-FOR-SERVICE (MFFS) FINAL
DEMONSTRATION YEAR 3 AND PRELIMINARY DEMONSTRATION YEAR 4
MEDICARE SAVINGS ESTIMATES: MEDICARE-MEDICAID FINANCIAL ALIGNMENT
INITIATIVE

by

Actuarial Research Corporation

Michael Sandler, ASA, MAAA

Lan Zhao, PhD

Anthony Simms, ASA, MAAA

Todd Trapnell, MPP

Alicia Nussbaum

RTI International

Melissa Morley, PhD

Giuseppina Chiri, MA

Project Director: Edith G. Walsh, PhD

Federal Project Officer: Sai Ma, Nancy Chiles Shaffer, and Thomas Shaffer

RTI International

CMS Contract No. HHSM-500-2014-00037i TO#7

August, 2019

This project was funded by the Centers for Medicare & Medicaid Services under contract no. HHSM-500-2014-00037i TO#7. The statements contained in this report are solely those of the authors and do not necessarily reflect the views or policies of the Centers for Medicare & Medicaid Services. RTI assumes responsibility for the accuracy and completeness of the information contained in this report. The information in this report is intended for the internal use of CMS and is not intended to benefit any third party. Michael Sandler is responsible for the estimates in this memorandum. He is a member of the American Academy of Actuaries and an Associate of the Society of Actuaries and is qualified to perform this analysis.

APPENDIX 27

WA STATE HOSPICE COST, QUALITY AND OUTCOME STUDIES

Contents

<u>Section</u>	<u>Page</u>
Executive Summary	1
1. Introduction.....	1
2. Data Sources for PMPM Cost Analysis.....	5
2.1 Eligibility Data.....	5
2.2 Claims Data.....	5
3. Basic Approach.....	7
3.1 Categories of Beneficiaries.....	7
3.2 Cohorts.....	8
3.3 Determining Member Months.....	11
3.4 Calculation of PMPM.....	12
3.5 AGA and Outlier Adjustments.....	13
4. Analysis of Cohorts.....	15
5. Results of PMPM Cost Analysis	21
5.1 Medicare Savings before Adjustments	21
5.2 Medicare AGA Adjustments.....	61
5.3 Outlier Adjustment.....	90
5.4 Attributed Medicare Savings	98
5.5 Summary of Total Gross Medicare Savings	99
5.6 Additional Analysis	100

List of Tables

<u>Number</u>	<u>Page</u>
1 Cohort Composition.....	15
1.A Reasons for ineligibility for Cohort 1	17
1.B Reasons for ineligibility for Cohort 2	18
1.C Reasons for ineligibility for Cohort 3	18
1.D Reasons for ineligibility for Cohort 4	19
1.E Reasons for ineligibility for Cohort 5A	19
1.F Reasons for ineligibility for Cohort 5B	20
2.A.1 MEDICARE Eligible months, incurred claims, and PMPM for the comparison group, baseline period, and the Demonstration Year 3, by category of beneficiary: Cohort 1	23
2.A.2 MEDICARE Eligible months, incurred claims, and PMPM for the comparison group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 1	24
2.B.1 MEDICARE Eligible months, incurred claims, and PMPM for the comparison group, baseline period, and the Demonstration Year 3, by category of beneficiary: Cohort 2	25
2.B.2 MEDICARE Eligible months, incurred claims, and PMPM for the comparison group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 2	26
2.C.1 MEDICARE Eligible months, incurred claims, and PMPM for the comparison group, baseline period, and the Demonstration Year 3, by category of beneficiary: Cohort 3	27
2.C.2 MEDICARE Eligible months, incurred claims, and PMPM for the comparison group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 3	28
2.D.1 MEDICARE Eligible months, incurred claims, and PMPM for the comparison group, baseline period, and the Demonstration Year 3, by category of beneficiary: Cohort 4	29
2.D.2 MEDICARE Eligible months, incurred claims, and PMPM for the comparison group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 4	30
2.E MEDICARE Eligible months, incurred claims, and PMPM for the comparison group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 5A.....	31
2.F MEDICARE Eligible months, incurred claims, and PMPM for the comparison group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 5B.....	32
2.G Comparison group summary (all cohorts)	33
3.A.1 MEDICARE Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 3, by category of beneficiary: Cohort 1A.....	36

3.A.2	MEDICARE Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 1A.....	37
3.B.1	MEDICARE Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 3, by category of beneficiary: Cohort 1B.....	38
3.B.2	MEDICARE Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 1B.....	39
3.C.1	MEDICARE Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 3, by category of beneficiary: Cohort 1C.....	40
3.C.2	MEDICARE Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 1C.....	41
3.D.1	MEDICARE Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 3, by category of beneficiary: Cohort 1D.....	42
3.D.2	MEDICARE Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 1D.....	43
3.E.1	MEDICARE Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 3, by category of beneficiary: Cohort 1E.....	44
3.E.2	MEDICARE Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 1E.....	45
3.F.1	MEDICARE Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 3, by category of beneficiary: Cohort 1F.....	46
3.F.2	MEDICARE Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 1F.....	47
3.G.1	—MEDICARE Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 3, by category of beneficiary: Cohort 1 Total.....	48
3.G.2	—MEDICARE Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 1 Total.....	49
3.H.1	MEDICARE Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 3, by category of beneficiary: Cohort 2.....	50
3.H.2	MEDICARE Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 2.....	51

APPENDIX 27

3.I.1	MEDICARE Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 3, by category of beneficiary: Cohort 3.....	52
3.I.2	MEDICARE Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 3.....	53
3.J.1	MEDICARE Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 3, by category of beneficiary: Cohort 4.....	54
3.J.2	MEDICARE Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 4.....	55
3.K	MEDICARE Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 5A.....	56
3.L	MEDICARE Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 5B.....	57
4.A	Summary by cohort of per member per month (PMPM), baseline versus Demonstration Year 3	58
4.B	Summary by cohort of per member per month (PMPM), baseline versus Demonstration Year 4	59
5.A	Average AGA factor by group for baseline period and Demonstration Year 3	61
5.B	Average AGA factor by group for baseline period and Demonstration Year 4	62
6.A.1	MEDICARE Demonstration Year 3 Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1A.....	64
6.A.2	MEDICARE Demonstration Year 4 Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1A.....	65
6.B.1	MEDICARE Demonstration Year 3 Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1B.....	66
6.B.2	MEDICARE Demonstration Year 4 Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1B.....	67
6.C.1	MEDICARE Demonstration Year 3 Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1C.....	68
6.C.2	MEDICARE Demonstration Year 4 Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1C.....	69
6.D.1	MEDICARE Demonstration Year 3 Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1D.....	70
6.D.2	MEDICARE Demonstration Year 4 Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1D.....	71
6.E.1	MEDICARE Demonstration Year 3 Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1E.....	72
6.E.2	MEDICARE Demonstration Year 4 Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1E.....	73
6.F.1	MEDICARE Demonstration Year 3 Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1F.....	74

APPENDIX 27

6.F.2	MEDICARE Demonstration Year 4 Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1F	75
6.G.1	MEDICARE Demonstration Year 3 Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1 total.....	76
6.G.2	MEDICARE Demonstration Year 4 Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1 total.....	77
6.H.1	MEDICARE Demonstration Year 3 Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 2.....	78
6.H.2	MEDICARE Demonstration Year 4 Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 2.....	79
6.I.1	MEDICARE Demonstration Year 3 Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 3.....	80
6.I.2	MEDICARE Demonstration Year 4 Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 3.....	81
6.J.1	MEDICARE Demonstration Year 3 Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 4.....	82
6.J.2	MEDICARE Demonstration Year 4 Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 4.....	83
6.K	MEDICARE Demonstration Year 4 Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 5A.....	84
6.L	MEDICARE Demonstration Year 4 Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 5B.....	85
7.A	MEDICARE Summary of Demonstration Years 1, 2, 3 and 4 savings by cohort not including attributed savings and outlier adjustment	87
7.B	MEDICARE Summary of Demonstration Year 3 savings by cohort not including attributed savings and outlier adjustment	88
7.C	MEDICARE Summary of Demonstration Year 4 savings by cohort not including attributed savings and outlier adjustment	89
8	MEDICARE Outlier adjustment data	91
9	MEDICARE Summary of Demonstration Years 3 and 4 savings by cohort, including the outlier adjustment but excluding attributed savings	93
10	MEDICARE Summary of Demonstration Years 3 and 4 savings by cohort, After all adjustments including the outlier adjustment and attributed savings	95
11.A	MEDICARE PMPM costs for intervention and comparison groups, by month: Cohort 1	101
11.B	MEDICARE PMPM costs for intervention and comparison groups, by month: Cohort 2	102
11.C	MEDICARE PMPM costs for intervention and comparison groups, by month: Cohort 3	103
11.D	MEDICARE PMPM costs for intervention and comparison groups, by month: Cohort 4	104
11.E	MEDICARE PMPM costs for intervention and comparison groups, by month: Cohort 5A.....	105
11.F	MEDICARE PMPM costs for intervention and comparison groups, by month: Cohort 5B.....	105

APPENDIX 27

12.A	MEDICARE PMPM costs for Demonstration Year 3 based on incurred Medicare claims for Cohorts 1, 2, 3 and 4.....	106
12.B	MEDICARE PMPM costs for Demonstration Year 4 based on incurred Medicare claims for Cohorts 1, 2, 3, 4 and 5A/B	107
13.A	PMPM costs by category of beneficiary for Demonstration Year 3 based on incurred Medicare claims for Cohorts 1, 2, 3 and 4.....	108
13B	PMPM costs by category of beneficiary for Demonstration Year 4 based on incurred Medicare claims for Cohorts 1, 2, 3, 4 and 5A/B.....	109

Executive Summary

The Washington Health Homes MFFS demonstration leverages Medicaid health homes to integrate care for full-benefit Medicare-Medicaid beneficiaries by targeting high-cost, high-risk dual eligible enrollees. The State's existing delivery systems for primary, acute, behavioral and LTSS remain unchanged and health homes serve as the bridge for integrating care across these existing delivery systems. The demonstration service area originally included all but two counties (King and Snohomish) in the state and began enrollment on July 1, 2013. As of April 1, 2017, the demonstration was extended statewide and Demonstration Year 4 (DY4) includes beneficiaries from all counties.

This report includes an analysis of Medicare savings during the 24-month period from January 1, 2016 through December 31, 2017: final Medicare savings estimates for DY3 (January 1, 2016 through December 31, 2016) and preliminary Medicare savings estimates for DY4 (January 1, 2017 through December 31, 2017). Final Medicare savings estimates for DY1 and DY2 and preliminary Medicare savings estimates for DY3 appeared in previously released Washington Medicare savings reports. Future reports will include Medicaid data for Demonstration Years 1, 2, 3 and 4, if available.

The method used to perform the Medicare saving calculations in this report is referred to as the "actuarial method," to distinguish it from the multivariate regression-based method that has been used to estimate the impact of the demonstration on quality and cost outcomes in the annual demonstration evaluation reports. The actuarial method relies on assigning beneficiaries in both the intervention and comparison groups to cohorts and then constructing an eligibility timeline for each beneficiary to determine whether claims occurred during a period of demonstration eligibility. Medicare per member per month (PMPM) expenditures for eligible beneficiaries are tabulated from claims.

The basic approach to the savings calculation is to compare the trend of PMPM Medicare expenditures of those beneficiaries in the intervention group with the trend of the PMPM of those beneficiaries in the comparison group. This is achieved by comparing the actual PMPM of the intervention group beneficiaries with a target PMPM, which represents the baseline intervention group PMPM projected forward by the trend of the actual experience observed in the comparison group going from the baseline period to the Demonstration Year.

Results of the savings calculations are summarized below and include results for multiple cohorts as applicable.

- Total Medicare savings in Demonstration Year 3 were calculated as \$38.8 million or 10.9 percent. An additional \$7.7 million in attributed savings (savings attributed to eligible months prior to the start of the most recent cohort) sums to a grand total final calculated Demonstration Year 3 Medicare savings amount of \$46.6 million.
- Preliminary total Medicare savings in Demonstration Year 4 were calculated as \$46.5 million or 9.7 percent. Including preliminary attributed Medicare savings estimates of \$5.5 million results in a grand total preliminary Demonstration Year 4 Medicare savings estimate of \$55.2 million.

- Per the previous Washington Medicare Savings reports, total Demonstration Year 1 Medicare savings were calculated as \$34.9 million and total Demonstration Year 2 savings were calculated as \$30.2 million.
- The current estimate of grand total Demonstration Medicare savings for all cohorts through Demonstration Year 4 to \$166.8 million.

1. Introduction

The Washington Health Homes MFFS demonstration leverages Medicaid health homes, established under Section 2703 of the Affordable Care Act, to integrate care for full-benefit Medicare-Medicaid beneficiaries. Washington has targeted the demonstration to high-cost, high-risk Medicare-Medicaid enrollees based on the principle that focusing intensive care coordination on those with the greatest need provides the greatest potential for improved health outcomes and cost savings. The demonstration is organized around the principles of patient activation and engagement, and support for enrollees to take steps to improve their own health. In the course of integrating care for enrollees across primary care, long-term services and supports (LTSS), and behavioral health delivery systems, health home care coordinators are charged with conducting assessments, and engaging enrollees to develop Health Action Plans (HAPs) and increase their self-management skills to achieve optimal physical and cognitive health.

The State's existing delivery systems for primary, acute, behavioral, and LTSS remain unchanged. Health homes serve as the bridge for integrating care across these existing delivery systems. Even though the Washington State MFFS demonstration provides services through the traditional fee-for-service Medicare and Medicaid programs and does not affect beneficiaries' choice of providers or limit availability of services, beneficiaries have the option to opt out of receiving health home services. Beneficiaries are auto-assigned to a health home to coordinate their services, and they may choose not to use or engage with that health home. Their Medicare and Medicaid services are not disrupted if they decide not to engage with the health home.

Washington used a competitive Request for Application process to select qualified health homes. Applicants were required to demonstrate a wide range of administrative capabilities, have experience in conducting care coordination, offer multiple vehicles for beneficiary access to supports, and present a network of diverse organizations that can serve enrollees with a range of needs. The organizations selected were Community Choice (a provider consortium); Northwest Regional Council (an Area Agency on Aging); Optum (a Mental Health Regional Support Network); and Southeast Washington Aging and Long Term Care (an Area Agency on Aging). Two managed care plans were also selected to be health homes, Community Health Plan of Washington and United Health Care Community Plan. The State prioritized beneficiary enrollment into the non-managed care health homes and as a result, as of July 2015, less than 5 percent, 4.7 percent, of all enrollees were in new managed care health homes.

During the 2015 Washington legislative session, State funding for the health home program was terminated, effective December 31, 2015. According to a joint statement released by the Washington Department of Social and Health Services (DSHS) and the Health Care Authority (HCA) (DSHS and HCA, 2015), the legislature's decision to terminate funding was based on a lack of supporting information about whether the demonstration would meet its projected savings target amid a challenging budget climate. During the several months following the close of the legislative session in June 2015, the State suspended auto enrollment into the demonstration and began planning for termination.

In late October 2015, new information became available about projected savings for the demonstration. As a result, the State changed course and decided to continue health home services through June 2016, to give the legislature time to review savings projections. During the 2016 legislative session funding for health homes was reinstated. Effective April 1, 2017, the demonstration began to serve King and Snohomish counties, extending the demonstration service area statewide.

This report provides a final Medicare Parts A & B savings analysis of the Washington managed fee-for-service (MFFS) demonstration for Demonstration Year 3 and a preliminary analysis of Medicare data for Demonstration Year 4 under the Medicare-Medicaid Financial Alignment Initiative. During the first three Demonstration Years, Washington had enrolled beneficiaries in the demonstration in all but two counties (King and Snohomish) in the State. Washington began enrollment on July 1, 2013. As of April 1, 2017, the demonstration was extended statewide and Demonstration Year 4 includes beneficiaries from all counties.

This report includes an analysis of Medicare savings during the 24-month period from January 1, 2016 through December 31, 2017 separated into Demonstration Year 3 for the Washington demonstration (January 1, 2016 through December 31, 2016) and Demonstration Year 4 (January 1, 2017 through December 31, 2017). CMS previously released two Medicare savings reports by RTI entitled (1) Final Demonstration Year 1 and Preliminary Demonstration Year 2 Medicare Savings Estimates: Medicare-Medicaid Financial Alignment Initiative and (2) Final Demonstration Year 2 and Preliminary Demonstration Year 3 Medicare Savings Estimates: Medicare-Medicaid Financial Alignment Initiative. These reports provided final estimates of Medicare savings for Demonstration Years 1 and 2 and preliminary estimates of Medicare savings for Demonstration Years 2 and 3, respectively, for Washington. Demonstration Years 1, 2 and 3 experience and Medicare savings calculations are considered complete.¹ This report provides final Medicare savings estimates for Demonstration Year 3 and preliminary Medicare savings estimates for Demonstration Year 4, the additional 12-month period spanning from January 1, 2017 through December 31, 2017. In addition to developing a savings report for subsequent Demonstration Years, future reports will include Medicaid data for Demonstration Years 1, 2, 3 and 4, if available. Currently, we do not have sufficient Medicaid data for the periods covered in this report to perform any analyses.

The method used to perform the Medicare savings calculations in this report will be referred to as the “actuarial method,” to distinguish it from the multivariate regression-based method that will be used to estimate the impact of the demonstration on quality and cost outcomes in the annual evaluation reports for the Washington demonstration. Because the actuarial method constructs cohorts of beneficiaries from the comparison group (as will be explained later), the actuarial savings calculation uses a subset of the comparison group that was constructed for the other descriptive and regression-based analyses that RTI will perform as part of the evaluation. The Centers for Medicare & Medicaid Services (CMS) will use the results of the actuarial method to determine whether Washington is eligible for a performance payment

¹ Any reference to Demonstration Years 1 and 2 experience and savings included in this report is pulled directly from the previous report and does not incorporate any new information or calculations.

APPENDIX 27

WA STATE HOSPICE COST, QUALITY AND OUTCOME STUDIES

under the MFFS Financial Alignment Model. The Medicare and Medicaid savings calculation results will be a factor in that determination.

The Medicare results presented in this report should be viewed as final for Demonstration Year 3, but preliminary for Demonstration Year 4. The Demonstration Year 4 Medicare Parts A and B expenditure data includes 10 months of claims runout (i.e., through October 2018). Note that final the evaluation report will include an analysis of Medicare Part D data, however under the MFFS financial alignment model, Part D spending does not inform the amount of any performance payment to the State and is not included in this report. The preliminary Demonstration Period 3 results included in the previous report included 12 months of claims runout. This final Medicare savings report for Demonstration Year 3 has been updated to include any retroactive adjustments to eligibility data and additional claims runout for beneficiaries in both the intervention and comparison groups.

Compared to earlier reports, there was one important methodological change made to the Demonstration Year 3 final Medicare savings estimate. This change is detailed in section 3.2 below. In brief, the comparison group for Demonstration Year 3 was updated to reflect a lack of reliable eligibility information reported for dual enrollees in Arkansas beginning in Demonstration Year 3.

[This page intentionally left blank.]

2. Data Sources for PMPM Cost Analysis

2.1 Eligibility Data

As a part of performing cost calculations on a per member per month (PMPM) basis, it was necessary to construct an eligibility timeline for each beneficiary to determine whether claims occurred during periods of eligibility for the demonstration. ARC used beneficiary eligibility information extracted from the appropriate tables on the Integrated Data Repository (IDR) in December 2018, to construct an analytic file that contains eligibility occurrences for Part A coverage, Part B coverage, and primary payer status; eligibility occurrences for State/county codes of residence and, as applicable, the date of death; Group Health Organization (GHO) enrollment (e.g., Medicare Advantage [MA] or the Program of All-Inclusive Care for the Elderly [PACE]); and periods of hospice coverage. Specific eligibility criteria are described in Section 3.2. All of this information was used to construct a historical eligibility record for each beneficiary in all cohorts and Demonstration Years. Thus, these new data were used to produce the final estimate of Medicare savings for demonstration year 3 and preliminary Medicare savings estimates for demonstration year 4.

After creating the historical eligibility file, ARC determined the days on which a beneficiary was eligible for the demonstration. Claims were used to calculate the Medicare PMPM payments only if the beneficiary was eligible to participate in the demonstration on the admission date (for institutional claims) or service date (for all other types of service) on the claim. For future reports, retroactive changes will be applied so that the daily eligibility file for Demonstration Year 4 will include updated values for all months in Demonstration Year 4.

2.2 Claims Data

The source of Medicare Parts A and B claims data for this report was CMS's Chronic Condition Warehouse (CCW). For each of the beneficiary cohorts included in this report, the claims data employed in the analysis were extracted from the CCW and represent claims incurred from the start date of each cohort through December 31, 2017 and processed by CMS through October 2018. The paid claim amounts tabulated for this report do not include estimates of incurred-but-not-reported (IBNR) claims for medical services performed during all 24 months but not yet paid by the end of October 2018. We have assumed the claims runout is effectively 100 percent complete for Demonstration Year 3.

Medicare payments were separated into seven claim categories:

1. Inpatient
2. Skilled Nursing Facility (SNF)
3. Hospice
4. Outpatient
5. Home Health

6. Professional
7. Durable Medical Equipment (DME)

3. Basic Approach

The basic approach to the savings calculation is to compare the trend (as opposed to the level) of per member per month (PMPM) Medicare expenditures of those beneficiaries in the intervention group (i.e., the demonstration group) with the trend of the PMPM of those beneficiaries in the comparison group. This is done by comparing the actual PMPM of the individuals in the intervention group with a target PMPM, which is determined by projecting forward the PMPM of the intervention group in the baseline period to the Demonstration Year. The trend used for the projection is based on the actual experience observed in the comparison group during the baseline period and the Demonstration Year.

For Medicare, the PMPM amounts are calculated by dividing total Medicare Parts A and B expenditures by the number of member months of eligibility. Medicare-paid amounts do not include the amounts for deductibles, coinsurance, or balance billing. For hospital claims, the paid amount is reduced for Medicare Disproportionate Share (DSH) payments and Indirect Medical Education (IME) payments, because these payments are not directly related to the cost of care provided to individual beneficiaries.

3.1 Categories of Beneficiaries

The basic approach is refined by disaggregating the beneficiaries in the intervention and comparison groups by characteristics that affect their level of care and costs. The disaggregation is performed using three characteristics that result in 12 categories, or cells, of beneficiaries:

1. Basis of Medicare eligibility:
 - i) Age (65+) or
 - ii) Disability (<65)
2. Level of Long-Term Services and Supports (LTSS):
 - i) Institution,
 - ii) Home and Community-Based Services (HCBS), or
 - iii) Community
3. Presence of Severe and Persistent Mental Illness (SPMI):
 - i) Yes or
 - ii) No

It is important to note that beneficiaries are placed into categories according to their characteristics at the time that they are first assigned to a cohort, even if these characteristics subsequently change. This is done to ensure that the PMPMs in each category change only from the effects of the demonstration and not from the effects of changing the mix of individuals in the category. This will also capture the effect of the demonstration to potentially slow the progression of the use of LTSS. For example, during the demonstration, some of the beneficiaries originally placed in the community category may begin using HCBS or institutional services, which usually result in increased costs of care. If the transition rate of beneficiaries in the community category who move to categories requiring more intensive services during the

demonstration is higher for the comparison group than for the intervention group, then the PMPM of the comparison group would increase faster and the savings model would show demonstration savings.

3.2 Cohorts

The beneficiaries are also disaggregated according to when they become eligible for the demonstration. Beneficiaries are placed into cohorts based on when they first meet the eligibility requirements of the demonstration. Those who met the requirements for eligibility on July 1, 2013 are in Cohort 1. In order to (1) not include the experience of beneficiaries before they become eligible for the demonstration and (2) create closed groups, intervention group Cohort 1 beneficiaries were subdivided into six subgroups; those who first became eligible for the demonstration in each of the 6 months July through December 2013. These subgroups are designated as Cohort 1A through Cohort 1F, respectively. All subsequent cohorts are assigned as follows:

- Cohort 2: Those who met the requirements for eligibility on January 1, 2014 (and who are not in Cohort 1)
- Cohort 3: Those who met the requirements for eligibility on January 1, 2015 (and are not in Cohort 1 or Cohort 2)
- Cohort 4: Those who met the requirements for eligibility on January 1, 2016 (and are not in Cohorts 1, 2 or 3)
- Cohort 5A: Those who met the requirements for eligibility on January 1, 2017 (and are not in Cohorts 1, 2, 3 or 4)
- Cohort 5B: Those residing in King and Snohomish counties who met the requirements for eligibility on April 1, 2017.

Note that the beneficiaries in Cohort 1 and Cohort 2 have experience after the start date of the cohort during Demonstration Year 1 (which spans July 2013 through December 2014), but that Cohort 3 does not. Cohorts 1, 2 and 3 have experience after the start date of the cohort in Demonstration Year 2 (which spans January 2015 through December 2015), but Cohort 4 does not. Cohorts 1, 2, 3 and 4 have experience in Demonstration Year 3. The demonstration extended to include King and Snohomish counties effective April 1, 2017, and as such Cohort 5A has experience for the entirety of Demonstration Year 4 (which spans January 2017 through December 2017) but Cohort 5B only has 9 months of experience in Demonstration Year 4 (April 2017 through December 2017.) In subsequent Demonstration Years, beneficiaries in King and Snohomish counties will continue to be kept in separate sub-cohorts because there was a separate comparison group constructed for these individuals. However, the time periods of experience will be identical.

Washington provided CMS with a file that flags the beneficiaries who have been determined to be eligible for the demonstration, including those having a score of 1.5 or greater

on the Predictive Risk Intelligence System (PRISM)². This eligibility flag is provided for months starting in July 2013, but not for the months in the baseline period. We performed some basic eligibility checks on the beneficiaries and excluded them from the savings calculation if, on the date that we place them in cohorts, they failed to meet any of the following criteria. We also excluded from the baseline period any month for which an eligible beneficiary does not meet these basic eligibility requirements

1. Are eligible for Medicaid
2. Reside in a demonstration county
3. Have not elected hospice care
4. Have both Part A and Part B coverage
5. Are not enrolled in a Group Health Organization
6. Do not have Medicare as a secondary payer
7. Have at least 90 days of experience during the baseline period
8. Are not in another CMS Medicare shared savings initiative.

For beneficiaries in the comparison group, we applied the same checks, except that residence was checked for the appropriate counties in the comparison states.

Each MSA consists of a group of counties. For each state, a non-MSA area was constructed from the counties that do not belong to an MSA. In addition, RTI simulated the PRISM score of each comparison group beneficiary for each quarter of the Demonstration Years. We checked that the comparison group beneficiaries had an RTI-generated simulated PRISM score of at least 1.5 in the first quarter of the demonstration for Cohort 1, in the third quarter of the demonstration for Cohort 2, in the seventh quarter of the demonstration for Cohort 3, in the eleventh quarter of the demonstration for Cohort 4 and in the fifteenth quarter of the demonstration for Cohorts 5A and 5B.

Special Note 1: RTI constructed the comparison group for the original demonstration area from selected Metropolitan Statistical Areas (MSAs) in three States—Georgia, Arkansas, and West Virginia—based on similarities between the demonstration and comparison areas. For the demonstration extension to King and Snohomish counties, RTI constructed the comparison group from selected MSAs in four states—Michigan, North Carolina, Virginia and West Virginia.³ The use of a separate comparison group for these two counties reflects how they are notably different in composition from other regions of Washington.

² The PRISM score is based on a proprietary algorithm developed by the state of Washington.

³ A description of the comparison group selection methodology will be included in the Washington annual report.

Special Note 2: During the early stages of the Demonstration Year 4 Medicare savings analysis, information was provided to CMS and the evaluation contractor that critically undermined the validity of the eligibility information reported for Arkansas, one of the comparison states, beginning in Demonstration Year 3. Upon further investigation, it became clear that including beneficiaries from Arkansas in the comparison group for purposes of the actuarial savings analysis for Demonstration Years 3 and 4 was not a credible option and they were dropped after consultation with CMS. The paragraph below describes the relative distribution of the intervention and comparison group beneficiaries after the updates.

The intervention group and the comparison group had roughly the same distribution by basis of eligibility. Both groups had roughly 44 percent of individuals aged 65 or older. The distribution by prevalence of SPMI and facility status showed more variation. In the intervention group, there was 35 percent prevalence of SPMI compared with 42 percent in the comparison group. In the intervention group, 41 percent of members used HCBS and 11 percent used facility-based LTSS, whereas the prevalence in the comparison group was 17 percent HCBS and 28 percent facility-based services. Because the savings were calculated for each facility status category separately and weighted according to the intervention group distribution, the savings calculation appropriately takes into account these distributions.

For each cohort after the first, some or all of the baseline experience includes months that are also Demonstration Year months for which the beneficiary could have also been eligible for the demonstration. These are the first few months of eligibility before the start of the cohort, which occurs on January 1. According to the Final Demonstration Agreement, it was agreed to attribute the savings experience of the prior cohort to these months. Thus, for Demonstration Year 1, the savings percentage experienced by Cohort 1 was attributed to these few months of Cohort 2, and for Demonstration Years 2, 3 and 4, the savings percentage experienced by Cohorts 2, 3 and 4 were attributed to these few months for Cohorts 3, 4 and 5A, respectively. Cohorts 6A and 6B will consist of those who were eligible for the demonstration in January 2018 in the original demonstration area and who were not in Cohorts 1, 2, 3, 4 or 5A and those who were eligible for the demonstration in January 2018 in King and Snohomish counties who were not in Cohort 5B. For this report, we have tabulated the eligible member months in Demonstration Year 4 (January 2017 through December 2017 for the original demonstration area and April 2017 through December 2017 for King and Snohomish counties) of preliminary Cohorts 6A and 6B and attribute the PMPM savings achieved for Cohorts 5A and 5B, respectively, to these first few months of eligibility of Cohorts 6A and 6B. As noted in section 5.4 below, these preliminary attributions of savings can change significantly once additional data becomes available.

The reason for employing cohorts for the analysis is to create closed groups of beneficiaries (similarly in the intervention group and the comparison group) whose monthly expenditures (PMPM) can be tracked to determine the effects of the demonstration. If new entrants were allowed into these groups over time, the new entrants would change the PMPM of the groups for reasons unrelated to the effects of the demonstration, but instead related only to the change in the mix of the groups. If the mix of the groups were changing every month in terms of characteristics affecting costs such as age, gender, risk score, and area of residence, then adjustment factors would need to be introduced to take these monthly changes into account. The

use of closed groups means that these characteristics are not changing significantly between the intervention and comparison groups and monthly adjustment factors are not needed.

When the idea of the cohorts was first conceived before the drafting of the preliminary report for demonstration year 1, Cohort 1 was to consist of all of those beneficiaries first identified as eligible for the demonstration in or before July 2013 without any sub-cohorts. However, from those beneficiaries who were dually eligible in July 2013, Washington determined their first month of eligibility for the demonstration in stages over the first 6 months of operations as the demonstration was being rolled out in different areas. That is, a beneficiary was not considered to be eligible for the demonstration for savings calculation purposes until the demonstration had been implemented in the beneficiary's geographic area. It is not possible to re-create this process of rolling entry for the comparison group. Thus, Cohort 1 for the comparison group consists of those beneficiaries who were both dually eligible in July 2013 and deemed eligible for the demonstration in July 2013 by RTI, which simulated the Washington PRISM criteria.

The baseline period for all cohorts is shown below:

- Cohort 1: July 1, 2011 through June 30, 2013.
- Cohort 2: January through December 2013.
- Cohort 3: January through December 2014.
- Cohort 4: January through December 2015.
- Cohort 5A: January through December 2016.
- Cohort 5B: April 2016 through March 2017.

The same beneficiaries are in the baseline and the Demonstration Years and an individual beneficiary must have 3 months of baseline experience before being included in a cohort for the savings calculation. This means that the beneficiary must have met the basic eligibility requirements for at least 3 months during the applicable baseline period. Because the savings calculation methodology relies on determining the trend in PMPM expenditures between the baseline period and the Demonstration Year, it is essential that each beneficiary have relevant experience in both of these periods.

3.3 Determining Member Months

Savings are determined by comparing intervention and comparison group PMPM Medicare expenditures. The first step in determining PMPM amounts is determining the number of member months that are used in the calculation for each beneficiary. For Cohort 1, member months are calculated for each beneficiary starting on July 1, 2013 (or the first day of demonstration eligibility for sub-cohorts) and accruing until one of the following dates or the end of the analytic period (i.e., the first day that is not included as a member month):

1. January 1, 2018.
2. The day after death.
3. The day after moving outside of the intervention area or comparison area.
4. The day of joining a Group Health Organization (GHO).
5. The day that Medicare is no longer the primary payer.
6. The day of loss of coverage for either Medicare Part A or Part B.
7. The day of loss of Medicaid eligibility.
8. For intervention beneficiaries, the day that Washington determines that the beneficiary is no longer eligible for the demonstration.
9. For Cohorts 1 and 2, January 1, 2015 if the beneficiary was a part of a Medicare shared savings program in 2015 but had not been a part of a shared savings program prior to 2015.
10. For Cohorts 1, 2 and 3, January 1, 2016 if the beneficiary was part of a Medicare shared savings program in 2016, but had not been part of a shared savings program prior to 2016.
11. For Cohorts 1, 2, 3 and 4, January 1, 2017 if the beneficiary was part of a Medicare shared savings program in 2017, but had not been part of a shared savings program prior to 2017.

When one of the above occurs during a month, a prorated number of member months are calculated, so that the number of member months contains fractions of whole months. For Cohorts 2, 3, 4, 5A and 5B, the member months are calculated beginning on January 1, 2014 - 2017, and April 1, 2017, respectively, and accrue until one of the above termination events or the end of the analytic period. Also, if a beneficiary meets the demonstration eligibility criteria after being terminated previously, his or her experience would once again be included. Note that a beneficiary is not dropped from the analysis if his or her PRISM score falls below 1.5 or if the beneficiary elects hospice care. Thus, although having a PRISM score below 1.5 or being in hospice care prevents a beneficiary from becoming eligible for the demonstration, these events do not cause a beneficiary who is previously eligible from losing eligibility.

3.4 Calculation of PMPM

For Medicare, the PMPM expenditures for both the baseline period and the Demonstration Years are calculated separately for the intervention and comparison groups, each of the 12 categories of beneficiaries, each cohort, each type of service, and for each month of the Demonstration Year. For the intervention group, when aggregating across months, cells, types of service, or cohorts, expenditures and member months are simply tabulated and divided to obtain the aggregate PMPMs. For the comparison group, however, when aggregating across months,

cells, type of service, or cohorts, expenditures are obtained by multiplying the PMPM of the corresponding comparison group by the member months (MM) of the intervention group, which represents the expenditures that the comparison group would have experienced if it had the same enrollment structure and distribution as the intervention group. Totals obtained in this way are referred to as “reweighted” in subsequent tables.

For each cohort, cell, type of service, and demonstration month, a “target” PMPM is obtained by multiplying the corresponding PMPM of the intervention group in the baseline period (all 24 months combined for Cohort 1 and all 12 months combined for subsequent cohorts) times the ratio of (1) the comparison group PMPM in the demonstration month and (2) the comparison group PMPM in the baseline period. The target represents the PMPM in the baseline period of the intervention group projected forward by the trend in the comparison group. The difference between this target PMPM and the actual PMPM in the intervention group in a Demonstration Year reflects the impact of the demonstration.

3.5 AGA and Outlier Adjustments

Adjustments to the target PMPMs are needed to reflect Federal and State policies and market forces that affect the costs in the comparison States differently from those in the demonstration States and to ensure that calculated savings result only from the demonstration and not from these differences in other factors. For Medicare expenditures, the only necessary adjustment is applying an Average Geographic Adjustment (AGA) factor.⁴ The AGA factor reflects varying FFS cost trends in each county over time compared with the costs of the entire nation. The AGA changes at different rates for each geographic area. The target PMPMs are adjusted so that the comparison group trend is what it would be if the AGA factors in the comparison States had changed by the same percentage as the change in the demonstration State between the baseline period and the Demonstration Year.

Another adjustment is calculated for both the intervention and the comparison PMPMs to account for outliers. Average health care expenditures (as represented by the PMPMs) for a group of beneficiaries can be significantly affected by a few very high-cost beneficiaries. Although it is possible to save by managing the care of such high-cost beneficiaries in the intervention group, this savings cannot be measured unless there are corresponding and similar high-cost beneficiaries in the comparison group. The outlier adjustment process begins by combining the intervention and comparison group beneficiaries and ranking them by their annual Medicare expenditures. A threshold amount is set at the 99th percentile of these annual beneficiary-level costs. The expenditures for any individual that exceed this threshold amount are winsorized to the threshold amount. The costs above the threshold are subtracted from the total costs, and the PMPMs are recalculated by excluding the amounts above the threshold.

⁴ Other adjustments will have to be made to the Medicaid expenditures.

[This page intentionally left blank.]

4. Analysis of Cohorts

As described above, the purpose of closed cohorts is to ensure that the trend in per member per month (PMPM) results from changes in spending on beneficiaries initially placed in each category, not from new higher or lower cost beneficiaries joining the cohort over time. Although no new entrants are allowed into each cohort after it is created, there will be some terminations, and these will affect the mix of beneficiaries slightly. We have calculated the number and rates of termination for each cohort to determine whether these rates are sufficiently small and similar between the intervention and comparison groups so as to not materially affect the analysis.

Cohort 1 consists of 13,979 Medicare-Medicaid enrollees in the intervention group and 23,233 Medicare-Medicaid enrollees in the comparison group. After 54 months of operations, there were 6,160 eligible intervention group members and 7,405 eligible comparison group members as of December 31, 2017. The monthly attrition rates for the intervention and comparison groups were 1.60 percent and 2.15 percent, respectively. The most common reason for attrition was death and the monthly death rate for the intervention group was 0.77 percent, which was lower than the monthly death rate of 1.07 percent for the comparison group. The intervention group also experienced a lower rate of attrition due to a beneficiary moving out of area or participating in a shared savings program (SSP). However, the intervention group experienced higher monthly rates of attrition from (1) loss of dual eligibility (i.e., loss of Medicare or Medicaid eligibility) or (2) when Washington indicated that the beneficiary was no longer eligible for the demonstration (0.46 percent vs. 0.19 percent⁵).

Cohort 1 for the intervention group was divided into six subgroups denoted by 1A through 1F. The six subgroups consist of those beneficiaries that Washington first identified as being eligible for the demonstration at the start of each of the 6 months from July 2013 through December 2013. The following table of overall monthly attrition rates shows the number of beneficiaries in each subgroup, the monthly death rate, and the total monthly attrition rate for each subgroup.

**Table 1. —
Cohort Composition**

Subgroup	Number of beneficiaries	Monthly death rate	Total monthly attrition rate
1A	2,216	0.99%	1.67%
1B	3,844	0.61%	1.45%
1C	390	0.77%	1.80%
1D	6,017	0.81%	1.66%
1E	724	0.68%	1.65%
1F	788	0.64%	1.58%

⁵ Note that eligibility for the intervention group is determined using Washington provided eligibility criteria including PRISM score. Eligibility for the comparison group is based on the application of Washington eligibility criteria to a comparison group which includes an RTI simulated PRISM score.

Cohort 2 consists of 690 Medicare-Medicaid enrollees in the intervention group and 4,331 Medicare-Medicaid enrollees in the comparison group. After 48 months, there were 265 eligible intervention group members and 1,521 eligible comparison group members. The monthly attrition rates for the intervention and comparison groups were 2.14 percent and 2.29 percent, respectively.

Cohort 3 consists of 5,645 Medicare-Medicaid enrollees in the intervention group and 6,444 Medicare-Medicaid enrollees in the comparison group. After 36 months of operations, there were 2,751 eligible intervention group members and 2,740 eligible comparison group members. The monthly attrition rates for the intervention and comparison groups were 2.00 percent and 2.45 percent, respectively.

Cohort 4 consists of 5,823 Medicare-Medicaid enrollees in the intervention group and 7,219 Medicare-Medicaid enrollees in the comparison group. After 24 months of operations, there were 3,329 eligible intervention group members and 4,061 eligible comparison group members. The monthly attrition rates for the intervention and comparison groups were 2.34 percent and 2.42 percent, respectively.

Cohort 5A consists of 6,165 Medicare-Medicaid enrollees in the intervention group and 5,469 Medicare-Medicaid enrollees in the comparison group. After 12 months of operations, there were 4,574 eligible intervention group members and 4,151 eligible comparison group members. The monthly attrition rates for the intervention and comparison groups were 2.51 percent and 2.32 percent, respectively.

Cohort 5B consists of 5,930 Medicare-Medicaid enrollees in the intervention group and 20,441 Medicare-Medicaid enrollees in the comparison group. After 9 months of operations, there were 4,802 eligible intervention group members and 16,946 eligible comparison group members. The monthly attrition rates for the intervention and comparison groups were 2.34 percent and 2.08 percent, respectively.

Table 1.A summarizes the reasons for ineligibility for members of Cohort 1 who became ineligible during the first 54 months of demonstration operations. *Table 1.B* summarizes the reasons for ineligibility for members of Cohort 2 who became ineligible during their 48 months of demonstration operations. *Tables 1.C–F* summarize the reasons for ineligibility for members of Cohorts 3, 4, 5A and 5B who became ineligible during their 36, 24, 12 and 9 months of demonstration operations, respectively.

**Table 1.A —
Reasons for ineligibility for Cohort 1**

Final ineligibility reason	Intervention group		Comparison group	
	Number of events	Monthly attrition rate	Number of events	Monthly attrition rate
Death	3,747	0.77%	7,903	1.07%
Loss of Part A or B	47	0.01%	71	0.01%
GHO enrollment	1,072	0.22%	2,036	0.28%
Medicare secondary payer	221	0.05%	341	0.05%
Moved out of service area	352	0.07%	884	0.12%
Participation in SSP	153	0.03%	3,163	0.43%
Loss of eligibility	2,227	0.46%	1,430	0.19%
All ineligibles ¹	7,819	1.60%	15,828	2.15%
Beneficiaries as of 1 st day of 1 st month of eligibility		13,979		23,233
Beneficiaries as of 12/31/2017		6,160		7,405
Total member months		488,824		735,431

GHO = Group Health Organization.

¹ For Cohorts 1, 2 and 3 we included attrition experience from Demonstration Years 1 and 2 in the count of events, the total member months of exposure and the calculation of the monthly attrition rate in order to show a full picture of the demonstration attrition to date. Because the Demonstration Years 1 and 2 experience was finalized, it was not re-run, but the total beneficiary counts for first day eligible and eligible as of 12/31/2017 reflect most recent run. This can lead to small discrepancies whereby beneficiaries remaining do not equal starting total beneficiaries minus all ineligibles due to retroactive eligibility changes.

**Table 1.B —
Reasons for ineligibility for Cohort 2**

Final ineligibility reason	Intervention group		Comparison group	
	Number of events	Monthly attrition rate	Number of events	Monthly attrition rate
Death	143	0.72%	1,179	0.96%
Loss of Part A or B	5	0.03%	14	0.01%
GHO enrollment	62	0.31%	349	0.28%
Medicare secondary payer	17	0.09%	56	0.05%
Moved out of service area	29	0.15%	206	0.17%
Participation in SSP	11	0.06%	620	0.51%
Loss of eligibility	158	0.80%	386	0.31%
All ineligibles	425	2.14%	2,810	2.29%
Beneficiaries as of 1/1/2014	690		4,331	
Beneficiaries as of 12/31/2017	265		1,521	
Total member months	19,859		122,673	

**Table 1.C —
Reasons for ineligibility for Cohort 3**

Final ineligibility reason	Intervention group		Comparison group	
	Number of events	Monthly attrition rate	Number of events	Monthly attrition rate
Death	968	0.67%	1,562	1.03%
Loss of Part A or B	11	0.01%	24	0.02%
GHO enrollment	429	0.30%	385	0.25%
Medicare secondary payer	95	0.07%	72	0.05%
Moved out of service area	149	0.10%	253	0.17%
Participation in SSP	52	0.04%	908	0.60%
Loss of eligibility	1,190	0.82%	500	0.33%
All ineligibles	2,894	2.00%	3,704	2.45%
Beneficiaries as of 1/1/2015	5,645		6,444	
Beneficiaries as of 12/31/2017	2,751		2,740	
Total member months	144,347		150,997	

**Table 1.D —
Reasons for ineligibility for Cohort 4**

Final ineligibility reason	Intervention group		Comparison group	
	Number of events	Monthly attrition rate	Number of events	Monthly attrition rate
Death	758	0.71%	1,357	1.04%
Loss of Part A or B	17	0.02%	14	0.01%
GHO enrollment	422	0.40%	385	0.30%
Medicare secondary payer	69	0.06%	67	0.05%
Moved out of service area	154	0.14%	234	0.18%
Participation in SSP	30	0.03%	600	0.46%
Loss of eligibility	1,044	0.98%	501	0.38%
All ineligibles	2,494	2.34%	3,158	2.42%
Beneficiaries as of 1/1/2016	5,823		7,219	
Beneficiaries as of 12/31/2017	3,329		4,061	
Total member months	106,497		130,359	

**Table 1.E —
Reasons for ineligibility for Cohort 5A**

Final ineligibility reason	Intervention group		Comparison group	
	Number of events	Monthly attrition rate	Number of events	Monthly attrition rate
Death	419	0.66%	641	1.13%
Loss of Part A or B	9	0.01%	8	0.01%
GHO enrollment	235	0.37%	231	0.41%
Medicare secondary payer	43	0.07%	42	0.07%
Moved out of service area	84	0.13%	70	0.12%
Loss of eligibility	801	1.26%	326	0.57%
All ineligibles	1,591	2.51%	1,318	2.32%
Beneficiaries as of 1/1/2017	6,165		5,469	
Beneficiaries as of 12/31/2017	4,574		4,151	
Total member months	63,414		56,699	

**Table 1.F —
Reasons for ineligibility for Cohort 5B**

Final ineligibility reason	Intervention group		Comparison group	
	Number of events	Monthly attrition rate	Number of events	Monthly attrition rate
Death	334	0.69%	1,549	0.92%
Loss of Part A or B	8	0.02%	34	0.02%
GHO enrollment	266	0.55%	600	0.36%
Medicare secondary payer	41	0.09%	153	0.09%
Moved out of service area	397	0.82%	336	0.20%
Loss of eligibility	82	0.17%	823	0.49%
All ineligibles	1,128	2.34%	3,495	2.08%
Beneficiaries as of 4/1/2017	5,930		20,441	
Beneficiaries as of 12/31/2017	4,802		16,946	
Total member months	48,134		167,717	

5. Results of PMPM Cost Analysis

5.1 Medicare Savings before Adjustments

The savings are determined by comparing the rate of growth in expenditures between the intervention group (WA) and the comparison group (the comparison states) as measured by the average monthly costs per beneficiary, the per member per month (PMPM) costs. We begin this calculation by tabulating the PMPM costs for the comparison group in both the baseline period and the Demonstration Years as shown in *Tables 2A–F*. These tables show the incurred claims, member months, and per member per month (PMPM) costs for Cohort 1 (*Table 2.A*), Cohort 2 (*Table 2.B*), Cohort 3 (*Table 2.C*), Cohort 4 (*Table 2.D*), Cohort 5A (*Table 2.E*) and Cohort 5B (*Table 2.F*) for the baseline period and for Demonstration Years 3 and 4 by category of beneficiary.

The overall results are summarized in *Table 2G*.

- For comparison group Cohort 1, the PMPM increases by 7.9 percent from \$1,600 during the baseline period to \$1,727 during Demonstration Year 3 and increases by 10.8 percent to \$1,773 during Demonstration Year 4.
- For comparison group Cohort 2, the PMPM decreases by 15.8 percent from \$1,607 to \$1,353 during Demonstration Year 3 and decreases by 9.2 percent to \$1,460 during Demonstration Year 4.
- For comparison group Cohort 3, the PMPM decreases by 21.6 percent from \$1,674 to \$1,312 during Demonstration Year 3 and decreases by 18.5 percent to \$1,364 during Demonstration Year 4.
- For comparison group Cohort 4, the PMPM decreases by 8.7 percent from \$1,738 to \$1,587 during Demonstration Year 3 and decreases by 14.4 percent to \$1,488 during Demonstration Year 4.
- For comparison group Cohort 5A, the PMPM decreases by 7.3 percent from \$1,817 to \$1,684 during Demonstration Year 4.
- For comparison group cohort 5B, the PMPM increases by 4.1 percent from \$1,581 to \$1,646 during Demonstration Year 4.

Cohorts 5A and 5B have no experience during Demonstration Year 3.

One significant difference between Cohorts 1 and 5B as compared to Cohorts 2, 3, 4 and 5A is that Cohorts 1 and 5B represent a cross-section of demonstration-eligible beneficiaries, whereas Cohorts 2, 3, 4 and 5A represent newly demonstration-eligible beneficiaries. In other words, Cohorts 1 and 5B beneficiaries could have first met the requirements for demonstration eligibility at any time during the past (perhaps years ago), whereas Cohorts 2, 3, 4 and 5A beneficiaries first met the requirements for demonstration eligibility more recently (otherwise they would have been included in Cohort 1).

Prior to comparison with the intervention group, as will be shown in subsequent tables, the PMPMs in each cell (i.e., the specific category of beneficiary and month) are reweighted by the number of member months in the intervention group. The resulting totals represent the costs that would have occurred in the comparison group if it had the same number and distribution of beneficiaries as the intervention group.

The re-weighted PMPM costs are then further adjusted for two reasons before savings are calculated: (1) to reflect the difference in the trend in the Average Geographic Adjustment factor between Washington and the comparison States, and (2) to include an adjustment for the trimming of outlier costs above the 99th percentile of annual costs of total paid claims.

Table 2.A.1 — MEDICARE
Eligible months, incurred claims, and PMPM for the comparison group, baseline period, and the Demonstration Year 3,
by category of beneficiary: Cohort 1

Category of beneficiary	Baseline period			Demonstration Year 3			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Total	495,181.0	\$792,439,622	\$1,600.30	125,982.4	\$217,509,711	\$1,726.51	1.07886
Facility, age 65+, with SPMI	32,115.2	\$66,311,502	\$2,064.80	6,478.9	\$11,037,036	\$1,703.54	0.82504
Facility, age 65+, no SPMI	80,858.8	\$139,945,392	\$1,730.74	13,384.4	\$22,137,586	\$1,653.99	0.95565
HCBS, age 65+, with SPMI	10,838.8	\$20,539,243	\$1,894.97	2,808.0	\$6,420,223	\$2,286.41	1.20657
HCBS, age 65+, no SPMI	51,925.0	\$84,282,667	\$1,623.16	11,226.5	\$25,133,273	\$2,238.74	1.37925
Community, age 65+, with SPMI	12,587.9	\$16,488,055	\$1,309.84	3,811.3	\$6,628,937	\$1,739.29	1.32787
Community, age 65+, no SPMI	92,332.0	\$108,551,869	\$1,175.67	24,172.9	\$38,552,059	\$1,594.85	1.35654
Facility, age <65, with SPMI	10,531.3	\$26,564,713	\$2,522.45	3,125.2	\$6,095,464	\$1,950.43	0.77323
Facility, age <65, no SPMI	12,082.5	\$28,804,414	\$2,383.97	3,240.1	\$5,746,960	\$1,773.69	0.74401
HCBS, age <65, with SPMI	18,074.4	\$30,515,893	\$1,688.35	5,390.8	\$8,751,191	\$1,623.34	0.96150
HCBS, age <65, no SPMI	28,593.8	\$55,535,580	\$1,942.22	8,398.6	\$20,014,187	\$2,383.04	1.22697
Community, age <65, with SPMI	58,269.0	\$76,748,751	\$1,317.15	18,355.8	\$23,787,670	\$1,295.92	0.98389
Community, age <65, no SPMI	86,972.3	\$138,151,543	\$1,588.45	25,589.9	\$43,205,125	\$1,688.37	1.06290

Table 2.A.2 — MEDICARE
Eligible months, incurred claims, and PMPM for the comparison group, baseline period, and the Demonstration Year 4,
by category of beneficiary: Cohort 1

Category of beneficiary	Baseline period			Demonstration Year 4			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Total	495,181.0	\$792,439,622	\$1,600.30	97,449.8	\$172,819,600	\$1,773.42	1.10818
Facility, age 65+, with SPMI	32,115.2	\$66,311,502	\$2,064.80	4,790.4	\$8,117,651	\$1,694.55	0.82069
Facility, age 65+, no SPMI	80,858.8	\$139,945,392	\$1,730.74	8,663.2	\$13,801,555	\$1,593.12	0.92049
HCBS, age 65+, with SPMI	10,838.8	\$20,539,243	\$1,894.97	2,141.7	\$5,151,617	\$2,405.41	1.26936
HCBS, age 65+, no SPMI	51,925.0	\$84,282,667	\$1,623.16	7,979.6	\$19,102,744	\$2,393.93	1.47486
Community, age 65+, with SPMI	12,587.9	\$16,488,055	\$1,309.84	3,113.9	\$5,668,192	\$1,820.31	1.38972
Community, age 65+, no SPMI	92,332.0	\$108,551,869	\$1,175.67	18,567.8	\$32,642,278	\$1,758.00	1.49532
Facility, age <65, with SPMI	10,531.3	\$26,564,713	\$2,522.45	2,546.6	\$5,033,598	\$1,976.56	0.78359
Facility, age <65, no SPMI	12,082.5	\$28,804,414	\$2,383.97	2,467.8	\$4,659,232	\$1,888.02	0.79197
HCBS, age <65, with SPMI	18,074.4	\$30,515,893	\$1,688.35	4,171.4	\$6,195,328	\$1,485.21	0.87968
HCBS, age <65, no SPMI	28,593.8	\$55,535,580	\$1,942.22	6,689.3	\$15,091,472	\$2,256.05	1.16158
Community, age <65, with SPMI	58,269.0	\$76,748,751	\$1,317.15	15,016.5	\$19,075,847	\$1,270.32	0.96445
Community, age <65, no SPMI	86,972.3	\$138,151,543	\$1,588.45	21,301.5	\$38,280,085	\$1,797.06	1.13133

Table 2.B.1 — MEDICARE
Eligible months, incurred claims, and PMPM for the comparison group, baseline period, and the Demonstration Year 3,
by category of beneficiary: Cohort 2

Category of beneficiary	Baseline period			Demonstration Year 3			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Total	42,008.3	\$67,515,192	\$1,607.19	25,382.6	\$34,342,597	\$1,353.00	0.84184
Facility, age 65+, with SPMI	2,059.8	\$5,419,492	\$2,631.14	1,031.5	\$2,104,890	\$2,040.68	0.77559
Facility, age 65+, no SPMI	6,716.7	\$14,724,625	\$2,192.23	3,268.4	\$4,105,157	\$1,256.03	0.57295
HCBS, age 65+, with SPMI	613.4	\$1,053,551	\$1,717.67	451.5	\$819,233	\$1,814.60	1.05643
HCBS, age 65+, no SPMI	3,544.0	\$5,267,521	\$1,486.32	2,011.1	\$3,653,367	\$1,816.62	1.22222
Community, age 65+, with SPMI	1,074.8	\$1,446,270	\$1,345.67	757.9	\$1,275,799	\$1,683.37	1.25095
Community, age 65+, no SPMI	9,976.7	\$13,004,722	\$1,303.52	6,088.1	\$8,259,460	\$1,356.67	1.04077
Facility, age <65, with SPMI	668.8	\$2,180,795	\$3,260.87	448.3	\$958,474	\$2,138.16	0.65570
Facility, age <65, no SPMI	794.5	\$2,553,958	\$3,214.35	563.6	\$1,128,734	\$2,002.86	0.62310
HCBS, age <65, with SPMI	1,076.6	\$1,473,625	\$1,368.80	591.4	\$544,289	\$920.30	0.67234
HCBS, age <65, no SPMI	1,902.1	\$2,801,867	\$1,473.05	1,359.9	\$2,009,565	\$1,477.78	1.00321
Community, age <65, with SPMI	5,313.9	\$6,380,978	\$1,200.82	3,637.0	\$3,202,716	\$880.58	0.73332
Community, age <65, no SPMI	8,267.2	\$11,207,788	\$1,355.69	5,174.1	\$6,280,913	\$1,213.92	0.89543

Table 2.B.2 — MEDICARE
Eligible months, incurred claims, and PMPM for the comparison group, baseline period, and the Demonstration Year 4,
by category of beneficiary: Cohort 2

Category of beneficiary	Baseline period			Demonstration Year 4			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Total	42,008.3	\$67,515,192	\$1,607.19	19,817.2	\$28,929,588	\$1,459.82	0.90831
Facility, age 65+, with SPMI	2,059.8	\$5,419,492	\$2,631.14	687.1	\$955,684	\$1,390.98	0.52866
Facility, age 65+, no SPMI	6,716.7	\$14,724,625	\$2,192.23	2,330.4	\$3,434,943	\$1,473.99	0.67237
HCBS, age 65+, with SPMI	613.4	\$1,053,551	\$1,717.67	361.7	\$786,879	\$2,175.70	1.26665
HCBS, age 65+, no SPMI	3,544.0	\$5,267,521	\$1,486.32	1,490.7	\$2,601,758	\$1,745.29	1.17423
Community, age 65+, with SPMI	1,074.8	\$1,446,270	\$1,345.67	555.4	\$944,672	\$1,700.94	1.26400
Community, age 65+, no SPMI	9,976.7	\$13,004,722	\$1,303.52	4,691.6	\$7,788,394	\$1,660.08	1.27354
Facility, age <65, with SPMI	668.8	\$2,180,795	\$3,260.87	339.4	\$422,828	\$1,245.97	0.38210
Facility, age <65, no SPMI	794.5	\$2,553,958	\$3,214.35	425.8	\$678,649	\$1,593.68	0.49580
HCBS, age <65, with SPMI	1,076.6	\$1,473,625	\$1,368.80	541.3	\$626,540	\$1,157.46	0.84560
HCBS, age <65, no SPMI	1,902.1	\$2,801,867	\$1,473.05	1,123.1	\$1,752,241	\$1,560.24	1.05918
Community, age <65, with SPMI	5,313.9	\$6,380,978	\$1,200.82	2,996.5	\$3,484,578	\$1,162.89	0.96841
Community, age <65, no SPMI	8,267.2	\$11,207,788	\$1,355.69	4,274.3	\$5,452,421	\$1,275.62	0.94094

Table 2.C.1 — MEDICARE
Eligible months, incurred claims, and PMPM for the comparison group, baseline period, and the Demonstration Year 3,
by category of beneficiary: Cohort 3

Category of beneficiary	Baseline period			Demonstration Year 3			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Total	65,614.5	\$109,816,298	\$1,673.66	48,033.3	\$63,024,948	\$1,312.11	0.78398
Facility, age 65+, with SPMI	4,878.2	\$11,042,653	\$2,263.65	3,546.3	\$5,709,401	\$1,609.94	0.71121
Facility, age 65+, no SPMI	12,137.4	\$26,728,998	\$2,202.20	7,433.4	\$10,976,491	\$1,476.64	0.67053
HCBS, age 65+, with SPMI	1,111.6	\$1,593,577	\$1,433.58	841.9	\$1,427,482	\$1,695.57	1.18275
HCBS, age 65+, no SPMI	4,599.1	\$7,305,283	\$1,588.42	3,657.7	\$5,803,834	\$1,586.73	0.99893
Community, age 65+, with SPMI	2,510.0	\$3,725,198	\$1,484.15	1,842.2	\$2,127,567	\$1,154.92	0.77817
Community, age 65+, no SPMI	12,485.8	\$16,640,967	\$1,332.79	9,178.2	\$12,360,981	\$1,346.77	1.01049
Facility, age <65, with SPMI	1,125.0	\$3,949,081	\$3,510.30	777.2	\$1,608,422	\$2,069.57	0.58957
Facility, age <65, no SPMI	1,435.9	\$4,985,720	\$3,472.12	943.6	\$1,827,140	\$1,936.39	0.55770
HCBS, age <65, with SPMI	2,068.1	\$2,424,892	\$1,172.54	1,715.6	\$1,426,750	\$831.65	0.70928
HCBS, age <65, no SPMI	2,938.7	\$3,982,170	\$1,355.08	2,536.5	\$2,921,454	\$1,151.74	0.84995
Community, age <65, with SPMI	10,202.2	\$11,555,501	\$1,132.64	7,989.3	\$6,918,357	\$865.96	0.76454
Community, age <65, no SPMI	10,122.4	\$15,882,259	\$1,569.02	7,571.4	\$9,917,068	\$1,309.81	0.83480

Table 2.C.2 — MEDICARE
Eligible months, incurred claims, and PMPM for the comparison group, baseline period, and the Demonstration Year 4,
by category of beneficiary: Cohort 3

Category of beneficiary	Baseline period			Demonstration Year 4			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Total	65,614.5	\$109,816,298	\$1,673.66	35,741.0	\$48,752,067	\$1,364.04	0.81500
Facility, age 65+, with SPMI	4,878.2	\$11,042,653	\$2,263.65	2,410.3	\$3,459,712	\$1,435.36	0.63409
Facility, age 65+, no SPMI	12,137.4	\$26,728,998	\$2,202.20	5,125.0	\$8,030,688	\$1,566.97	0.71155
HCBS, age 65+, with SPMI	1,111.6	\$1,593,577	\$1,433.58	605.2	\$993,281	\$1,641.12	1.14477
HCBS, age 65+, no SPMI	4,599.1	\$7,305,283	\$1,588.42	2,481.8	\$4,680,502	\$1,885.96	1.18732
Community, age 65+, with SPMI	2,510.0	\$3,725,198	\$1,484.15	1,438.7	\$1,597,600	\$1,110.42	0.74818
Community, age 65+, no SPMI	12,485.8	\$16,640,967	\$1,332.79	6,789.0	\$9,265,529	\$1,364.79	1.02401
Facility, age <65, with SPMI	1,125.0	\$3,949,081	\$3,510.30	526.2	\$595,272	\$1,131.34	0.32229
Facility, age <65, no SPMI	1,435.9	\$4,985,720	\$3,472.12	663.2	\$1,046,474	\$1,577.99	0.45448
HCBS, age <65, with SPMI	2,068.1	\$2,424,892	\$1,172.54	1,422.5	\$1,267,900	\$891.34	0.76018
HCBS, age <65, no SPMI	2,938.7	\$3,982,170	\$1,355.08	2,090.2	\$2,764,806	\$1,322.76	0.97615
Community, age <65, with SPMI	10,202.2	\$11,555,501	\$1,132.64	6,312.8	\$6,068,366	\$961.29	0.84871
Community, age <65, no SPMI	10,122.4	\$15,882,259	\$1,569.02	5,876.2	\$8,981,936	\$1,528.53	0.97420

Table 2.D.1 — MEDICARE
Eligible months, incurred claims, and PMPM for the comparison group, baseline period, and the Demonstration Year 3,
by category of beneficiary: Cohort 4

Category of beneficiary	Baseline period			Demonstration Year 3			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Total	74,886.5	\$130,154,124	\$1,738.02	76,497.7	\$121,404,786	\$1,587.04	0.91313
Facility, age 65+, with SPMI	8,799.9	\$23,177,043	\$2,633.77	9,280.7	\$18,930,494	\$2,039.76	0.77446
Facility, age 65+, no SPMI	10,464.5	\$21,506,946	\$2,055.23	10,738.3	\$17,435,867	\$1,623.71	0.79004
HCBS, age 65+, with SPMI	2,013.0	\$3,798,610	\$1,887.04	2,023.0	\$4,147,191	\$2,050.01	1.08636
HCBS, age 65+, no SPMI	4,656.9	\$6,769,043	\$1,453.55	4,780.3	\$8,495,985	\$1,777.28	1.22272
Community, age 65+, with SPMI	3,872.4	\$6,423,922	\$1,658.90	3,895.8	\$5,826,666	\$1,495.62	0.90157
Community, age 65+, no SPMI	13,747.0	\$17,606,796	\$1,280.78	13,928.8	\$17,043,224	\$1,223.60	0.95536
Facility, age <65, with SPMI	2,039.5	\$7,820,424	\$3,834.53	2,159.4	\$6,170,804	\$2,857.61	0.74523
Facility, age <65, no SPMI	1,184.9	\$4,054,838	\$3,422.18	1,196.4	\$2,740,358	\$2,290.54	0.66932
HCBS, age <65, with SPMI	2,214.7	\$2,946,358	\$1,330.34	2,322.2	\$3,587,370	\$1,544.80	1.16121
HCBS, age <65, no SPMI	2,526.6	\$3,932,951	\$1,556.63	2,569.5	\$4,388,774	\$1,708.02	1.09725
Community, age <65, with SPMI	11,399.1	\$13,242,226	\$1,161.69	11,586.0	\$13,455,602	\$1,161.37	0.99973
Community, age <65, no SPMI	11,968.0	\$18,874,966	\$1,577.12	12,017.3	\$19,182,452	\$1,596.24	1.01213

Table 2.D.2 — MEDICARE
Eligible months, incurred claims, and PMPM for the comparison group, baseline period, and the Demonstration Year 4,
by category of beneficiary: Cohort 4

Category of beneficiary	Baseline period			Demonstration Year 4			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Total	74,886.5	\$130,154,124	\$1,738.02	53,861.9	\$80,137,715	\$1,487.84	0.85605
Facility, age 65+, with SPMI	8,799.9	\$23,177,043	\$2,633.77	5,776.4	\$10,817,550	\$1,872.73	0.71104
Facility, age 65+, no SPMI	10,464.5	\$21,506,946	\$2,055.23	6,740.7	\$9,327,758	\$1,383.79	0.67330
HCBS, age 65+, with SPMI	2,013.0	\$3,798,610	\$1,887.04	1,483.9	\$2,606,212	\$1,756.32	0.93073
HCBS, age 65+, no SPMI	4,656.9	\$6,769,043	\$1,453.55	3,216.2	\$5,806,264	\$1,805.32	1.24201
Community, age 65+, with SPMI	3,872.4	\$6,423,922	\$1,658.90	2,915.4	\$3,620,115	\$1,241.72	0.74852
Community, age 65+, no SPMI	13,747.0	\$17,606,796	\$1,280.78	10,330.8	\$14,287,571	\$1,383.00	1.07981
Facility, age <65, with SPMI	2,039.5	\$7,820,424	\$3,834.53	1,418.5	\$3,432,258	\$2,419.68	0.63102
Facility, age <65, no SPMI	1,184.9	\$4,054,838	\$3,422.18	929.5	\$1,987,707	\$2,138.49	0.62489
HCBS, age <65, with SPMI	2,214.7	\$2,946,358	\$1,330.34	1,711.8	\$2,282,412	\$1,333.35	1.00226
HCBS, age <65, no SPMI	2,526.6	\$3,932,951	\$1,556.63	2,018.1	\$3,493,824	\$1,731.27	1.11219
Community, age <65, with SPMI	11,399.1	\$13,242,226	\$1,161.69	8,585.2	\$9,027,868	\$1,051.56	0.90520
Community, age <65, no SPMI	11,968.0	\$18,874,966	\$1,577.12	8,735.4	\$13,448,178	\$1,539.51	0.97615

Table 2.E — MEDICARE
Eligible months, incurred claims, and PMPM for the comparison group, baseline period, and the Demonstration Year 4,
by category of beneficiary: Cohort 5A

Category of beneficiary	Baseline period			Demonstration Year 4			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Total	55,245.6	\$100,386,597	\$1,817.10	56,700.0	\$95,477,026	\$1,683.90	0.92670
Facility, age 65+, with SPMI	9,703.9	\$22,148,153	\$2,282.40	9,967.8	\$19,360,963	\$1,942.35	0.85101
Facility, age 65+, no SPMI	5,789.6	\$12,097,397	\$2,089.51	6,122.6	\$10,854,167	\$1,772.81	0.84843
HCBS, age 65+, with SPMI	1,794.4	\$3,717,937	\$2,071.96	2,130.5	\$4,606,960	\$2,162.41	1.04365
HCBS, age 65+, no SPMI	2,458.4	\$3,967,559	\$1,613.91	2,727.6	\$5,343,467	\$1,959.06	1.21386
Community, age 65+, with SPMI	4,496.5	\$7,345,713	\$1,633.66	4,655.9	\$6,483,245	\$1,392.47	0.85237
Community, age 65+, no SPMI	8,094.0	\$9,203,556	\$1,137.09	7,962.5	\$9,585,408	\$1,203.82	1.05869
Facility, age <65, with SPMI	2,106.1	\$7,470,590	\$3,547.09	2,175.4	\$7,206,841	\$3,312.91	0.93398
Facility, age <65, no SPMI	972.5	\$3,486,591	\$3,585.31	1,035.1	\$2,544,917	\$2,458.57	0.68574
HCBS, age <65, with SPMI	2,203.2	\$3,920,524	\$1,779.45	2,348.5	\$5,178,800	\$2,205.15	1.23923
HCBS, age <65, no SPMI	1,620.6	\$2,444,637	\$1,508.51	1,658.9	\$2,578,811	\$1,554.51	1.03049
Community, age <65, with SPMI	9,311.4	\$12,553,567	\$1,348.20	9,153.8	\$10,827,719	\$1,182.87	0.87737
Community, age <65, no SPMI	6,695.2	\$12,030,375	\$1,796.87	6,761.4	\$10,905,728	\$1,612.93	0.89763

Table 2.F — MEDICARE
Eligible months, incurred claims, and PMPM for the comparison group, baseline period, and the Demonstration Year 4,
by category of beneficiary: Cohort 5B

Category of beneficiary	Baseline period			Demonstration Year 4			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Total	210,107.5	\$332,154,386	\$1,580.88	167,717.5	\$276,001,718	\$1,645.63	1.04096
Facility, age 65+, with SPMI	24,571.5	\$46,542,358	\$1,894.16	19,101.3	\$33,626,392	\$1,760.43	0.92940
Facility, age 65+, no SPMI	10,376.3	\$17,633,644	\$1,699.41	8,119.7	\$12,831,219	\$1,580.25	0.92988
HCBS, age 65+, with SPMI	5,802.8	\$12,491,351	\$2,152.65	5,197.4	\$12,011,080	\$2,311.00	1.07356
HCBS, age 65+, no SPMI	6,660.5	\$11,356,541	\$1,705.06	6,192.3	\$12,699,805	\$2,050.89	1.20283
Community, age 65+, with SPMI	26,044.3	\$42,330,576	\$1,625.33	20,388.4	\$34,989,347	\$1,716.14	1.05587
Community, age 65+, no SPMI	34,773.4	\$41,557,876	\$1,195.11	27,236.1	\$39,092,312	\$1,435.31	1.20099
Facility, age <65, with SPMI	5,908.3	\$15,364,134	\$2,600.42	4,803.9	\$10,248,687	\$2,133.40	0.82040
Facility, age <65, no SPMI	2,785.0	\$4,054,836	\$1,455.96	2,140.9	\$3,904,147	\$1,823.64	1.25254
HCBS, age <65, with SPMI	7,262.9	\$12,549,958	\$1,727.95	6,076.9	\$11,385,953	\$1,873.63	1.08431
HCBS, age <65, no SPMI	4,331.2	\$7,234,071	\$1,670.21	3,713.5	\$7,027,168	\$1,892.33	1.13299
Community, age <65, with SPMI	57,180.0	\$81,575,744	\$1,426.65	45,360.2	\$65,356,057	\$1,440.82	1.00993
Community, age <65, no SPMI	24,411.3	\$39,463,298	\$1,616.60	19,386.9	\$32,829,551	\$1,693.39	1.04750

**Table 2.G —
Comparison group summary (all cohorts)**

Cohort	Baseline period			Demonstration Period 3			Cost trend (Demonstration Period 3/ baseline Period)	Demonstration Period 4			Cost trend (Demonstration Period 4/ baseline Period)
	Number of eligible months	Medicaid incurred claims	PMPM	Number of eligible months	Medicaid incurred claims	PMPM		Number of eligible months	Medicaid incurred claims	PMPM	
Cohort 1	495,181.0	\$792,439,622	\$1,600.30	125,982.4	\$217,509,711	\$1,726.51	1.07886	97,449.8	\$172,819,600	\$1,773.42	1.10818
Cohort 2	42,008.3	\$67,515,192	\$1,607.19	25,382.6	\$34,342,597	\$1,353.00	0.84184	35,741.0	\$48,752,067	\$1,364.04	0.81500
Cohort 3	65,614.5	\$109,816,298	\$1,673.66	48,033.3	\$63,024,948	\$1,312.11	0.78398	13,384.4	\$22,137,586	\$1,653.99	0.95565
Cohort 4	74,886.5	\$130,154,124	\$1,738.02	76,497.7	\$121,404,786	\$1,587.04	0.91313	53,861.9	\$80,137,715	\$1,487.84	0.85605
Cohort 5A	55,245.6	\$100,386,597	\$1,817.10	0.0	\$0	\$0.00	0.00000	56,700.0	\$95,477,026	\$1,683.90	0.92670
Cohort 5B	210,107.5	\$332,154,386	\$1,580.88	0.0	\$0	\$0.00	0.00000	167,717.5	\$276,001,718	\$1,645.63	1.04096

Tables 3.A–3.L show the development of the trend rates from the baseline period to the Demonstration Year for the re-weighted comparison group and the intervention group by category of beneficiary. The re-weighting was done by category of beneficiary month by month. Thus, the comparison group PMPMs in **Tables 3.A–3.L** do not match exactly the PMPMs in **Table 2** by category, because the PMPMs in **Table 2** are weighted by the member months in the comparison group while the PMPMs in **Table 3** are weighted by the member months in the intervention group. For example, in **Table 2**, the Cohort 1 baseline PMPM for the category “Facility, Age 65+, with SPMI” is \$2,064.80. But in **Table 3.G** it is \$2,057.93. This is because in **Tables 3.A–3.L**, the weighted average PMPM across all months in the baseline period is based on the eligible months of the particular cohort of the intervention group beneficiaries and not that of the comparison group beneficiaries, even though the PMPM in any specific month is the same.

Tables 3.G show the results for the entire Cohort 1 for Demonstration Years 3 and 4 separately. **Table 3.G.1** shows that, for Demonstration Year 3, the PMPM for the comparison group increased by 16.4 percent from the baseline period, whereas that of the intervention group increased by only 2.7 percent, a difference of 13.7 percentage points. Similarly, **Table 3.G.2** shows that, for Demonstration Year 4, the PMPM for the comparison group increased by 19 percent from the baseline period, whereas that of the intervention group increased by only 11 percent, a difference of 8.0 percentage points.

Tables 3.H show the results for Cohort 2. From the baseline period to Demonstration Year 3, the PMPM for the comparison group decreased by 20.2 percent whereas the PMPM for the intervention group decreased by 20.1 percent, a difference of 0.1 percentage points. From the baseline period to Demonstration Year 4, the PMPM for the comparison group decreased by 14.3 percent whereas the PMPM for the intervention group decreased by 14.8 percent, a difference of 0.5 percent.

Tables 3.I show the results for Cohort 3. From the baseline period to Demonstration Year 3, the PMPM for the comparison group decreased by 14.1 percent, and the PMPM for the intervention group also decreased by 14.1 percent. From the baseline period to Demonstration Year 4, the PMPM for the comparison group decreased by 7.3 percent and the PMPM for the intervention group decreased by 13.8 percent, a difference of 6.5 percentage points.

Table 3.J shows the results for Cohort 4. From the baseline period to Demonstration Year 3, the PMPM for the comparison group increased by 0.6 percent, while the PMPM for the intervention group decreased by 13.5 percent, a difference of 14.1 percentage points. From the baseline period to Demonstration Year 4, the PMPM for the comparison group decreased by 2.8 percent, while the intervention group decreased by 14.4 percent, a difference of 11.6 percentage points.

Table 3.K shows the results for Cohort 5A. From the baseline period to Demonstration Year 4, the PMPM for the comparison group increased by 0.8 percent, while the PMPM for the intervention group decreased by 10.6 percent, a difference of 11.4 percentage points. **Table 3.L** shows the results for Cohort 5B. From the baseline period to Demonstration Year 4, the PMPM for the comparison group increased by 8.6 percent, while the PMPM for the intervention group decreased by 3.1 percent, a difference of 11.7 percentage points.

Tables 4.A and *4.B* summarize the results of *Tables 3.A–3.L* by cohort and demonstration year. For Cohort 1, sub-cohorts 1A (the first cohort) and 1D (the largest cohort) show the greatest difference in trends in the direction of Medicare savings. Cohorts 1C, 1E, and 1F all show negative Medicare savings. Cohort 2 shows slight Medicare savings, but the small size of the cohort means the savings is less significant. Cohort 3 shows moderate Medicare savings, in between the savings rates of Cohorts 1 and 2, and Cohorts 4, 5A and 5B all show more significant Medicare savings. The wide variation in the trends by cohort highlights the variability of health care costs. The aggregate experience of all cohorts combined should be considered more reliable than that of the individual cohorts or sub-cohorts.

Table 3.A.1 — MEDICARE
Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 3, by category of beneficiary: Cohort 1A

Category of beneficiary	Baseline period			Demonstration Year 3			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Re-weighted comparison group	48,488.0	\$78,754,198	\$1,624.20	14,540.4	\$27,919,868	\$1,920.16	1.182
Facility, age 65+, with SPMI	1,352.5	\$2,783,905	\$2,058.35	231.9	\$394,587	\$1,701.52	0.827
Facility, age 65+, no SPMI	2,903.2	\$4,986,268	\$1,717.53	356.4	\$589,399	\$1,653.76	0.963
HCBS, age 65+, with SPMI	2,269.5	\$4,300,359	\$1,894.85	613.5	\$1,404,651	\$2,289.39	1.208
HCBS, age 65+, no SPMI	10,415.6	\$16,922,467	\$1,624.72	2,687.8	\$6,018,304	\$2,239.14	1.378
Community, age 65+, with SPMI	1,044.6	\$1,366,976	\$1,308.56	329.9	\$573,066	\$1,736.95	1.327
Community, age 65+, no SPMI	8,618.5	\$10,152,870	\$1,178.03	2,577.6	\$4,114,509	\$1,596.25	1.355
Facility, age <65, with SPMI	479.0	\$1,208,097	\$2,521.97	84.1	\$167,796	\$1,994.03	0.791
Facility, age <65, no SPMI	596.9	\$1,420,117	\$2,379.14	215.0	\$380,923	\$1,771.73	0.745
HCBS, age <65, with SPMI	3,601.9	\$6,081,141	\$1,688.33	1,254.4	\$2,036,226	\$1,623.25	0.961
HCBS, age <65, no SPMI	8,245.1	\$16,023,110	\$1,943.35	3,118.2	\$7,427,549	\$2,382.00	1.226
Community, age <65, with SPMI	2,682.4	\$3,530,797	\$1,316.26	951.2	\$1,233,464	\$1,296.72	0.985
Community, age <65, no SPMI	6,278.7	\$9,978,092	\$1,589.20	2,120.2	\$3,579,393	\$1,688.21	1.062
Intervention group	48,488.0	\$128,622,626	\$2,652.67	14,540.4	\$36,051,308	\$2,479.39	0.935
Facility, age 65+, with SPMI	1,352.5	\$4,491,706	\$3,321.06	231.9	\$386,747	\$1,667.71	0.502
Facility, age 65+, no SPMI	2,903.2	\$7,189,174	\$2,476.33	356.4	\$672,103	\$1,885.82	0.762
HCBS, age 65+, with SPMI	2,269.5	\$6,589,879	\$2,903.67	613.5	\$1,654,554	\$2,696.69	0.929
HCBS, age 65+, no SPMI	10,415.6	\$24,885,794	\$2,389.27	2,687.8	\$6,985,561	\$2,599.01	1.088
Community, age 65+, with SPMI	1,044.6	\$2,160,270	\$2,067.95	329.9	\$464,168	\$1,406.88	0.680
Community, age 65+, no SPMI	8,618.5	\$18,306,257	\$2,124.06	2,577.6	\$5,594,642	\$2,170.47	1.022
Facility, age <65, with SPMI	479.0	\$2,542,110	\$5,306.80	84.1	\$150,780	\$1,791.81	0.338
Facility, age <65, no SPMI	596.9	\$2,844,227	\$4,764.97	215.0	\$649,654	\$3,021.65	0.634
HCBS, age <65, with SPMI	3,601.9	\$10,014,768	\$2,780.44	1,254.4	\$2,787,476	\$2,222.14	0.799
HCBS, age <65, no SPMI	8,245.1	\$22,193,360	\$2,691.70	3,118.2	\$8,660,343	\$2,777.36	1.032
Community, age <65, with SPMI	2,682.4	\$6,561,637	\$2,446.14	951.2	\$2,541,466	\$2,671.80	1.092
Community, age <65, no SPMI	6,278.7	\$20,843,442	\$3,319.71	2,120.2	\$5,503,814	\$2,595.86	0.782

Table 3.A.2 — MEDICARE
Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 1A

Category of beneficiary	Baseline period			Demonstration Year 4			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Re-weighted comparison group	48,488.0	\$78,754,198	\$1,624.20	12,196.5	\$23,833,789	\$1,954.14	1.203
Facility, age 65+, with SPMI	1,352.5	\$2,783,905	\$2,058.35	174.0	\$295,541	\$1,698.86	0.825
Facility, age 65+, no SPMI	2,903.2	\$4,986,268	\$1,717.53	246.6	\$393,078	\$1,594.12	0.928
HCBS, age 65+, with SPMI	2,269.5	\$4,300,359	\$1,894.85	442.2	\$1,062,177	\$2,402.06	1.268
HCBS, age 65+, no SPMI	10,415.6	\$16,922,467	\$1,624.72	2,174.8	\$5,208,049	\$2,394.69	1.474
Community, age 65+, with SPMI	1,044.6	\$1,366,976	\$1,308.56	278.3	\$506,905	\$1,821.21	1.392
Community, age 65+, no SPMI	8,618.5	\$10,152,870	\$1,178.03	2,015.5	\$3,545,324	\$1,759.04	1.493
Facility, age <65, with SPMI	479.0	\$1,208,097	\$2,521.97	69.0	\$136,978	\$1,985.19	0.787
Facility, age <65, no SPMI	596.9	\$1,420,117	\$2,379.14	174.8	\$329,168	\$1,883.64	0.792
HCBS, age <65, with SPMI	3,601.9	\$6,081,141	\$1,688.33	1,144.6	\$1,701,982	\$1,486.98	0.881
HCBS, age <65, no SPMI	8,245.1	\$16,023,110	\$1,943.35	2,726.6	\$6,153,270	\$2,256.75	1.161
Community, age <65, with SPMI	2,682.4	\$3,530,797	\$1,316.26	835.2	\$1,060,227	\$1,269.36	0.964
Community, age <65, no SPMI	6,278.7	\$9,978,092	\$1,589.20	1,915.0	\$3,441,091	\$1,796.95	1.131
Intervention group	48,488.0	\$128,622,626	\$2,652.67	12,196.5	\$31,144,889	\$2,553.58	0.963
Facility, age 65+, with SPMI	1,352.5	\$4,491,706	\$3,321.06	174.0	\$401,859	\$2,310.01	0.696
Facility, age 65+, no SPMI	2,903.2	\$7,189,174	\$2,476.33	246.6	\$348,234	\$1,412.25	0.570
HCBS, age 65+, with SPMI	2,269.5	\$6,589,879	\$2,903.67	442.2	\$1,164,770	\$2,634.07	0.907
HCBS, age 65+, no SPMI	10,415.6	\$24,885,794	\$2,389.27	2,174.8	\$5,637,970	\$2,592.37	1.085
Community, age 65+, with SPMI	1,044.6	\$2,160,270	\$2,067.95	278.3	\$455,002	\$1,634.74	0.791
Community, age 65+, no SPMI	8,618.5	\$18,306,257	\$2,124.06	2,015.5	\$5,377,365	\$2,668.02	1.256
Facility, age <65, with SPMI	479.0	\$2,542,110	\$5,306.80	69.0	\$49,920	\$723.48	0.136
Facility, age <65, no SPMI	596.9	\$2,844,227	\$4,764.97	174.8	\$464,823	\$2,659.92	0.558
HCBS, age <65, with SPMI	3,601.9	\$10,014,768	\$2,780.44	1,144.6	\$2,107,406	\$1,841.19	0.662
HCBS, age <65, no SPMI	8,245.1	\$22,193,360	\$2,691.70	2,726.6	\$7,021,681	\$2,575.24	0.957
Community, age <65, with SPMI	2,682.4	\$6,561,637	\$2,446.14	835.2	\$2,806,137	\$3,359.66	1.373
Community, age <65, no SPMI	6,278.7	\$20,843,442	\$3,319.71	1,915.0	\$5,309,721	\$2,772.75	0.835

Table 3.B.1 — MEDICARE
Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 3, by category of beneficiary: Cohort 1B

Category of beneficiary	Baseline period			Demonstration Year 3			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Re-weighted comparison group	83,567.1	\$131,605,106	\$1,574.84	28,211.3	\$51,776,952	\$1,835.33	1.165
Facility, age 65+, with SPMI	2,625.5	\$5,399,392	\$2,056.49	595.9	\$1,011,453	\$1,697.44	0.825
Facility, age 65+, no SPMI	5,728.2	\$9,863,362	\$1,721.89	963.4	\$1,593,590	\$1,654.07	0.961
HCBS, age 65+, with SPMI	3,563.5	\$6,749,830	\$1,894.18	1,180.7	\$2,699,523	\$2,286.45	1.207
HCBS, age 65+, no SPMI	15,666.1	\$25,409,746	\$1,621.96	4,851.2	\$10,861,075	\$2,238.83	1.380
Community, age 65+, with SPMI	2,079.3	\$2,725,280	\$1,310.68	722.6	\$1,256,876	\$1,739.27	1.327
Community, age 65+, no SPMI	16,756.0	\$19,691,126	\$1,175.17	5,795.9	\$9,245,783	\$1,595.23	1.357
Facility, age <65, with SPMI	707.2	\$1,783,893	\$2,522.57	278.0	\$543,094	\$1,953.58	0.774
Facility, age <65, no SPMI	436.0	\$1,056,112	\$2,422.27	152.7	\$270,938	\$1,773.83	0.732
HCBS, age <65, with SPMI	6,710.7	\$11,329,713	\$1,688.31	2,672.0	\$4,337,987	\$1,623.48	0.962
HCBS, age <65, no SPMI	9,528.3	\$18,510,143	\$1,942.64	3,788.8	\$9,028,288	\$2,382.87	1.227
Community, age <65, with SPMI	8,555.1	\$11,262,998	\$1,316.53	3,177.1	\$4,118,319	\$1,296.24	0.985
Community, age <65, no SPMI	11,211.2	\$17,823,513	\$1,589.79	4,032.8	\$6,810,026	\$1,688.65	1.062
Intervention group	83,567.1	\$108,476,913	\$1,298.08	28,211.3	\$40,016,796	\$1,418.47	1.093
Facility, age 65+, with SPMI	2,625.5	\$4,153,377	\$1,581.91	595.9	\$768,793	\$1,290.20	0.816
Facility, age 65+, no SPMI	5,728.2	\$9,679,939	\$1,689.87	963.4	\$1,019,788	\$1,058.49	0.626
HCBS, age 65+, with SPMI	3,563.5	\$5,032,372	\$1,412.22	1,180.7	\$2,092,736	\$1,772.51	1.255
HCBS, age 65+, no SPMI	15,666.1	\$18,456,030	\$1,178.09	4,851.2	\$7,648,845	\$1,576.68	1.338
Community, age 65+, with SPMI	2,079.3	\$2,370,627	\$1,140.11	722.6	\$889,628	\$1,231.07	1.080
Community, age 65+, no SPMI	16,756.0	\$16,271,631	\$971.09	5,795.9	\$7,529,655	\$1,299.14	1.338
Facility, age <65, with SPMI	707.2	\$2,294,483	\$3,244.58	278.0	\$383,941	\$1,381.08	0.426
Facility, age <65, no SPMI	436.0	\$1,627,921	\$3,733.76	152.7	\$117,265	\$767.74	0.206
HCBS, age <65, with SPMI	6,710.7	\$9,300,631	\$1,385.95	2,672.0	\$3,546,625	\$1,327.32	0.958
HCBS, age <65, no SPMI	9,528.3	\$14,182,694	\$1,488.47	3,788.8	\$5,539,712	\$1,462.12	0.982
Community, age <65, with SPMI	8,555.1	\$9,515,214	\$1,112.23	3,177.1	\$3,921,940	\$1,234.43	1.110
Community, age <65, no SPMI	11,211.2	\$15,591,994	\$1,390.75	4,032.8	\$6,557,867	\$1,626.13	1.169

Table 3.B.2 — MEDICARE
Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 1B

Category of beneficiary	Baseline period			Demonstration Year 4			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Re-weighted comparison group	83,567.1	\$131,605,106	\$1,574.84	23,641.9	\$44,485,413	\$1,881.63	1.195
Facility, age 65+, with SPMI	2,625.5	\$5,399,392	\$2,056.49	424.0	\$718,375	\$1,694.45	0.824
Facility, age 65+, no SPMI	5,728.2	\$9,863,362	\$1,721.89	651.8	\$1,039,508	\$1,594.88	0.926
HCBS, age 65+, with SPMI	3,563.5	\$6,749,830	\$1,894.18	963.6	\$2,310,835	\$2,398.18	1.266
HCBS, age 65+, no SPMI	15,666.1	\$25,409,746	\$1,621.96	3,912.7	\$9,367,960	\$2,394.24	1.476
Community, age 65+, with SPMI	2,079.3	\$2,725,280	\$1,310.68	595.9	\$1,086,085	\$1,822.59	1.391
Community, age 65+, no SPMI	16,756.0	\$19,691,126	\$1,175.17	4,628.2	\$8,138,129	\$1,758.36	1.496
Facility, age <65, with SPMI	707.2	\$1,783,893	\$2,522.57	241.6	\$478,461	\$1,980.62	0.785
Facility, age <65, no SPMI	436.0	\$1,056,112	\$2,422.27	130.4	\$246,361	\$1,888.79	0.780
HCBS, age <65, with SPMI	6,710.7	\$11,329,713	\$1,688.31	2,473.5	\$3,676,702	\$1,486.41	0.880
HCBS, age <65, no SPMI	9,528.3	\$18,510,143	\$1,942.64	3,391.1	\$7,649,443	\$2,255.73	1.161
Community, age <65, with SPMI	8,555.1	\$11,262,998	\$1,316.53	2,709.9	\$3,447,777	\$1,272.30	0.966
Community, age <65, no SPMI	11,211.2	\$17,823,513	\$1,589.79	3,519.2	\$6,325,777	\$1,797.49	1.131
Intervention group	83,567.1	\$108,476,913	\$1,298.08	23,641.9	\$37,666,761	\$1,593.22	1.227
Facility, age 65+, with SPMI	2,625.5	\$4,153,377	\$1,581.91	424.0	\$574,946	\$1,356.14	0.857
Facility, age 65+, no SPMI	5,728.2	\$9,679,939	\$1,689.87	651.8	\$866,896	\$1,330.05	0.787
HCBS, age 65+, with SPMI	3,563.5	\$5,032,372	\$1,412.22	963.6	\$1,295,456	\$1,344.42	0.952
HCBS, age 65+, no SPMI	15,666.1	\$18,456,030	\$1,178.09	3,912.7	\$6,711,145	\$1,715.22	1.456
Community, age 65+, with SPMI	2,079.3	\$2,370,627	\$1,140.11	595.9	\$1,024,962	\$1,720.01	1.509
Community, age 65+, no SPMI	16,756.0	\$16,271,631	\$971.09	4,628.2	\$7,429,699	\$1,605.29	1.653
Facility, age <65, with SPMI	707.2	\$2,294,483	\$3,244.58	241.6	\$314,022	\$1,299.91	0.401
Facility, age <65, no SPMI	436.0	\$1,627,921	\$3,733.76	130.4	\$165,595	\$1,269.57	0.340
HCBS, age <65, with SPMI	6,710.7	\$9,300,631	\$1,385.95	2,473.5	\$3,054,622	\$1,234.91	0.891
HCBS, age <65, no SPMI	9,528.3	\$14,182,694	\$1,488.47	3,391.1	\$5,743,890	\$1,693.80	1.138
Community, age <65, with SPMI	8,555.1	\$9,515,214	\$1,112.23	2,709.9	\$3,977,081	\$1,467.63	1.320
Community, age <65, no SPMI	11,211.2	\$15,591,994	\$1,390.75	3,519.2	\$6,508,446	\$1,849.40	1.330

Table 3.C.1 — MEDICARE
Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 3, by category of beneficiary: Cohort 1C

Category of beneficiary	Baseline period			Demonstration Year 3			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Re-weighted comparison group	7,946.8	\$12,115,020	\$1,524.51	2,723.6	\$4,987,358	\$1,831.17	1.201
Facility, age 65+, with SPMI	78.0	\$162,290	\$2,080.64	24.0	\$41,078	\$1,711.59	0.823
Facility, age 65+, no SPMI	509.6	\$883,213	\$1,733.25	96.4	\$159,860	\$1,658.08	0.957
HCBS, age 65+, with SPMI	415.4	\$787,714	\$1,896.19	165.1	\$377,180	\$2,284.09	1.205
HCBS, age 65+, no SPMI	1,567.7	\$2,541,768	\$1,621.34	469.8	\$1,053,779	\$2,242.95	1.383
Community, age 65+, with SPMI	286.6	\$380,569	\$1,327.67	145.0	\$252,196	\$1,739.28	1.310
Community, age 65+, no SPMI	2,225.3	\$2,627,533	\$1,180.74	677.4	\$1,081,768	\$1,596.90	1.352
Facility, age <65, with SPMI	55.0	\$139,181	\$2,530.57	6.0	\$12,813	\$2,147.09	0.848
Facility, age <65, no SPMI	21.0	\$55,877	\$2,660.81	24.0	\$42,509	\$1,771.22	0.666
HCBS, age <65, with SPMI	422.7	\$715,949	\$1,693.58	227.0	\$368,196	\$1,622.01	0.958
HCBS, age <65, no SPMI	710.1	\$1,381,750	\$1,945.94	295.0	\$702,100	\$2,379.74	1.223
Community, age <65, with SPMI	731.4	\$963,007	\$1,316.70	271.8	\$352,204	\$1,295.78	0.984
Community, age <65, no SPMI	924.0	\$1,476,169	\$1,597.59	322.0	\$543,675	\$1,688.43	1.057
Intervention group	7,946.8	\$7,898,710	\$993.94	2,723.6	\$3,410,228	\$1,252.11	1.260
Facility, age 65+, with SPMI	78.0	\$190,149	\$2,437.80	24.0	\$1,576	\$65.66	0.027
Facility, age 65+, no SPMI	509.6	\$823,008	\$1,615.10	96.4	\$98,916	\$1,025.97	0.635
HCBS, age 65+, with SPMI	415.4	\$406,330	\$978.12	165.1	\$195,951	\$1,186.63	1.213
HCBS, age 65+, no SPMI	1,567.7	\$1,419,597	\$905.53	469.8	\$693,435	\$1,475.96	1.630
Community, age 65+, with SPMI	286.6	\$432,595	\$1,509.16	145.0	\$265,949	\$1,834.13	1.215
Community, age 65+, no SPMI	2,225.3	\$1,691,547	\$760.14	677.4	\$691,060	\$1,020.14	1.342
Facility, age <65, with SPMI	55.0	\$241,153	\$4,384.61	6.0	\$46,930	\$7,863.92	1.794
Facility, age <65, no SPMI	21.0	\$210,854	\$10,040.68	24.0	\$132,484	\$5,520.18	0.550
HCBS, age <65, with SPMI	422.7	\$312,759	\$739.84	227.0	\$142,682	\$628.56	0.850
HCBS, age <65, no SPMI	710.1	\$625,225	\$880.51	295.0	\$288,382	\$977.46	1.110
Community, age <65, with SPMI	731.4	\$608,832	\$832.44	271.8	\$361,224	\$1,328.97	1.596
Community, age <65, no SPMI	924.0	\$936,659	\$1,013.70	322.0	\$491,638	\$1,526.83	1.506

Table 3.C.2 — MEDICARE
Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 1C

Category of beneficiary	Baseline period			Demonstration Year 4			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Re-weighted comparison group	7,946.8	\$12,115,020	\$1,524.51	2,117.5	\$4,000,204	\$1,889.13	1.239
Facility, age 65+, with SPMI	78.0	\$162,290	\$2,080.64	17.0	\$29,351	\$1,726.54	0.830
Facility, age 65+, no SPMI	509.6	\$883,213	\$1,733.25	41.8	\$66,768	\$1,596.29	0.921
HCBS, age 65+, with SPMI	415.4	\$787,714	\$1,896.19	125.3	\$300,586	\$2,398.17	1.265
HCBS, age 65+, no SPMI	1,567.7	\$2,541,768	\$1,621.34	356.9	\$854,504	\$2,394.04	1.477
Community, age 65+, with SPMI	286.6	\$380,569	\$1,327.67	121.5	\$222,173	\$1,827.86	1.377
Community, age 65+, no SPMI	2,225.3	\$2,627,533	\$1,180.74	467.6	\$823,142	\$1,760.34	1.491
Facility, age <65, with SPMI	55.0	\$139,181	\$2,530.57	12.0	\$23,780	\$1,981.66	0.783
Facility, age <65, no SPMI	21.0	\$55,877	\$2,660.81	24.0	\$45,255	\$1,885.63	0.709
HCBS, age <65, with SPMI	422.7	\$715,949	\$1,693.58	207.4	\$307,842	\$1,484.05	0.876
HCBS, age <65, no SPMI	710.1	\$1,381,750	\$1,945.94	249.2	\$562,600	\$2,258.01	1.160
Community, age <65, with SPMI	731.4	\$963,007	\$1,316.70	239.3	\$304,322	\$1,271.60	0.966
Community, age <65, no SPMI	924.0	\$1,476,169	\$1,597.59	255.3	\$459,879	\$1,801.17	1.127
Intervention group	7,946.8	\$7,898,710	\$993.94	2,117.5	\$2,702,837	\$1,276.44	1.284
Facility, age 65+, with SPMI	78.0	\$190,149	\$2,437.80	17.0	\$15,141	\$890.67	0.365
Facility, age 65+, no SPMI	509.6	\$823,008	\$1,615.10	41.8	\$26,212	\$626.66	0.388
HCBS, age 65+, with SPMI	415.4	\$406,330	\$978.12	125.3	\$268,703	\$2,143.80	2.192
HCBS, age 65+, no SPMI	1,567.7	\$1,419,597	\$905.53	356.9	\$440,578	\$1,234.36	1.363
Community, age 65+, with SPMI	286.6	\$432,595	\$1,509.16	121.5	\$97,274	\$800.29	0.530
Community, age 65+, no SPMI	2,225.3	\$1,691,547	\$760.14	467.6	\$755,196	\$1,615.03	2.125
Facility, age <65, with SPMI	55.0	\$241,153	\$4,384.61	12.0	\$86,666	\$7,222.17	1.647
Facility, age <65, no SPMI	21.0	\$210,854	\$10,040.68	24.0	\$6,502	\$270.92	0.027
HCBS, age <65, with SPMI	422.7	\$312,759	\$739.84	207.4	\$130,593	\$629.56	0.851
HCBS, age <65, no SPMI	710.1	\$625,225	\$880.51	249.2	\$321,271	\$1,289.43	1.464
Community, age <65, with SPMI	731.4	\$608,832	\$832.44	239.3	\$265,243	\$1,108.31	1.331
Community, age <65, no SPMI	924.0	\$936,659	\$1,013.70	255.3	\$289,457	\$1,133.69	1.118

Table 3.D.1 — MEDICARE
Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 3, by category of beneficiary: Cohort 1D

Category of beneficiary	Baseline period			Demonstration Year 3			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Re-weighted comparison group	129,399.2	\$207,882,769	\$1,606.52	42,529.9	\$78,947,138	\$1,856.28	1.155
Facility, age 65+, with SPMI	3,449.1	\$7,099,156	\$2,058.27	700.2	\$1,192,696	\$1,703.31	0.828
Facility, age 65+, no SPMI	9,573.0	\$16,530,797	\$1,726.81	1,809.9	\$2,994,053	\$1,654.25	0.958
HCBS, age 65+, with SPMI	5,666.9	\$10,738,746	\$1,895.01	1,682.5	\$3,847,227	\$2,286.60	1.207
HCBS, age 65+, no SPMI	24,215.1	\$39,358,354	\$1,625.36	7,170.9	\$16,052,261	\$2,238.54	1.377
Community, age 65+, with SPMI	2,995.7	\$3,929,249	\$1,311.61	989.1	\$1,720,446	\$1,739.48	1.326
Community, age 65+, no SPMI	19,735.0	\$23,217,237	\$1,176.45	6,412.1	\$10,227,759	\$1,595.08	1.356
Facility, age <65, with SPMI	850.9	\$2,145,788	\$2,521.68	233.8	\$460,148	\$1,968.12	0.780
Facility, age <65, no SPMI	1,455.9	\$3,482,455	\$2,391.90	487.0	\$864,505	\$1,775.16	0.742
HCBS, age <65, with SPMI	8,850.4	\$14,942,652	\$1,688.37	3,394.5	\$5,508,616	\$1,622.80	0.961
HCBS, age <65, no SPMI	18,671.7	\$36,297,579	\$1,943.99	7,052.0	\$16,797,056	\$2,381.89	1.225
Community, age <65, with SPMI	13,939.8	\$18,378,011	\$1,318.39	5,070.6	\$6,570,995	\$1,295.91	0.983
Community, age <65, no SPMI	19,995.6	\$31,762,746	\$1,588.48	7,527.4	\$12,711,375	\$1,688.69	1.063
Intervention group	129,399.2	\$219,493,469	\$1,696.25	42,529.9	\$73,252,412	\$1,722.38	1.015
Facility, age 65+, with SPMI	3,449.1	\$8,089,951	\$2,345.53	700.2	\$951,290	\$1,358.55	0.579
Facility, age 65+, no SPMI	9,573.0	\$19,529,844	\$2,040.09	1,809.9	\$2,487,997	\$1,374.65	0.674
HCBS, age 65+, with SPMI	5,666.9	\$11,401,735	\$2,012.00	1,682.5	\$3,238,058	\$1,924.54	0.957
HCBS, age 65+, no SPMI	24,215.1	\$41,155,717	\$1,699.59	7,170.9	\$14,153,705	\$1,973.78	1.161
Community, age 65+, with SPMI	2,995.7	\$4,345,812	\$1,450.66	989.1	\$1,590,082	\$1,607.67	1.108
Community, age 65+, no SPMI	19,735.0	\$26,698,339	\$1,352.84	6,412.1	\$9,803,955	\$1,528.99	1.130
Facility, age <65, with SPMI	850.9	\$2,783,711	\$3,271.35	233.8	\$497,014	\$2,125.80	0.650
Facility, age <65, no SPMI	1,455.9	\$6,939,015	\$4,766.02	487.0	\$1,349,282	\$2,770.60	0.581
HCBS, age <65, with SPMI	8,850.4	\$14,556,363	\$1,644.72	3,394.5	\$5,789,510	\$1,705.55	1.037
HCBS, age <65, no SPMI	18,671.7	\$33,932,964	\$1,817.35	7,052.0	\$13,414,345	\$1,902.21	1.047
Community, age <65, with SPMI	13,939.8	\$18,504,005	\$1,327.43	5,070.6	\$6,200,227	\$1,222.79	0.921
Community, age <65, no SPMI	19,995.6	\$31,556,013	\$1,578.14	7,527.4	\$13,776,947	\$1,830.24	1.160

Table 3.D.2 — MEDICARE
Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 1D

Category of beneficiary	Baseline period			Demonstration Year 4			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Re-weighted comparison group	129,399.2	\$207,882,769	\$1,606.52	35,278.5	\$66,759,737	\$1,892.37	1.178
Facility, age 65+, with SPMI	3,449.1	\$7,099,156	\$2,058.27	479.9	\$814,970	\$1,698.15	0.825
Facility, age 65+, no SPMI	9,573.0	\$16,530,797	\$1,726.81	1,197.6	\$1,904,059	\$1,589.89	0.921
HCBS, age 65+, with SPMI	5,666.9	\$10,738,746	\$1,895.01	1,341.4	\$3,220,033	\$2,400.49	1.267
HCBS, age 65+, no SPMI	24,215.1	\$39,358,354	\$1,625.36	5,705.5	\$13,663,871	\$2,394.85	1.473
Community, age 65+, with SPMI	2,995.7	\$3,929,249	\$1,311.61	772.4	\$1,406,829	\$1,821.35	1.389
Community, age 65+, no SPMI	19,735.0	\$23,217,237	\$1,176.45	5,229.4	\$9,194,252	\$1,758.19	1.494
Facility, age <65, with SPMI	850.9	\$2,145,788	\$2,521.68	179.3	\$353,428	\$1,971.61	0.782
Facility, age <65, no SPMI	1,455.9	\$3,482,455	\$2,391.90	330.1	\$627,524	\$1,901.00	0.795
HCBS, age <65, with SPMI	8,850.4	\$14,942,652	\$1,688.37	3,123.1	\$4,641,245	\$1,486.11	0.880
HCBS, age <65, no SPMI	18,671.7	\$36,297,579	\$1,943.99	6,132.5	\$13,842,139	\$2,257.19	1.161
Community, age <65, with SPMI	13,939.8	\$18,378,011	\$1,318.39	4,374.3	\$5,558,659	\$1,270.75	0.964
Community, age <65, no SPMI	19,995.6	\$31,762,746	\$1,588.48	6,413.0	\$11,532,727	\$1,798.33	1.132
Intervention group	129,399.2	\$219,493,469	\$1,696.25	35,278.5	\$65,128,621	\$1,846.13	1.088
Facility, age 65+, with SPMI	3,449.1	\$8,089,951	\$2,345.53	479.9	\$852,375	\$1,776.09	0.757
Facility, age 65+, no SPMI	9,573.0	\$19,529,844	\$2,040.09	1,197.6	\$1,606,716	\$1,341.61	0.658
HCBS, age 65+, with SPMI	5,666.9	\$11,401,735	\$2,012.00	1,341.4	\$2,894,483	\$2,157.80	1.072
HCBS, age 65+, no SPMI	24,215.1	\$41,155,717	\$1,699.59	5,705.5	\$12,211,127	\$2,140.23	1.259
Community, age 65+, with SPMI	2,995.7	\$4,345,812	\$1,450.66	772.4	\$1,064,695	\$1,378.41	0.950
Community, age 65+, no SPMI	19,735.0	\$26,698,339	\$1,352.84	5,229.4	\$9,490,402	\$1,814.82	1.341
Facility, age <65, with SPMI	850.9	\$2,783,711	\$3,271.35	179.3	\$260,914	\$1,455.52	0.445
Facility, age <65, no SPMI	1,455.9	\$6,939,015	\$4,766.02	330.1	\$798,040	\$2,417.55	0.507
HCBS, age <65, with SPMI	8,850.4	\$14,556,363	\$1,644.72	3,123.1	\$4,964,974	\$1,589.77	0.967
HCBS, age <65, no SPMI	18,671.7	\$33,932,964	\$1,817.35	6,132.5	\$12,197,441	\$1,989.00	1.094
Community, age <65, with SPMI	13,939.8	\$18,504,005	\$1,327.43	4,374.3	\$6,431,194	\$1,470.22	1.108
Community, age <65, no SPMI	19,995.6	\$31,556,013	\$1,578.14	6,413.0	\$12,356,259	\$1,926.75	1.221

Table 3.E.1 — MEDICARE
Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 3, by category of beneficiary: Cohort 1E

Category of beneficiary	Baseline period			Demonstration Year 3			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Re-weighted comparison group	15,153.3	\$23,465,894	\$1,548.56	5,500.6	\$9,906,663	\$1,801.01	1.163
Facility, age 65+, with SPMI	279.0	\$573,525	\$2,055.64	48.0	\$82,156	\$1,711.59	0.833
Facility, age 65+, no SPMI	1,143.7	\$1,980,257	\$1,731.43	283.9	\$470,558	\$1,657.27	0.957
HCBS, age 65+, with SPMI	297.0	\$563,184	\$1,896.24	69.4	\$157,655	\$2,272.66	1.199
HCBS, age 65+, no SPMI	3,090.8	\$5,031,005	\$1,627.75	923.0	\$2,069,085	\$2,241.61	1.377
Community, age 65+, with SPMI	352.0	\$462,917	\$1,315.11	109.1	\$189,287	\$1,735.50	1.320
Community, age 65+, no SPMI	3,588.7	\$4,220,750	\$1,176.13	1,318.2	\$2,102,015	\$1,594.59	1.356
Facility, age <65, with SPMI	137.2	\$347,384	\$2,531.06	53.0	\$104,356	\$1,968.98	0.778
Facility, age <65, no SPMI	211.0	\$502,282	\$2,380.48	79.6	\$141,194	\$1,774.23	0.745
HCBS, age <65, with SPMI	755.0	\$1,273,188	\$1,686.34	324.4	\$526,317	\$1,622.26	0.962
HCBS, age <65, no SPMI	1,481.9	\$2,878,416	\$1,942.35	685.5	\$1,632,446	\$2,381.49	1.226
Community, age <65, with SPMI	1,654.5	\$2,183,008	\$1,319.43	714.9	\$926,153	\$1,295.44	0.982
Community, age <65, no SPMI	2,162.5	\$3,449,978	\$1,595.37	891.6	\$1,505,438	\$1,688.53	1.058
Intervention group	15,153.3	\$10,288,068	\$678.93	5,500.6	\$5,855,780	\$1,064.57	1.568
Facility, age 65+, with SPMI	279.0	\$340,940	\$1,222.01	48.0	\$4,530	\$94.38	0.077
Facility, age 65+, no SPMI	1,143.7	\$983,611	\$860.02	283.9	\$164,415	\$579.06	0.673
HCBS, age 65+, with SPMI	297.0	\$202,815	\$682.88	69.4	\$208,980	\$3,012.54	4.412
HCBS, age 65+, no SPMI	3,090.8	\$2,497,709	\$808.12	923.0	\$1,243,563	\$1,347.25	1.667
Community, age 65+, with SPMI	352.0	\$271,496	\$771.30	109.1	\$119,496	\$1,095.62	1.420
Community, age 65+, no SPMI	3,588.7	\$1,918,612	\$534.63	1,318.2	\$1,092,192	\$828.54	1.550
Facility, age <65, with SPMI	137.2	\$57,996	\$422.56	53.0	\$139,659	\$2,635.08	6.236
Facility, age <65, no SPMI	211.0	\$260,623	\$1,235.18	79.6	\$126,247	\$1,586.41	1.284
HCBS, age <65, with SPMI	755.0	\$439,693	\$582.37	324.4	\$375,166	\$1,156.36	1.986
HCBS, age <65, no SPMI	1,481.9	\$849,446	\$573.21	685.5	\$916,786	\$1,337.45	2.333
Community, age <65, with SPMI	1,654.5	\$1,149,973	\$695.05	714.9	\$593,871	\$830.67	1.195
Community, age <65, no SPMI	2,162.5	\$1,315,153	\$608.17	891.6	\$870,873	\$976.79	1.606

Table 3.E.2 — MEDICARE
Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 1E

Category of beneficiary	Baseline period			Demonstration Year 4			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Re-weighted comparison group	15,153.3	\$23,465,894	\$1,548.56	4,418.6	\$8,164,561	\$1,847.76	1.193
Facility, age 65+, with SPMI	279.0	\$573,525	\$2,055.64	39.4	\$66,691	\$1,692.67	0.823
Facility, age 65+, no SPMI	1,143.7	\$1,980,257	\$1,731.43	156.4	\$248,501	\$1,588.79	0.918
HCBS, age 65+, with SPMI	297.0	\$563,184	\$1,896.24	50.6	\$120,769	\$2,387.65	1.259
HCBS, age 65+, no SPMI	3,090.8	\$5,031,005	\$1,627.75	678.9	\$1,625,623	\$2,394.58	1.471
Community, age 65+, with SPMI	352.0	\$462,917	\$1,315.11	83.2	\$151,574	\$1,822.53	1.386
Community, age 65+, no SPMI	3,588.7	\$4,220,750	\$1,176.13	999.1	\$1,755,955	\$1,757.58	1.494
Facility, age <65, with SPMI	137.2	\$347,384	\$2,531.06	48.0	\$95,120	\$1,981.66	0.783
Facility, age <65, no SPMI	211.0	\$502,282	\$2,380.48	63.0	\$117,995	\$1,872.94	0.787
HCBS, age <65, with SPMI	755.0	\$1,273,188	\$1,686.34	317.8	\$472,227	\$1,485.75	0.881
HCBS, age <65, no SPMI	1,481.9	\$2,878,416	\$1,942.35	589.8	\$1,332,212	\$2,258.85	1.163
Community, age <65, with SPMI	1,654.5	\$2,183,008	\$1,319.43	626.1	\$798,270	\$1,274.93	0.966
Community, age <65, no SPMI	2,162.5	\$3,449,978	\$1,595.37	766.4	\$1,379,624	\$1,800.19	1.128
Intervention group	15,153.3	\$10,288,068	\$678.93	4,418.6	\$5,380,302	\$1,217.64	1.793
Facility, age 65+, with SPMI	279.0	\$340,940	\$1,222.01	39.4	\$24,732	\$627.72	0.514
Facility, age 65+, no SPMI	1,143.7	\$983,611	\$860.02	156.4	\$294,146	\$1,880.63	2.187
HCBS, age 65+, with SPMI	297.0	\$202,815	\$682.88	50.6	\$67,024	\$1,325.09	1.940
HCBS, age 65+, no SPMI	3,090.8	\$2,497,709	\$808.12	678.9	\$1,136,933	\$1,674.73	2.072
Community, age 65+, with SPMI	352.0	\$271,496	\$771.30	83.2	\$111,057	\$1,335.36	1.731
Community, age 65+, no SPMI	3,588.7	\$1,918,612	\$534.63	999.1	\$1,050,107	\$1,051.08	1.966
Facility, age <65, with SPMI	137.2	\$57,996	\$422.56	48.0	\$93,879	\$1,955.82	4.628
Facility, age <65, no SPMI	211.0	\$260,623	\$1,235.18	63.0	\$62,204	\$987.36	0.799
HCBS, age <65, with SPMI	755.0	\$439,693	\$582.37	317.8	\$328,096	\$1,032.27	1.773
HCBS, age <65, no SPMI	1,481.9	\$849,446	\$573.21	589.8	\$712,030	\$1,207.29	2.106
Community, age <65, with SPMI	1,654.5	\$1,149,973	\$695.05	626.1	\$553,915	\$884.67	1.273
Community, age <65, no SPMI	2,162.5	\$1,315,153	\$608.17	766.4	\$946,180	\$1,234.61	2.030

Table 3.F.1 — MEDICARE
Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 3, by category of beneficiary: Cohort 1F

Category of beneficiary	Baseline period			Demonstration Year 3			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Re-weighted comparison group	15,986.6	\$24,688,247	\$1,544.31	5,968.2	\$10,882,090	\$1,823.35	1.181
Facility, age 65+, with SPMI	250.4	\$516,275	\$2,061.64	53.5	\$90,101	\$1,684.49	0.817
Facility, age 65+, no SPMI	838.0	\$1,446,285	\$1,725.88	199.2	\$329,290	\$1,652.70	0.958
HCBS, age 65+, with SPMI	480.2	\$915,481	\$1,906.48	218.0	\$497,419	\$2,281.74	1.197
HCBS, age 65+, no SPMI	2,635.0	\$4,300,912	\$1,632.22	750.3	\$1,680,247	\$2,239.29	1.372
Community, age 65+, with SPMI	438.1	\$577,833	\$1,318.94	141.0	\$245,381	\$1,740.29	1.319
Community, age 65+, no SPMI	3,854.1	\$4,551,826	\$1,181.02	1,474.7	\$2,352,326	\$1,595.08	1.351
Facility, age <65, with SPMI	99.2	\$249,940	\$2,519.72	60.0	\$116,296	\$1,938.26	0.769
Facility, age <65, no SPMI	99.0	\$234,480	\$2,368.48	47.7	\$84,563	\$1,771.25	0.748
HCBS, age <65, with SPMI	682.0	\$1,153,956	\$1,691.97	306.5	\$498,306	\$1,625.88	0.961
HCBS, age <65, no SPMI	1,969.2	\$3,824,528	\$1,942.14	883.4	\$2,107,151	\$2,385.38	1.228
Community, age <65, with SPMI	1,722.2	\$2,271,910	\$1,319.22	550.0	\$713,744	\$1,297.67	0.984
Community, age <65, no SPMI	2,919.1	\$4,644,822	\$1,591.19	1,283.8	\$2,167,266	\$1,688.22	1.061
Intervention group	15,986.6	\$9,731,043	\$608.70	5,968.2	\$6,178,596	\$1,035.26	1.701
Facility, age 65+, with SPMI	250.4	\$310,844	\$1,241.30	53.5	\$18,934	\$353.98	0.285
Facility, age 65+, no SPMI	838.0	\$940,063	\$1,121.79	199.2	\$183,947	\$923.23	0.823
HCBS, age 65+, with SPMI	480.2	\$385,684	\$803.19	218.0	\$412,801	\$1,893.58	2.358
HCBS, age 65+, no SPMI	2,635.0	\$1,820,644	\$690.94	750.3	\$852,278	\$1,135.84	1.644
Community, age 65+, with SPMI	438.1	\$315,186	\$719.43	141.0	\$130,506	\$925.57	1.287
Community, age 65+, no SPMI	3,854.1	\$1,841,018	\$477.67	1,474.7	\$2,073,991	\$1,406.35	2.944
Facility, age <65, with SPMI	99.2	\$54,697	\$551.42	60.0	\$104,748	\$1,745.80	3.166
Facility, age <65, no SPMI	99.0	\$43,706	\$441.48	47.7	\$75,107	\$1,573.18	3.563
HCBS, age <65, with SPMI	682.0	\$494,966	\$725.74	306.5	\$245,771	\$801.90	1.105
HCBS, age <65, no SPMI	1,969.2	\$751,558	\$381.65	883.4	\$618,455	\$700.12	1.834
Community, age <65, with SPMI	1,722.2	\$1,343,004	\$779.84	550.0	\$422,700	\$768.52	0.985
Community, age <65, no SPMI	2,919.1	\$1,429,671	\$489.77	1,283.8	\$1,039,358	\$809.62	1.653

Table 3.F.2 — MEDICARE
Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 1F

Category of beneficiary	Baseline period			Demonstration Year 4			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Re-weighted comparison group	15,986.6	\$24,688,247	\$1,544.31	4,911.2	\$9,222,691	\$1,877.89	1.216
Facility, age 65+, with SPMI	250.4	\$516,275	\$2,061.64	36.0	\$60,860	\$1,690.56	0.820
Facility, age 65+, no SPMI	838.0	\$1,446,285	\$1,725.88	148.4	\$235,420	\$1,586.18	0.919
HCBS, age 65+, with SPMI	480.2	\$915,481	\$1,906.48	182.6	\$437,804	\$2,397.02	1.257
HCBS, age 65+, no SPMI	2,635.0	\$4,300,912	\$1,632.22	561.6	\$1,343,886	\$2,392.98	1.466
Community, age 65+, with SPMI	438.1	\$577,833	\$1,318.94	130.0	\$236,952	\$1,822.71	1.382
Community, age 65+, no SPMI	3,854.1	\$4,551,826	\$1,181.02	1,151.3	\$2,024,305	\$1,758.35	1.489
Facility, age <65, with SPMI	99.2	\$249,940	\$2,519.72	47.0	\$91,829	\$1,953.80	0.775
Facility, age <65, no SPMI	99.0	\$234,480	\$2,368.48	36.0	\$67,883	\$1,885.63	0.796
HCBS, age <65, with SPMI	682.0	\$1,153,956	\$1,691.97	263.2	\$391,146	\$1,485.97	0.878
HCBS, age <65, no SPMI	1,969.2	\$3,824,528	\$1,942.14	770.6	\$1,738,815	\$2,256.45	1.162
Community, age <65, with SPMI	1,722.2	\$2,271,910	\$1,319.22	483.0	\$613,674	\$1,270.55	0.963
Community, age <65, no SPMI	2,919.1	\$4,644,822	\$1,591.19	1,101.5	\$1,980,118	\$1,797.72	1.130
Intervention group	15,986.6	\$9,731,043	\$608.70	4,911.2	\$5,766,735	\$1,174.20	1.929
Facility, age 65+, with SPMI	250.4	\$310,844	\$1,241.30	36.0	\$15,418	\$428.27	0.345
Facility, age 65+, no SPMI	838.0	\$940,063	\$1,121.79	148.4	\$173,292	\$1,167.58	1.041
HCBS, age 65+, with SPMI	480.2	\$385,684	\$803.19	182.6	\$436,772	\$2,391.37	2.977
HCBS, age 65+, no SPMI	2,635.0	\$1,820,644	\$690.94	561.6	\$657,899	\$1,171.48	1.695
Community, age 65+, with SPMI	438.1	\$315,186	\$719.43	130.0	\$88,348	\$679.60	0.945
Community, age 65+, no SPMI	3,854.1	\$1,841,018	\$477.67	1,151.3	\$1,664,875	\$1,446.14	3.027
Facility, age <65, with SPMI	99.2	\$54,697	\$551.42	47.0	\$80,939	\$1,722.11	3.123
Facility, age <65, no SPMI	99.0	\$43,706	\$441.48	36.0	\$8,142	\$226.17	0.512
HCBS, age <65, with SPMI	682.0	\$494,966	\$725.74	263.2	\$113,847	\$432.51	0.596
HCBS, age <65, no SPMI	1,969.2	\$751,558	\$381.65	770.6	\$643,342	\$834.86	2.188
Community, age <65, with SPMI	1,722.2	\$1,343,004	\$779.84	483.0	\$632,515	\$1,309.56	1.679
Community, age <65, no SPMI	2,919.1	\$1,429,671	\$489.77	1,101.5	\$1,251,348	\$1,136.08	2.320

Table 3.G.1 —MEDICARE
Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 3, by category of beneficiary: Cohort 1 Total

Category of beneficiary	Baseline period			Demonstration Year 3			Trend (D/B)
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	
Re-weighted comparison group	300,541.1	\$478,511,235	\$1,592.17	99,473.9	\$184,420,069	\$1,853.95	1.164
Facility, age 65+, with SPMI	8,034.5	\$16,534,542	\$2,057.93	1,653.5	\$2,812,071	\$1,700.69	0.826
Facility, age 65+, no SPMI	20,695.7	\$35,690,181	\$1,724.52	3,709.3	\$6,136,750	\$1,654.40	0.959
HCBS, age 65+, with SPMI	12,692.4	\$24,055,314	\$1,895.25	3,929.2	\$8,983,655	\$2,286.37	1.206
HCBS, age 65+, no SPMI	57,590.4	\$93,564,252	\$1,624.65	16,853.1	\$37,734,751	\$2,239.04	1.378
Community, age 65+, with SPMI	7,196.4	\$9,442,825	\$1,312.15	2,436.7	\$4,237,253	\$1,738.93	1.325
Community, age 65+, no SPMI	54,777.7	\$64,461,342	\$1,176.78	18,255.9	\$29,124,160	\$1,595.33	1.356
Facility, age <65, with SPMI	2,328.6	\$5,874,283	\$2,522.69	714.9	\$1,404,504	\$1,964.57	0.779
Facility, age <65, no SPMI	2,819.8	\$6,751,321	\$2,394.22	1,006.1	\$1,784,632	\$1,773.87	0.741
HCBS, age <65, with SPMI	21,022.7	\$35,496,599	\$1,688.49	8,178.9	\$13,275,649	\$1,623.17	0.961
HCBS, age <65, no SPMI	40,606.4	\$78,915,525	\$1,943.43	15,822.9	\$37,694,591	\$2,382.29	1.226
Community, age <65, with SPMI	29,285.3	\$38,589,730	\$1,317.72	10,735.7	\$13,914,879	\$1,296.14	0.984
Community, age <65, no SPMI	43,491.1	\$69,135,320	\$1,589.64	16,177.8	\$27,317,174	\$1,688.56	1.062
Intervention group	300,541.1	\$484,510,829	\$1,612.13	99,473.9	\$164,765,120	\$1,656.37	1.027
Facility, age 65+, with SPMI	8,034.5	\$17,576,967	\$2,187.68	1,653.5	\$2,131,869	\$1,289.32	0.589
Facility, age 65+, no SPMI	20,695.7	\$39,145,639	\$1,891.49	3,709.3	\$4,627,167	\$1,247.43	0.659
HCBS, age 65+, with SPMI	12,692.4	\$24,018,817	\$1,892.37	3,929.2	\$7,803,081	\$1,985.91	1.049
HCBS, age 65+, no SPMI	57,590.4	\$90,235,491	\$1,566.85	16,853.1	\$31,577,387	\$1,873.69	1.196
Community, age 65+, with SPMI	7,196.4	\$9,895,987	\$1,375.13	2,436.7	\$3,459,830	\$1,419.89	1.033
Community, age 65+, no SPMI	54,777.7	\$66,727,404	\$1,218.15	18,255.9	\$26,785,494	\$1,467.22	1.204
Facility, age <65, with SPMI	2,328.6	\$7,974,151	\$3,424.47	714.9	\$1,323,071	\$1,850.66	0.540
Facility, age <65, no SPMI	2,819.8	\$11,926,346	\$4,229.44	1,006.1	\$2,450,040	\$2,435.27	0.576
HCBS, age <65, with SPMI	21,022.7	\$35,119,181	\$1,670.54	8,178.9	\$12,887,230	\$1,575.67	0.943
HCBS, age <65, no SPMI	40,606.4	\$72,535,248	\$1,786.30	15,822.9	\$29,438,022	\$1,860.47	1.042
Community, age <65, with SPMI	29,285.3	\$37,682,667	\$1,286.74	10,735.7	\$14,041,429	\$1,307.92	1.016
Community, age <65, no SPMI	43,491.1	\$71,672,932	\$1,647.99	16,177.8	\$28,240,498	\$1,745.64	1.059

Table 3.G.2 —MEDICARE
Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 1 Total

Category of beneficiary	Baseline period			Demonstration Year 4			Trend (D/B)
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	
Re-weighted comparison group	300,541.1	\$478,511,235	\$1,592.17	82,564.3	\$156,466,395	\$1,895.09	1.190
Facility, age 65+, with SPMI	8,034.5	\$16,534,542	\$2,057.93	1,170.2	\$1,985,788	\$1,696.91	0.825
Facility, age 65+, no SPMI	20,695.7	\$35,690,181	\$1,724.52	2,442.6	\$3,887,333	\$1,591.46	0.923
HCBS, age 65+, with SPMI	12,692.4	\$24,055,314	\$1,895.25	3,105.7	\$7,452,204	\$2,399.49	1.266
HCBS, age 65+, no SPMI	57,590.4	\$93,564,252	\$1,624.65	13,390.5	\$32,063,893	\$2,394.53	1.474
Community, age 65+, with SPMI	7,196.4	\$9,442,825	\$1,312.15	1,981.4	\$3,610,517	\$1,822.24	1.389
Community, age 65+, no SPMI	54,777.7	\$64,461,342	\$1,176.78	14,491.1	\$25,481,108	\$1,758.40	1.494
Facility, age <65, with SPMI	2,328.6	\$5,874,283	\$2,522.69	596.8	\$1,179,595	\$1,976.44	0.783
Facility, age <65, no SPMI	2,819.8	\$6,751,321	\$2,394.22	758.3	\$1,434,186	\$1,891.35	0.790
HCBS, age <65, with SPMI	21,022.7	\$35,496,599	\$1,688.49	7,529.7	\$11,191,145	\$1,486.26	0.880
HCBS, age <65, no SPMI	40,606.4	\$78,915,525	\$1,943.43	13,859.7	\$31,278,480	\$2,256.79	1.161
Community, age <65, with SPMI	29,285.3	\$38,589,730	\$1,317.72	9,267.9	\$11,782,929	\$1,271.37	0.965
Community, age <65, no SPMI	43,491.1	\$69,135,320	\$1,589.64	13,970.4	\$25,119,216	\$1,798.04	1.131
Intervention group	300,541.1	\$484,510,829	\$1,612.13	82,564.3	\$147,790,144	\$1,790.00	1.110
Facility, age 65+, with SPMI	8,034.5	\$17,576,967	\$2,187.68	1,170.2	\$1,884,472	\$1,610.33	0.736
Facility, age 65+, no SPMI	20,695.7	\$39,145,639	\$1,891.49	2,442.6	\$3,315,496	\$1,357.35	0.718
HCBS, age 65+, with SPMI	12,692.4	\$24,018,817	\$1,892.37	3,105.7	\$6,127,209	\$1,972.86	1.043
HCBS, age 65+, no SPMI	57,590.4	\$90,235,491	\$1,566.85	13,390.5	\$26,795,651	\$2,001.10	1.277
Community, age 65+, with SPMI	7,196.4	\$9,895,987	\$1,375.13	1,981.4	\$2,841,339	\$1,434.03	1.043
Community, age 65+, no SPMI	54,777.7	\$66,727,404	\$1,218.15	14,491.1	\$25,767,643	\$1,778.18	1.460
Facility, age <65, with SPMI	2,328.6	\$7,974,151	\$3,424.47	596.8	\$886,341	\$1,485.08	0.434
Facility, age <65, no SPMI	2,819.8	\$11,926,346	\$4,229.44	758.3	\$1,505,305	\$1,985.14	0.469
HCBS, age <65, with SPMI	21,022.7	\$35,119,181	\$1,670.54	7,529.7	\$10,699,538	\$1,420.98	0.851
HCBS, age <65, no SPMI	40,606.4	\$72,535,248	\$1,786.30	13,859.7	\$26,639,656	\$1,922.09	1.076
Community, age <65, with SPMI	29,285.3	\$37,682,667	\$1,286.74	9,267.9	\$14,666,085	\$1,582.46	1.230
Community, age <65, no SPMI	43,491.1	\$71,672,932	\$1,647.99	13,970.4	\$26,661,411	\$1,908.43	1.158

Table 3.H.1 — MEDICARE
Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 3, by category of beneficiary: Cohort 2

Category of beneficiary	Baseline period			Demonstration Year 3			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Re-weighted comparison group	4,220.4	\$7,342,975	\$1,739.88	4,312.1	\$5,986,553	\$1,388.33	0.798
Facility, age 65+, with SPMI	69.3	\$194,922	\$2,811.37	32.0	\$66,093	\$2,065.40	0.735
Facility, age 65+, no SPMI	224.1	\$559,070	\$2,494.36	139.5	\$175,187	\$1,255.67	0.503
HCBS, age 65+, with SPMI	143.3	\$268,777	\$1,875.10	143.4	\$254,238	\$1,773.09	0.946
HCBS, age 65+, no SPMI	667.3	\$1,128,010	\$1,690.47	633.3	\$1,151,931	\$1,818.96	1.076
Community, age 65+, with SPMI	112.9	\$181,213	\$1,605.69	137.9	\$231,638	\$1,680.10	1.046
Community, age 65+, no SPMI	715.1	\$1,136,725	\$1,589.61	781.1	\$1,058,696	\$1,355.41	0.853
Facility, age <65, with SPMI	48.6	\$188,821	\$3,883.32	53.0	\$112,836	\$2,128.98	0.548
Facility, age <65, no SPMI	49.0	\$186,028	\$3,796.49	30.0	\$61,270	\$2,042.34	0.538
HCBS, age <65, with SPMI	258.8	\$412,435	\$1,593.54	276.8	\$255,895	\$924.45	0.580
HCBS, age <65, no SPMI	572.9	\$962,097	\$1,679.28	718.1	\$1,061,562	\$1,478.32	0.880
Community, age <65, with SPMI	329.2	\$441,888	\$1,342.48	315.5	\$277,659	\$880.02	0.656
Community, age <65, no SPMI	1,029.8	\$1,682,991	\$1,634.24	1,051.5	\$1,279,550	\$1,216.87	0.745
Intervention group	4,220.4	\$9,945,769	\$2,356.60	4,312.1	\$8,119,493	\$1,882.97	0.799
Facility, age 65+, with SPMI	69.3	\$438,707	\$6,327.51	32.0	\$24,903	\$778.23	0.123
Facility, age 65+, no SPMI	224.1	\$1,196,636	\$5,338.95	139.5	\$72,639	\$520.65	0.098
HCBS, age 65+, with SPMI	143.3	\$256,776	\$1,791.38	143.4	\$299,487	\$2,088.66	1.166
HCBS, age 65+, no SPMI	667.3	\$1,545,012	\$2,315.40	633.3	\$1,203,715	\$1,900.73	0.821
Community, age 65+, with SPMI	112.9	\$289,402	\$2,564.32	137.9	\$316,294	\$2,294.13	0.895
Community, age 65+, no SPMI	715.1	\$1,450,968	\$2,029.05	781.1	\$877,701	\$1,123.69	0.554
Facility, age <65, with SPMI	48.6	\$110,141	\$2,265.17	53.0	\$49,055	\$925.56	0.409
Facility, age <65, no SPMI	49.0	\$450,522	\$9,194.32	30.0	\$77,679	\$2,589.28	0.282
HCBS, age <65, with SPMI	258.8	\$748,549	\$2,892.19	276.8	\$579,929	\$2,095.07	0.724
HCBS, age <65, no SPMI	572.9	\$1,300,020	\$2,269.10	718.1	\$1,504,022	\$2,094.48	0.923
Community, age <65, with SPMI	329.2	\$674,242	\$2,048.38	315.5	\$315,386	\$999.59	0.488
Community, age <65, no SPMI	1,029.8	\$1,484,795	\$1,441.79	1,051.5	\$2,798,684	\$2,661.59	1.846

Table 3.H.2 — MEDICARE
Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 2

Category of beneficiary	Baseline period			Demonstration Year 4			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Re-weighted comparison group	4,220.4	\$7,342,975	\$1,739.88	3,476.8	\$5,184,236	\$1,491.08	0.857
Facility, age 65+, with SPMI	69.3	\$194,922	\$2,811.37	36.0	\$49,073	\$1,363.14	0.485
Facility, age 65+, no SPMI	224.1	\$559,070	\$2,494.36	125.4	\$191,397	\$1,526.84	0.612
HCBS, age 65+, with SPMI	143.3	\$268,777	\$1,875.10	105.0	\$228,606	\$2,177.20	1.161
HCBS, age 65+, no SPMI	667.3	\$1,128,010	\$1,690.47	492.2	\$860,941	\$1,749.01	1.035
Community, age 65+, with SPMI	112.9	\$181,213	\$1,605.69	98.5	\$170,652	\$1,732.51	1.079
Community, age 65+, no SPMI	715.1	\$1,136,725	\$1,589.61	620.5	\$1,032,481	\$1,664.08	1.047
Facility, age <65, with SPMI	48.6	\$188,821	\$3,883.32	50.0	\$63,100	\$1,262.89	0.325
Facility, age <65, no SPMI	49.0	\$186,028	\$3,796.49	23.9	\$38,146	\$1,593.71	0.420
HCBS, age <65, with SPMI	258.8	\$412,435	\$1,593.54	261.0	\$302,468	\$1,158.88	0.727
HCBS, age <65, no SPMI	572.9	\$962,097	\$1,679.28	571.3	\$889,667	\$1,557.13	0.927
Community, age <65, with SPMI	329.2	\$441,888	\$1,342.48	268.3	\$311,823	\$1,162.35	0.866
Community, age <65, no SPMI	1,029.8	\$1,682,991	\$1,634.24	824.8	\$1,045,882	\$1,268.11	0.776
Intervention group	4,220.4	\$9,945,769	\$2,356.60	3,476.8	\$6,979,455	\$2,007.42	0.852
Facility, age 65+, with SPMI	69.3	\$438,707	\$6,327.51	36.0	\$42,134	\$1,170.39	0.185
Facility, age 65+, no SPMI	224.1	\$1,196,636	\$5,338.95	125.4	\$83,847	\$668.88	0.125
HCBS, age 65+, with SPMI	143.3	\$256,776	\$1,791.38	105.0	\$139,091	\$1,324.68	0.739
HCBS, age 65+, no SPMI	667.3	\$1,545,012	\$2,315.40	492.2	\$1,442,298	\$2,930.04	1.265
Community, age 65+, with SPMI	112.9	\$289,402	\$2,564.32	98.5	\$255,473	\$2,593.63	1.011
Community, age 65+, no SPMI	715.1	\$1,450,968	\$2,029.05	620.5	\$897,635	\$1,446.74	0.713
Facility, age <65, with SPMI	48.6	\$110,141	\$2,265.17	50.0	\$30,282	\$606.08	0.268
Facility, age <65, no SPMI	49.0	\$450,522	\$9,194.32	23.9	\$179,740	\$7,509.35	0.817
HCBS, age <65, with SPMI	258.8	\$748,549	\$2,892.19	261.0	\$541,586	\$2,075.04	0.717
HCBS, age <65, no SPMI	572.9	\$1,300,020	\$2,269.10	571.3	\$941,808	\$1,648.39	0.726
Community, age <65, with SPMI	329.2	\$674,242	\$2,048.38	268.3	\$257,075	\$958.27	0.468
Community, age <65, no SPMI	1,029.8	\$1,484,795	\$1,441.79	824.8	\$2,168,486	\$2,629.25	1.824

Table 3.I.1 — MEDICARE
Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 3, by category of beneficiary: Cohort 3

Category of beneficiary	Baseline period			Demonstration Year 3			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Re-weighted comparison group	61,200.6	\$93,045,998	\$1,520.35	47,319.8	\$61,824,588	\$1,306.53	0.859
Facility, age 65+, with SPMI	1,249.3	\$2,839,727	\$2,273.12	769.1	\$1,237,882	\$1,609.54	0.708
Facility, age 65+, no SPMI	4,252.8	\$9,447,994	\$2,221.61	2,098.4	\$3,108,400	\$1,481.33	0.667
HCBS, age 65+, with SPMI	2,628.5	\$3,772,984	\$1,435.39	2,019.5	\$3,404,997	\$1,686.04	1.175
HCBS, age 65+, no SPMI	11,866.5	\$18,638,532	\$1,570.68	8,656.1	\$13,711,736	\$1,584.05	1.009
Community, age 65+, with SPMI	1,951.3	\$2,888,862	\$1,480.46	1,654.6	\$1,906,147	\$1,152.05	0.778
Community, age 65+, no SPMI	11,506.7	\$15,358,114	\$1,334.72	9,526.2	\$12,826,002	\$1,346.40	1.009
Facility, age <65, with SPMI	423.5	\$1,488,014	\$3,513.99	334.5	\$687,071	\$2,054.29	0.585
Facility, age <65, no SPMI	696.3	\$2,415,969	\$3,469.81	555.5	\$1,068,686	\$1,923.66	0.554
HCBS, age <65, with SPMI	3,460.0	\$4,039,095	\$1,167.38	3,041.2	\$2,522,556	\$829.47	0.711
HCBS, age <65, no SPMI	6,699.9	\$9,106,677	\$1,359.22	5,895.0	\$6,800,515	\$1,153.60	0.849
Community, age <65, with SPMI	6,565.4	\$7,436,908	\$1,132.75	4,904.2	\$4,248,138	\$866.23	0.765
Community, age <65, no SPMI	9,900.5	\$15,613,122	\$1,577.00	7,865.6	\$10,302,457	\$1,309.81	0.831
Intervention group	61,200.6	\$103,440,434	\$1,690.19	47,319.8	\$68,725,816	\$1,452.37	0.859
Facility, age 65+, with SPMI	1,249.3	\$3,181,407	\$2,546.62	769.1	\$1,005,089	\$1,306.85	0.513
Facility, age 65+, no SPMI	4,252.8	\$9,034,621	\$2,124.41	2,098.4	\$2,052,054	\$977.92	0.460
HCBS, age 65+, with SPMI	2,628.5	\$5,191,095	\$1,974.89	2,019.5	\$3,857,146	\$1,909.93	0.967
HCBS, age 65+, no SPMI	11,866.5	\$21,031,541	\$1,772.34	8,656.1	\$15,064,741	\$1,740.36	0.982
Community, age 65+, with SPMI	1,951.3	\$2,712,797	\$1,390.23	1,654.6	\$1,984,768	\$1,199.57	0.863
Community, age 65+, no SPMI	11,506.7	\$14,881,472	\$1,293.29	9,526.2	\$12,541,219	\$1,316.50	1.018
Facility, age <65, with SPMI	423.5	\$1,956,037	\$4,619.24	334.5	\$871,260	\$2,605.01	0.564
Facility, age <65, no SPMI	696.3	\$3,042,252	\$4,369.28	555.5	\$1,041,861	\$1,875.37	0.429
HCBS, age <65, with SPMI	3,460.0	\$6,775,101	\$1,958.15	3,041.2	\$4,430,152	\$1,456.73	0.744
HCBS, age <65, no SPMI	6,699.9	\$12,516,956	\$1,868.23	5,895.0	\$10,057,665	\$1,706.13	0.913
Community, age <65, with SPMI	6,565.4	\$8,598,440	\$1,309.66	4,904.2	\$5,452,573	\$1,111.82	0.849
Community, age <65, no SPMI	9,900.5	\$14,518,716	\$1,466.46	7,865.6	\$10,367,288	\$1,318.05	0.899

Table 3.I.2 — MEDICARE
Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 3

Category of beneficiary	Baseline period			Demonstration Year 4			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Re-weighted comparison group	61,200.6	\$93,045,998	\$1,520.35	37,725.3	\$53,144,243	\$1,408.72	0.927
Facility, age 65+, with SPMI	1,249.3	\$2,839,727	\$2,273.12	585.9	\$841,469	\$1,436.21	0.632
Facility, age 65+, no SPMI	4,252.8	\$9,447,994	\$2,221.61	1,329.2	\$2,076,735	\$1,562.39	0.703
HCBS, age 65+, with SPMI	2,628.5	\$3,772,984	\$1,435.39	1,648.4	\$2,721,466	\$1,651.02	1.150
HCBS, age 65+, no SPMI	11,866.5	\$18,638,532	\$1,570.68	6,588.3	\$12,411,524	\$1,883.87	1.199
Community, age 65+, with SPMI	1,951.3	\$2,888,862	\$1,480.46	1,336.1	\$1,489,594	\$1,114.87	0.753
Community, age 65+, no SPMI	11,506.7	\$15,358,114	\$1,334.72	7,504.0	\$10,204,228	\$1,359.84	1.019
Facility, age <65, with SPMI	423.5	\$1,488,014	\$3,513.99	288.2	\$320,758	\$1,113.11	0.317
Facility, age <65, no SPMI	696.3	\$2,415,969	\$3,469.81	474.7	\$747,822	\$1,575.43	0.454
HCBS, age <65, with SPMI	3,460.0	\$4,039,095	\$1,167.38	2,710.2	\$2,405,292	\$887.51	0.760
HCBS, age <65, no SPMI	6,699.9	\$9,106,677	\$1,359.22	5,102.9	\$6,717,250	\$1,316.36	0.968
Community, age <65, with SPMI	6,565.4	\$7,436,908	\$1,132.75	4,017.9	\$3,858,490	\$960.33	0.848
Community, age <65, no SPMI	9,900.5	\$15,613,122	\$1,577.00	6,139.7	\$9,349,618	\$1,522.82	0.966
Intervention group	61,200.6	\$103,440,434	\$1,690.19	37,725.3	\$54,956,672	\$1,456.76	0.862
Facility, age 65+, with SPMI	1,249.3	\$3,181,407	\$2,546.62	585.9	\$883,903	\$1,508.63	0.592
Facility, age 65+, no SPMI	4,252.8	\$9,034,621	\$2,124.41	1,329.2	\$1,651,746	\$1,242.65	0.585
HCBS, age 65+, with SPMI	2,628.5	\$5,191,095	\$1,974.89	1,648.4	\$2,858,367	\$1,734.07	0.878
HCBS, age 65+, no SPMI	11,866.5	\$21,031,541	\$1,772.34	6,588.3	\$10,951,964	\$1,662.33	0.938
Community, age 65+, with SPMI	1,951.3	\$2,712,797	\$1,390.23	1,336.1	\$1,504,659	\$1,126.15	0.810
Community, age 65+, no SPMI	11,506.7	\$14,881,472	\$1,293.29	7,504.0	\$9,224,262	\$1,229.25	0.950
Facility, age <65, with SPMI	423.5	\$1,956,037	\$4,619.24	288.2	\$689,993	\$2,394.44	0.518
Facility, age <65, no SPMI	696.3	\$3,042,252	\$4,369.28	474.7	\$1,123,363	\$2,366.58	0.542
HCBS, age <65, with SPMI	3,460.0	\$6,775,101	\$1,958.15	2,710.2	\$3,958,714	\$1,460.70	0.746
HCBS, age <65, no SPMI	6,699.9	\$12,516,956	\$1,868.23	5,102.9	\$8,611,456	\$1,687.57	0.903
Community, age <65, with SPMI	6,565.4	\$8,598,440	\$1,309.66	4,017.9	\$5,037,682	\$1,253.81	0.957
Community, age <65, no SPMI	9,900.5	\$14,518,716	\$1,466.46	6,139.7	\$8,460,563	\$1,378.02	0.940

Table 3.J.1 — MEDICARE
Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 3, by category of beneficiary: Cohort 4

Category of beneficiary	Baseline period			Demonstration Year 3			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Re-weighted comparison group	62,395.6	\$96,865,182	\$1,552.44	60,468.5	\$94,451,494	\$1,562.00	1.006
Facility, age 65+, with SPMI	2,453.0	\$6,453,449	\$2,630.84	2,161.3	\$4,410,378	\$2,040.63	0.776
Facility, age 65+, no SPMI	2,527.9	\$5,282,819	\$2,089.78	2,128.4	\$3,462,225	\$1,626.66	0.778
HCBS, age 65+, with SPMI	4,306.6	\$8,037,334	\$1,866.30	4,115.4	\$8,459,190	\$2,055.50	1.101
HCBS, age 65+, no SPMI	9,921.7	\$14,424,152	\$1,453.79	9,486.1	\$16,864,793	\$1,777.84	1.223
Community, age 65+, with SPMI	2,937.0	\$4,882,376	\$1,662.39	2,898.9	\$4,332,792	\$1,494.66	0.899
Community, age 65+, no SPMI	13,051.3	\$16,756,974	\$1,283.93	12,887.2	\$15,758,182	\$1,222.77	0.952
Facility, age <65, with SPMI	701.0	\$2,687,764	\$3,834.18	614.6	\$1,768,431	\$2,877.39	0.750
Facility, age <65, no SPMI	435.0	\$1,496,911	\$3,441.17	339.6	\$789,423	\$2,324.68	0.676
HCBS, age <65, with SPMI	4,420.2	\$5,880,332	\$1,330.34	4,454.0	\$6,887,082	\$1,546.25	1.162
HCBS, age <65, no SPMI	5,763.7	\$9,009,151	\$1,563.09	6,053.6	\$10,341,352	\$1,708.30	1.093
Community, age <65, with SPMI	7,698.0	\$8,968,160	\$1,165.00	7,159.5	\$8,338,063	\$1,164.62	1.000
Community, age <65, no SPMI	8,180.2	\$12,985,760	\$1,587.47	8,169.9	\$13,039,584	\$1,596.05	1.005
Intervention group	62,395.6	\$108,719,430	\$1,742.42	60,468.5	\$91,095,889	\$1,506.50	0.865
Facility, age 65+, with SPMI	2,453.0	\$8,183,909	\$3,336.29	2,161.3	\$4,023,074	\$1,861.43	0.558
Facility, age 65+, no SPMI	2,527.9	\$5,640,529	\$2,231.28	2,128.4	\$2,397,601	\$1,126.46	0.505
HCBS, age 65+, with SPMI	4,306.6	\$10,380,911	\$2,410.48	4,115.4	\$8,430,791	\$2,048.60	0.850
HCBS, age 65+, no SPMI	9,921.7	\$16,659,970	\$1,679.14	9,486.1	\$15,388,228	\$1,622.19	0.966
Community, age 65+, with SPMI	2,937.0	\$5,604,559	\$1,908.28	2,898.9	\$4,275,037	\$1,474.73	0.773
Community, age 65+, no SPMI	13,051.3	\$15,923,824	\$1,220.09	12,887.2	\$15,276,285	\$1,185.38	0.972
Facility, age <65, with SPMI	701.0	\$3,135,378	\$4,472.72	614.6	\$1,914,254	\$3,114.66	0.696
Facility, age <65, no SPMI	435.0	\$1,415,092	\$3,253.09	339.6	\$1,143,840	\$3,368.37	1.035
HCBS, age <65, with SPMI	4,420.2	\$7,918,350	\$1,791.41	4,454.0	\$7,709,467	\$1,730.89	0.966
HCBS, age <65, no SPMI	5,763.7	\$10,787,145	\$1,871.58	6,053.6	\$9,614,920	\$1,588.30	0.849
Community, age <65, with SPMI	7,698.0	\$11,310,650	\$1,469.29	7,159.5	\$8,787,583	\$1,227.40	0.835
Community, age <65, no SPMI	8,180.2	\$11,759,112	\$1,437.51	8,169.9	\$12,134,807	\$1,485.30	1.033

Table 3.J.2 — MEDICARE
Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 4

Category of beneficiary	Baseline period			Demonstration Year 4			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Re-weighted comparison group	62,395.6	\$96,865,182	\$1,552.44	46,028.7	\$69,458,738	\$1,509.03	0.972
Facility, age 65+, with SPMI	2,453.0	\$6,453,449	\$2,630.84	1,450.9	\$2,715,289	\$1,871.42	0.711
Facility, age 65+, no SPMI	2,527.9	\$5,282,819	\$2,089.78	1,411.5	\$1,952,252	\$1,383.12	0.662
HCBS, age 65+, with SPMI	4,306.6	\$8,037,334	\$1,866.30	3,182.4	\$5,594,516	\$1,757.96	0.942
HCBS, age 65+, no SPMI	9,921.7	\$14,424,152	\$1,453.79	6,946.6	\$12,526,852	\$1,803.31	1.240
Community, age 65+, with SPMI	2,937.0	\$4,882,376	\$1,662.39	2,257.1	\$2,796,114	\$1,238.81	0.745
Community, age 65+, no SPMI	13,051.3	\$16,756,974	\$1,283.93	9,837.2	\$13,560,312	\$1,378.47	1.074
Facility, age <65, with SPMI	701.0	\$2,687,764	\$3,834.18	417.2	\$1,011,444	\$2,424.36	0.632
Facility, age <65, no SPMI	435.0	\$1,496,911	\$3,441.17	252.1	\$539,750	\$2,141.32	0.622
HCBS, age <65, with SPMI	4,420.2	\$5,880,332	\$1,330.34	3,765.4	\$5,020,882	\$1,333.43	1.002
HCBS, age <65, no SPMI	5,763.7	\$9,009,151	\$1,563.09	5,013.5	\$8,677,925	\$1,730.92	1.107
Community, age <65, with SPMI	7,698.0	\$8,968,160	\$1,165.00	5,408.1	\$5,686,645	\$1,051.50	0.903
Community, age <65, no SPMI	8,180.2	\$12,985,760	\$1,587.47	6,086.7	\$9,376,757	\$1,540.53	0.970
Intervention group	62,395.6	\$108,719,430	\$1,742.42	46,028.7	\$68,678,275	\$1,492.08	0.856
Facility, age 65+, with SPMI	2,453.0	\$8,183,909	\$3,336.29	1,450.9	\$1,901,152	\$1,310.30	0.393
Facility, age 65+, no SPMI	2,527.9	\$5,640,529	\$2,231.28	1,411.5	\$1,408,242	\$997.70	0.447
HCBS, age 65+, with SPMI	4,306.6	\$10,380,911	\$2,410.48	3,182.4	\$5,993,420	\$1,883.30	0.781
HCBS, age 65+, no SPMI	9,921.7	\$16,659,970	\$1,679.14	6,946.6	\$11,933,812	\$1,717.94	1.023
Community, age 65+, with SPMI	2,937.0	\$5,604,559	\$1,908.28	2,257.1	\$3,518,455	\$1,558.84	0.817
Community, age 65+, no SPMI	13,051.3	\$15,923,824	\$1,220.09	9,837.2	\$12,188,645	\$1,239.03	1.016
Facility, age <65, with SPMI	701.0	\$3,135,378	\$4,472.72	417.2	\$1,039,231	\$2,490.96	0.557
Facility, age <65, no SPMI	435.0	\$1,415,092	\$3,253.09	252.1	\$410,563	\$1,628.80	0.501
HCBS, age <65, with SPMI	4,420.2	\$7,918,350	\$1,791.41	3,765.4	\$6,434,587	\$1,708.87	0.954
HCBS, age <65, no SPMI	5,763.7	\$10,787,145	\$1,871.58	5,013.5	\$8,204,195	\$1,636.43	0.874
Community, age <65, with SPMI	7,698.0	\$11,310,650	\$1,469.29	5,408.1	\$6,275,064	\$1,160.30	0.790
Community, age <65, no SPMI	8,180.2	\$11,759,112	\$1,437.51	6,086.7	\$9,370,909	\$1,539.57	1.071

Table 3.K — MEDICARE
Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 5A

Category of beneficiary	Baseline period			Demonstration Year 4			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Re-weighted comparison group	65,787.6	\$107,754,944	\$1,637.92	63,414.2	\$104,696,611	\$1,651.00	1.008
Facility, age 65+, with SPMI	2,842.0	\$6,504,251	\$2,288.59	2,529.2	\$4,910,713	\$1,941.59	0.848
Facility, age 65+, no SPMI	2,190.1	\$4,599,048	\$2,099.96	1,872.9	\$3,332,718	\$1,779.46	0.847
HCBS, age 65+, with SPMI	6,618.4	\$13,664,764	\$2,064.67	6,299.1	\$13,604,701	\$2,159.80	1.046
HCBS, age 65+, no SPMI	8,388.5	\$13,376,717	\$1,594.65	8,231.0	\$16,109,741	\$1,957.21	1.227
Community, age 65+, with SPMI	5,124.6	\$8,366,445	\$1,632.59	4,813.2	\$6,709,006	\$1,393.87	0.854
Community, age 65+, no SPMI	11,804.2	\$13,429,548	\$1,137.69	11,384.8	\$13,707,607	\$1,204.02	1.058
Facility, age <65, with SPMI	776.5	\$2,753,515	\$3,545.99	767.7	\$2,542,236	\$3,311.59	0.934
Facility, age <65, no SPMI	321.0	\$1,141,345	\$3,555.59	328.5	\$807,272	\$2,457.16	0.691
HCBS, age <65, with SPMI	5,822.6	\$10,322,639	\$1,772.87	5,901.4	\$12,996,456	\$2,202.26	1.242
HCBS, age <65, no SPMI	4,131.8	\$6,238,202	\$1,509.81	4,410.6	\$6,850,614	\$1,553.23	1.029
Community, age <65, with SPMI	10,170.8	\$13,698,967	\$1,346.89	9,590.5	\$11,350,683	\$1,183.54	0.879
Community, age <65, no SPMI	7,597.1	\$13,659,502	\$1,797.99	7,285.4	\$11,774,864	\$1,616.23	0.899
Intervention group	65,787.6	\$110,905,078	\$1,685.80	63,414.2	\$95,623,575	\$1,507.92	0.894
Facility, age 65+, with SPMI	2,842.0	\$9,014,995	\$3,172.02	2,529.2	\$4,368,153	\$1,727.07	0.544
Facility, age 65+, no SPMI	2,190.1	\$4,385,773	\$2,002.58	1,872.9	\$2,074,467	\$1,107.63	0.553
HCBS, age 65+, with SPMI	6,618.4	\$15,158,222	\$2,290.32	6,299.1	\$13,387,733	\$2,125.35	0.928
HCBS, age 65+, no SPMI	8,388.5	\$14,806,798	\$1,765.13	8,231.0	\$13,943,734	\$1,694.06	0.960
Community, age 65+, with SPMI	5,124.6	\$8,827,429	\$1,722.55	4,813.2	\$7,265,616	\$1,509.51	0.876
Community, age 65+, no SPMI	11,804.2	\$12,550,282	\$1,063.21	11,384.8	\$13,996,984	\$1,229.44	1.156
Facility, age <65, with SPMI	776.5	\$4,038,014	\$5,200.17	767.7	\$2,007,396	\$2,614.89	0.503
Facility, age <65, no SPMI	321.0	\$1,146,659	\$3,572.15	328.5	\$669,670	\$2,038.33	0.571
HCBS, age <65, with SPMI	5,822.6	\$12,311,204	\$2,114.39	5,901.4	\$10,578,587	\$1,792.55	0.848
HCBS, age <65, no SPMI	4,131.8	\$5,743,258	\$1,390.02	4,410.6	\$6,778,299	\$1,536.83	1.106
Community, age <65, with SPMI	10,170.8	\$13,754,663	\$1,352.37	9,590.5	\$11,482,105	\$1,197.24	0.885
Community, age <65, no SPMI	7,597.1	\$9,167,779	\$1,206.74	7,285.4	\$9,070,833	\$1,245.07	1.032

Table 3.L — MEDICARE
Eligible months, incurred claims, and PMPM for the re-weighted comparison group and the intervention group, baseline period, and the Demonstration Year 4, by category of beneficiary: Cohort 5B

Category of beneficiary	Baseline period			Demonstration Year 4			Trend
	Number of eligible months	Incurred claims	PMPM	Number of eligible months	Incurred claims	PMPM	(D/B)
Re-weighted comparison group	65,411.2	\$106,963,285	\$1,635.24	48,134.7	\$85,443,230	\$1,775.09	1.086
Facility, age 65+, with SPMI	4,124.0	\$7,793,211	\$1,889.72	3,032.1	\$5,339,132	\$1,760.85	0.932
Facility, age 65+, no SPMI	2,334.6	\$3,957,640	\$1,695.24	1,729.1	\$2,733,152	\$1,580.66	0.932
HCBS, age 65+, with SPMI	8,071.3	\$17,484,339	\$2,166.25	5,905.3	\$13,629,100	\$2,307.95	1.065
HCBS, age 65+, no SPMI	9,031.3	\$15,448,534	\$1,710.55	6,539.3	\$13,390,918	\$2,047.76	1.197
Community, age 65+, with SPMI	6,083.6	\$9,867,185	\$1,621.94	4,393.1	\$7,539,482	\$1,716.20	1.058
Community, age 65+, no SPMI	14,579.5	\$17,407,750	\$1,193.99	10,565.1	\$15,171,302	\$1,435.98	1.203
Facility, age <65, with SPMI	1,284.5	\$3,345,575	\$2,604.48	973.6	\$2,076,941	\$2,133.19	0.819
Facility, age <65, no SPMI	579.0	\$843,478	\$1,456.78	455.5	\$833,321	\$1,829.37	1.256
HCBS, age <65, with SPMI	5,469.1	\$9,451,656	\$1,728.19	4,197.3	\$7,861,520	\$1,872.98	1.084
HCBS, age <65, no SPMI	3,758.0	\$6,270,810	\$1,668.64	2,831.0	\$5,355,229	\$1,891.64	1.134
Community, age <65, with SPMI	6,450.3	\$9,197,331	\$1,425.88	4,799.9	\$6,918,940	\$1,441.49	1.011
Community, age <65, no SPMI	3,646.1	\$5,895,776	\$1,617.02	2,713.2	\$4,594,192	\$1,693.27	1.047
Intervention group	65,411.2	\$113,102,577	\$1,729.10	48,134.7	\$80,642,197	\$1,675.35	0.969
Facility, age 65+, with SPMI	4,124.0	\$11,220,281	\$2,720.73	3,032.1	\$6,007,581	\$1,981.30	0.728
Facility, age 65+, no SPMI	2,334.6	\$4,975,511	\$2,131.24	1,729.1	\$2,804,964	\$1,622.19	0.761
HCBS, age 65+, with SPMI	8,071.3	\$15,592,008	\$1,931.80	5,905.3	\$10,925,349	\$1,850.10	0.958
HCBS, age 65+, no SPMI	9,031.3	\$12,021,615	\$1,331.10	6,539.3	\$9,617,436	\$1,470.71	1.105
Community, age 65+, with SPMI	6,083.6	\$10,289,715	\$1,691.40	4,393.1	\$6,865,789	\$1,562.85	0.924
Community, age 65+, no SPMI	14,579.5	\$17,589,282	\$1,206.44	10,565.1	\$13,135,609	\$1,243.30	1.031
Facility, age <65, with SPMI	1,284.5	\$5,382,129	\$4,189.90	973.6	\$2,747,144	\$2,821.54	0.673
Facility, age <65, no SPMI	579.0	\$1,328,071	\$2,293.73	455.5	\$840,500	\$1,845.13	0.804
HCBS, age <65, with SPMI	5,469.1	\$11,128,966	\$2,034.88	4,197.3	\$8,856,950	\$2,110.14	1.037
HCBS, age <65, no SPMI	3,758.0	\$5,231,307	\$1,392.03	2,831.0	\$4,907,720	\$1,733.56	1.245
Community, age <65, with SPMI	6,450.3	\$11,304,842	\$1,752.61	4,799.9	\$8,385,035	\$1,746.94	0.997
Community, age <65, no SPMI	3,646.1	\$7,038,850	\$1,930.53	2,713.2	\$5,548,120	\$2,044.86	1.059

**Table 4.A —
Summary by cohort of per member per month (PMPM), baseline versus Demonstration Year 3**

Cohort	Group (comparison/ intervention)	Baseline period			Demonstration Year 3			Cost trend (Demonstration Year/baseline period)
		Number of eligible months (intervention group)	Medicare incurred claims	PMPM	Number of eligible months (intervention group)	Medicare incurred claims	PMPM	
1A	C	48,488.0	\$78,754,198	\$1,624.20	14,540.4	\$27,919,868	\$1,920.16	1.182
	I	48,488.0	\$128,622,626	\$2,652.67	14,540.4	\$36,051,308	\$2,479.39	0.935
1B	C	83,567.1	\$131,605,106	\$1,574.84	28,211.3	\$51,776,952	\$1,835.33	1.165
	I	83,567.1	\$108,476,913	\$1,298.08	28,211.3	\$40,016,796	\$1,418.47	1.093
1C	C	7,946.8	\$12,115,020	\$1,524.51	2,723.6	\$4,987,358	\$1,831.17	1.201
	I	7,946.8	\$7,898,710	\$993.94	2,723.6	\$3,410,228	\$1,252.11	1.260
1D	C	129,399.2	\$207,882,769	\$1,606.52	42,529.9	\$78,947,138	\$1,856.28	1.155
	I	129,399.2	\$219,493,469	\$1,696.25	42,529.9	\$73,252,412	\$1,722.38	1.015
1E	C	15,153.3	\$23,465,894	\$1,548.56	5,500.6	\$9,906,663	\$1,801.01	1.163
	I	15,153.3	\$10,288,068	\$678.93	5,500.6	\$5,855,780	\$1,064.57	1.568
1F	C	15,986.6	\$24,688,247	\$1,544.31	5,968.2	\$10,882,090	\$1,823.35	1.181
	I	15,986.6	\$9,731,043	\$608.70	5,968.2	\$6,178,596	\$1,035.26	1.701
1 total	C	300,541.1	\$478,511,235	\$1,592.17	99,473.9	\$184,420,069	\$1,853.95	1.164
	I	300,541.1	\$484,510,829	\$1,612.13	99,473.9	\$164,765,120	\$1,656.37	1.027
2	C	4,220.4	\$7,342,975	\$1,739.88	4,312.1	\$5,986,553	\$1,388.33	0.798
	I	4,220.4	\$9,945,769	\$2,356.60	4,312.1	\$8,119,493	\$1,882.97	0.799
3	C	61,200.6	\$93,045,998	\$1,520.35	47,319.8	\$61,824,588	\$1,306.53	0.859
	I	61,200.6	\$103,440,434	\$1,690.19	47,319.8	\$68,725,816	\$1,452.37	0.859
4	C	62,395.6	\$96,865,182	\$1,552.44	60,468.5	\$94,451,494	\$1,562.00	1.006
	I	62,395.6	\$108,719,430	\$1,742.42	60,468.5	\$91,095,889	\$1,506.50	0.865

**Table 4.B —
Summary by cohort of per member per month (PMPM), baseline versus Demonstration Year 4**

Cohort	Group	Baseline period			Demonstration Year 4			Cost trend (Demonstration Year/baseline period)
		Number of eligible months (intervention group)	Medicare incurred claims	PMPM	Number of eligible months (intervention group)	Medicare incurred claims	PMPM	
1A	C	48,488.0	\$78,754,198	\$1,624.20	12,196.5	\$23,833,789	\$1,954.14	1.203
	I	48,488.0	\$128,622,626	\$2,652.67	12,196.5	\$31,144,889	\$2,553.58	0.963
1B	C	83,567.1	\$131,605,106	\$1,574.84	23,641.9	\$44,485,413	\$1,881.63	1.195
	I	83,567.1	\$108,476,913	\$1,298.08	23,641.9	\$37,666,761	\$1,593.22	1.227
1C	C	7,946.8	\$12,115,020	\$1,524.51	2,117.5	\$4,000,204	\$1,889.13	1.239
	I	7,946.8	\$7,898,710	\$993.94	2,117.5	\$2,702,837	\$1,276.44	1.284
1D	C	129,399.2	\$207,882,769	\$1,606.52	35,278.5	\$66,759,737	\$1,892.37	1.178
	I	129,399.2	\$219,493,469	\$1,696.25	35,278.5	\$65,128,621	\$1,846.13	1.088
1E	C	15,153.3	\$23,465,894	\$1,548.56	4,418.6	\$8,164,561	\$1,847.76	1.193
	I	15,153.3	\$10,288,068	\$678.93	4,418.6	\$5,380,302	\$1,217.64	1.793
1F	C	15,986.6	\$24,688,247	\$1,544.31	4,911.2	\$9,222,691	\$1,877.89	1.216
	I	15,986.6	\$9,731,043	\$608.70	4,911.2	\$5,766,735	\$1,174.20	1.929
1 total	C	300,541.1	\$478,511,235	\$1,592.17	82,564.3	\$156,466,395	\$1,895.09	1.190
	I	300,541.1	\$484,510,829	\$1,612.13	82,564.3	\$147,790,144	\$1,790.00	1.110
2	C	4,220.4	\$7,342,975	\$1,739.88	3,476.8	\$5,184,236	\$1,491.08	0.857
	I	4,220.4	\$9,945,769	\$2,356.60	3,476.8	\$6,979,455	\$2,007.42	0.852
3	C	61,200.6	\$93,045,998	\$1,520.35	37,725.3	\$53,144,243	\$1,408.72	0.927
	I	61,200.6	\$103,440,434	\$1,690.19	37,725.3	\$54,956,672	\$1,456.76	0.862
4	C	62,395.6	\$96,865,182	\$1,552.44	46,028.7	\$69,458,738	\$1,509.03	0.972
	I	62,395.6	\$108,719,430	\$1,742.42	46,028.7	\$68,678,275	\$1,492.08	0.856

(continued)

Table 4.B — (continued)
Summary by cohort of per member per month (PMPM), baseline versus Demonstration Year 4

Cohort	Group	Baseline period			Demonstration Year 4			Cost trend (Demonstration Year/baseline period)
		Number of eligible months (intervention group)	Medicare incurred claims	PMPM	Number of eligible months (intervention group)	Medicare incurred claims	PMPM	
5A	C	65,787.6	\$107,754,944	\$1,637.92	63,414.2	\$104,696,611	\$1,651.00	1.008
	I	65,787.6	\$110,905,078	\$1,685.80	63,414.2	\$95,623,575	\$1,507.92	0.894
5B	C	65,411.2	\$106,963,285	\$1,635.24	48,134.7	\$85,443,230	\$1,775.09	1.086
	I	65,411.2	\$113,102,577	\$1,729.10	48,134.7	\$80,642,197	\$1,675.35	0.969

5.2 Medicare AGA Adjustments

The trend in health care costs is not uniform across the United States; it varies by geographic area. The purpose of this adjustment is to control for geographic variation in secular cost trends. CMS measures these variations for each calendar year by county with the calculation of the Average Geographic Adjustment (AGA) factors. The factors measure the difference in average Medicare costs in each county from the national average. The factors are used to vary payment rates to Medicare Advantage plans by county. Hospice expenditures are excluded in the calculation of the AGA factors. We calculated the average AGA factor across all beneficiaries in the intervention group and the comparison group for the baseline period and the Demonstration Year separately. To determine the average AGA factor, the non-hospice expenditures for each beneficiary were grouped by calendar year and county of residence, and the weighted average AGA factor was calculated for each cohort and for each period (baseline period vs. Demonstration Year).⁶ *Tables 5.A* and *5.B* show the results of the calculations for Demonstration Years 3 and 4, respectively.

For each cohort and Demonstration Year, the AGA adjustment factor was determined by comparing the trend from the baseline period to the Demonstration Year for the intervention group versus that of the comparison group. For Cohort 1, from the baseline period to Demonstration Year 3, the AGA factor decreased by 0.63 percent (a factor of 0.9937) for the comparison group and increased by 4.52 percent (a factor of 1.0452) for the intervention group. If the AGA had increased by the same 4.52 percent in the comparison area as it did in the intervention area, instead of decreasing by 0.63 percent, then the trend of the comparison group would have increased by an additional 5.18 percent ($1.0452/0.9937 = 1.0518$), which is the AGA adjustment factor that we apply to the comparison group trend. For Cohort 2, the corresponding AGA adjustment factor is 1.0453, for Cohort 3 it is 1.0181 and for Cohort 4 it is 1.0100.

**Table 5.A —
Average AGA factor by group for baseline period and Demonstration Year 3**

Cohort	Group Comparison Intervention	Baseline period	Demonstration Year 3	Trend in AGA factor	Adjustment to comparison group trend
1 total	C	0.89646	0.89083	0.99372	1.05182
	I	0.88374	0.92369	1.04521	
2	C	0.89647	0.89460	0.99792	1.04533
	I	0.89107	0.92953	1.04316	
3	C	0.88723	0.88898	1.00197	1.01812
	I	0.90748	0.92574	1.02012	
4	C	0.88806	0.89131	1.00366	1.01004
	I	0.90803	0.92051	1.01374	

⁶ The non-hospice expenditures of each beneficiary were divided by the AGA factor for their county and year and the sum of the results of this division was divided into the total non-hospice expenditures of the cohort.

For Demonstration Year 4, the corresponding calculations produced AGA adjustment factors of 1.05067 for Cohort 1, 1.04521 for Cohort 2, 1.01431 for Cohort 3, 1.00787 for Cohort 4, 0.99335 for Cohort 5A and 0.99658 for Cohort 5B.

**Table 5.B —
Average AGA factor by group for baseline period and Demonstration Year 4**

Cohort	Group Comparison Intervention	Baseline period	Demonstration Year 4	Trend in AGA factor	Adjustment to comparison group trend
1 total	C	0.89646	0.89972	1.00364	1.05067
	I	0.88374	0.93190	1.05450	
2	C	0.89647	0.90186	1.00602	1.04521
	I	0.89107	0.93696	1.05150	
3	C	0.88723	0.89849	1.01268	1.01431
	I	0.90748	0.93214	1.02717	
4	C	0.88806	0.89823	1.01145	1.00787
	I	0.90803	0.92566	1.01941	
5A	C	0.89198	0.90302	1.01237	0.99335
	I	0.92372	0.92894	1.00564	
5B	C	0.90560	0.90589	1.00032	0.99658
	I	0.89980	0.89701	0.99690	

Tables 6.A–6.L show the Medicare savings calculations for each cohort and Demonstration Year, taking into account the AGA adjustment factors (but still excluding the outlier adjustment). Column (a) displays the number of member months during the Demonstration Year for the intervention group for each category of beneficiary. Column (b) displays the PMPM during the baseline period for the intervention group beneficiaries. This is the starting PMPM to which the trend factor will be applied to determine the target PMPM. Column (c) is the trend factor obtained by multiplying the PMPM trend from the comparison group by the AGA adjustment factor. Column (d) is the target PMPM, which is the baseline PMPM in column (b) times the trends factor in column (c). Column (e) is the actual PMPM for the intervention group in the Demonstration Year. Column (f) shows the PMPM savings, which is the difference between the actual PMPM in column (e) and the target PMPM in column (d). Multiplying the number of eligible months in column (a) by the PMPM savings gives the total dollar savings of column (g). Finally, column (h) shows the corresponding percentage savings, which is the PMPM savings divided by the target PMPM.

Table 6.G displays the Medicare savings calculation for Cohort 1 in total. The baseline PMPM was \$1,612.13. For Demonstration Year 3, the AGA adjusted trend from the comparison group was 1.185, resulting in a target PMPM of \$1,910.14. The actual PMPM for the intervention group was \$1,656.37, an increase of 2.74 percent over the \$1,612.13 baseline PMPM. Because the intervention group PMPM costs increased at a slower rate than the comparison group costs, we estimate a PMPM Medicare savings of \$253.78, a savings rate of

13.3 percent. The total calculated Medicare savings dollar amount was \$25,244,175. For Demonstration Year 4, we estimate a PMPM Medicare savings of \$163.92, or 8.4 percent, with total calculated dollar savings of \$13,533,660.

For Demonstration Year 3, the same calculations for Cohort 2 (as shown in *Table 6.H.1*) result in a PMPM negative Medicare savings of \$10.69, or -0.6 percent, and a negative savings dollar amount of \$46,097. For Demonstration Year 4 (as shown in *Table 6.H.2*), the savings is \$29.98 on a PMPM basis, 1.5 percent, and \$104,218 total dollars.

For Cohort 3, Demonstration Year 3 savings (as shown in *Table 6.I.1*) is \$30.99 PMPM, or 2.1 percent, and \$1,466,241 in total dollars. Demonstration Year 4 savings (as shown in *Table 6.I.2*) is \$147.66 PMPM, or 9.2 percent, and \$5,570,452 in total dollars.

For Cohort 4, Demonstration Year 3 savings (as shown in *Table 6.J.1*) is \$269.85 PMPM, or 15.2 percent, and \$16,317,609 in total dollars. Demonstration Year 4 savings (as shown in *Table 6.J.2*) is \$209.52 PMPM, or 12.3 percent, and \$9,643,731 in total dollars.

For Cohort 5A, Demonstration Year 4 savings (as shown in *Table 6.K*) is \$189.60 PMPM, or 11.2 percent, and \$12,023,413 in total dollars. For Cohort 5B, Demonstration Year 4 savings (as shown in *Table 6.L*) is \$150.95 PMPM, or 8.3 percent, and \$7,266,147 in total dollars.

**Table 6.A.1 — MEDICARE Demonstration Year 3
Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1A**

Category of beneficiary	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Percent savings
Total	14,540.4	\$2,652.67	1.235	\$3,275.81	\$2,479.39	\$796.42	\$11,580,231	24.3
Facility, age 65+, with SPMI	231.9	\$3,321.06	0.867	\$2,879.18	\$1,667.71	\$1,211.47	\$280,944	42.1
Facility, age 65+, no SPMI	356.4	\$2,476.33	1.007	\$2,494.37	\$1,885.82	\$608.55	\$216,886	24.4
HCBS, age 65+, with SPMI	613.5	\$2,903.67	1.268	\$3,683.20	\$2,696.69	\$986.51	\$605,273	26.8
HCBS, age 65+, no SPMI	2,687.8	\$2,389.27	1.446	\$3,454.82	\$2,599.01	\$855.80	\$2,300,201	24.8
Community, age 65+, with SPMI	329.9	\$2,067.95	1.394	\$2,883.40	\$1,406.88	\$1,476.52	\$487,144	51.2
Community, age 65+, no SPMI	2,577.6	\$2,124.06	1.424	\$3,023.72	\$2,170.47	\$853.25	\$2,199,352	28.2
Facility, age <65, with SPMI	84.1	\$5,306.80	0.830	\$4,406.54	\$1,791.81	\$2,614.73	\$220,028	59.3
Facility, age <65, no SPMI	215.0	\$4,764.97	0.783	\$3,729.49	\$3,021.65	\$707.84	\$152,186	19.0
HCBS, age <65, with SPMI	1,254.4	\$2,780.44	1.010	\$2,809.25	\$2,222.14	\$587.11	\$736,475	20.9
HCBS, age <65, no SPMI	3,118.2	\$2,691.70	1.288	\$3,468.22	\$2,777.36	\$690.86	\$2,154,249	19.9
Community, age <65, with SPMI	951.2	\$2,446.14	1.036	\$2,533.98	\$2,671.80	-\$137.82	-\$131,097	-5.4
Community, age <65, no SPMI	2,120.2	\$3,319.71	1.117	\$3,708.28	\$2,595.86	\$1,112.42	\$2,358,590	30.0

**Table 6.A.2 — MEDICARE Demonstration Year 4
Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1A**

Category of beneficiary	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Percent savings
Total	12,196.5	\$2,652.67	1.263	\$3,351.18	\$2,553.58	\$797.59	\$9,727,900	23.8
Facility, age 65+, with SPMI	174.0	\$3,321.06	0.863	\$2,867.00	\$2,310.01	\$556.99	\$96,897	19.4
Facility, age 65+, no SPMI	246.6	\$2,476.33	0.969	\$2,399.89	\$1,412.25	\$987.63	\$243,532	41.2
HCBS, age 65+, with SPMI	442.2	\$2,903.67	1.330	\$3,860.87	\$2,634.07	\$1,226.80	\$542,482	31.8
HCBS, age 65+, no SPMI	2,174.8	\$2,389.27	1.545	\$3,690.81	\$2,592.37	\$1,098.43	\$2,388,897	29.8
Community, age 65+, with SPMI	278.3	\$2,067.95	1.460	\$3,018.75	\$1,634.74	\$1,384.01	\$385,217	45.8
Community, age 65+, no SPMI	2,015.5	\$2,124.06	1.567	\$3,328.07	\$2,668.02	\$660.06	\$1,330,341	19.8
Facility, age <65, with SPMI	69.0	\$5,306.80	0.825	\$4,378.56	\$723.48	\$3,655.08	\$252,201	83.5
Facility, age <65, no SPMI	174.8	\$4,764.97	0.831	\$3,960.45	\$2,659.92	\$1,300.53	\$227,268	32.8
HCBS, age <65, with SPMI	1,144.6	\$2,780.44	0.925	\$2,570.97	\$1,841.19	\$729.78	\$835,300	28.4
HCBS, age <65, no SPMI	2,726.6	\$2,691.70	1.219	\$3,280.59	\$2,575.24	\$705.34	\$1,923,198	21.5
Community, age <65, with SPMI	835.2	\$2,446.14	1.013	\$2,477.68	\$3,359.66	-\$881.98	-\$736,671	-35.6
Community, age <65, no SPMI	1,915.0	\$3,319.71	1.187	\$3,942.09	\$2,772.75	\$1,169.34	\$2,239,241	29.7

**Table 6.B.1 — MEDICARE Demonstration Year 3
Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1B**

Category of beneficiary	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Percent savings
Total	28,211.3	\$1,298.08	1.205	\$1,564.15	\$1,418.47	\$145.68	\$4,109,802	9.3
Facility, age 65+, with SPMI	595.9	\$1,581.91	0.866	\$1,369.38	\$1,290.20	\$79.18	\$47,182	5.8
Facility, age 65+, no SPMI	963.4	\$1,689.87	1.005	\$1,698.18	\$1,058.49	\$639.69	\$616,301	37.7
HCBS, age 65+, with SPMI	1,180.7	\$1,412.22	1.267	\$1,789.72	\$1,772.51	\$17.21	\$20,314	1.0
HCBS, age 65+, no SPMI	4,851.2	\$1,178.09	1.448	\$1,706.14	\$1,576.68	\$129.46	\$628,039	7.6
Community, age 65+, with SPMI	722.6	\$1,140.11	1.394	\$1,589.23	\$1,231.07	\$358.16	\$258,821	22.5
Community, age 65+, no SPMI	5,795.9	\$971.09	1.426	\$1,384.89	\$1,299.14	\$85.75	\$497,025	6.2
Facility, age <65, with SPMI	278.0	\$3,244.58	0.813	\$2,638.76	\$1,381.08	\$1,257.67	\$349,633	47.7
Facility, age <65, no SPMI	152.7	\$3,733.76	0.770	\$2,873.73	\$767.74	\$2,105.99	\$321,674	73.3
HCBS, age <65, with SPMI	2,672.0	\$1,385.95	1.011	\$1,400.52	\$1,327.32	\$73.20	\$195,603	5.2
HCBS, age <65, no SPMI	3,788.8	\$1,488.47	1.289	\$1,919.28	\$1,462.12	\$457.16	\$1,732,104	23.8
Community, age <65, with SPMI	3,177.1	\$1,112.23	1.035	\$1,151.51	\$1,234.43	-\$82.92	-\$263,448	-7.2
Community, age <65, no SPMI	4,032.8	\$1,390.75	1.117	\$1,553.36	\$1,626.13	-\$72.76	-\$293,447	-4.7

**Table 6.B.2 — MEDICARE Demonstration Year 4
Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1B**

Category of beneficiary	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Percent savings
Total	23,641.9	\$1,298.08	1.234	\$1,601.55	\$1,593.22	\$8.33	\$196,932	0.5
Facility, age 65+, with SPMI	424.0	\$1,581.91	0.862	\$1,363.28	\$1,356.14	\$7.14	\$3,029	0.5
Facility, age 65+, no SPMI	651.8	\$1,689.87	0.967	\$1,634.34	\$1,330.05	\$304.29	\$198,327	18.6
HCBS, age 65+, with SPMI	963.6	\$1,412.22	1.328	\$1,875.39	\$1,344.42	\$530.96	\$511,623	28.3
HCBS, age 65+, no SPMI	3,912.7	\$1,178.09	1.547	\$1,822.59	\$1,715.22	\$107.38	\$420,136	5.9
Community, age 65+, with SPMI	595.9	\$1,140.11	1.459	\$1,662.86	\$1,720.01	-\$57.15	-\$34,057	-3.4
Community, age 65+, no SPMI	4,628.2	\$971.09	1.570	\$1,524.67	\$1,605.29	-\$80.62	-\$373,135	-5.3
Facility, age <65, with SPMI	241.6	\$3,244.58	0.823	\$2,670.25	\$1,299.91	\$1,370.33	\$331,034	51.3
Facility, age <65, no SPMI	130.4	\$3,733.76	0.819	\$3,056.42	\$1,269.57	\$1,786.84	\$233,064	58.5
HCBS, age <65, with SPMI	2,473.5	\$1,385.95	0.924	\$1,281.05	\$1,234.91	\$46.14	\$114,128	3.6
HCBS, age <65, no SPMI	3,391.1	\$1,488.47	1.219	\$1,813.96	\$1,693.80	\$120.15	\$407,458	6.6
Community, age <65, with SPMI	2,709.9	\$1,112.23	1.015	\$1,128.95	\$1,467.63	-\$338.68	-\$917,765	-30.0
Community, age <65, no SPMI	3,519.2	\$1,390.75	1.187	\$1,651.37	\$1,849.40	-\$198.03	-\$696,909	-12.0

**Table 6.C.1 — MEDICARE Demonstration Year 3
Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1C**

Category of beneficiary	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Percent savings
Total	2,723.6	\$993.94	1.238	\$1,230.97	\$1,252.11	-\$21.14	-\$57,574	-1.7
Facility, age 65+, with SPMI	24.0	\$2,437.80	0.863	\$2,103.24	\$65.66	\$2,037.58	\$48,902	96.9
Facility, age 65+, no SPMI	96.4	\$1,615.10	1.001	\$1,616.41	\$1,025.97	\$590.44	\$56,926	36.5
HCBS, age 65+, with SPMI	165.1	\$978.12	1.265	\$1,237.01	\$1,186.63	\$50.39	\$8,320	4.1
HCBS, age 65+, no SPMI	469.8	\$905.53	1.451	\$1,314.33	\$1,475.96	-\$161.63	-\$75,939	-12.3
Community, age 65+, with SPMI	145.0	\$1,509.16	1.376	\$2,076.74	\$1,834.13	\$242.61	\$35,178	11.7
Community, age 65+, no SPMI	677.4	\$760.14	1.421	\$1,080.06	\$1,020.14	\$59.92	\$40,588	5.5
Facility, age <65, with SPMI	6.0	\$4,384.61	0.891	\$3,906.99	\$7,863.92	-\$3,956.93	-\$23,614	-101.3
Facility, age <65, no SPMI	24.0	\$10,040.68	0.700	\$7,024.77	\$5,520.18	\$1,504.59	\$36,110	21.4
HCBS, age <65, with SPMI	227.0	\$739.84	1.006	\$744.61	\$628.56	\$116.06	\$26,345	15.6
HCBS, age <65, no SPMI	295.0	\$880.51	1.286	\$1,131.94	\$977.46	\$154.48	\$45,578	13.6
Community, age <65, with SPMI	271.8	\$832.44	1.035	\$861.42	\$1,328.97	-\$467.54	-\$127,082	-54.3
Community, age <65, no SPMI	322.0	\$1,013.70	1.111	\$1,126.56	\$1,526.83	-\$400.27	-\$128,888	-35.5

**Table 6.C.2 — MEDICARE Demonstration Year 4
Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1C**

Category of beneficiary	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Percent savings
Total	2,117.5	\$993.94	1.294	\$1,286.45	\$1,276.44	\$10.02	\$21,208	0.8
Facility, age 65+, with SPMI	17.0	\$2,437.80	0.868	\$2,116.19	\$890.67	\$1,225.52	\$20,834	57.9
Facility, age 65+, no SPMI	41.8	\$1,615.10	0.962	\$1,553.17	\$626.66	\$926.50	\$38,753	59.7
HCBS, age 65+, with SPMI	125.3	\$978.12	1.327	\$1,297.52	\$2,143.80	-\$846.28	-\$106,072	-65.2
HCBS, age 65+, no SPMI	356.9	\$905.53	1.548	\$1,401.33	\$1,234.36	\$166.97	\$59,598	11.9
Community, age 65+, with SPMI	121.5	\$1,509.16	1.444	\$2,179.24	\$800.29	\$1,378.95	\$167,609	63.3
Community, age 65+, no SPMI	467.6	\$760.14	1.564	\$1,189.17	\$1,615.03	-\$425.86	-\$199,135	-35.8
Facility, age <65, with SPMI	12.0	\$4,384.61	0.821	\$3,598.95	\$7,222.17	-\$3,623.23	-\$43,479	-100.7
Facility, age <65, no SPMI	24.0	\$10,040.68	0.744	\$7,469.77	\$270.92	\$7,198.86	\$172,773	96.4
HCBS, age <65, with SPMI	207.4	\$739.84	0.920	\$680.64	\$629.56	\$51.07	\$10,594	7.5
HCBS, age <65, no SPMI	249.2	\$880.51	1.218	\$1,072.32	\$1,289.43	-\$217.11	-\$54,094	-20.2
Community, age <65, with SPMI	239.3	\$832.44	1.014	\$844.38	\$1,108.31	-\$263.93	-\$63,164	-31.3
Community, age <65, no SPMI	255.3	\$1,013.70	1.184	\$1,200.24	\$1,133.69	\$66.55	\$16,992	5.5

**Table 6.D.1 — MEDICARE Demonstration Year 3
Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1D**

Category of beneficiary	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Percent savings
Total	42,529.9	\$1,696.25	1.195	\$2,026.82	\$1,722.38	\$304.44	\$12,947,823	15.0
Facility, age 65+, with SPMI	700.2	\$2,345.53	0.868	\$2,035.70	\$1,358.55	\$677.15	\$474,158	33.3
Facility, age 65+, no SPMI	1,809.9	\$2,040.09	1.002	\$2,044.52	\$1,374.65	\$669.88	\$1,212,420	32.8
HCBS, age 65+, with SPMI	1,682.5	\$2,012.00	1.267	\$2,548.86	\$1,924.54	\$624.33	\$1,050,437	24.5
HCBS, age 65+, no SPMI	7,170.9	\$1,699.59	1.445	\$2,455.92	\$1,973.78	\$482.14	\$3,457,338	19.6
Community, age 65+, with SPMI	989.1	\$1,450.66	1.393	\$2,020.93	\$1,607.67	\$413.25	\$408,729	20.4
Community, age 65+, no SPMI	6,412.1	\$1,352.84	1.424	\$1,927.03	\$1,528.99	\$398.04	\$2,552,271	20.7
Facility, age <65, with SPMI	233.8	\$3,271.35	0.820	\$2,681.34	\$2,125.80	\$555.54	\$129,887	20.7
Facility, age <65, no SPMI	487.0	\$4,766.02	0.780	\$3,717.53	\$2,770.60	\$946.93	\$461,154	25.5
HCBS, age <65, with SPMI	3,394.5	\$1,644.72	1.010	\$1,661.27	\$1,705.55	-\$44.29	-\$150,326	-2.7
HCBS, age <65, no SPMI	7,052.0	\$1,817.35	1.288	\$2,340.75	\$1,902.21	\$438.54	\$3,092,564	18.7
Community, age <65, with SPMI	5,070.6	\$1,327.43	1.034	\$1,372.02	\$1,222.79	\$149.23	\$756,677	10.9
Community, age <65, no SPMI	7,527.4	\$1,578.14	1.118	\$1,764.15	\$1,830.24	-\$66.09	-\$497,486	-3.7

**Table 6.D.2 — MEDICARE Demonstration Year 4
Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1D**

Category of beneficiary	(a) Number of eligible months	(b) Baseline period P MPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Percent savings
Total	35,278.5	\$1,696.25	1.214	\$2,059.03	\$1,846.13	\$212.90	\$7,510,627	10.3
Facility, age 65+, with SPMI	479.9	\$2,345.53	0.863	\$2,024.16	\$1,776.09	\$248.07	\$119,053	12.3
Facility, age 65+, no SPMI	1,197.6	\$2,040.09	0.961	\$1,961.24	\$1,341.61	\$619.63	\$742,069	31.6
HCBS, age 65+, with SPMI	1,341.4	\$2,012.00	1.329	\$2,673.31	\$2,157.80	\$515.52	\$691,518	19.3
HCBS, age 65+, no SPMI	5,705.5	\$1,699.59	1.544	\$2,624.55	\$2,140.23	\$484.32	\$2,763,317	18.5
Community, age 65+, with SPMI	772.4	\$1,450.66	1.456	\$2,112.86	\$1,378.41	\$734.46	\$567,301	34.8
Community, age 65+, no SPMI	5,229.4	\$1,352.84	1.568	\$2,121.53	\$1,814.82	\$306.70	\$1,603,865	14.5
Facility, age <65, with SPMI	179.3	\$3,271.35	0.819	\$2,680.82	\$1,455.52	\$1,225.30	\$219,645	45.7
Facility, age <65, no SPMI	330.1	\$4,766.02	0.834	\$3,976.47	\$2,417.55	\$1,558.92	\$514,605	39.2
HCBS, age <65, with SPMI	3,123.1	\$1,644.72	0.924	\$1,519.89	\$1,589.77	-\$69.87	-\$218,223	-4.6
HCBS, age <65, no SPMI	6,132.5	\$1,817.35	1.219	\$2,214.65	\$1,989.00	\$225.65	\$1,383,809	10.2
Community, age <65, with SPMI	4,374.3	\$1,327.43	1.012	\$1,343.84	\$1,470.22	-\$126.38	-\$552,821	-9.4
Community, age <65, no SPMI	6,413.0	\$1,578.14	1.189	\$1,876.30	\$1,926.75	-\$50.45	-\$323,511	-2.7

**Table 6.E.1 — MEDICARE Demonstration Year 3
Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1E**

Category of beneficiary	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Percent savings
Total	5,500.6	\$678.93	1.195	\$811.32	\$1,064.57	-\$253.25	-\$1,393,018	-31.2
Facility, age 65+, with SPMI	48.0	\$1,222.01	0.873	\$1,067.14	\$94.38	\$972.76	\$46,692	91.2
Facility, age 65+, no SPMI	283.9	\$860.02	1.001	\$861.18	\$579.06	\$282.12	\$80,104	32.8
HCBS, age 65+, with SPMI	69.4	\$682.88	1.258	\$859.27	\$3,012.54	-\$2,153.27	-\$149,372	-250.6
HCBS, age 65+, no SPMI	923.0	\$808.12	1.445	\$1,167.62	\$1,347.25	-\$179.63	-\$165,806	-15.4
Community, age 65+, with SPMI	109.1	\$771.30	1.386	\$1,069.19	\$1,095.62	-\$26.43	-\$2,882	-2.5
Community, age 65+, no SPMI	1,318.2	\$534.63	1.424	\$761.51	\$828.54	-\$67.02	-\$88,351	-8.8
Facility, age <65, with SPMI	53.0	\$422.56	0.817	\$345.21	\$2,635.08	-\$2,289.87	-\$121,363	-663.3
Facility, age <65, no SPMI	79.6	\$1,235.18	0.783	\$967.57	\$1,586.41	-\$618.84	-\$49,247	-64.0
HCBS, age <65, with SPMI	324.4	\$582.37	1.011	\$588.74	\$1,156.36	-\$567.62	-\$184,156	-96.4
HCBS, age <65, no SPMI	685.5	\$573.21	1.289	\$738.79	\$1,337.45	-\$598.66	-\$410,367	-81.0
Community, age <65, with SPMI	714.9	\$695.05	1.032	\$717.58	\$830.67	-\$113.09	-\$80,853	-15.8
Community, age <65, no SPMI	891.6	\$608.17	1.113	\$676.85	\$976.79	-\$299.94	-\$267,415	-44.3

**Table 6.E.2 — MEDICARE Demonstration Year 4
Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1E**

Category of beneficiary	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Percent savings
Total	4,418.6	\$678.93	1.217	\$826.36	\$1,217.64	-\$391.28	-\$1,728,929	-47.4
Facility, age 65+, with SPMI	39.4	\$1,222.01	0.861	\$1,052.49	\$627.72	\$424.77	\$16,736	40.4
Facility, age 65+, no SPMI	156.4	\$860.02	0.958	\$824.01	\$1,880.63	-\$1,056.61	-\$165,263	-128.2
HCBS, age 65+, with SPMI	50.6	\$682.88	1.321	\$901.87	\$1,325.09	-\$423.22	-\$21,407	-46.9
HCBS, age 65+, no SPMI	678.9	\$808.12	1.542	\$1,245.94	\$1,674.73	-\$428.79	-\$291,095	-34.4
Community, age 65+, with SPMI	83.2	\$771.30	1.454	\$1,121.15	\$1,335.36	-\$214.21	-\$17,815	-19.1
Community, age 65+, no SPMI	999.1	\$534.63	1.568	\$838.35	\$1,051.08	-\$212.73	-\$212,532	-25.4
Facility, age <65, with SPMI	48.0	\$422.56	0.821	\$346.78	\$1,955.82	-\$1,609.04	-\$77,234	-464.0
Facility, age <65, no SPMI	63.0	\$1,235.18	0.826	\$1,020.25	\$987.36	\$32.89	\$2,072	3.2
HCBS, age <65, with SPMI	317.8	\$582.37	0.925	\$538.69	\$1,032.27	-\$493.58	-\$156,880	-91.6
HCBS, age <65, no SPMI	589.8	\$573.21	1.221	\$699.62	\$1,207.29	-\$507.67	-\$299,412	-72.6
Community, age <65, with SPMI	626.1	\$695.05	1.015	\$705.41	\$884.67	-\$179.26	-\$112,239	-25.4
Community, age <65, no SPMI	766.4	\$608.17	1.185	\$720.69	\$1,234.61	-\$513.93	-\$393,861	-71.3

**Table 6.F.1 — MEDICARE Demonstration Year 3
Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1F**

Category of beneficiary	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Percent savings
Total	5,968.2	\$608.70	1.166	\$709.68	\$1,035.26	-\$325.57	-\$1,943,089	-45.9
Facility, age 65+, with SPMI	53.5	\$1,241.30	0.857	\$1,063.60	\$353.98	\$709.62	\$37,957	66.7
Facility, age 65+, no SPMI	199.2	\$1,121.79	1.002	\$1,123.75	\$923.23	\$200.52	\$39,952	17.8
HCBS, age 65+, with SPMI	218.0	\$803.19	1.257	\$1,009.25	\$1,893.58	-\$884.34	-\$192,785	-87.6
HCBS, age 65+, no SPMI	750.3	\$690.94	1.439	\$994.56	\$1,135.84	-\$141.29	-\$106,014	-14.2
Community, age 65+, with SPMI	141.0	\$719.43	1.386	\$997.14	\$925.57	\$71.57	\$10,091	7.2
Community, age 65+, no SPMI	1,474.7	\$477.67	1.419	\$677.78	\$1,406.35	-\$728.57	-\$1,074,450	-107.5
Facility, age <65, with SPMI	60.0	\$551.42	0.808	\$445.44	\$1,745.80	-\$1,300.36	-\$78,022	-291.9
Facility, age <65, no SPMI	47.7	\$441.48	0.786	\$347.00	\$1,573.18	-\$1,226.19	-\$58,540	-353.4
HCBS, age <65, with SPMI	306.5	\$725.74	1.010	\$732.86	\$801.90	-\$69.04	-\$21,161	-9.4
HCBS, age <65, no SPMI	883.4	\$381.65	1.291	\$492.76	\$700.12	-\$207.36	-\$183,174	-42.1
Community, age <65, with SPMI	550.0	\$779.84	1.034	\$806.62	\$768.52	\$38.10	\$20,955	4.7
Community, age <65, no SPMI	1,283.8	\$489.77	1.116	\$546.41	\$809.62	-\$263.21	-\$337,898	-48.2

**Table 6.F.2 — MEDICARE Demonstration Year 4
Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1F**

Category of beneficiary	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Percent savings
Total	4,911.2	\$608.70	1.195	\$727.45	\$1,174.20	-\$446.75	-\$2,194,077	-61.4
Facility, age 65+, with SPMI	36.0	\$1,241.30	0.858	\$1,064.58	\$428.27	\$636.31	\$22,907	59.8
Facility, age 65+, no SPMI	148.4	\$1,121.79	0.960	\$1,076.48	\$1,167.58	-\$91.11	-\$13,522	-8.5
HCBS, age 65+, with SPMI	182.6	\$803.19	1.319	\$1,059.21	\$2,391.37	-\$1,332.16	-\$243,312	-125.8
HCBS, age 65+, no SPMI	561.6	\$690.94	1.537	\$1,061.66	\$1,171.48	-\$109.82	-\$61,677	-10.3
Community, age 65+, with SPMI	130.0	\$719.43	1.449	\$1,042.81	\$679.60	\$363.22	\$47,218	34.8
Community, age 65+, no SPMI	1,151.3	\$477.67	1.562	\$746.25	\$1,446.14	-\$699.89	-\$805,748	-93.8
Facility, age <65, with SPMI	47.0	\$551.42	0.813	\$448.13	\$1,722.11	-\$1,273.98	-\$59,877	-284.3
Facility, age <65, no SPMI	36.0	\$441.48	0.836	\$368.97	\$226.17	\$142.80	\$5,141	38.7
HCBS, age <65, with SPMI	263.2	\$725.74	0.922	\$669.17	\$432.51	\$236.66	\$62,295	35.4
HCBS, age <65, no SPMI	770.6	\$381.65	1.219	\$465.37	\$834.86	-\$369.48	-\$284,725	-79.4
Community, age <65, with SPMI	483.0	\$779.84	1.012	\$788.85	\$1,309.56	-\$520.70	-\$251,499	-66.0
Community, age <65, no SPMI	1,101.5	\$489.77	1.187	\$581.11	\$1,136.08	-\$554.97	-\$611,278	-95.5

**Table 6.G.1 — MEDICARE Demonstration Year 3
Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1 total**

Category of beneficiary	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Percent savings
Total	99,473.9	\$1,612.13	1.185	\$1,910.14	\$1,656.37	\$253.78	\$25,244,175	13.3
Facility, age 65+, with SPMI	1,653.5	\$2,187.68	0.848	\$1,855.30	\$1,289.32	\$565.98	\$935,834	30.5
Facility, age 65+, no SPMI	3,709.3	\$1,891.49	0.976	\$1,846.62	\$1,247.43	\$599.19	\$2,222,589	32.4
HCBS, age 65+, with SPMI	3,929.2	\$1,892.37	1.230	\$2,327.50	\$1,985.91	\$341.59	\$1,342,187	14.7
HCBS, age 65+, no SPMI	16,853.1	\$1,566.85	1.424	\$2,231.95	\$1,873.69	\$358.26	\$6,037,821	16.1
Community, age 65+, with SPMI	2,436.7	\$1,375.13	1.390	\$1,911.16	\$1,419.89	\$491.27	\$1,197,081	25.7
Community, age 65+, no SPMI	18,255.9	\$1,218.15	1.390	\$1,693.26	\$1,467.22	\$226.03	\$4,126,435	13.3
Facility, age <65, with SPMI	714.9	\$3,424.47	0.735	\$2,517.24	\$1,850.66	\$666.58	\$476,550	26.5
Facility, age <65, no SPMI	1,006.1	\$4,229.44	0.779	\$3,293.40	\$2,435.27	\$858.13	\$863,336	26.1
HCBS, age <65, with SPMI	8,178.9	\$1,670.54	0.987	\$1,649.37	\$1,575.67	\$73.70	\$602,780	4.5
HCBS, age <65, no SPMI	15,822.9	\$1,786.30	1.269	\$2,266.91	\$1,860.47	\$406.43	\$6,430,954	17.9
Community, age <65, with SPMI	10,735.7	\$1,286.74	1.029	\$1,324.24	\$1,307.92	\$16.32	\$175,152	1.2
Community, age <65, no SPMI	16,177.8	\$1,647.99	1.091	\$1,797.16	\$1,745.64	\$51.52	\$833,456	2.9

**Table 6.G.2 — MEDICARE Demonstration Year 4
Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 1 total**

Category of beneficiary	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Percent savings
Total	82,564.3	\$1,612.13	1.212	\$1,953.92	\$1,790.00	\$163.92	\$13,533,660	8.4
Facility, age 65+, with SPMI	1,170.2	\$2,187.68	0.845	\$1,849.13	\$1,610.33	\$238.80	\$279,456	12.9
Facility, age 65+, no SPMI	2,442.6	\$1,891.49	0.944	\$1,784.72	\$1,357.35	\$427.37	\$1,043,895	23.9
HCBS, age 65+, with SPMI	3,105.7	\$1,892.37	1.276	\$2,415.54	\$1,972.86	\$442.67	\$1,374,831	18.3
HCBS, age 65+, no SPMI	13,390.5	\$1,566.85	1.529	\$2,395.35	\$2,001.10	\$394.25	\$5,279,176	16.5
Community, age 65+, with SPMI	1,981.4	\$1,375.13	1.452	\$1,997.02	\$1,434.03	\$562.98	\$1,115,472	28.2
Community, age 65+, no SPMI	14,491.1	\$1,218.15	1.536	\$1,870.90	\$1,778.18	\$92.72	\$1,343,656	5.0
Facility, age <65, with SPMI	596.8	\$3,424.47	0.738	\$2,527.74	\$1,485.08	\$1,042.66	\$622,290	41.2
Facility, age <65, no SPMI	758.3	\$4,229.44	0.829	\$3,508.21	\$1,985.14	\$1,523.07	\$1,154,922	43.4
HCBS, age <65, with SPMI	7,529.7	\$1,670.54	0.902	\$1,506.93	\$1,420.98	\$85.95	\$647,214	5.7
HCBS, age <65, no SPMI	13,859.7	\$1,786.30	1.200	\$2,144.05	\$1,922.09	\$221.96	\$3,076,235	10.4
Community, age <65, with SPMI	9,267.9	\$1,286.74	1.009	\$1,298.24	\$1,582.46	-\$284.22	-\$2,634,159	-21.9
Community, age <65, no SPMI	13,970.4	\$1,647.99	1.168	\$1,924.94	\$1,908.43	\$16.51	\$230,673	0.9

**Table 6.H.1 — MEDICARE Demonstration Year 3
Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 2**

Category of beneficiary	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Percent savings
Total	4,312.1	\$2,356.60	0.794	\$1,872.28	\$1,882.97	–\$10.69	–\$46,097	–0.6
Facility, age 65+, with SPMI	32.0	\$6,327.51	0.766	\$4,845.90	\$778.23	\$4,067.67	\$130,166	83.9
Facility, age 65+, no SPMI	139.5	\$5,338.95	0.524	\$2,799.02	\$520.65	\$2,278.37	\$317,870	81.4
HCBS, age 65+, with SPMI	143.4	\$1,791.38	0.988	\$1,770.65	\$2,088.66	–\$318.02	–\$45,599	–18.0
HCBS, age 65+, no SPMI	633.3	\$2,315.40	1.123	\$2,599.24	\$1,900.73	\$698.51	\$442,358	26.9
Community, age 65+, with SPMI	137.9	\$2,564.32	1.093	\$2,802.52	\$2,294.13	\$508.38	\$70,092	18.1
Community, age 65+, no SPMI	781.1	\$2,029.05	0.890	\$1,806.54	\$1,123.69	\$682.85	\$533,363	37.8
Facility, age <65, with SPMI	53.0	\$2,265.17	0.573	\$1,297.63	\$925.56	\$372.07	\$19,720	28.7
Facility, age <65, no SPMI	30.0	\$9,194.32	0.562	\$5,170.17	\$2,589.28	\$2,580.88	\$77,427	49.9
HCBS, age <65, with SPMI	276.8	\$2,892.19	0.606	\$1,753.52	\$2,095.07	–\$341.55	–\$94,544	–19.5
HCBS, age <65, no SPMI	718.1	\$2,269.10	0.920	\$2,087.04	\$2,094.48	–\$7.45	–\$5,347	–0.4
Community, age <65, with SPMI	315.5	\$2,048.38	0.685	\$1,403.29	\$999.59	\$403.70	\$127,373	28.8
Community, age <65, no SPMI	1,051.5	\$1,441.79	0.778	\$1,121.92	\$2,661.59	–\$1,539.67	–\$1,618,973	–137.2

**Table 6.H.2 — MEDICARE Demonstration Year 4
Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 2**

Category of beneficiary	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Percent savings
Total	3,476.8	\$2,356.60	0.865	\$2,037.40	\$2,007.42	\$29.98	\$104,218	1.5
Facility, age 65+, with SPMI	36.0	\$6,327.51	0.505	\$3,194.46	\$1,170.39	\$2,024.08	\$72,867	63.4
Facility, age 65+, no SPMI	125.4	\$5,338.95	0.636	\$3,394.24	\$668.88	\$2,725.36	\$341,637	80.3
HCBS, age 65+, with SPMI	105.0	\$1,791.38	1.213	\$2,173.04	\$1,324.68	\$848.36	\$89,078	39.0
HCBS, age 65+, no SPMI	492.2	\$2,315.40	1.079	\$2,498.51	\$2,930.04	-\$431.54	-\$212,422	-17.3
Community, age 65+, with SPMI	98.5	\$2,564.32	1.128	\$2,891.36	\$2,593.63	\$297.73	\$29,326	10.3
Community, age 65+, no SPMI	620.5	\$2,029.05	1.094	\$2,218.83	\$1,446.74	\$772.09	\$479,044	34.8
Facility, age <65, with SPMI	50.0	\$2,265.17	0.338	\$766.42	\$606.08	\$160.34	\$8,011	20.9
Facility, age <65, no SPMI	23.9	\$9,194.32	0.439	\$4,033.81	\$7,509.35	-\$3,475.54	-\$83,189	-86.2
HCBS, age <65, with SPMI	261.0	\$2,892.19	0.760	\$2,198.40	\$2,075.04	\$123.36	\$32,197	5.6
HCBS, age <65, no SPMI	571.3	\$2,269.10	0.967	\$2,195.02	\$1,648.39	\$546.63	\$312,317	24.9
Community, age <65, with SPMI	268.3	\$2,048.38	0.905	\$1,853.20	\$958.27	\$894.93	\$240,081	48.3
Community, age <65, no SPMI	824.8	\$1,441.79	0.810	\$1,168.54	\$2,629.25	-\$1,460.71	-\$1,204,728	-125.0

**Table 6.I.1 — MEDICARE Demonstration Year 3
Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 3**

Category of beneficiary	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Percent savings
Total	47,319.8	\$1,690.19	0.878	\$1,483.35	\$1,452.37	\$30.99	\$1,466,241	2.1
Facility, age 65+, with SPMI	769.1	\$2,546.62	0.718	\$1,828.00	\$1,306.85	\$521.15	\$400,810	28.5
Facility, age 65+, no SPMI	2,098.4	\$2,124.41	0.676	\$1,435.52	\$977.92	\$457.59	\$960,206	31.9
HCBS, age 65+, with SPMI	2,019.5	\$1,974.89	1.194	\$2,358.46	\$1,909.93	\$448.53	\$905,814	19.0
HCBS, age 65+, no SPMI	8,656.1	\$1,772.34	1.024	\$1,814.79	\$1,740.36	\$74.44	\$644,321	4.1
Community, age 65+, with SPMI	1,654.6	\$1,390.23	0.791	\$1,099.90	\$1,199.57	-\$99.68	-\$164,922	-9.1
Community, age 65+, no SPMI	9,526.2	\$1,293.29	1.026	\$1,326.32	\$1,316.50	\$9.82	\$93,507	0.7
Facility, age <65, with SPMI	334.5	\$4,619.24	0.595	\$2,746.41	\$2,605.01	\$141.40	\$47,292	5.1
Facility, age <65, no SPMI	555.5	\$4,369.28	0.562	\$2,455.24	\$1,875.37	\$579.86	\$322,143	23.6
HCBS, age <65, with SPMI	3,041.2	\$1,958.15	0.722	\$1,414.41	\$1,456.73	-\$42.31	-\$128,685	-3.0
HCBS, age <65, no SPMI	5,895.0	\$1,868.23	0.864	\$1,614.02	\$1,706.13	-\$92.11	-\$542,983	-5.7
Community, age <65, with SPMI	4,904.2	\$1,309.66	0.778	\$1,019.24	\$1,111.82	-\$92.58	-\$454,023	-9.1
Community, age <65, no SPMI	7,865.6	\$1,466.46	0.845	\$1,239.58	\$1,318.05	-\$78.47	-\$617,241	-6.3

**Table 6.I.2 — MEDICARE Demonstration Year 4
Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 3**

Category of beneficiary	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Percent savings
Total	37,725.3	\$1,690.19	0.949	\$1,604.42	\$1,456.76	\$147.66	\$5,570,452	9.2
Facility, age 65+, with SPMI	585.9	\$2,546.62	0.638	\$1,624.09	\$1,508.63	\$115.46	\$67,646	7.1
Facility, age 65+, no SPMI	1,329.2	\$2,124.41	0.710	\$1,507.64	\$1,242.65	\$264.99	\$352,223	17.6
HCBS, age 65+, with SPMI	1,648.4	\$1,974.89	1.165	\$2,301.10	\$1,734.07	\$567.03	\$934,664	24.6
HCBS, age 65+, no SPMI	6,588.3	\$1,772.34	1.214	\$2,151.82	\$1,662.33	\$489.49	\$3,224,899	22.7
Community, age 65+, with SPMI	1,336.1	\$1,390.23	0.763	\$1,061.23	\$1,126.15	-\$64.92	-\$86,740	-6.1
Community, age 65+, no SPMI	7,504.0	\$1,293.29	1.032	\$1,334.93	\$1,229.25	\$105.68	\$793,046	7.9
Facility, age <65, with SPMI	288.2	\$4,619.24	0.321	\$1,484.39	\$2,394.44	-\$910.05	-\$262,245	-61.3
Facility, age <65, no SPMI	474.7	\$4,369.28	0.458	\$1,999.39	\$2,366.58	-\$367.19	-\$174,296	-18.4
HCBS, age <65, with SPMI	2,710.2	\$1,958.15	0.770	\$1,508.13	\$1,460.70	\$47.43	\$128,546	3.1
HCBS, age <65, no SPMI	5,102.9	\$1,868.23	0.982	\$1,834.98	\$1,687.57	\$147.42	\$752,244	8.0
Community, age <65, with SPMI	4,017.9	\$1,309.66	0.860	\$1,125.95	\$1,253.81	-\$127.87	-\$513,757	-11.4
Community, age <65, no SPMI	6,139.7	\$1,466.46	0.979	\$1,435.71	\$1,378.02	\$57.69	\$354,223	4.0

**Table 6.J.1 — MEDICARE Demonstration Year 3
Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 4**

Category of beneficiary	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Percent savings
Total	60,468.5	\$1,742.42	1.019	\$1,776.35	\$1,506.50	\$269.85	\$16,317,609	15.2
Facility, age 65+, with SPMI	2,161.3	\$3,336.29	0.782	\$2,608.35	\$1,861.43	\$746.91	\$1,614,289	28.6
Facility, age 65+, no SPMI	2,128.4	\$2,231.28	0.785	\$1,750.47	\$1,126.46	\$624.01	\$1,328,154	35.6
HCBS, age 65+, with SPMI	4,115.4	\$2,410.48	1.111	\$2,677.12	\$2,048.60	\$628.52	\$2,586,606	23.5
HCBS, age 65+, no SPMI	9,486.1	\$1,679.14	1.234	\$2,071.30	\$1,622.19	\$449.11	\$4,260,276	21.7
Community, age 65+, with SPMI	2,898.9	\$1,908.28	0.907	\$1,731.72	\$1,474.73	\$256.99	\$744,969	14.8
Community, age 65+, no SPMI	12,887.2	\$1,220.09	0.961	\$1,172.78	\$1,185.38	-\$12.60	-\$162,431	-1.1
Facility, age <65, with SPMI	614.6	\$4,472.72	0.758	\$3,389.34	\$3,114.66	\$274.68	\$168,816	8.1
Facility, age <65, no SPMI	339.6	\$3,253.09	0.682	\$2,218.07	\$3,368.37	-\$1,150.29	-\$390,620	-51.9
HCBS, age <65, with SPMI	4,454.0	\$1,791.41	1.174	\$2,102.43	\$1,730.89	\$371.54	\$1,654,851	17.7
HCBS, age <65, no SPMI	6,053.6	\$1,871.58	1.104	\$2,065.70	\$1,588.30	\$477.40	\$2,889,957	23.1
Community, age <65, with SPMI	7,159.5	\$1,469.29	1.010	\$1,483.36	\$1,227.40	\$255.96	\$1,832,538	17.3
Community, age <65, no SPMI	8,169.9	\$1,437.51	1.015	\$1,459.62	\$1,485.30	-\$25.68	-\$209,796	-1.8

**Table 6.J.2 — MEDICARE Demonstration Year 4
Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 4**

Category of beneficiary	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Percent savings
Total	46,028.7	\$1,742.42	0.977	\$1,701.59	\$1,492.08	\$209.52	\$9,643,731	12.3
Facility, age 65+, with SPMI	1,450.9	\$3,336.29	0.714	\$2,381.93	\$1,310.30	\$1,071.63	\$1,554,856	45.0
Facility, age 65+, no SPMI	1,411.5	\$2,231.28	0.664	\$1,482.50	\$997.70	\$484.80	\$684,287	32.7
HCBS, age 65+, with SPMI	3,182.4	\$2,410.48	0.947	\$2,281.63	\$1,883.30	\$398.33	\$1,267,642	17.5
HCBS, age 65+, no SPMI	6,946.6	\$1,679.14	1.248	\$2,095.06	\$1,717.94	\$377.12	\$2,619,701	18.0
Community, age 65+, with SPMI	2,257.1	\$1,908.28	0.751	\$1,432.37	\$1,558.84	-\$126.47	-\$285,455	-8.8
Community, age 65+, no SPMI	9,837.2	\$1,220.09	1.081	\$1,318.90	\$1,239.03	\$79.87	\$785,663	6.1
Facility, age <65, with SPMI	417.2	\$4,472.72	0.637	\$2,848.47	\$2,490.96	\$357.52	\$149,156	12.6
Facility, age <65, no SPMI	252.1	\$3,253.09	0.626	\$2,036.39	\$1,628.80	\$407.59	\$102,738	20.0
HCBS, age <65, with SPMI	3,765.4	\$1,791.41	1.009	\$1,808.16	\$1,708.87	\$99.29	\$373,865	5.5
HCBS, age <65, no SPMI	5,013.5	\$1,871.58	1.115	\$2,086.01	\$1,636.43	\$449.57	\$2,253,911	21.6
Community, age <65, with SPMI	5,408.1	\$1,469.29	0.910	\$1,336.38	\$1,160.30	\$176.08	\$952,239	13.2
Community, age <65, no SPMI	6,086.7	\$1,437.51	0.978	\$1,405.69	\$1,539.57	-\$133.88	-\$814,871	-9.5

Table 6.K — MEDICARE Demonstration Year 4
Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 5A

Category of beneficiary	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Percent savings
Total	63,414.2	\$1,685.80	1.007	\$1,697.52	\$1,507.92	\$189.60	\$12,023,413	11.2
Facility, age 65+, with SPMI	2,529.2	\$3,172.02	0.841	\$2,669.13	\$1,727.07	\$942.06	\$2,382,680	35.3
Facility, age 65+, no SPMI	1,872.9	\$2,002.58	0.840	\$1,683.16	\$1,107.63	\$575.53	\$1,077,892	34.2
HCBS, age 65+, with SPMI	6,299.1	\$2,290.32	1.038	\$2,378.03	\$2,125.35	\$252.68	\$1,591,662	10.6
HCBS, age 65+, no SPMI	8,231.0	\$1,765.13	1.217	\$2,148.83	\$1,694.06	\$454.78	\$3,743,247	21.2
Community, age 65+, with SPMI	4,813.2	\$1,722.55	0.848	\$1,460.35	\$1,509.51	-\$49.16	-\$236,623	-3.4
Community, age 65+, no SPMI	11,384.8	\$1,063.21	1.051	\$1,117.17	\$1,229.44	-\$112.27	-\$1,278,150	-10.0
Facility, age <65, with SPMI	767.7	\$5,200.17	0.928	\$4,823.20	\$2,614.89	\$2,208.31	\$1,695,271	45.8
Facility, age <65, no SPMI	328.5	\$3,572.15	0.686	\$2,450.77	\$2,038.33	\$412.44	\$135,501	16.8
HCBS, age <65, with SPMI	5,901.4	\$2,114.39	1.233	\$2,607.91	\$1,792.55	\$815.36	\$4,811,789	31.3
HCBS, age <65, no SPMI	4,410.6	\$1,390.02	1.022	\$1,419.99	\$1,536.83	-\$116.84	-\$515,352	-8.2
Community, age <65, with SPMI	9,590.5	\$1,352.37	0.873	\$1,180.33	\$1,197.24	-\$16.91	-\$162,163	-1.4
Community, age <65, no SPMI	7,285.4	\$1,206.74	0.893	\$1,077.29	\$1,245.07	-\$167.78	-\$1,222,342	-15.6

**Table 6.L — MEDICARE Demonstration Year 4
Savings calculation: Intervention and target PMPM, by category of beneficiary: Cohort 5B**

Category of beneficiary	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Percent savings
Total	48,134.7	\$1,729.10	1.056	\$1,826.30	\$1,675.35	\$150.95	\$7,266,147	8.3
Facility, age 65+, with SPMI	3,032.1	\$2,720.73	0.918	\$2,497.49	\$1,981.30	\$516.18	\$1,565,143	20.7
Facility, age 65+, no SPMI	1,729.1	\$2,131.24	0.919	\$1,957.70	\$1,622.19	\$335.51	\$580,145	17.1
HCBS, age 65+, with SPMI	5,905.3	\$1,931.80	1.049	\$2,027.09	\$1,850.10	\$176.99	\$1,045,173	8.7
HCBS, age 65+, no SPMI	6,539.3	\$1,331.10	1.179	\$1,569.52	\$1,470.71	\$98.81	\$646,120	6.3
Community, age 65+, with SPMI	4,393.1	\$1,691.40	1.042	\$1,762.70	\$1,562.85	\$199.86	\$877,999	11.3
Community, age 65+, no SPMI	10,565.1	\$1,206.44	1.185	\$1,429.10	\$1,243.30	\$185.80	\$1,963,001	13.0
Facility, age <65, with SPMI	973.6	\$4,189.90	0.807	\$3,379.88	\$2,821.54	\$558.34	\$543,619	16.5
Facility, age <65, no SPMI	455.5	\$2,293.73	1.237	\$2,837.06	\$1,845.13	\$991.93	\$451,844	35.0
HCBS, age <65, with SPMI	4,197.3	\$2,034.88	1.067	\$2,171.71	\$2,110.14	\$61.57	\$258,443	2.8
HCBS, age <65, no SPMI	2,831.0	\$1,392.03	1.116	\$1,554.04	\$1,733.56	-\$179.53	-\$508,245	-11.6
Community, age <65, with SPMI	4,799.9	\$1,752.61	0.996	\$1,744.80	\$1,746.94	-\$2.13	-\$10,228	-0.1
Community, age <65, no SPMI	2,713.2	\$1,930.53	1.031	\$1,990.73	\$2,044.86	-\$54.13	-\$146,866	-2.7

Tables 7.A–7.C summarize the savings calculation (before the attributed savings and the outlier adjustment) by cohort for the entire Demonstration Year (1, 2, 3, and 4 combined) and Demonstration Years 3 and 4 separately.

Table 7.A shows that for all four Demonstration Years so far combined, the total savings before the outlier adjustment is \$156.9 million or 9.9 percent.

Table 7.B shows that for Demonstration Year 3, the total savings was \$25.2 million for Cohort 1, with the largest contributions to savings coming from Cohorts 1A and 1D. The three small sub-cohorts (1C, 1E, and 1F) produced negative savings. For Cohort 2, the savings was negative \$46 thousand, for Cohort 3, the savings was \$1.5 million and for Cohort 4, the savings was \$16.3 million. The total savings before the outlier adjustment for Demonstration Year 3 was \$43.0 million or 11.4 percent.

Table 7.C indicates that for Demonstration Year 4, the total savings before the outlier adjustment by cohort was \$13.5 million (Cohort 1), \$104 thousand (Cohort 2), \$5.6 million (Cohort 3), \$9.6 million (Cohort 4), \$12.0 million (Cohort 5A) and \$7.3 million (Cohort 5B) for a total of \$48.1 million or 9.6 percent. Per the previous Washington Medicare Savings reports, total Demonstration Year 1 savings was \$35.4 million or 9.4 percent and total Demonstration Year 2 savings was \$30.4 million or 9.4 percent.

Table 7.A — MEDICARE
Summary of Demonstration Years 1, 2, 3 and 4 savings by cohort not including attributed savings and outlier adjustment

Cohort	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Savings percent = f/d
1A	77,387.2	\$2,652.67	1.208	\$3,205.45	\$2,560.67	\$644.78	\$49,897,690	20.1
1B	141,482.1	\$1,298.08	1.187	\$1,540.37	\$1,445.81	\$94.56	\$13,378,963	6.1
1C	13,291.0	\$993.94	1.227	\$1,219.54	\$1,280.49	-\$60.95	-\$810,062	-5.0
1D	205,229.1	\$1,696.25	1.182	\$2,005.59	\$1,744.30	\$261.30	\$53,625,420	13.0
1E	25,246.9	\$678.93	1.184	\$804.17	\$1,110.48	-\$306.31	-\$7,733,414	-38.1
1F	26,625.8	\$608.70	1.168	\$711.19	\$1,084.68	-\$373.49	-\$9,944,350	-52.5
1 total	489,262.0	\$1,612.13	1.183	\$1,907.05	\$1,705.91	\$201.15	\$98,412,830	10.5
2	19,835.8	\$2,356.60	0.843	\$1,986.22	\$1,935.15	\$51.06	\$1,012,874	2.6
3	144,368.2	\$1,690.19	0.915	\$1,546.80	\$1,462.08	\$84.72	\$12,231,556	5.5
4	106,497.2	\$1,742.42	1.001	\$1,744.04	\$1,500.27	\$243.77	\$25,961,340	14.0
5A	63,414.2	\$1,685.80	1.007	\$1,697.52	\$1,507.92	\$189.60	\$12,023,413	11.2
5B	48,134.7	\$1,729.10	1.056	\$1,826.30	\$1,675.35	\$150.95	\$7,266,147	8.3
Total 1,2,3,4&5A/B	871,512.1			\$1,809.55	\$1,629.51	\$180.04	\$156,911,038	9.9

Table 7.B — MEDICARE
Summary of Demonstration Year 3 savings by cohort not including attributed savings and outlier adjustment

Cohort	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Savings percent = f/d
1A	14,540.4	\$2,652.67	1.235	\$3,275.81	\$2,479.39	\$796.42	\$11,580,231	24.3
1B	28,211.3	\$1,298.08	1.205	\$1,564.15	\$1,418.47	\$145.68	\$4,109,802	9.3
1C	2,723.6	\$993.94	1.238	\$1,230.97	\$1,252.11	-\$21.14	-\$57,574	-1.7
1D	42,529.9	\$1,696.25	1.195	\$2,026.82	\$1,722.38	\$304.44	\$12,947,823	15.0
1E	5,500.6	\$678.93	1.195	\$811.32	\$1,064.57	-\$253.25	-\$1,393,018	-31.2
1F	5,968.2	\$608.70	1.166	\$709.68	\$1,035.26	-\$325.57	-\$1,943,089	-45.9
1 total	99,473.9	\$1,612.13	1.185	\$1,910.14	\$1,656.37	\$253.78	\$25,244,175	13.3
2	4,312.1	\$2,356.60	0.794	\$1,872.28	\$1,882.97	-\$10.69	-\$46,097	-0.6
3	47,319.8	\$1,690.19	0.878	\$1,483.35	\$1,452.37	\$30.99	\$1,466,241	2.1
4	60,468.5	\$1,742.42	1.019	\$1,776.35	\$1,506.50	\$269.85	\$16,317,609	15.2
Total 1,2,3&4	211,574.3			\$1,775.68	\$1,572.53	\$203.15	\$42,981,927	11.4

Table 7.C — MEDICARE
Summary of Demonstration Year 4 savings by cohort not including attributed savings and outlier adjustment

Cohort	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Savings percent = f/d
1A	12,196.5	\$2,652.67	1.263	\$3,351.18	\$2,553.58	\$797.59	\$9,727,900	23.8
1B	23,641.9	\$1,298.08	1.234	\$1,601.55	\$1,593.22	\$8.33	\$196,932	0.5
1C	2,117.5	\$993.94	1.294	\$1,286.45	\$1,276.44	\$10.02	\$21,208	0.8
1D	35,278.5	\$1,696.25	1.214	\$2,059.03	\$1,846.13	\$212.90	\$7,510,627	10.3
1E	4,418.6	\$678.93	1.217	\$826.36	\$1,217.64	-\$391.28	-\$1,728,929	-47.4
1F	4,911.2	\$608.70	1.195	\$727.45	\$1,174.20	-\$446.75	-\$2,194,077	-61.4
1 total	82,564.3	\$1,612.13	1.212	\$1,953.92	\$1,790.00	\$163.92	\$13,533,660	8.4
2	3,476.8	\$2,356.60	0.865	\$2,037.40	\$2,007.42	\$29.98	\$104,218	1.5
3	37,725.3	\$1,690.19	0.949	\$1,604.42	\$1,456.76	\$147.66	\$5,570,452	9.2
4	46,028.7	\$1,742.42	0.977	\$1,701.59	\$1,492.08	\$209.52	\$9,643,731	12.3
5A	63,414.2	\$1,685.80	1.007	\$1,697.52	\$1,507.92	\$189.60	\$12,023,413	11.2
5B	48,134.7	\$1,729.10	1.056	\$1,826.30	\$1,675.35	\$150.95	\$7,266,147	8.3
Total 1,2,3,4&5A/B	281,344.0			\$1,787.18	\$1,616.07	\$171.11	\$48,141,623	9.6

5.3 Outlier Adjustment

To ensure that a disproportionate number of high-cost beneficiaries were not having a disproportionate impact on either the intervention or the comparison group, we tabulated the costs of each beneficiary separately for the baseline and all Demonstration Years in order to identify outliers. We combined beneficiaries in the intervention and comparison groups for each cohort, ranked the per-beneficiary total Medicare expenditures and identified the threshold amount, the expenditure level which represented the 99th percentile per-beneficiary expenditures for each cohort in each of the analysis periods. The expenditures for any individual that exceed this threshold amount are truncated to the threshold amount. The costs above the threshold are subtracted from the total costs, and the PMPMs are recalculated by excluding the amounts above the threshold. **Table 8** shows the results of this tabulation. These results are used to make the outlier adjustment as shown in **Table 9**, which has the same column headings as **Table 7**. **Table 9** shows the outlier adjustment for each cohort and each Demonstration Year. For the intervention group PMPM in the baseline period and in the Demonstration Year, the truncated PMPMs are substituted for the untruncated PMPMs.

The comparison group trend is modified by a factor that is derived from the ratio of the trend for the truncated PMPMs to that of the untruncated PMPMs. For Cohort 1, the trend factor calculated from the comparison group from the baseline period to Demonstration Year 3 is 1.0789 ($= \$1,726.51 / \$1,600.30$) for the untruncated PMPMs, and it is 1.0434 ($= \$1,634.25 / \$1,566.21$) for the truncated PMPMs. The ratio of these trend factors is the outlier adjustment factor 0.96717 ($= 1.0434 / 1.0789$) that is to be applied to the comparison group trend. For Demonstration Year 4, the resulting outlier adjustment factor is 0.9729. For Cohort 2, the corresponding outlier adjustment factor for the comparison group trend is 0.9708 for Demonstration Year 3 and 0.9614 for Demonstration Year 4. For Cohort 3, the outlier adjustment factor is 0.9885 for Demonstration Year 3 and 0.9719 for Demonstration Year 4. For Cohort 4, the outlier adjustment factor is 0.9950 for Demonstration Year 3 and 0.9878 for Demonstration Year 4. For Cohort 5A, the outlier adjustment factor is 0.9973 for Demonstration Year 4 and for Cohort 5B, the outlier adjustment factor is 1.0015 for Demonstration Year 4.

Table 8 — MEDICARE Outlier adjustment data

Group / Year	Total number of beneficiaries	Number of beneficiaries in the top 1 percentile	Total PMPM	PMPM after truncating costs to the 99th percentile	Truncated PMPM/ total PMPM
Cohort 1					
Intervention – Baseline	13,979	153	\$1,612.13	\$1,570.53	97.42%
Comparison – Baseline	23,233	219	\$1,600.30	\$1,566.21	97.87%
Intervention – Demo Year 3	13,979	158	\$1,656.37	\$1,585.47	95.72%
Comparison – Demo Year 3	23,233	215	\$1,726.51	\$1,634.25	94.66%
Comparison group trend factor DP3			1.07886	1.04344	0.96717
Intervention – Demo Year 4	13,979	183	\$1,790.00	\$1,689.56	94.39%
Comparison – Demo Year 4	23,233	190	\$1,773.42	\$1,688.56	95.21%
Comparison group trend factor DP4			1.10818	1.07812	0.97288
Cohort 2					
Intervention – Baseline	690	10	\$2,356.60	\$2,280.88	96.79%
Comparison – Baseline	4,331	41	\$1,607.19	\$1,565.31	97.39%
Intervention – Demo Year 3	690	16	\$1,882.97	\$1,748.62	92.86%
Comparison – Demo Year 3	4,331	35	\$1,353.00	\$1,279.28	94.55%
Comparison group trend factor DP3			0.84184	0.81727	0.97081
Intervention – Demo Year 4	690	16	\$2,007.42	\$1,781.52	88.75%
Comparison – Demo Year 4	4,331	35	\$1,459.82	\$1,366.91	93.64%
Comparison group trend factor DP4			0.90831	0.87326	0.96141
Cohort 3					
Intervention – Baseline	5,645	75	\$1,690.19	\$1,628.93	96.38%
Comparison – Baseline	6,444	46	\$1,673.66	\$1,643.68	98.21%
Intervention – Demo Year 3	5,645	77	\$1,452.37	\$1,370.64	94.37%
Comparison – Demo Year 3	6,444	44	\$1,312.11	\$1,273.79	97.08%
Comparison group trend factor DP3			0.78398	0.77496	0.98850

(continued)

Table 8 — MEDICARE Outlier adjustment data (continued)

Group / Year	Total number of beneficiaries	Number of beneficiaries in the top 1 percentile	Total PMPM	PMPM after truncating costs to the 99th percentile	Truncated PMPM/ total PMPM
Intervention – Demo Year 4	5,645	70	\$1,456.76	\$1,395.08	95.77%
Comparison – Demo Year 4	6,444	51	\$1,364.04	\$1,301.94	95.45%
Comparison group trend factor DP4			0.81500	0.79209	0.97188
Cohort 4					
Intervention – Baseline	5,823	65	\$1,742.42	\$1,688.50	96.91%
Comparison – Baseline	7,219	66	\$1,738.02	\$1,696.19	97.59%
Intervention – Demo Year 3	5,823	54	\$1,506.50	\$1,457.21	96.73%
Comparison – Demo Year 3	7,219	77	\$1,587.04	\$1,541.16	97.11%
Comparison group trend factor DP3			0.91313	0.90860	0.99504
Intervention – Demo Year 4	5,823	63	\$1,492.08	\$1,433.26	96.06%
Comparison – Demo Year 4	7,219	68	\$1,487.84	\$1,434.32	96.40%
Comparison group trend factor DP4			0.85605	0.84561	0.98780
Cohort 5A					
Intervention – Baseline	6,165	69	\$1,685.80	\$1,629.26	96.65%
Comparison – Baseline	5,469	48	\$1,817.10	\$1,769.83	97.40%
Intervention – Demo Year 4	6,165	51	\$1,507.92	\$1,446.23	95.91%
Comparison – Demo Year 4	5,469	66	\$1,683.90	\$1,635.75	97.14%
Comparison group trend factor DP4			0.92670	0.92424	0.99735
Cohort 5B					
Intervention – Baseline	5,930	98	\$1,729.10	\$1,661.88	96.11%
Comparison – Baseline	20,441	166	\$1,580.88	\$1,527.80	96.64%
Intervention – Demo Year 4	5,930	81	\$1,675.35	\$1,600.68	95.54%
Comparison – Demo Year 4	20,441	183	\$1,645.63	\$1,592.70	96.78%
Comparison group trend factor DP4			1.04096	1.04248	1.00146

Table 9 — MEDICARE
Summary of Demonstration Years 3 and 4 savings by cohort,
including the outlier adjustment but excluding attributed savings

Cohort	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Savings percent = f/d
Demonstration Years 1, 2, 3 and 4 Combined								
Cohort 1 – total	489,262.0	\$1,612.13	1.182	\$1,905.41	\$1,704.27	\$201.15	\$98,414,181	10.6
Outlier adjusted	489,262.0	\$1,570.53	1.159	\$1,819.55	\$1,634.73	\$184.82	\$90,425,060	10.2
Cohort 2	19,835.8	\$1,612.13	1.232	\$1,985.37	\$1,934.30	\$51.06	\$1,012,897	2.6
Outlier adjusted	19,835.8	\$1,570.53	1.207	\$1,895.83	\$1,821.15	\$74.67	\$1,481,163	3.9
Cohort 3	144,368.2	\$1,612.13	0.959	\$1,546.80	\$1,462.08	\$84.72	\$12,231,556	5.5
Outlier adjusted	144,368.2	\$1,570.53	0.934	\$1,467.20	\$1,402.17	\$65.04	\$9,389,073	4.4
Cohort 4	106,497.2	\$1,742.42	1.001	\$1,744.04	\$1,500.27	\$243.77	\$25,961,340	14.0
Outlier adjusted	106,497.2	\$1,688.50	0.993	\$1,676.53	\$1,446.86	\$229.67	\$24,459,283	13.7
Cohort 5A	63,414.2	\$1,685.80	1.007	\$1,697.52	\$1,507.92	\$189.60	\$12,023,413	11.2
Outlier adjusted	63,414.2	\$1,629.26	1.004	\$1,636.23	\$1,446.23	\$190.00	\$12,048,892	11.6
Cohort 5B	48,134.7	\$1,729.10	1.056	\$1,826.30	\$1,675.35	\$150.95	\$7,266,147	8.3
Outlier adjusted	48,134.7	\$1,661.88	1.058	\$1,757.86	\$1,600.68	\$157.18	\$7,565,731	8.9
Cohorts 1+2+3+4+5A/B	871,512.1			\$1,808.61	\$1,628.57	\$180.04	\$156,909,535	10.0
Outlier Adjusted	871,512.1			\$1,728.69	\$1,561.89	\$166.80	\$145,369,202	9.6
Demonstration Year 3								
Cohort 1 – total	99,473.9	\$1,612.13	1.185	\$1,910.14	\$1,656.37	\$253.78	\$25,244,175	13.3
Outlier adjusted	99,473.9	\$1,570.53	1.146	\$1,799.76	\$1,585.47	\$214.29	\$21,316,089	11.9
Cohort 2	4,312.1	\$2,356.60	0.794	\$1,872.28	\$1,882.97	-\$10.69	-\$46,097	-0.6
Outlier adjusted	4,312.1	\$2,280.88	0.771	\$1,759.23	\$1,748.62	\$10.61	\$45,754	0.6
Cohort 3	47,319.8	\$1,690.19	0.878	\$1,483.35	\$1,452.37	\$30.99	\$1,466,241	2.1
Outlier adjusted	47,319.8	\$1,628.93	0.868	\$1,413.15	\$1,370.64	\$42.52	\$2,011,822	3.0

(continued)

Table 9 — MEDICARE (continued)
Summary of Demonstration Years 3 and 4 savings by cohort,
including the outlier adjustment but excluding attributed savings

Cohort	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Savings percent = f/d
Cohort 4	60,468.5	1,742.4	1.019	\$1,776.35	\$1,506.50	\$269.85	\$16,317,609	15.2
Outlier adjusted	60,468.5	\$1,688.50	1.014	\$1,712.85	\$1,457.21	\$255.64	\$15,457,893	14.9
Cohorts 1+2+3+4	211,574.3			\$1,775.68	\$1,572.53	\$203.15	\$42,981,927	11.4
Outlier Adjusted	211,574.3			\$1,687.63	\$1,504.09	\$183.54	\$38,831,557	10.9
Demonstration Year 4								
Cohort 1 – total	82,564.3	\$1,612.13	1.212	\$1,953.92	\$1,790.00	\$163.92	\$13,533,660	8.4
Outlier adjusted	82,564.3	\$1,570.53	1.179	\$1,851.87	\$1,689.56	\$162.31	\$13,401,278	8.8
Cohort 2	3,476.8	\$2,356.60	0.865	\$2,037.40	\$2,007.42	\$29.98	\$104,218	1.5
Outlier adjusted	3,476.8	\$2,280.88	0.831	\$1,895.83	\$1,781.52	\$114.31	\$397,435	6.0
Cohort 3	37,725.3	\$1,690.19	0.949	\$1,604.42	\$1,456.76	\$147.66	\$5,570,452	9.2
Outlier adjusted	37,725.3	\$1,628.93	0.923	\$1,502.79	\$1,395.08	\$107.71	\$4,063,279	7.2
Cohort 4	46,028.7	1,742.4	0.977	\$1,701.59	\$1,492.08	\$209.52	\$9,643,731	12.3
Outlier adjusted	46,028.7	\$1,688.50	0.965	\$1,628.82	\$1,433.26	\$195.56	\$9,001,390	12.0
Cohort 5A	63,414.2	1,685.8	1.007	\$1,697.52	\$1,507.92	\$189.60	\$12,023,413	11.2
Outlier adjusted	63,414.2	\$1,629.26	1.004	\$1,636.23	\$1,446.23	\$190.00	\$12,048,892	11.6
Cohort 5B	48,134.7	\$1,729.10	1.056	\$1,826.30	\$1,675.35	\$150.95	\$7,266,147	8.3
Outlier adjusted	48,134.7	\$1,661.88	1.058	\$1,757.86	\$1,600.68	\$157.18	\$7,565,731	8.9
Cohorts 1+2+3+4+5A/B	281,344.0			\$1,787.18	\$1,616.07	\$171.11	\$48,141,623	9.6
Outlier Adjusted	281,344.0			\$1,704.43	\$1,539.23	\$165.20	\$46,478,006	9.7

Table 10 — MEDICARE
Summary of Demonstration Years 3 and 4 savings by cohort,
After all adjustments including the outlier adjustment and attributed savings

Cohort	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Savings percent = f/d
Demonstration Years 1, 2, 3 and 4 Combined (outlier adjusted)								
Cohort 1	489,262.0	\$1,570.53	1.159	\$1,819.55	\$1,634.73	\$184.82	\$90,425,060	10.2
Cohort 2	19,835.77	\$1,570.53	1.207	\$1,895.83	\$1,821.15	\$74.67	\$1,481,163	3.94
Cohort 3	144,368.23	\$1,570.53	0.934	\$1,467.20	\$1,402.17	\$65.04	\$9,389,073	4.43
Cohort 4	106,497.18	\$1,688.50	0.993	\$1,676.53	\$1,446.86	\$229.67	\$24,459,283	13.70
Cohort 5A	63,414.24	\$1,629.26	1.004	\$1,636.23	\$1,446.23	\$190.00	\$12,048,892	11.61
Cohort 5B	48,134.66	\$1,661.88	1.058	\$1,757.86	\$1,600.68	\$157.18	\$7,565,731	8.94
Cohorts 1+2+3+4+5A/B	871,512.12			\$1,728.69	\$1,561.89	\$166.80	\$145,369,202	9.65
Attributed Savings								
Cohort 2	1,809.40	\$1,817.45				\$161.78	\$292,723	8.90
Cohort 3	36,294.60	\$1,365.18				\$75.52	\$2,740,977	5.50
Cohort 4	35,488.55	\$1,478.37				\$55.51	\$1,970,085	3.76
Cohort 5A	35,843.05	\$1,442.97				\$215.36	\$7,719,063	14.92
Cohort 6A Estimate	28,745.64					\$190.00	\$5,461,756	
Cohort 6B Estimate	20,497.17					\$157.18	\$3,221,713	
Cohorts 1+2+3+4	1,030,190.53						\$166,775,519	
Demonstration Year 1 (outlier adjusted)								
Cohort 1	190,783.10	\$1,566.42	1.169	\$1,830.64	\$1,667.68	\$162.96	\$31,089,525	8.90
Cohort 2	6,799.00	\$2,288.30	0.893	\$2,043.13	\$1,930.11	\$113.02	\$768,444	5.50
Cohorts 1+2	197,582.10			\$1,837.95	\$1,676.71	\$161.24	\$31,857,968	8.80

(continued)

Table 10 — MEDICARE (continued)
Summary of Demonstration Years 3 and 4 savings by cohort,
After all adjustments including the outlier adjustment and attributed savings

Cohort	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Savings percent = f/d
Attributed Savings								
Cohort 2	1,809.40	\$1,817.45				\$161.78	\$292,723	8.90
Cohort 3	36,294.60	\$1,365.18				\$75.52	\$2,740,977	5.50
Cohorts 1+2+3	235,686.10	\$1,558.18				\$148.04	\$34,891,668	
Demonstration Year 2 (outlier adjusted)								
Cohort 1	116,440.81	\$1,566.42	1.155	\$1,809.13	\$1,597.70	\$211.42	\$24,618,168	11.69
Cohort 2	5,247.88	\$2,288.30	0.796	\$1,821.17	\$1,769.81	\$51.36	\$269,530	2.82
Cohort 3	59,323.07	\$1,627.53	0.914	\$1,487.69	\$1,431.82	\$55.86	\$3,313,972	3.76
Cohorts 1+2+3	181,011.76			\$1,704.13	\$1,548.33	\$155.80	\$28,201,670	9.14
Attributed Savings								
Cohort 4	35,488.55	\$1,478.37				\$55.51	\$1,970,085	3.76
Cohorts 1+2+3+4	216,500.31					\$139.36	\$30,171,755	
Demonstration Year 3 (outlier adjusted)								
Cohort 1	99,473.87	\$1,570.53	1.146	\$1,799.76	\$1,585.47	\$214.29	\$21,316,089	11.91
Cohort 2	4,312.07	\$2,280.88	0.771	\$1,759.23	\$1,748.62	\$10.61	\$45,754	0.60
Cohort 3	47,319.84	\$1,628.93	0.868	\$1,413.15	\$1,370.64	\$42.52	\$2,011,822	3.01
Cohort 4	60,468.49	\$1,688.50	1.014	\$1,712.85	\$1,457.21	\$255.64	\$15,457,893	14.92
Cohorts 1+2+3+4	211,574.27			\$1,687.63	\$1,504.09	\$183.54	\$38,831,557	10.88
Attributed Savings								
Cohort 5A	35,843.05	\$1,442.97				\$215.36	\$7,719,063	14.92
Cohorts 1+2+3+4+5	247,417.32					\$188.15	\$46,550,620	

(continued)

Table 10 — MEDICARE (continued)
Summary of Demonstration Years 3 and 4 savings by cohort,
After all adjustments including the outlier adjustment and attributed savings

Cohort	(a) Number of eligible months	(b) Baseline period PMPM from intervention group	(c) AGA adjusted cost trend from comparison group	(d) Target Demonstration Year PMPM	(e) Actual Demonstration Year PMPM for intervention group	(f) PMPM savings = (d) – (e)	(g) Total savings = (a) * (f)	(h) Savings percent = f/d
Demonstration Year 4 (outlier adjusted)								
Cohort 1	82,564.26	\$1,570.53	1.179	\$1,851.87	\$1,689.56	\$162.31	\$13,401,278	8.76
Cohort 2	3,476.82	\$2,280.88	0.831	\$1,895.83	\$1,781.52	\$114.31	\$397,435	6.03
Cohort 3	37,725.32	\$1,628.93	0.923	\$1,502.79	\$1,395.08	\$107.71	\$4,063,279	7.17
Cohort 4	46,028.69	\$1,688.50	0.965	\$1,628.82	\$1,433.26	\$195.56	\$9,001,390	12.01
Cohort 5A	63,414.24	\$1,629.26	1.004	\$1,636.23	\$1,446.23	\$190.00	\$12,048,892	11.61
Cohort 5B	48,134.66	\$1,661.88	1.058	\$1,757.86	\$1,600.68	\$157.18	\$7,565,731	8.94
Cohorts 1+2+3+4+5A/B	281,343.99			\$1,704.43	\$1,539.23	\$165.20	\$46,478,006	9.69
Attributed Savings								
Cohort 6A Estimate	28,745.64					\$190.00	\$5,461,756	
Cohort 6B Estimate	20,497.17					\$157.18	\$3,221,713	
Cohorts 1 to 6A/B	330,586.80					\$166.86	\$55,161,475	

5.4 Attributed Medicare Savings

Cohort 1 consists of those who are eligible for the demonstration on the start date of July 1, 2013. On every successive January 1, a new cohort is formed from those newly eligible for the demonstration. According to the Final Demonstration Agreement, for each cohort after the first, the savings percentage calculated for beneficiaries in the prior cohort will be attributed to those months in the current cohort that are during the demonstration and for which beneficiaries are eligible for the demonstration but prior to the start date of the current cohort. For Cohort 2, this consists of the months July through December 2013. For Cohort 3, this consists of the months January 2014 through December 2014. For Cohort 4, this consists of the months January through December 2015. For Cohort 5A, this consists of the months January through December 2016. For Cohort 6A, this consists of the months January through December 2017. For Cohort 6B, this consists of the months April through December 2017.

Note that there is no potential attributed savings for Cohort 5B beneficiaries. They were all immediately eligible upon expansion of the demonstration to the new service area. As there is no attributed savings for Cohort 1 prior to the start of Demonstration Year 1, there is also no attributed savings for Cohort 5B. During the baseline period, all months for which a beneficiary meets the basic eligibility requirements are included in determining the baseline PMPMs, and those months for which WA also flagged demonstration eligibility are included in the attributed savings calculation for newly eligible cohorts.

Table 10 shows the amount of attributed Medicare savings for Cohorts 2, 3, 4 and 5. For Cohort 2, there were 1,809.4 months of eligibility during the months July through December 2013 and the PMPM during those months was \$1,817.45. The savings percentage for Cohort 1 during Demonstration Year 1 was 8.9 percent. Applying the 8.9 percent to the \$1,817.45 PMPM yields attributed Medicare savings of \$161.78 PMPM. Multiplying this savings PMPM by the months of eligibility results in \$292,723 of attributed Medicare savings.

Cohort 3 experienced 36,294.6 months of eligibility during the period January through December 2014 and a PMPM of \$1,365.18. The savings percentage for Cohort 2 during this period was 5.5 percent. Applying a similar calculation as was done for Cohort 2 results in a PMPM savings of \$75.52 and aggregate attributed savings of \$2,740,977.

Cohort 4 experienced 35,488.55 months of eligibility during the period of January through December 2015 and a PMPM of \$1,478.37. The savings percentage for Cohort 3 during this period was 3.76 percent. Applying this percentage to Cohort 4 experience yields a PMPM savings of \$55.51 and aggregate attributed savings of \$1,970,085.

Cohort 5A experienced 35,843.05 months of eligibility during the period of January through December 2016 and a PMPM of \$1,442.97. The savings percentage for Cohort 4 during this period was 14.92 percent. Applying this percentage to Cohort 5A experience yields a PMPM savings of \$215.36 and aggregate attributed savings of \$7,719,063.

Cohort 6A consists of those individuals whose experience will be added to the Demonstration Year 5 savings calculation on January 1, 2018, after becoming eligible for the demonstration during calendar year 2017 and Cohort 6B consists of those individuals whose experience will be added to the Demonstration Year 4 savings calculation on January 1, 2018,

after becoming eligible for the demonstration during the period of April 1, 2017 through December 31, 2017. Cohort 6A has an estimated 4,726 beneficiaries who had 28,745.64 months of eligibility during calendar year 2017 and the PMPM savings determined for Cohort 5A was \$190.00. This results in \$5,461,756 savings being preliminarily attributed to Cohort 6A. Cohort 6B has an estimated 3,279 beneficiaries who had 20,497.17 months of eligibility during the period April 1, 2017 through December 31, 2017 and the PMPM savings determined for Cohort 5B was \$157.18. This results in \$3,221,713 savings being preliminarily attributed to Cohort 6B. Additionally, please note the preliminary nature of the attributed savings for Cohorts 6A and 6B.

The attributed savings methodology has greater potential volatility than all other aspects of the savings analysis between the preliminary and final results due to the fact that there is not yet a PMPM with which to apply the previous cohort savings percentage and we instead are applying the previous cohort PMPM savings to the estimated number of eligible months. This may provide a rough estimation of the attributed savings that will eventually be calculated with adequate claims runout and retroactive eligibility adjustment but should not be relied on as a precise estimate of attributed savings.

5.5 Summary of Total Gross Medicare Savings

Table 9 summarizes the savings calculation by cohort including the outlier adjustment. For the four Demonstration Years to date combined, the outlier adjustment reduced the total Medicare savings by about \$11.5 million. Medicare savings were reduced for Cohorts 1, 3 and 4, but increased for Cohorts 2 and 5B, and remained effectively constant for Cohort 5A. The reduction was \$8.0 million for Cohort 1 (\$98.4 million to \$90.4 million), \$2.8 million for Cohort 3 (\$12.2 million to \$9.4 million), \$1.5 million for Cohort 4 (\$26.0 million to \$24.5 million). The increase was \$468 thousand for Cohort 2 and \$300 thousand for Cohort 5B. The total reduction across all cohorts 1–5B in *Table 9* was \$11.5 million (\$156.9 million to \$145.4 million). Across all five cohorts and all four Demonstration Years, total Medicare savings after the outlier adjustment was \$145.4 million, or 9.6 percent.

Table 10 summarizes total gross Medicare savings calculations, including the attributed savings from Cohorts 2, 3, 4, 5A, 6A and 6B. Attributed savings are \$0.3 million, \$2.7 million, \$2.0 million, and \$7.7 million for Cohorts 2, 3, 4 and 5A and estimated to be \$5.5 million and \$3.2 million for Cohorts 6A and 6B, respectively, bringing the total Medicare savings for all five cohorts to \$166.8 million, of which \$34.9 million was for Demonstration Year 1, \$30.2 million was for Demonstration Year 2, \$46.6 million was for Demonstration Year 3 and \$55.2 million was for Demonstration Year 4.

The Medicare savings for Demonstration Year 3, \$46,550,620 (Table 10), is now considered to be final. The Medicare savings for Demonstration Year 4 is considered to be preliminary and will be updated in a future report. Demonstration Year 4 savings will be updated to include any retroactive adjustments to claims and eligibility for beneficiaries in both the intervention and comparison groups.

5.6 Additional Analysis

Tables 11 (A, B, C and D) show additional analysis of the savings by month for Demonstration Years 3 and 4 for each cohort. *Tables 12 (A and B)* show additional results of the savings by type of service for all cohorts combined for each Demonstration Year. These tables include the AGA adjustment but not the outlier adjustment (which cannot be applied by month or by type of service) nor the attributed savings. *Tables 11* show, for each month of the Demonstration Year, the target PMPM, the actual intervention PMPM, and the ratio of the demonstration PMPM to the target PMPM (or, the D/T ratio). A ratio less than 1.00 shows savings, whereas a ratio greater than 1.00 shows negative savings.

It can be seen that the D/T ratio is significantly under 1.00 for Cohort 1 in most months. The average over all 24 months is 0.89 and the average for the last 6 months is 0.95. The D/T ratio for Cohort 2 varies widely, and is not surprising given the small size of the cohort. The average over the 24 months of Cohort 2 is 1.00 and the average over the last 6 months is 1.01. For Cohort 3, the D/T ratio shows one outlier month on the high side of 1.10 in November 2016 and on the low side of 0.74 in February 2017 but is otherwise generally close to 1.00. The average over the 24 months of operations is 0.95 and over the last 6 months is 0.91. For Cohort 4, the ratio is consistently less than 1.00. The average over the 24 months of operation is 0.86 and over the last 6 months is 0.89. For Cohort 5A, the ratio is consistently less than 1.00. The average over the 12 months of operation is 0.89. For Cohort 5B, the ratio is consistently less than 1.00. The average over the 9 months of operation is 0.92.

Table 12 shows the D/T ratio by type of service. For all cohorts and both Demonstration Years, the lowest D/T ratio is for hospice services. However, in dollar terms, significant savings were achieved for home health agency costs, inpatient hospital costs, and professional services. Increased costs were experienced for outpatient hospital services and SNF services.

Tables 13.A and B show more detail on the savings by type of service by Demonstration Year and category of beneficiary for all cohorts combined. The savings by type of service are similar for Demonstration Year 3 and Demonstration Year 4, and in line with what was previously seen in Demonstration Years 1 and 2.

**Table 11.A — MEDICARE
PMPM costs for intervention and comparison groups, by month: Cohort 1**

Month/Year	Intervention group		PMPM			
	Incurred claims	Eligible months	Intervention	Comparison	Target	Ratio (D/T)
Baseline	\$484,510,829	300,541.1	\$1,612	\$1,592	\$1,612	1.00
Jan-2016	\$14,775,101	8,944.8	\$1,652	\$1,807	\$1,870	0.88
Feb-2016	\$13,817,364	8,813.7	\$1,568	\$1,856	\$1,915	0.82
Mar-2016	\$15,432,436	8,702.0	\$1,773	\$1,950	\$2,015	0.88
Apr-2016	\$14,363,894	8,588.2	\$1,673	\$1,982	\$2,043	0.82
May-2016	\$14,954,834	8,470.6	\$1,765	\$1,818	\$1,874	0.94
Jun-2016	\$13,313,939	8,338.8	\$1,597	\$1,986	\$2,040	0.78
Jul-2016	\$12,700,467	8,132.8	\$1,562	\$1,819	\$1,866	0.84
Aug-2016	\$13,516,533	8,054.7	\$1,678	\$1,902	\$1,958	0.86
Sep-2016	\$13,162,083	7,942.7	\$1,657	\$1,779	\$1,835	0.90
Oct-2016	\$13,324,288	7,941.7	\$1,678	\$1,747	\$1,797	0.93
Nov-2016	\$12,493,618	7,832.9	\$1,595	\$1,767	\$1,823	0.88
Dec-2016	\$12,910,565	7,710.8	\$1,674	\$1,813	\$1,864	0.90
Jan-2017	\$12,842,571	7,636.7	\$1,682	\$1,856	\$1,913	0.88
Feb-2017	\$11,730,194	7,488.7	\$1,566	\$1,763	\$1,819	0.86
Mar-2017	\$13,650,526	7,455.5	\$1,831	\$2,023	\$2,074	0.88
Apr-2017	\$12,781,675	7,406.5	\$1,726	\$1,936	\$1,981	0.87
May-2017	\$13,148,493	7,056.5	\$1,863	\$2,018	\$2,075	0.90
Jun-2017	\$12,638,870	6,815.9	\$1,854	\$1,970	\$2,031	0.91
Jul-2017	\$12,303,194	6,703.0	\$1,835	\$1,764	\$1,823	1.01
Aug-2017	\$12,719,103	6,622.9	\$1,920	\$1,994	\$2,061	0.93
Sep-2017	\$11,614,466	6,512.3	\$1,783	\$1,843	\$1,908	0.93
Oct-2017	\$12,452,203	6,383.8	\$1,951	\$1,995	\$2,060	0.95
Nov-2017	\$11,403,287	6,295.1	\$1,811	\$1,725	\$1,794	1.01
Dec-2017	\$10,505,564	6,187.3	\$1,698	\$1,837	\$1,896	0.90
Total	\$312,555,264	182,038.1	\$1,717	\$1,873	\$1,930	0.89

**Table 11.B — MEDICARE
PMPM costs for intervention and comparison groups, by month: Cohort 2**

Month/Year	Intervention group		PMPM			Ratio (D/T)
	Incurred claims	Eligible months	Intervention	Comparison	Target	
Baseline	\$9,945,769	4,220.4	\$2,357	\$1,740	\$2,357	1.00
Jan-2016	\$888,447	389.6	2,280.3	1,227.7	\$1,670	1.37
Feb-2016	\$686,917	385.0	1,784.2	1,447.2	\$1,989	0.90
Mar-2016	\$754,802	381.6	1,977.9	1,429.7	\$1,935	1.02
Apr-2016	\$679,991	377.0	1,803.7	1,382.6	\$1,820	0.99
May-2016	\$733,640	376.5	1,948.7	1,325.6	\$1,795	1.09
Jun-2016	\$729,222	366.9	1,987.3	1,401.1	\$1,852	1.07
Jul-2016	\$610,822	354.4	1,723.4	1,532.9	\$2,064	0.83
Aug-2016	\$674,175	348.6	1,933.7	1,297.1	\$1,728	1.12
Sep-2016	\$776,457	342.3	2,268.1	1,419.6	\$1,869	1.21
Oct-2016	\$626,949	335.1	1,870.8	1,291.1	\$1,764	1.06
Nov-2016	\$556,325	329.8	1,686.9	1,447.3	\$1,971	0.86
Dec-2016	\$401,746	325.1	1,235.8	1,475.2	\$2,035	0.61
Jan-2017	\$642,059	322.6	1,990.0	1,329.4	\$1,788	1.11
Feb-2017	\$600,940	316.4	1,899.1	1,193.3	\$1,708	1.11
Mar-2017	\$581,120	310.9	1,868.9	1,767.3	\$2,420	0.77
Apr-2017	\$567,267	305.9	1,854.6	1,653.8	\$2,301	0.81
May-2017	\$725,179	288.8	2,510.7	1,781.3	\$2,486	1.01
Jun-2017	\$607,428	282.5	2,150.2	1,414.3	\$1,928	1.12
Jul-2017	\$665,382	283.0	\$2,351	\$1,298	\$1,743	1.35
Aug-2017	\$462,130	278.8	\$1,658	\$1,593	\$2,082	0.80
Sep-2017	\$452,174	276.0	\$1,638	\$1,240	\$1,709	0.96
Oct-2017	\$557,963	271.7	\$2,054	\$1,585	\$2,126	0.97
Nov-2017	\$481,570	272.9	\$1,765	\$1,540	\$2,104	0.84
Dec-2017	\$636,242	267.3	\$2,381	\$1,511	\$2,057	1.16
Total	\$15,098,947	7,788.9	\$1,939	\$1,434	\$1,946	1.00

**Table 11.C — MEDICARE
PMPM costs for intervention and comparison groups, by month: Cohort 3**

Month/Year	Intervention group		PMPM			Ratio (D/T)
	Incurred claims	Eligible months	Intervention	Comparison	Target	
Baseline	\$103,440,434	61,200.6	\$1,690	\$1,520	\$1,690	1.00
Jan-2016	\$5,897,208	4,330.1	1,361.9	1,260.6	\$1,434	0.95
Feb-2016	\$5,923,845	4,254.3	1,392.4	1,188.9	\$1,350	1.03
Mar-2016	\$7,305,830	4,183.5	1,746.3	1,450.3	\$1,646	1.06
Apr-2016	\$6,369,944	4,114.2	1,548.3	1,386.7	\$1,567	0.99
May-2016	\$6,309,502	4,032.3	1,564.7	1,320.0	\$1,511	1.04
Jun-2016	\$5,159,471	3,959.3	1,303.1	1,289.8	\$1,457	0.89
Jul-2016	\$5,034,560	3,857.2	1,305.2	1,306.3	\$1,486	0.88
Aug-2016	\$6,015,218	3,807.1	1,580.0	1,425.0	\$1,642	0.96
Sep-2016	\$5,024,006	3,734.8	1,345.2	1,218.6	\$1,391	0.97
Oct-2016	\$5,153,305	3,729.4	1,381.8	1,306.6	\$1,480	0.93
Nov-2016	\$5,541,076	3,677.1	1,506.9	1,224.1	\$1,370	1.10
Dec-2016	\$4,991,850	3,640.5	1,371.2	1,295.9	\$1,462	0.94
Jan-2017	\$5,035,137	3,620.9	1,390.6	1,289.1	\$1,426	0.98
Feb-2017	\$4,171,651	3,538.2	1,179.0	1,389.5	\$1,591	0.74
Mar-2017	\$4,879,614	3,507.7	1,391.1	1,304.7	\$1,455	0.96
Apr-2017	\$4,651,959	3,471.2	1,340.1	1,228.5	\$1,389	0.96
May-2017	\$5,753,037	3,280.6	1,753.7	1,566.5	\$1,791	0.98
Jun-2017	\$4,578,624	3,065.5	1,493.6	1,451.0	\$1,693	0.88
Jul-2017	\$4,579,122	2,994.6	\$1,529	\$1,326	\$1,509	1.01
Aug-2017	\$4,459,208	2,943.7	\$1,515	\$1,567	\$1,803	0.84
Sep-2017	\$3,895,953	2,895.0	\$1,346	\$1,426	\$1,651	0.81
Oct-2017	\$4,713,994	2,838.9	\$1,661	\$1,598	\$1,814	0.92
Nov-2017	\$3,988,809	2,806.7	\$1,421	\$1,501	\$1,752	0.81
Dec-2017	\$4,249,562	2,762.5	\$1,538	\$1,329	\$1,473	1.04
Total	\$123,682,488	85,045.2	\$1,454	\$1,352	\$1,537	0.95

**Table 11.D — MEDICARE
PMPM costs for intervention and comparison groups, by month: Cohort 4**

Month/Year	Intervention group		PMPM			Ratio (D/T)
	Incurred claims	Eligible months	Intervention	Comparison	Target	
Baseline	\$108,719,430	62,395.6	\$1,742	\$1,552	\$1,742	1.00
Jan-2016	\$9,653,760	5,783.5	1,669.2	1,610.7	\$1,850	0.90
Feb-2016	\$8,531,659	5,600.1	1,523.5	1,586.1	\$1,818	0.84
Mar-2016	\$9,273,085	5,432.1	1,707.1	1,751.1	\$1,995	0.86
Apr-2016	\$7,732,387	5,301.3	1,458.6	1,546.1	\$1,766	0.83
May-2016	\$8,346,486	5,177.1	1,612.2	1,657.4	\$1,896	0.85
Jun-2016	\$7,565,700	5,065.6	1,493.5	1,550.3	\$1,748	0.85
Jul-2016	\$7,565,092	4,923.3	1,536.6	1,413.9	\$1,601	0.96
Aug-2016	\$7,322,080	4,810.4	1,522.1	1,540.1	\$1,745	0.87
Sep-2016	\$6,307,854	4,686.6	1,345.9	1,533.8	\$1,736	0.78
Oct-2016	\$6,488,855	4,657.6	1,393.2	1,462.1	\$1,662	0.84
Nov-2016	\$6,308,593	4,561.6	1,383.0	1,512.3	\$1,705	0.81
Dec-2016	\$6,000,340	4,469.3	1,342.6	1,531.7	\$1,732	0.78
Jan-2017	\$6,214,704	4,398.1	1,413.0	1,583.3	\$1,787	0.79
Feb-2017	\$5,450,747	4,277.6	1,274.3	1,470.5	\$1,656	0.77
Mar-2017	\$6,973,165	4,262.8	1,635.8	1,513.1	\$1,705	0.96
Apr-2017	\$6,131,445	4,206.7	1,457.5	1,424.9	\$1,617	0.90
May-2017	\$6,321,027	4,031.8	1,567.8	1,501.7	\$1,692	0.93
Jun-2017	\$5,724,467	3,802.5	1,505.4	1,498.6	\$1,701	0.88
Jul-2017	\$5,386,388	3,697.2	\$1,457	\$1,509	\$1,716	0.85
Aug-2017	\$5,524,257	3,623.7	\$1,524	\$1,596	\$1,795	0.85
Sep-2017	\$5,411,694	3,538.7	\$1,529	\$1,534	\$1,754	0.87
Oct-2017	\$5,790,579	3,455.8	\$1,676	\$1,429	\$1,590	1.05
Nov-2017	\$4,665,350	3,392.8	\$1,375	\$1,475	\$1,655	0.83
Dec-2017	\$5,084,452	3,340.9	\$1,522	\$1,578	\$1,751	0.87
Total	\$159,774,164	106,497.2	\$1,500	\$1,539	\$1,744	0.86

**Table 11.E — MEDICARE
PMPM costs for intervention and comparison groups, by month: Cohort 5A**

Month/Year	Intervention group		PMPM			Ratio (D/T)
	Incurred claims	Eligible months	Intervention	Comparison	Target	
Baseline	\$110,905,078	65,787.6	\$1,686	\$1,638	\$1,686	1.00
Jan-2017	\$9,793,012	6,136.0	1,596.0	1,638.1	\$1,677	0.95
Feb-2017	\$8,938,610	5,913.1	1,511.7	1,525.1	\$1,558	0.97
Mar-2017	\$8,923,496	5,812.4	1,535.3	1,786.5	\$1,821	0.84
Apr-2017	\$8,422,603	5,663.6	1,487.1	1,644.2	\$1,676	0.89
May-2017	\$8,020,163	5,437.8	1,474.9	1,582.2	\$1,625	0.91
Jun-2017	\$7,725,167	5,280.0	1,463.1	1,655.5	\$1,710	0.86
Jul-2017	\$7,655,589	5,138.6	1,489.8	1,554.7	\$1,598	0.93
Aug-2017	\$8,109,281	5,042.2	1,608.3	1,913.3	\$1,985	0.81
Sep-2017	\$7,221,704	4,923.2	1,466.9	1,589.1	\$1,620	0.91
Oct-2017	\$7,659,287	4,777.7	1,603.1	1,877.6	\$1,963	0.82
Nov-2017	\$6,386,559	4,689.4	1,361.9	1,452.4	\$1,505	0.90
Dec-2017	\$6,768,105	4,600.3	1,471.2	1,596.7	\$1,643	0.90
Total	\$95,623,575	63,414.2	\$1,508	\$1,651	\$1,698	0.89

**Table 11.F — MEDICARE
PMPM costs for intervention and comparison groups, by month: Cohort 5B**

Month/Year	Intervention group		PMPM			Ratio (D/T)
	Incurred claims	Eligible months	Intervention	Comparison	Target	
Baseline	\$113,102,577	65,411.2	\$1,729	\$1,635	\$1,729	1.00
Apr-2017	\$10,087,731	5,907.2	1,707.7	1,636.7	\$1,700	1.00
May-2017	\$10,767,397	5,718.3	1,883.0	1,825.3	\$1,898	0.99
Jun-2017	\$9,446,911	5,603.7	1,685.8	1,766.8	\$1,830	0.92
Jul-2017	\$8,566,031	5,483.4	1,562.2	1,754.8	\$1,810	0.86
Aug-2017	\$9,006,876	5,343.5	1,685.6	1,862.8	\$1,907	0.88
Sep-2017	\$8,033,446	5,214.9	1,540.5	1,642.9	\$1,684	0.91
Oct-2017	\$8,676,096	5,071.4	1,710.8	1,843.5	\$1,903	0.90
Nov-2017	\$8,549,901	4,964.7	1,722.1	1,800.5	\$1,829	0.94
Dec-2017	\$7,507,808	4,827.6	1,555.2	1,865.5	\$1,890	0.82
Total	\$80,642,197	48,134.7	\$1,675	\$1,775	\$1,826	0.92

**Table 12.A — MEDICARE
PMPM costs for Demonstration Year 3 based on incurred Medicare claims for Cohorts 1, 2, 3 and 4**

Type of service	Intervention		PMPM				PMPM Savings	Dollar Savings
	Incurred Claims	Member Months	Intervention (D)	Comparison	Target (T)	Ratio (D/T)		
Baseline	\$930,624,118	559,556.5	\$1,663.15	\$1,591.41				
Durable medical equipment	\$12,828,231	211,574.3	\$60.63	\$67.86	\$73.05	0.83	\$12.42	\$2,628,107
Home health agency	\$13,704,153	211,574.3	\$64.77	\$92.80	\$101.70	0.64	\$36.93	\$7,813,824
Hospice	\$3,980,986	211,574.3	\$18.82	\$55.97	\$58.83	0.32	\$40.01	\$8,465,679
Inpatient	\$128,171,443	211,574.3	\$605.80	\$595.31	\$646.58	0.94	\$40.78	\$8,628,093
Outpatient	\$82,767,598	211,574.3	\$391.20	\$354.88	\$381.13	1.03	-\$10.07	-\$2,130,534
Professional	\$62,050,183	211,574.3	\$293.28	\$359.34	\$390.35	0.75	\$97.07	\$20,537,141
SNF	\$29,203,724	211,574.3	\$138.03	\$112.44	\$124.04	1.11	-\$13.99	-\$2,960,382
Total	\$332,706,318	211,574.3	\$1,572.53	\$1,638.59	\$1,775.68	0.89	\$203.15	\$42,981,927

**Table 12.B — MEDICARE
PMPM costs for Demonstration Year 4 based on incurred Medicare claims for Cohorts 1, 2, 3, 4 and 5A/B**

Type of service	Intervention		PMPM				PMPM Savings	Dollar Savings
	Incurred Claims	Member Months	Intervention (D)	Comparison	Target (T)	Ratio (D/T)		
Baseline	\$930,624,118	559,556.5	\$1,663.15	\$1,591.41				
Durable medical equipment	\$15,314,194	281,344.0	\$54.43	\$60.81	\$63.87	0.85	\$9.43	\$2,654,137
Home health agency	\$19,825,534	281,344.0	\$70.47	\$100.85	\$105.87	0.67	\$35.40	\$9,960,490
Hospice	\$4,365,406	281,344.0	\$15.52	\$60.00	\$63.39	0.24	\$47.87	\$13,468,277
Inpatient	\$176,543,875	281,344.0	\$627.50	\$615.02	\$653.19	0.96	\$25.69	\$7,228,244
Outpatient	\$111,588,100	281,344.0	\$396.63	\$356.08	\$373.76	1.06	-\$22.86	-\$6,432,096
Professional	\$87,342,385	281,344.0	\$310.45	\$367.88	\$390.43	0.80	\$79.98	\$22,502,724
SNF	\$39,690,825	281,344.0	\$141.08	\$125.53	\$136.67	1.03	-\$4.41	-\$1,240,154
Total	\$454,670,318	281,344.0	\$1,616.07	\$1,686.17	\$1,787.18	0.90	\$171.11	\$48,141,623

Table 13.A —

PMPM costs by category of beneficiary for Demonstration Year 3 based on incurred Medicare claims for Cohorts 1, 2, 3 and 4

Category of beneficiary	Total		Durable Medical Equipment		Home Health Agency		Hospice		Inpatient		Outpatient		Professional		SNF	
	PMPM Saving	Dollar Savings	PMPM Saving	Dollar Savings	PMPM Saving	Dollar Savings	PMPM Saving	Dollar Savings	PMPM Saving	Dollar Savings	PMPM Saving	Dollar Savings	PMPM Saving	Dollar Savings	PMPM Saving	Dollar Savings
Total	\$203.15	\$42,981,927	\$12.42	\$2,628,107	\$36.93	\$7,813,824	\$40.01	\$8,465,679	\$40.78	\$8,628,093	-\$10.07	-\$2,130,534	\$97.07	\$20,537,141	-\$13.99	-\$2,960,382
Fac 65+ SPMI	\$667.50	\$3,081,098	\$0.30	\$1,383	-\$10.94	-\$50,501	\$137.14	\$633,022	\$141.17	\$651,624	\$149.91	\$691,982	\$147.74	\$681,939	\$102.18	\$471,651
Fac 65+ xSPMI	\$597.95	\$4,828,819	-\$3.75	-\$30,266	-\$5.74	-\$46,356	\$167.92	\$1,356,028	\$164.90	\$1,331,655	\$50.90	\$411,057	\$128.99	\$1,041,669	\$94.73	\$765,033
HCBS 65+ SPMI	\$469.16	\$4,789,008	\$16.39	\$167,286	\$45.86	\$468,100	\$75.03	\$765,866	\$111.51	\$1,138,241	\$64.20	\$655,284	\$148.99	\$1,520,785	\$7.20	\$73,446
HCBS 65+ xSPMI	\$319.54	\$11,384,776	\$8.42	\$300,169	\$69.43	\$2,473,594	\$85.33	\$3,040,184	\$53.32	\$1,899,810	-\$5.66	-\$201,769	\$125.11	\$4,457,359	-\$16.41	-\$584,572
Com 65+ SPMI	\$259.15	\$1,847,219	\$13.05	\$93,042	\$27.31	\$194,685	\$27.89	\$198,777	\$120.91	\$861,818	-\$42.83	-\$305,306	\$95.38	\$679,859	\$17.44	\$124,345
Com 65+ xSPMI	\$110.76	\$4,590,874	\$12.69	\$526,188	\$37.05	\$1,535,672	\$24.83	\$1,029,371	\$12.65	\$524,332	-\$35.48	-\$1,470,660	\$79.37	\$3,289,920	-\$20.36	-\$843,948
Fac <65 SPMI	\$414.90	\$712,378	-\$5.66	-\$9,716	-\$31.28	-\$53,714	\$53.16	\$91,268	\$1.86	\$3,198	\$69.59	\$119,484	\$269.50	\$462,728	\$57.74	\$99,130
Fac <65 xSPMI	\$451.68	\$872,285	\$5.97	\$11,524	-\$22.65	-\$43,744	\$110.50	\$213,391	-\$151.95	-\$293,452	\$113.41	\$219,020	\$342.16	\$660,781	\$54.25	\$104,765
HCBS <65 SPMI	\$127.54	\$2,034,401	\$13.33	\$212,628	\$34.12	\$544,306	\$26.23	\$418,349	\$54.19	\$864,326	-\$42.37	-\$675,794	\$81.55	\$1,300,837	-\$39.51	-\$630,250
HCBS <65 xSPMI	\$307.92	\$8,772,581	\$27.58	\$785,698	\$70.75	\$2,015,700	\$13.37	\$380,881	\$107.81	\$3,071,484	\$2.48	\$70,524	\$107.48	\$3,062,051	-\$21.54	-\$613,756
Com <65 SPMI	\$72.73	\$1,681,041	\$10.92	\$252,483	\$17.39	\$401,927	\$6.13	\$141,759	\$52.85	\$1,221,626	-\$34.57	-\$799,111	\$65.09	\$1,504,561	-\$45.09	-\$1,042,204
Com <65 xSPMI	-\$48.48	-\$1,612,554	\$9.55	\$317,687	\$11.25	\$374,157	\$5.92	\$196,784	-\$79.56	-\$2,646,568	-\$25.41	-\$845,243	\$56.36	\$1,874,653	-\$26.58	-\$884,022

**Table 13B —
PMPM costs by category of beneficiary for Demonstration Year 4 based on incurred Medicare claims for Cohorts 1, 2, 3, 4
and 5A/B**

Category of beneficiary	Total		Durable Medical Equipment		Home Health Agency		Hospice		Inpatient		Outpatient		Professional		SNF	
	PMPM Saving	Dollar Savings	PMPM Saving	Dollar Savings	PMPM Saving	Dollar Savings	PMPM Saving	Dollar Savings	PMPM Saving	Dollar Savings	PMPM Saving	Dollar Savings	PMPM Saving	Dollar Savings	PMPM Saving	Dollar Savings
Total	\$171.11	\$48,141,623	\$9.43	\$2,654,137	\$35.40	\$9,960,490	\$47.87	\$13,468,277	\$25.69	\$7,228,244	-\$22.86	-\$6,432,096	\$79.98	\$22,502,724	-\$4.41	-\$1,240,154
Fac 65+ SPMI	\$672.69	\$5,922,648	\$2.48	\$21,875	-\$20.17	-\$177,567	\$161.67	\$1,423,391	\$54.00	\$475,464	\$192.92	\$1,698,520	\$194.31	\$1,710,760	\$87.48	\$770,204
Fac 65+ xSPMI	\$457.89	\$4,080,078	-\$3.37	-\$30,019	-\$7.69	-\$68,503	\$169.93	\$1,514,202	\$20.76	\$185,000	\$98.84	\$880,758	\$112.13	\$999,151	\$67.28	\$599,488
HCBS 65+ SPMI	\$311.33	\$6,303,049	\$26.30	\$532,453	\$77.40	\$1,567,047	\$71.81	\$1,453,889	\$57.90	\$1,172,318	\$13.85	\$280,334	\$97.08	\$1,965,487	-\$33.02	-\$668,479
HCBS 65+ xSPMI	\$362.68	\$15,300,722	\$9.67	\$407,850	\$58.38	\$2,462,804	\$92.87	\$3,917,838	\$80.92	\$3,413,963	-\$32.78	-\$1,383,019	\$126.64	\$5,342,872	\$26.98	\$1,138,414
Com 65+ SPMI	\$95.03	\$1,413,980	\$10.57	\$157,229	\$47.93	\$713,159	\$29.28	\$435,631	-\$7.15	-\$106,353	-\$30.00	-\$446,402	\$58.65	\$872,746	-\$14.25	-\$212,030
Com 65+ xSPMI	\$75.11	\$4,086,260	\$12.89	\$701,446	\$36.31	\$1,975,178	\$29.57	\$1,608,704	-\$6.16	-\$334,862	-\$42.44	-\$2,308,848	\$53.15	\$2,891,718	-\$8.22	-\$447,077
Fac <65 SPMI	\$890.94	\$2,756,101	\$31.66	\$97,943	-\$27.62	-\$85,437	\$62.14	\$192,221	\$156.20	\$483,198	\$95.21	\$294,530	\$364.13	\$1,126,434	\$209.22	\$647,212
Fac <65 xSPMI	\$692.33	\$1,587,521	-\$4.10	-\$9,391	-\$16.85	-\$38,630	\$137.67	\$315,683	\$243.57	\$558,512	-\$33.25	-\$76,243	\$299.98	\$687,853	\$65.30	\$149,738
HCBS <65 SPMI	\$256.60	\$6,252,055	-\$0.42	-\$10,273	\$48.87	\$1,190,688	\$28.00	\$682,275	\$150.18	\$3,659,215	-\$27.05	-\$659,035	\$71.49	\$1,741,781	-\$14.47	-\$352,597
HCBS <65 xSPMI	\$168.96	\$5,371,110	\$2.26	\$71,930	\$46.63	\$1,482,410	\$41.94	\$1,333,189	\$44.00	\$1,398,655	-\$43.43	-\$1,380,445	\$88.48	\$2,812,654	-\$10.92	-\$347,283
Com <65 SPMI	-\$63.80	-\$2,127,987	\$10.43	\$347,928	\$17.45	\$582,029	\$4.17	\$139,211	-\$53.60	-\$1,787,533	-\$54.83	-\$1,828,606	\$51.09	\$1,704,105	-\$38.53	-\$1,285,122
Com <65 xSPMI	-\$75.74	-\$2,803,912	\$9.86	\$365,166	\$9.65	\$357,312	\$12.21	\$452,042	-\$51.04	-\$1,889,332	-\$40.62	-\$1,503,641	\$17.48	\$647,163	-\$33.30	-\$1,232,623



Washington State's Fee-For-Service Dual Eligible Demonstration Quarterly Report

October 23, 2020



This report provides a month-by-month look at dual Medicare-Medicaid beneficiaries' eligibility, enrollment, and engagement in Washington State's Duals Demonstration and Health Home program. A few key things to note:

- Health Homes was implemented in 14 counties in July 2013, 23 additional counties were added in October 2013, and the remaining 2 counties (King and Snohomish) joined in April 2017.
- Beneficiaries identified as "already aligned" with another Medicare shared savings program are not included among those deemed "demonstration eligible", though they are still eligible for Health Home services.
- Health Home dual beneficiaries are enrolled with one of twelve Health Home Fee-for-Service Lead Entities.

The report was prepared by DSHS Research and Data Analysis Division in collaboration with Washington State's Health Care Authority.

Eligibility and Enrollment updated through September 2020

Engagement updated through June 2020

Health Home Team Review Date: October 23, 2020

DATA SOURCE: Washington State Health Care Authority, ProviderOne (Medicaid) database.

Washington State
Health Care Authority



Transforming lives

CONTACT

David Mancuso, PhD

Director

DSHS Research and Data Analysis Division

360.902.7557 | david.mancuso@dshs.wa.gov

APPENDIX 27

WA STATE HOSPICE COST, QUALITY AND OUTCOME STUDIES

Washington State's Fee-For-Service Dual Eligible Demonstration Quarterly Report

EXECUTIVE SUMMARY

Eligibility, Enrollment, and Engagement Trends

- The number of duals eligible for the program has dropped 8% from 31,084 in September 2019 to 28,714 in September 2020. There are three known issues contributing to this trend.
 - 1) There has been an increase in duals enrolled in Medicare Advantage (and thus excluded from Health Home eligibility).
 - 2) Clients who once met the criteria of a PRISM score of 1.5 or above but are now below a PRISM score of 1.0 for 9 months or longer and who have lost eligibility.
 - 3) There has been a slight decrease in overall dual Medicare-Medicaid eligibility.
- Note that in the Washington Fee-For-Service model, demonstration eligible beneficiaries are enrolled before indicating whether they are interested in participating.
- The percent of duals who are eligible but have chosen not to participate (or can't) has increased from 21% in September 2019 to 32% by September 2020. It is unlikely that the real proportion of those unwilling to participate has changed; it is more likely that we as a program are more effective in identifying and disenrolling those who are unwilling to participate.
- As of June 2020, 35% of enrolled duals were engaged in the month while 46% of those enrolled had been engaged in June 2020 or during a previous month. Overall engagement has remained fairly steady, even as eligibility and enrollment have fluctuated at times.

COVID-19

- Currently, we have not seen drastic changes to Eligibility, Enrollment, or Engagement levels for Dual Demonstration eligible beneficiaries since the beginning of the COVID-19 pandemic. We attribute some of the stability to the actions taken by Health Home program staff to support Leads and Care Coordinators in maintaining engagement with beneficiaries. These actions include, but are not limited to...
 - 1) A remote version of the required 2-day Health Home Care Coordinator Basic Training was created and began being provided to new Care Coordinators in mid-March.
 - 2) Additional free webinars and resources on COVID-19 and self-care have been made available to Care Coordinators, including webinars developed by a cross-agency workgroup between the Department of Health, the Health Care Authority, and the Department of Social and Health Services, created to support the community based workforce.
 - 3) Care Coordination services began to be allowed over the phone, and beneficiaries were provided with mobile phones when needed to maintain engagement.

Other Notes

- Rate increases for the three tiers of Health Home services went into effect on July 1st, 2020.
- At the end of 2019, Health Home program staff began a focused effort to develop a more robust outreach plan to try and engage more agencies to serve as Health Home Leads to increase capacity to serve more eligible clients, including assurance of adequate outreach efforts to eligible clients (i.e. 3 outreach attempts). Progress on this work will likely be delayed due to COVID-19 related workload.

HIGHLIGHTS

As of September 2020

- ELIGIBILITY** • 28,714 dual beneficiaries were eligible for the duals demonstration (including those who have chosen not to participate).
- ENROLLMENT** • 37% (10,731) of eligible dual beneficiaries were enrolled with a Health Home Lead Entity.
 - 32% (9,215) of eligible dual beneficiaries chose not to participate in the program.
 - The remaining 31% (8,768) of eligible dual beneficiaries have not yet been enrolled.
 - A total of 58,754 eligible dual beneficiaries have been enrolled at least one month at some point in the life of the program.
- ENGAGEMENT** • 46% (4,982) of dual beneficiaries enrolled in June 2020 (when engagement records are more complete) had received one or more Health Home services since their initial enrollment.

NOTES

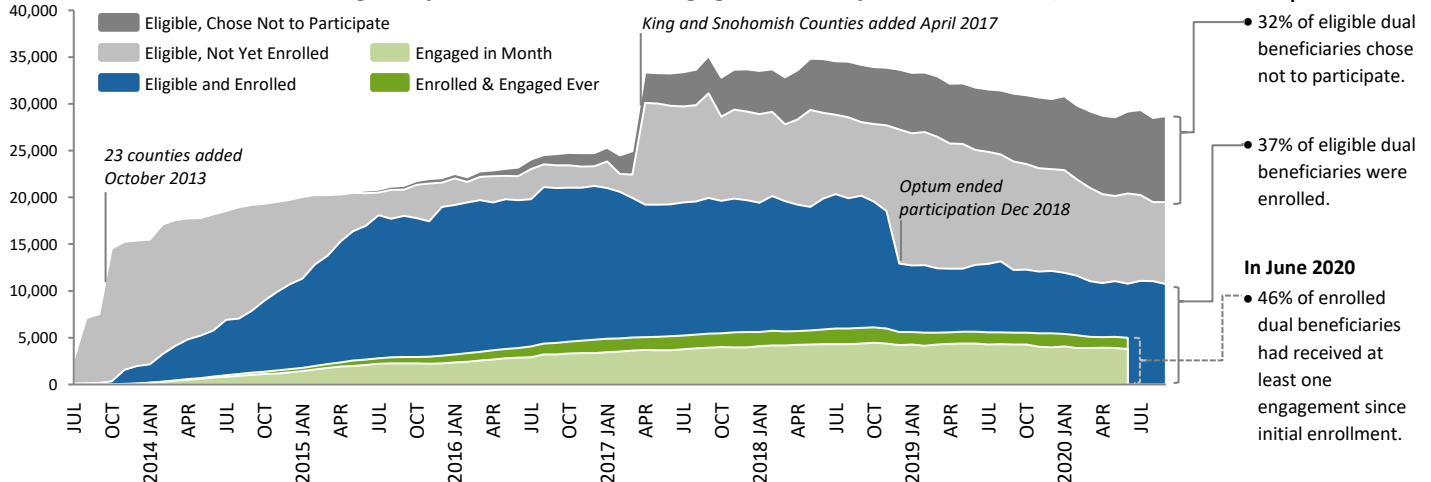
This report provides a month-by-month look at dual Medicare-Medicaid beneficiaries' eligibility, enrollment, and engagement in Washington State's Duals Demonstration and Health Home program. A few things to note:

- Dual beneficiaries identified as "already aligned" with another Medicare shared savings program have been removed.
- Health Home engagement is based on accepted encounters which can take 3 months to receive.
- Beginning in January 2017, enrolled beneficiaries who chose not to participate have been dropped from enrollment (a change in policy).
- Enrollment dropped beginning in October 2018 due to the withdrawal of Optum as a Health Home Lead. Most actively participating beneficiaries were moved to other Health Home Leads, keeping their Care Coordinator intact.

Overall Eligibility, Enrollment, and Engagement Detail (previous 15 Months)

		Eligible		Chose Not to Participate		Enrolled		Engaged in Month			Engaged Ever		
		NUMBER	% OF ELIGIBLE	NUMBER	% OF ELIGIBLE	NUMBER	% OF ELIGIBLE	NUMBER	% OF ENROLLED	NEWLY ENGAGED	ENROLLED IN MONTH	% OF ENROLLED	NO LONGER ENROLLED
	JUL	31,542	21%	6,684	21%	12,879	41%	4,280	33%	122	5,582	43%	7,955
	AUG	31,439	22%	6,862	22%	13,168	42%	4,301	33%	136	5,574	42%	8,110
	SEP	31,084	23%	7,254	23%	12,242	39%	4,288	35%	123	5,533	45%	8,281
	OCT	30,915	24%	7,357	24%	12,295	40%	4,258	35%	106	5,539	45%	8,397
	NOV	30,668	25%	7,539	25%	12,087	39%	4,030	33%	70	5,469	45%	8,550
	DEC	30,527	25%	7,498	25%	12,156	40%	3,975	33%	67	5,464	45%	8,631
2020	JAN	30,829	26%	7,920	26%	11,942	39%	4,067	34%	98	5,416	45%	8,782
	FEB	29,839	27%	7,915	27%	11,641	39%	3,897	33%	81	5,279	45%	9,008
	MAR	29,208	28%	8,166	28%	11,043	38%	3,899	35%	75	5,104	46%	9,269
	APR	28,734	29%	8,393	29%	10,831	38%	3,925	36%	88	5,064	47%	9,410
	MAY	28,550	29%	8,419	29%	11,035	39%	3,885	35%	74	5,080	46%	9,475
	JUN	29,184	30%	8,753	30%	10,760	37%	3,793	35%	85	4,982	46%	9,663
	JUL	29,342	31%	9,080	31%	11,098	38%	<i>pending</i>	<i>pending</i>	<i>pending</i>	<i>pending</i>	-	<i>pending</i>
	AUG	28,486	32%	9,000	32%	11,057	39%	<i>pending</i>	<i>pending</i>	<i>pending</i>	<i>pending</i>	-	<i>pending</i>
	SEP	28,714	32%	9,215	32%	10,731	37%	<i>pending</i>	<i>pending</i>	<i>pending</i>	<i>pending</i>	-	<i>pending</i>

Overall Eligibility, Enrollment, and Engagement (July 2013 - Present)



2. Additional Eligibility, Enrollment, and Engagement Details

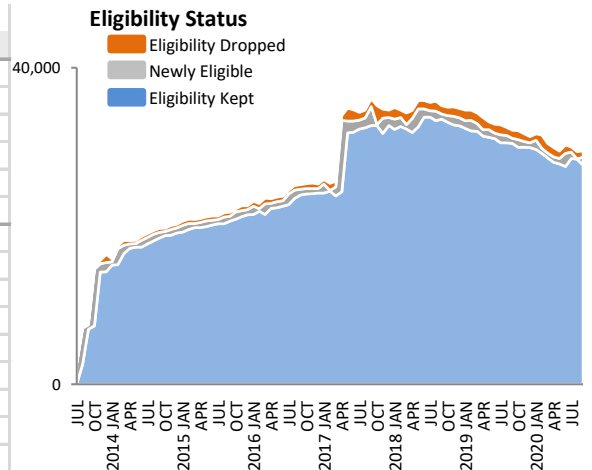
NOTES

As of September 2020

- 97% of eligible dual beneficiaries remained eligible from the prior month.
- 94% of enrolled dual beneficiaries remained enrolled from the prior month.
- Beneficiaries who drop Health Homes eligibility/enrollment may return as newly eligible/enrolled in a later month.
- 70% (3,466) of dual beneficiaries enrolled and ever engaged in June 2020 (when engagement records are more complete) had received 13 or more Health Home services since their initial enrollment.

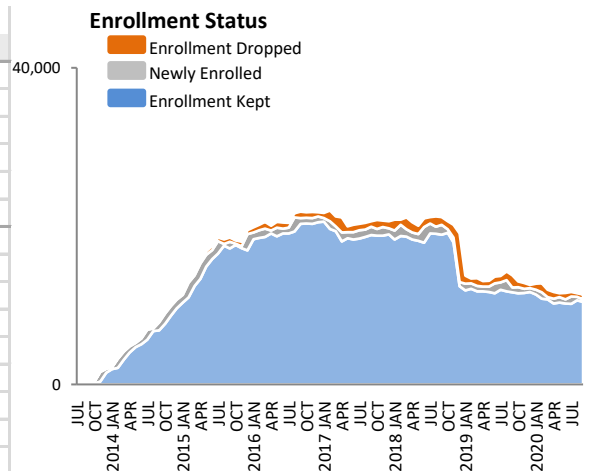
Health Home Dual Beneficiary Eligibility Status

	Eligible		Newly Eligible		Eligibility Kept		Eligibility Dropped	
	NUMBER	PERCENT ¹	NUMBER	PERCENT ¹	NUMBER	PERCENT ²	NUMBER	PERCENT ²
JUL	31,542		1,044	3%	30,498	96%	1,241	4%
AUG	31,439		911	3%	30,528	97%	1,014	3%
SEP	31,084		640	2%	30,444	97%	995	3%
OCT	30,915		971	3%	29,944	96%	1,140	4%
NOV	30,668		728	2%	29,940	97%	975	3%
DEC	30,527		605	2%	29,922	98%	746	2%
2020 JAN	30,829		1,142	4%	29,687	97%	840	3%
FEB	29,839		673	2%	29,166	95%	1,663	5%
MAR	29,208		600	2%	28,608	96%	1,231	4%
APR	28,734		703	2%	28,031	96%	1,177	4%
MAY	28,550		720	3%	27,830	97%	904	3%
JUN	29,184		1,675	6%	27,509	96%	1,041	4%
JUL	29,342		797	3%	28,545	98%	639	2%
AUG	28,486		48	0%	28,438	97%	904	3%
SEP	28,714		1,024	4%	27,690	97%	796	3%



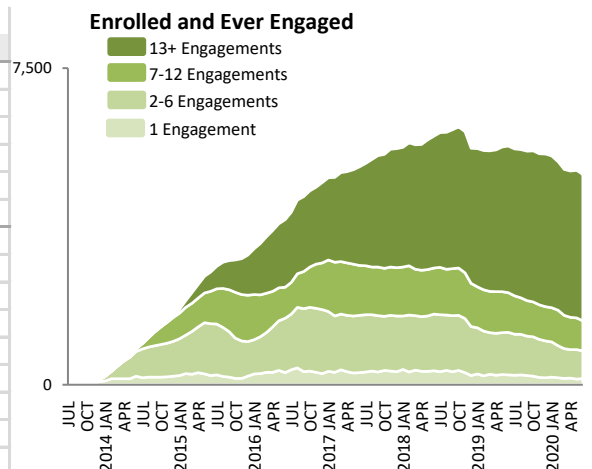
Health Home Dual Beneficiary Enrollment Status

	Enrolled		Newly Enrolled		Enrollment Kept		Enrollment Dropped	
	NUMBER	PERCENT ¹	NUMBER	PERCENT ¹	NUMBER	PERCENT ²	NUMBER	PERCENT ²
JUL	12,879		925	7%	11,954	94%	829	6%
AUG	13,168		1,395	11%	11,773	91%	1,106	9%
SEP	12,242		618	5%	11,624	88%	1,544	12%
OCT	12,295		789	6%	11,506	94%	736	6%
NOV	12,087		526	4%	11,561	94%	734	6%
DEC	12,156		492	4%	11,664	97%	423	3%
2020 JAN	11,942		589	5%	11,353	93%	803	7%
FEB	11,641		819	7%	10,822	91%	1,120	9%
MAR	11,043		310	3%	10,733	92%	908	8%
APR	10,831		618	6%	10,213	92%	830	8%
MAY	11,035		699	6%	10,336	95%	495	5%
JUN	10,760		539	5%	10,221	93%	814	7%
JUL	11,098		930	8%	10,168	94%	592	6%
AUG	11,057		435	4%	10,622	96%	476	4%
SEP	10,731		316	3%	10,415	94%	642	6%



Health Home Dual Beneficiary Engagement Counts

	1 Engagement		2-6 Engagements		7-12 Engagements		13+ Engagements	
	NUMBER	PERCENT ¹	NUMBER	PERCENT ¹	NUMBER	PERCENT ¹	NUMBER	PERCENT ¹
JUL	223	4%	971	17%	912	16%	3,476	62%
AUG	233	4%	964	17%	866	16%	3,511	63%
SEP	220	4%	934	17%	842	15%	3,537	64%
OCT	206	4%	933	17%	823	15%	3,577	65%
NOV	170	3%	902	16%	822	15%	3,575	65%
DEC	164	3%	870	16%	818	15%	3,612	66%
2020 JAN	180	3%	836	15%	813	15%	3,587	66%
FEB	166	3%	755	14%	842	16%	3,516	67%
MAR	147	3%	710	14%	784	15%	3,463	68%
APR	154	3%	677	13%	768	15%	3,465	68%
MAY	138	3%	691	14%	753	15%	3,498	69%
JUN	141	3%	662	13%	713	14%	3,466	70%
JUL	pending	-	pending	-	pending	-	pending	-
AUG	pending	-	pending	-	pending	-	pending	-
SEP	pending	-	pending	-	pending	-	pending	-



¹Denominator is the current month's Health Home eligible/enrolled dual beneficiaries. ²Denominator is the previous month's Health Home eligible/enrolled dual beneficiaries.

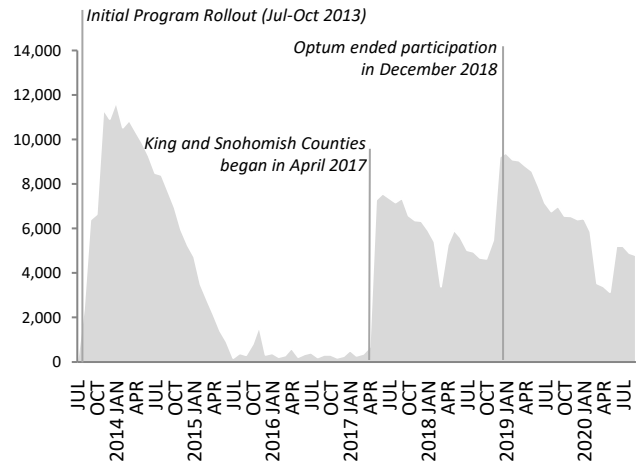
3. Identifying Target Population of Those Not Yet Enrolled

NOTES

- While a goal of the program is to increase enrollment and engagement, a particular subgroup of those not enrolled are the highest priority. This Target Population of Those Not Yet Enrolled excludes
 - Beneficiaries eligible for their first month (*a month enrollment lag is required to meet 30 day notification requirements*).
 - Beneficiaries with a PRISM Risk Score less than 1.5 (*an unofficial policy used to manage capacity*).
 - American Indian and Alaska Native Beneficiaries (*not passively enrolled per official policy*).
- Given the exclusions, the Target Population of Those Not Yet Enrolled has consistently been on a downward trend after each expansion noted in the plot below (initial program rollout, expansion to King/Snohomish Counties, end of Optum's participation in program).

Target Population of Those Not Yet Enrolled

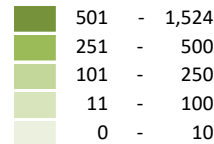
	Demonstration Eligible			Eligible, Not Yet Enrolled		
	NUMBER	NUMBER	PERCENT	NUMBER	NUMBER	PERCENT
JUL	31,542	7,156	23%	11,979	7,156	60%
AUG	31,439	6,761	22%	11,409	6,761	59%
SEP	31,084	7,013	23%	11,588	7,013	61%
OCT	30,915	6,572	21%	11,263	6,572	58%
NOV	30,668	6,545	21%	11,042	6,545	59%
DEC	30,527	6,414	21%	10,873	6,414	59%
2020 JAN	30,829	6,450	21%	10,967	6,450	59%
FEB	29,839	5,860	20%	10,283	5,860	57%
MAR	29,208	3,530	12%	9,999	3,530	35%
APR	28,734	3,401	12%	9,510	3,401	36%
MAY	28,550	3,141	11%	9,096	3,141	35%
JUN	29,184	5,218	18%	9,671	5,218	54%
JUL	29,342	5,214	18%	9,164	5,214	57%
AUG	28,486	4,901	17%	8,429	4,901	58%
SEP	28,714	4,795	17%	8,768	4,795	55%



Target Population of Those Not Yet Enrolled

Target Population of Those Not Yet Enrolled, by Residential County

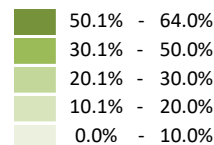
Total Count of Target Population of Those Not Yet Enrolled, September 2020



Top 10 Counties

RANK	COUNTY	Count
1	KING	1,524
2	THURSTON	580
3	KITSAP	410
4	GRAYS HARBOR	407
5	MASON	258
6	CLALLAM	250
7	LEWIS	226
8	PIERCE	193
9	SNOHOMISH	143
10	PACIFIC	141

Target Population of Those Not Yet Enrolled as Percent of Demonstration Eligible Beneficiaries, September 2020



Top 10 Counties

RANK	COUNTY	% OF ELIGIBLE
1	THURSTON	63.0%
2	MASON	62.3%
3	LEWIS	60.1%
4	PACIFIC	51.6%
5	KITSAP	47.5%
6	GRAYS HARBOR	39.0%
7	CLALLAM	37.9%
8	JEFFERSON	34.2%
9	GARFIELD	30.0%
10	KING	25.0%

4. Geographic Detail

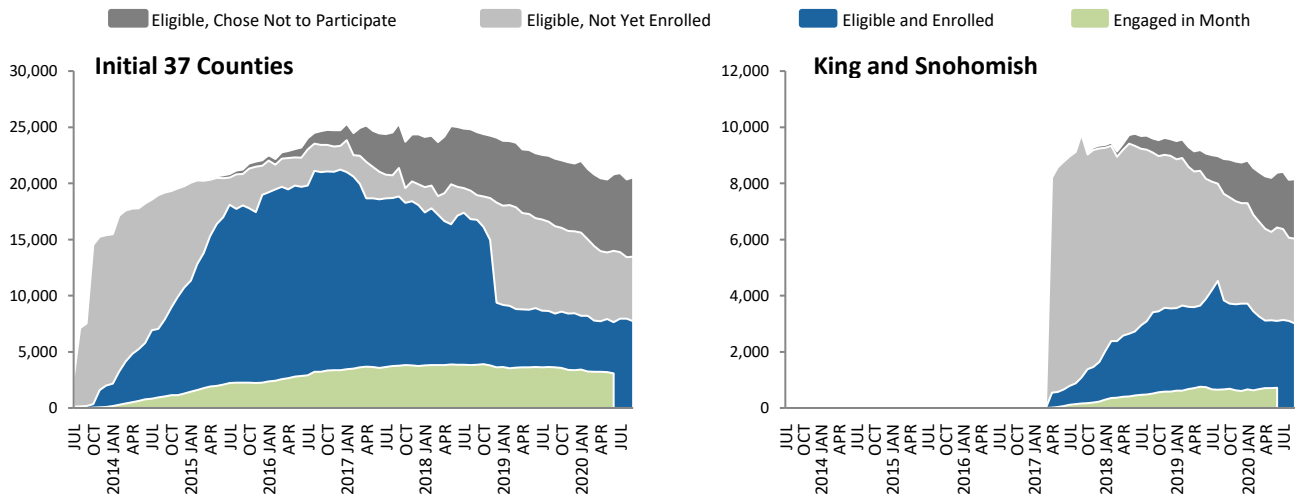
NOTES

- Health Homes was implemented in 14 counties in July 2013, 23 additional counties were added in October 2013.
- Health Homes was implemented in the remaining 2 counties (King and Snohomish) in April 2017.
- Due to 30 day notification requirements, newly eligible dual beneficiaries wait one month before passive enrollment.

Eligibility, Enrollment, and Engagement Detail (Initial 37 Counties vs. King and Snohomish Counties)

	Initial 37 Counties								King and Snohomish Counties							
	Eligible		Chose Not to Participate		Enrolled		Engaged		Eligible		Chose Not to Participate		Enrolled		Engaged	
	NUMBER	NUMBER	PERCENT ¹	NUMBER	PERCENT ¹	NUMBER	PERCENT ²	NUMBER	PERCENT ²	NUMBER	NUMBER	PERCENT ¹	NUMBER	PERCENT ¹	NUMBER	PERCENT ²
	JUL	22,535	5,743	25%	8,666	38%	3,615	42%	9,002	940	10%	4,210	47%	664	16%	
	AUG	22,463	5,882	26%	8,639	38%	3,654	42%	8,972	979	11%	4,527	50%	646	14%	
	SEP	22,210	6,012	27%	8,412	38%	3,628	43%	8,870	1,241	14%	3,828	43%	659	17%	
	OCT	22,065	6,017	27%	8,574	39%	3,573	42%	8,845	1,339	15%	3,718	42%	684	18%	
	NOV	21,881	6,122	28%	8,395	38%	3,405	41%	8,783	1,416	16%	3,689	42%	624	17%	
	DEC	21,785	6,055	28%	8,438	39%	3,373	40%	8,738	1,441	16%	3,716	43%	601	16%	
2020	JAN	22,012	6,406	29%	8,221	37%	3,407	41%	8,813	1,512	17%	3,719	42%	659	18%	
	FEB	21,285	6,254	29%	8,199	39%	3,264	40%	8,549	1,658	19%	3,440	40%	632	18%	
	MAR	20,810	6,398	31%	7,795	37%	3,227	41%	8,393	1,765	21%	3,246	39%	672	21%	
	APR	20,470	6,514	32%	7,717	38%	3,220	42%	8,258	1,876	23%	3,112	38%	704	23%	
	MAY	20,352	6,496	32%	7,912	39%	3,180	40%	8,192	1,920	23%	3,120	38%	704	23%	
	JUN	20,794	6,795	33%	7,651	37%	3,069	40%	8,384	1,955	23%	3,106	37%	724	23%	
	JUL	20,928	7,040	34%	7,957	38%	pending	-	8,408	2,037	24%	3,138	37%	pending	-	
	AUG	20,351	6,931	34%	7,955	39%	pending	-	8,130	2,067	25%	3,099	38%	pending	-	
	SEP	20,561	7,091	34%	7,718	38%	pending	-	8,148	2,122	26%	3,010	37%	pending	-	

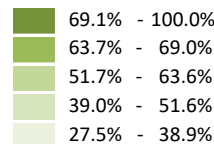
¹Denominator is Health Home eligible dual beneficiaries. ²Denominator is the Health Home enrolled dual beneficiaries.



Enrolled Health Home Dual Beneficiaries Ever Engaged by Residential County



Percent of Enrolled Dual Beneficiaries who were Ever Engaged June 2020



Top 10 Counties

RANK	COUNTY	% EVER ENGAGED
1	WAHKIAKUM	87.5%
2	COWLITZ	83.8%
3	COLUMBIA	83.3%
4	KITTITAS	81.0%
5	CLARK	73.9%
6	PACIFIC	73.7%
7	SKAGIT	69.6%
8	WHATCOM	69.2%
9	FRANKLIN	68.8%
10	CHELAN	67.5%

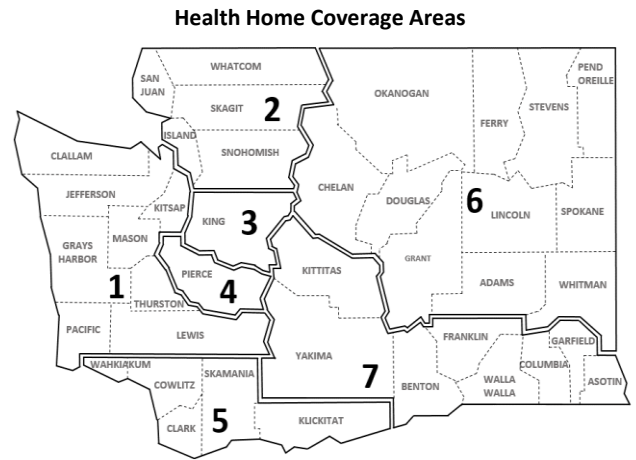
5. Lead Entity Detail

NOTES

- Health Home dual beneficiaries are enrolled with one of the twelve Health Home Lead Entities.
- There are three types of Health Home Lead Entities.
 - Area Agencies on Aging (AAA)
 - Community-Based Organizations (CBO)
 - Managed Care Organizations (MCO)
- Optum stopped participation in the Health Home program in December 2018.

Health Home Lead Entity Coverage Area Map for Dual Beneficiaries

Type	Lead Entity	HH Start Date	HH Coverage Area							
			1	2	3	4	5	6	7	
AAA	Northwest Regional Council AAA	OCT 2013								
	Olympic AAA	FEB 2019	*							
	Pierce County AAA	DEC 2018								
	Southeast WA Aging and LTC AAA	JUL 2013								
	Southwest AAA	DEC 2018								
CBO	Community Choice	OCT 2013								
	Full Life Care	APR 2017								
	Elevate Health	Aug 2019								
MCO	Community Health Plan of Washington	JUL 2013								
	Coordinated Care	JAN 2018								
	Molina	JUL 2016								
	United Health Care Community Plan	JUL 2013								

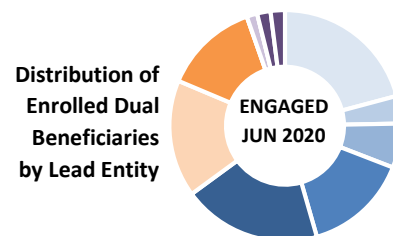
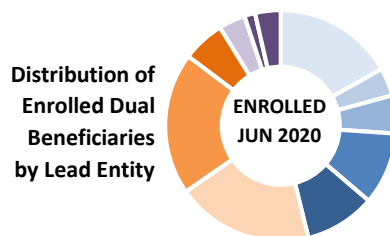


*partial coverage area

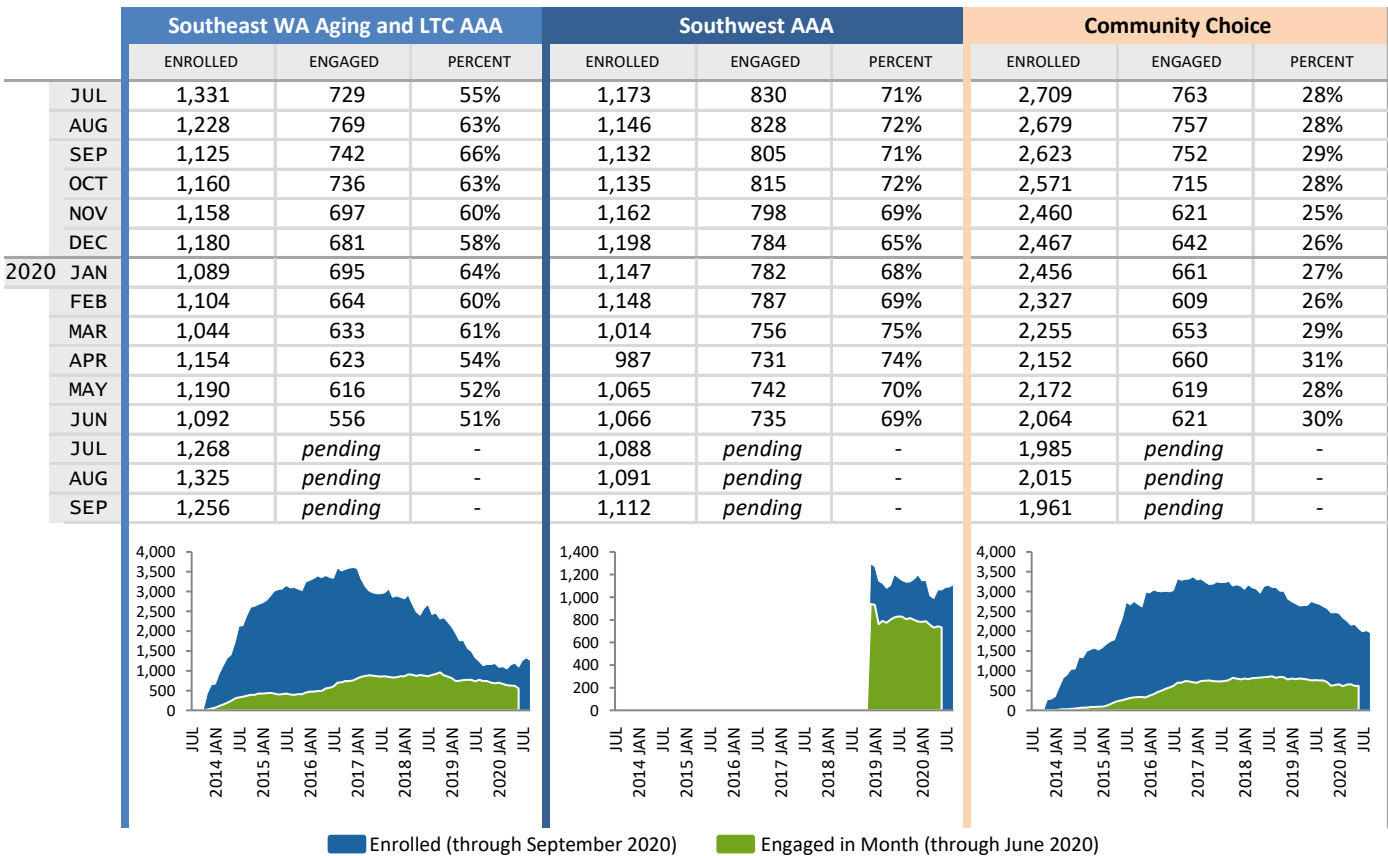
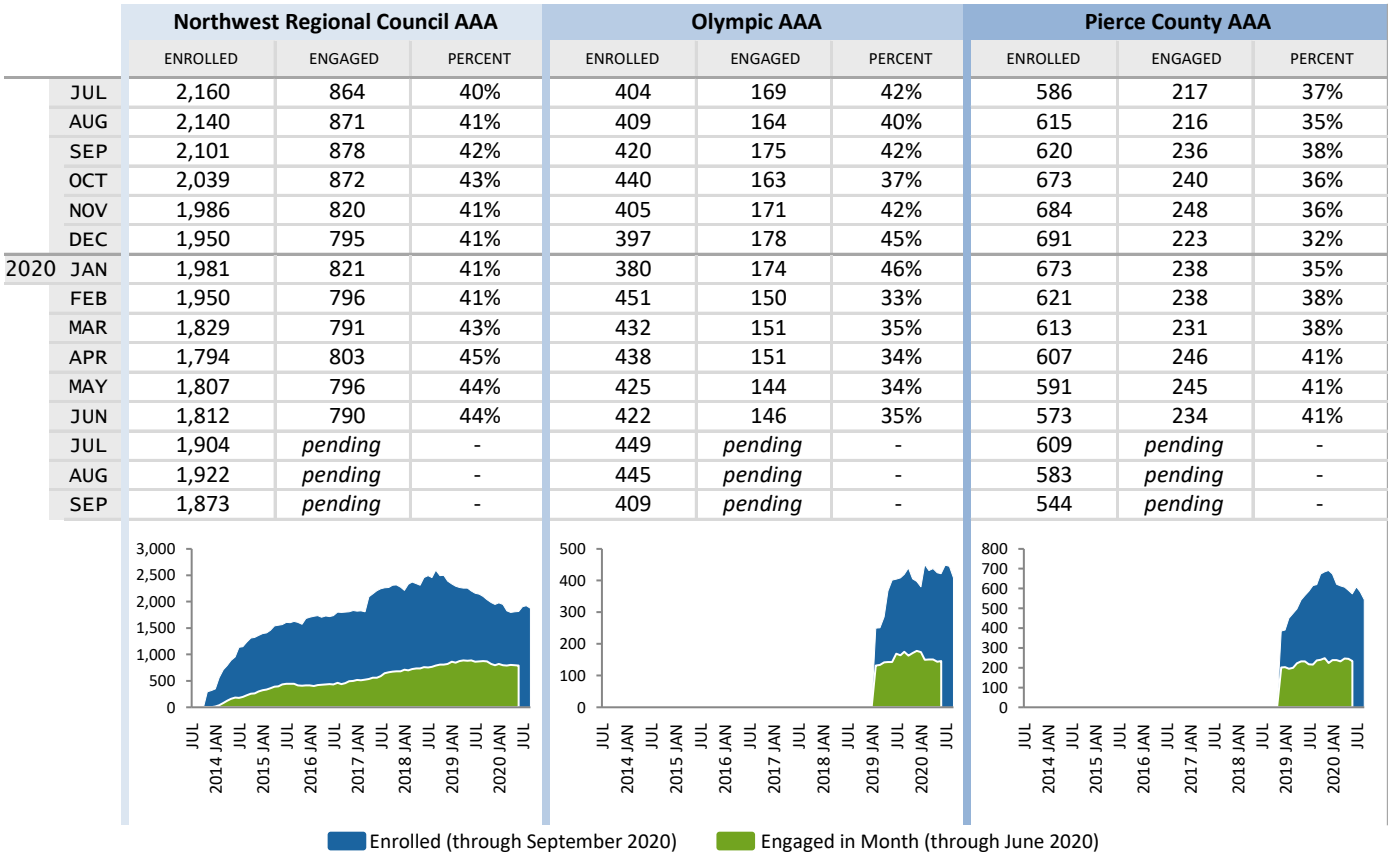
Health Home Dual Beneficiary Enrollment and Engagement Summary by Lead Entity

Type	Lead Entity	Enrollment Summary June 2020			Engagement Summary June 2020			
		ENROLLED	% OF TOTAL ENROLLED BY LEAD	RANK	ENGAGED	% OF ENROLLED ENGAGED IN MONTH	% OF TOTAL ENGAGED BY LEAD	RANK
AAA	Northwest Regional Council AAA	1,812	17%	3	790	44%	21%	1
	Olympic AAA	422	4%	8	146	35%	4%	7
	Pierce County AAA	573	5%	7	234	41%	6%	6
	Southeast WA Aging and LTC AAA	1,092	10%	4	556	51%	15%	4
	Southwest AAA	1,066	10%	5	735	69%	19%	2
CBO	Community Choice	2,064	19%	2	621	30%	16%	3
	Full Life Care	2,143	20%	1	504	24%	13%	5
	Elevate Health	638	6%	6	0	0%	0%	-
MCO	Community Health Plan of Washington	401	4%	9	56	14%	1%	10
	Coordinated Care ¹	<11	-	11	0	-	0%	-
	Molina	162	2%	11	71	44%	2%	9
	United Health Care Community Plan	385	4%	10	76	20%	2%	8

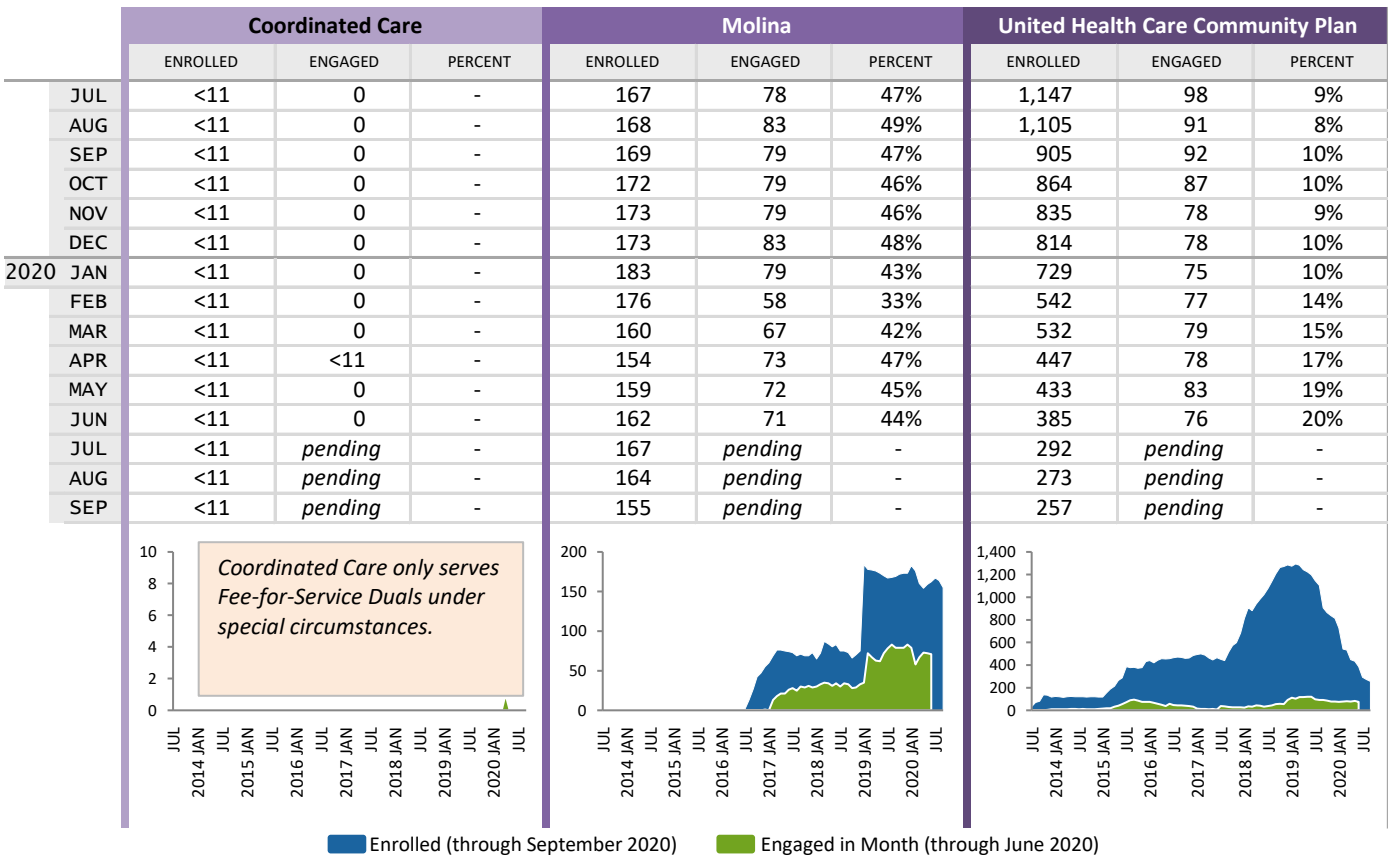
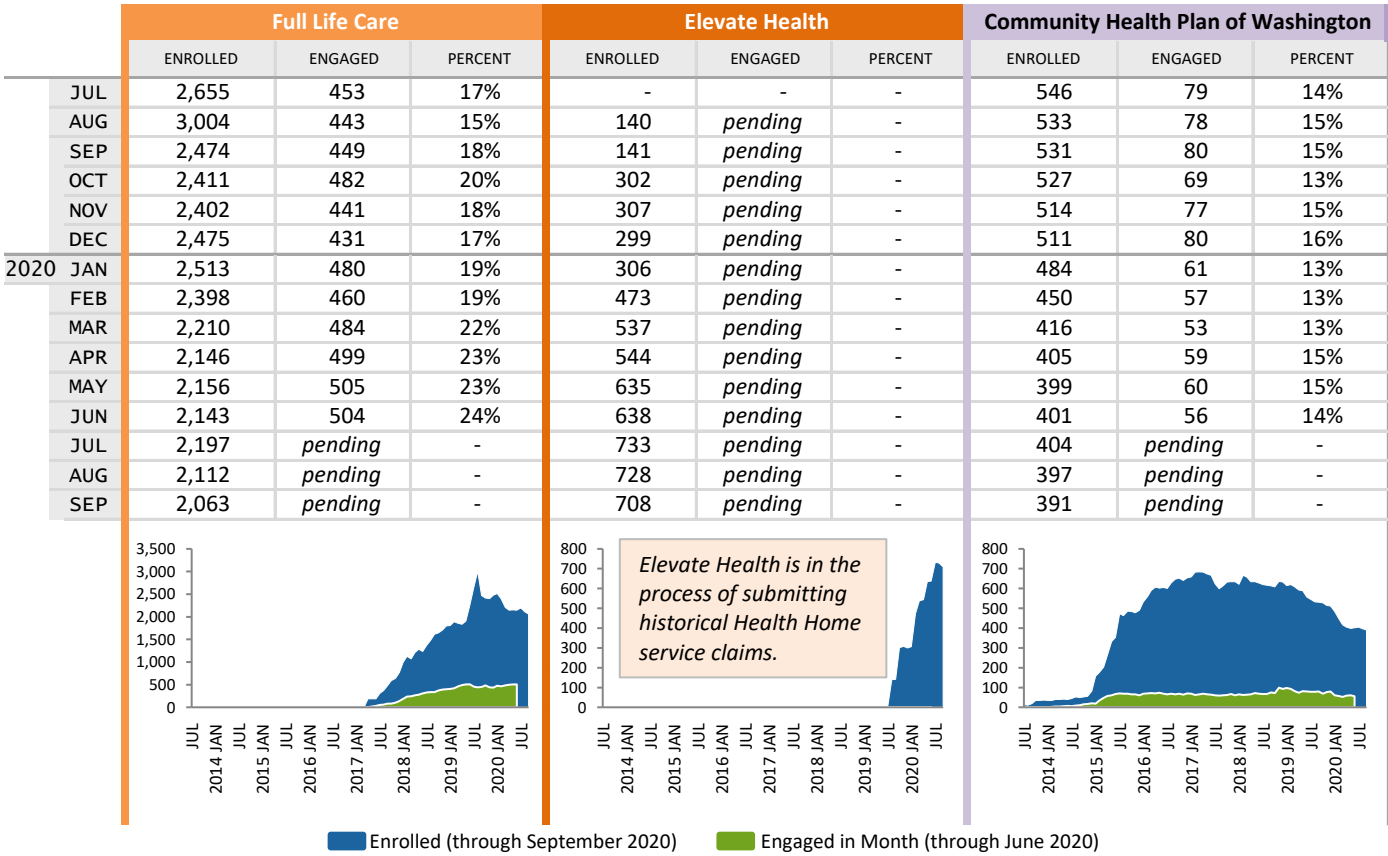
¹Coordinated Care only serves Fee-for-Service Duals under special circumstances.



Health Home Dual Beneficiary Enrollment and Engagement by Lead Entity



Health Home Dual Beneficiary Enrollment and Engagement by Lead Entity (cont.)



6. Government Accountability Office (GAO) Measure Tracking and Results

- NOTES**
- The tracking grid below reflects the status of the GAO Measure Collection Lists returned by each Health Home Lead.
 - The Measure Results reflect GAO Measure 4 as calculated on the Final GAO Results Lists distributed to the Health Home Leads.
 - For Demonstration Year 5 (the period of November 2017 through October 2018), the state is deemed to pass the quality performance goal if all Health Home Leads report their GAO measure. For Demonstration Year 6, the benchmark for GAO Measures is 63% for Assessment Completed, and 44% for Care Plan Completed.

Health Home Lead Entity GAO Measure Collection List Tracking

Type	Lead Entity	Demonstration Year 6 2019					Demonstration Year 7 2020							
		JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
AAA	Northwest Regional Council AAA													
	Olympic AAA													
	Pierce County AAA													
	Southeast WA Aging and LTC AAA													
	Southwest AAA													
CBO	Community Choice													
	Full Life Care													
	Pierce County ACH													
MCO	Community Health Plan of Washington													
	Coordinated Care													
	Molina													
	United Health Care Community Plan													

N/A - No Collection List sent to HH Lead Entity (no new enrollees/not yet created)
 Collection List Completed and Returned
 Collection List Not Yet Returned

Health Home Lead Entity GAO Measure Results (Demonstration Year 5, and *Partial Year 6 Results)

GAO Measure 4: The percentage of Demonstration eligible Medicare-Medicaid enrollees who are willing to participate and could be reached, or who had fewer than 3 documented outreach attempts within 90 days, who had a health action plan completed within 90 days of initial enrollment.

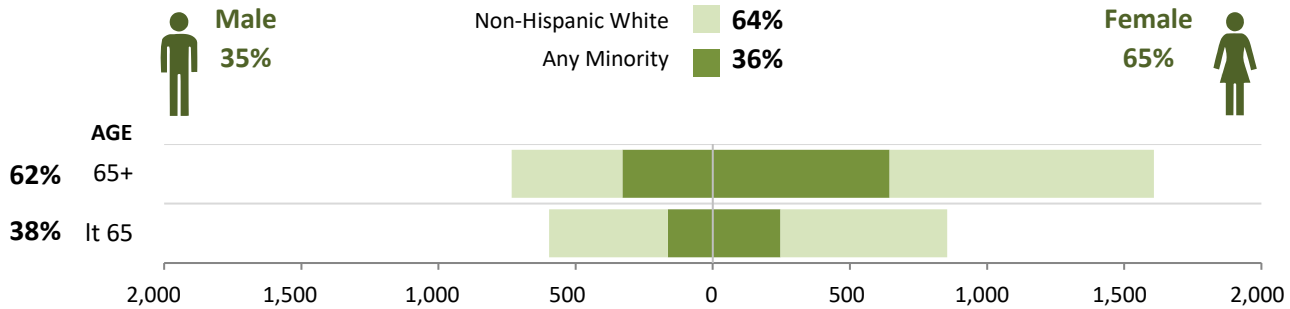
Type	Lead Entity	Demonstration Year 5 (Nov 2017 - Oct 2018)			Demonstration Year 6 (Nov 2018 - Jul 2019*)		
		NUMERATOR	DENOMINATOR	RATE	NUMERATOR	DENOMINATOR	RATE
AAA	Northwest Regional Council AAA	126	622	20.3%	113	289	39.1%
	Olympic AAA	-	-	-	<11	33	-
	Pierce County AAA	-	-	-	19	67	28.4%
	Southeast WA Aging and LTC AAA	180	525	34.3%	58	94	61.7%
	Southwest AAA	-	-	-	76	99	76.8%
CBO	Community Choice	141	543	26.0%	45	297	15.2%
	Full Life Care	227	1,047	21.7%	149	363	41.0%
	Elevate Health	-	-	-	-	-	-
	Optum (ended participation in Dec 18)	119	1,658	7.2%	-	-	-
MCO	Community Health Plan of Washington	<11	69	-	0	<11	-
	Coordinated Care	0	0	-	0	0	-
	Molina	0	<11	-	0	0	-
	United Health Care Community Plan	33	489	6.7%	<11	100	-
TOTAL		832	4,957	16.8%	474	1,346	35.2%

* The GAO Measure Results Period will expand as the Final GAO Results Lists are distributed to the Leads

7. Demographic Details and Serious Mental Illness

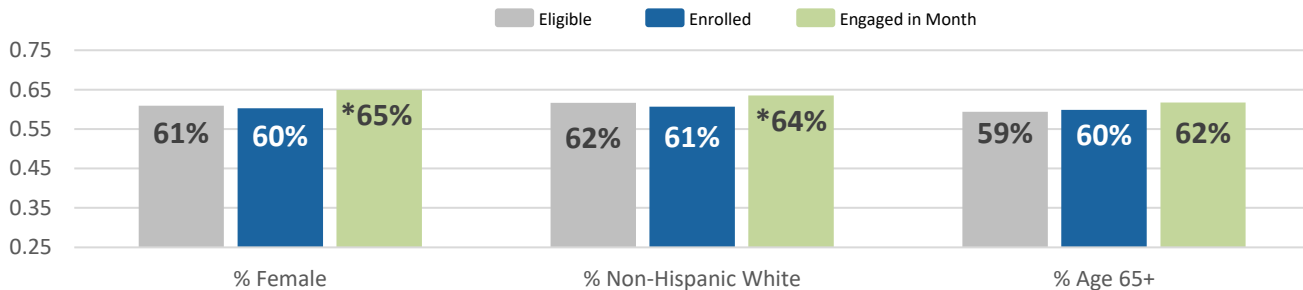
- NOTES**
- A Minority Engagement Workgroup made up of staff from the Health Care Authority, the Department of Social and Health Services, and the Health Home Leads has been created to address engaging clients from underserved communities (including those with Serious Mental Illness).
 - Demographic information is obtained from the ProviderOne (Medicaid) database.
 - Any Minority includes any category besides Non-Hispanic White (including Hispanic, Other, and Unknown/Not Provided).

Demographic Breakdown of Engaged Dual Beneficiaries, June 2020



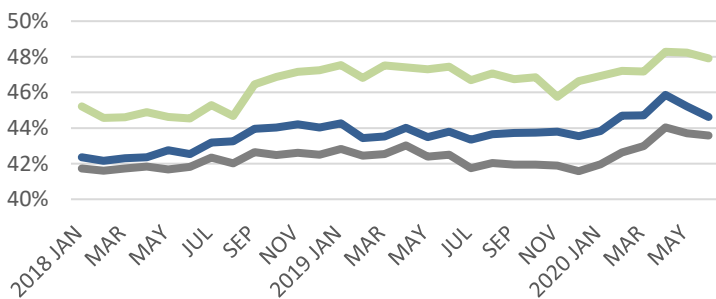
The percentage of Female, and of Non-Hispanic White Dual Beneficiaries are higher* in the Engaged population than in the Eligible, or Enrolled populations in June 2020 (*p<0.001).

The percentage of Age 65+ is more consistent between these populations, and none of the percentages have fluctuated much over time.



The percentage of Dual Beneficiaries with an indication of Serious Mental Illness in the last 15 months are higher* in the Engaged population than in the Eligible, or Enrolled populations in June 2020 (*p<0.001).

This trend has held since January 2018 when Serious Mental Illness Indication was first tracked.



- NOTES**
- Serious Mental Illness is indicated by a diagnosis in the CDPS psychiatric risk groups characterized by the following representative conditions: schizophrenia and related psychotic disorders; mania and bipolar disorders; major recurrent depression.
 - The indication of SMI is based on Medicaid and Medicare data, and has been extracted from PRISM beginning in 2018.

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 29
INTEGRATING CARE FOR
BENEFICIARIES OF MEDICARE
AND MEDICAID –
A WHITE PAPER**



IDEAS
ACTION
RESULTS

Integrating Care for Beneficiaries Eligible for Medicare and Medicaid: An Update

WHITE PAPER

APRIL 2020

Bipartisan Policy Center

APPENDIX 29

INTEGRATING CARE FOR BENEFICIARIES ELIGIBLE FOR MEDICARE & MEDICAID

STAFF

Director, Health Policy

Katherine Hayes

Senior Policy Analyst, Health
Project

G. William Hoagland

Senior Vice President

Lisa Harootunian

HEALTH PROJECT

Eleni Salyers

Project Associate, Health Project

Kevin Wu

Policy Analyst, Health Project

Under the leadership of former Senate Majority Leaders Tom Daschle and Bill Frist, M.D., BPC's Health Project develops bipartisan policy recommendations that will improve health care quality, lower costs, and enhance coverage and delivery. The project focuses on coverage and access to care, delivery system reform, cost containment, chronic and long-term care, and rural and behavioral health.

ADVISORS

The Bipartisan Policy Center staff produced this white paper in collaboration with a distinguished group of senior advisors and experts, including Sheila Burke, Jim Capretta, and Chris Jennings. BPC would also like to thank Henry Claypool and Tim Westmoreland for their contributions to this white paper.

ACKNOWLEDGMENTS

BPC would like to thank Arnold Ventures for its generous support.

DISCLAIMER

The findings and recommendations expressed herein do not necessarily represent the views or opinions of BPC's founders or its board of directors.



Table of Contents

5 OVERVIEW

7

BACKGROUND ON
DUAL-ELIGIBLE INDIVIDUALS

11

INTEGRATION OF MEDICARE AND MEDICAID COVERAGE AND
FINANCING

18 CONCLUSION

Glossary of Terms

Activities of Daily Living (ADLs)

Assistant Secretary for Planning and Evaluation (ASPE)

Center for Medicare and Medicaid Innovation (CMMI)

Centers for Disease Control and Prevention (CDC)

Centers for Medicare and Medicaid Services (CMS)

Children’s Health Insurance Program (CHIP)

Calendar Year (CY)

Dual-Eligible Special Needs Plan (D-SNP)

Fee-for-service (FFS)

Financial Alignment Initiative (FAI)

Fully-Integrated Dual-Eligible Special Needs Plan (FIDE-SNP)

Highly-Integrated Dual-Eligible Special Needs Plan (HIDE-SNP)

Long-Term Services and Supports (LTSS)

Managed Long-Term Services and Supports (MLTSS)

Medicaid and CHIP Payment and Access Commission (MACPAC)

Medicare Advantage (MA)

Medicare Payment and Advisory Commission (MedPAC)

Medicare-Medicaid Coordination Office (MMCO)

Medicare-Medicaid Plan (MMP)

Program of All-Inclusive Care for the Elderly (PACE)

U.S. Department of Health and Human Services (HHS)

Overview

The Bipartisan Policy Center is continuing its efforts to improve quality of care through the integration of Medicare and Medicaid services for individuals who are eligible for both programs.ⁱ These Medicare-Medicaid beneficiaries, commonly known as “dual-eligible individuals,” must navigate two separate programs with different benefits and eligibility requirements. For most individuals, this would be daunting, but for dual-eligible individuals and their families, who are often dealing with chronic conditions and functional limitations, these challenges can be overwhelming.

In August of 2019, BPC began work on policy recommendations to improve care for dual-eligible individuals. In recent months however, the COVID-19 outbreak has become an immediate threat to this vulnerable population. According to the Centers for Disease Control and Prevention (CDC), older adults, especially those above age 65, and individuals of any age with serious underlying medical conditions, such as lung disease, heart conditions, and those undergoing cancer treatment, are at a higher risk of experiencing severe cases of COVID-19.¹ Additionally, individuals living in nursing homes or long-term care facilities are at increased risk of exposure to the virus. Because many dual-eligible individuals fall into one or more of the CDC’s high-risk categories, we believe it is necessary to broaden the scope of the project to include recommendations to limit exposure to COVID-19 for this population. While not directly addressed in this white paper, we hope to include recommendations based on stakeholder feedback in our final report.

In recent years, policymakers have sought to better integrate Medicare and Medicaid services for the estimated 12.2 million dual-eligible individuals.^{ii 2} When done well, clinical health, behavioral health,

ⁱ Previous reports from the Bipartisan Policy Center that address dual-eligible individuals include:

Delivery System Reform: Improving Care for Individuals Dually Eligible for Medicare and Medicaid, September 2016. *A Policy Roadmap for Individuals with Complex Care Needs*, Jan 2018. *Next Steps in Chronic Care: Expanding Innovative Medicare Benefits*, Jul 2019.

- ii For the purposes of this paper, when we use the term “integration” we are referring to alignment of Medicare and Medicaid program administrative requirements, financing, benefits, and care delivery. Integration may also mean that Medicare and Medicaid services are coordinated and are provided seamlessly to an eligible individual through a single point of contact.

social services, and LTSS are coordinated and provided seamlessly to an eligible individual. Integration efforts have included establishing the Medicare-Medicaid Coordination Office (MMCO) to coordinate programs within the Centers for Medicare & Medicaid Services (CMS), permanent authorization of Medicare Advantage plans designed to serve dual-eligible individuals, facilitating integration by states, and establishing demonstration programs. Many stakeholders, however, believe that more should be done to integrate care.

Integration for dual-eligible individuals is especially challenging, given the heterogeneity of the population and the unique and significant needs of the various sub-populations. Many have multiple chronic conditions and may need assistance with activities of daily living, or ADLs, such as bathing or dressing.³ They may have mental illnesses, cognitive impairments, physical limitations, or a combination of these conditions. While the majority are older Americans, 39% of dual-eligible individuals are under age 65,⁴ and less than 10% are enrolled in programs or care models that integrate Medicare and Medicaid services.⁵

This is the first of two white papers on the integration of care for dual-eligible individuals. The purpose of this paper is to provide necessary background on this population of low-income Medicare beneficiaries. The paper discusses important demographics, eligibility for Medicare and Medicaid, covered services under each program, and the implications of being enrolled in both programs. It also discusses different types of integration of Medicare and Medicaid services, and how state and federal policymakers have worked to make the programs function better for those who are enrolled, what has worked, and what has not. The second white paper provides options for consideration by state and federal policymakers, as well as stakeholders representing consumers, providers, and plans. BPC will issue final recommendations in the summer of 2020 and is seeking comments on the second paper.

Background on Dual-Eligible Individuals

To understand challenges associated with integrating care for dual-eligible individuals, it is helpful to review key characteristics of the population, the pathways to becoming a dual-eligible individual, how the programs are administered, and what services are covered by both programs. The following is designed to provide the necessary background on these issues.

Medicare Eligibility and Benefits

In 2018, approximately 85% of the nearly 60 million Medicare beneficiaries qualified for Medicare on the basis of age.⁶ The remaining 15% were eligible based on disability.⁷ For those with disabilities, Medicare eligibility is triggered for individuals who qualify for Social Security Disability Income payments for a permanent disability for at least 24 months.⁸ Individuals may also qualify for Medicare coverage based on a diagnosis of End-Stage Renal Disease.⁹ These individuals qualify for Medicare irrespective of their age, but make up only about one percent of the Medicare population.¹⁰

Medicare covers clinical health services such as inpatient hospitalization, professional office visits, outpatient surgical procedures, and in certain circumstances, home health care, skilled nursing facility care, rehabilitation services and other services. Medicare is divided into four parts, with different financing and cost-sharing requirements:¹¹

- Medicare Part A is financed through employer and employee payroll taxes and generally covers inpatient services and limited stays at skilled nursing facilities.¹²
- Medicare Part B – for which individuals pay a monthly premium that covers the majority of Part B costs – covers professional services furnished by physicians and other non-physician practitioners, hospital outpatient facility and ambulatory surgical center services, certain home health services, dialysis services, and clinical-laboratory services.¹³
- Medicare Part C is Medicare’s managed care program, known as Medicare Advantage, which covers services covered under Parts A, B, and may also cover Part D services, as outlined below.
- Medicare Part D covers prescription drugs and is offered through Medicare Advantage health plans or as a stand-alone plan for those who choose to remain in Medicare fee-for-service.¹⁴

Total Medicare spending for calendar year 2018 was \$741 billion for all beneficiaries.¹⁵ Net spending, when taking into account beneficiary premiums and cost-sharing, was \$605 billion in 2018.¹⁶

Medicaid Eligibility and Benefits

Medicaid is a joint federal-state program that provided health care coverage to an estimated 86.7 million low-income individuals in FY 2018.¹⁷ Medicaid serves low-income children and their parents, pregnant women, people with disabilities, and individuals age 65 and older.¹⁸ In the 37 states, including the District of Columbia, that have expanded Medicaid eligibility under the Affordable Care Act, other low-income adults with incomes up to 138% of the federal poverty level are also covered.¹⁹ Total Medicaid spending was \$621 billion in FY 2018 for all beneficiaries.²⁰

Medicare beneficiaries qualify for Medicaid if they have low incomes and are aged, blind, or have a disabling condition. For dual-eligible individuals who receive full benefits, the Medicaid program covers clinical health services that are not covered by Medicare, as well as non-clinical services, such as targeted case-management services and transportation to medical appointments. States must cover certain mandatory benefits under Medicaid, while other services are optional. Medicaid covers longterm services and supports (LTSS), which include services to address beneficiaries' deficits in ADLs in either an institutional setting for nursing facility residents or through personal-care services and other home and community-based services.²¹

Dual-Eligible Individuals

While most dual-eligible individuals are over age 65, there are 39% under age 65.²² About half of dual-eligible individuals first qualify for Medicare based on disability and about half qualify when they turn age 65.²³ The proportion of all individuals who qualify for Medicare based on disability and who are also eligible for Medicaid has grown from 44.3% in 2006 to 52.3% in 2018, according to the Medicare-Medicaid Coordination Office (MMCO) at the U.S. Department of Health and Human Services' Centers for Medicare and Medicaid Services, or CMS.²⁴

Dual-eligible individuals tend to have poorer health and functional status than those eligible for Medicare only. According to the MMCO, 41% have at least one mental health diagnosis, 49% receive LTSS and 60% have multiple chronic conditions.²⁵ The average dual-eligible individual receiving full Medicare and Medicaid benefits has six chronic conditions, while all other Medicare beneficiaries average only four.²⁶ Depression and Alzheimer's disease or related dementia were among the most prevalent conditions for full-benefit dual-eligible individuals.²⁷ As a result, those with multiple chronic conditions typically have higher utilization of services, such as emergency room visits, hospitalizations, and eventual need for LTSS. Accordingly, the HHS Office of the Assistant Secretary for Planning and Evaluation, or ASPE, has found that dual-eligible status was the most powerful predictor of poor Medicare outcomes among social risk factors.²⁸

Dual-eligible individuals are also more likely to have greater limitations in ADLs than non-dual eligible individuals.²⁹ In 2016, 26% of dual-eligible individuals had limitations in one to two ADLs, compared to 18% of nondual eligible individuals and 28% had limitations in three to six ADLs, compared to 9% of non-dual-eligible individuals.³⁰ As a result, dual-eligible individuals are among the most medically complex individuals and often have wide-ranging health care needs that require additional services and supports.³¹

Eligibility and Benefits

While all dual-eligible individuals are eligible for Medicare, their Medicaid benefits vary based on income. Full-benefit dual-eligible individuals are entitled to the full-range of medically-necessary Medicare benefits, as well as medically-necessary benefits covered under the Medicaid state plan. In 2018, full-benefit individuals numbered 8.7 million, or 71% of total dual-eligible individuals.³² Partial-benefit individuals, typically with incomes at or slightly above the federal poverty level, are eligible for all Medicare-covered services, but their Medicaid benefits are limited to the assistance with Medicare premiums, deductibles, and copays through the Medicare Savings Program. They are not eligible for Medicaid-covered services.³³

Many low-income Medicare beneficiaries who qualify as partial-benefit dual-eligible individuals are not enrolled in the Medicare Savings Program.³⁴ The cost of Medicare premiums, deductibles and co-payments may create a barrier to accessing care. In 2018, there were 3.5 million partial-benefit dual-eligible individuals, or 29% of total dual-eligible individuals.³⁵ Between 2006 and 2018, the total number of full-benefit and partial-benefit dual-eligible individuals has grown on average each year by 2.9%.³⁶

For full-benefit dual-eligible beneficiaries, Medicare is the primary payer of acute care and clinical health services. Medicare covers clinical health services such as hospitalization, physician office visits, surgical procedures, and in certain circumstances, skilled home health care, skilled nursing facility care, and rehabilitation services.³⁷ Medicaid is then responsible for covering Medicare premiums, cost-sharing, long-term care services and certain behavioral health services.

An ASPE report found that 67% of full-benefit dual-eligible individuals qualify for Medicare before also becoming eligible for Medicaid, and 27% qualify for Medicaid first.³⁸ Only about 5% of individuals become simultaneously eligible for both Medicare and Medicaid.³⁹ Of those who qualified for Medicare before Medicaid, 59% qualified for Medicare on the basis of age. For those who already had Medicare, 37% qualified for Medicaid because they met criteria established by the state based on income or another eligibility requirement. For example, states are permitted to provide Medicaid coverage to Medicare beneficiaries with incomes up to 300% of the SSI income limit. Another 22% qualified under Medicaid's Medically Needy spend-down.⁴⁰ Of those who follow the Medicaid-to-Medicare pathway to full-benefit dual-eligible status,

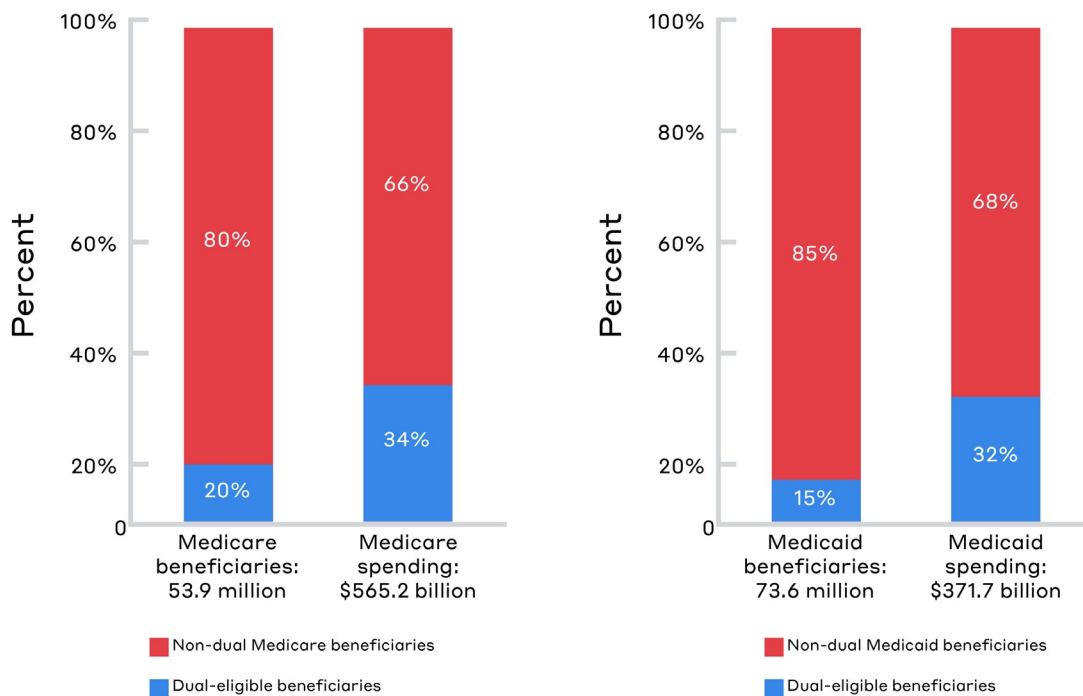
55% qualified for Medicare based on SSI eligibility, and 66% qualified based on disability.⁴¹

Spending

Given the severity of illness and disabilities, per-capita spending on dual-eligible individuals is more than three times higher than for Medicare-only beneficiaries.⁴² The average annual spending per dual-eligible individual in 2013 was approximately \$29,238.⁴³ The average annual spending for those covered only by Medicare came in significantly lower, at \$8,593 per person.⁴⁴

While dual-eligible individuals comprise 20% of the Medicare population, they account for 34% of total Medicare expenditures (see Figure 1).⁴⁵ Similarly, dual-eligible individuals comprise only 15% of the Medicaid population, but account for 32% of total Medicaid expenditures.⁴⁶ Dual-eligible individuals, including partial-benefit dual-eligible individuals, account for only 9.15% of those who have Medicare and/or Medicaid coverage, while their expenditures constitute 33.21% of total expenditures for both programs in 2012.⁴⁷ From 2012 to 2018, total expenditures for both programs have increased by 36%; the disproportionate cost of duals has likely increased accordingly but recent data is unavailable.⁴⁸

Figure 1: Dual-Eligible Beneficiaries as a Share of Medicare & Medicaid Enrollment and Spending, CY 2013



Source: MedPAC, MACPAC, Data book: *Beneficiaries dually eligible for Medicare Medicaid*. Jan 2018

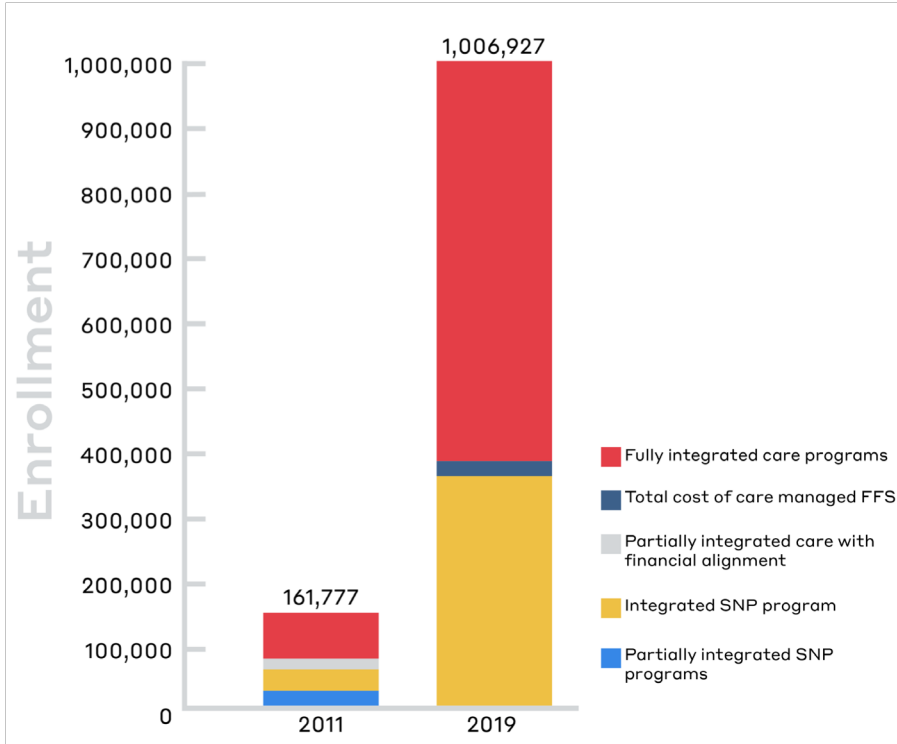
Integration of Medicare and Medicaid Coverage and Financing

Despite the availability of models that integrate Medicare and Medicaid, many dual-eligible individuals are enrolled in separate Medicare and Medicaid managed care plans that do not provide integrated care or care coordination for all services. There are many approaches to integration that include some level of care coordination. Delivery and payment models range from Medicare Advantage D-SNPs that offer all Medicare and Medicaid-covered services, to advanced versions of D-SNPs that meet greater coordination requirements, to PACE. The Center for Medicare and Medicaid Innovation, or CMMI, and MMCO within CMS have also partnered to

allow states to test capitated and managed fee-for-service demonstration models under the FAI that feature a high level of integration. Some models in each category have excelled in providing high-quality integrated care, while others have fallen short, posing a threat to patient health and creating disruptions in long-term beneficiary-provider relationships. While the number of dual-eligible individuals in integrated programs has grown significantly between 2011 and 2019 (see Figure 2), a relatively small percentage, roughly 8.25% according to MMCO, are enrolled in integrated programs.⁴⁹

Figure 2: Total Integrated Care Enrollment by

Program Type: 2011 and 2019



Source: Medicare-Medicaid Coordination Office, *FY 2019, Report to Congress*, p. 8ⁱⁱⁱ

iii From the report: [A]nalysis performed by the Integrated Care Resource Center, under contract with CMS. “Fully Integrated Programs/Models” include MMP, Fully Integrated Dual Eligible (FIDE) SNP, and PACE enrollment through July 2019. This category also includes the FIDE SNPs previously noted as “Legacy Medi-Medi Demo Programs” and categorized separately in previous reports. “Total Cost of Care Managed FFS” includes enrollment in the Washington Managed Fee-For-Service demonstration under the Medicare/Medicaid Financial Alignment Initiative. “Integrated SNP Program” enrollment includes programs in which a dually eligible individual receives both Medicare and Medicaid services from companion or aligned Medicare D-SNPs and Medicaid managed care plans; several state programs were reclassified from partially integrated to integrated to align with the integration standards for D-SNPs finalized in the 2020 Medicare Advantage and Part D final rule. “Partially Integrated Care with Financial Alignment” refers to the North Carolina Medicare Health Care Quality Demonstration, for which no 2019 information is included because the initiative had ended. No state data was available in July 2019 for “Partially Integrated SNP Program” enrollment. The 2019 analysis newly includes data from existing integrated care options in Oregon, select D-SNPs in California, and FIDE-SNPs and certain types of D-SNPs in Florida.

In recent years, Congress and CMS have made efforts to advance the integration of Medicare and Medicaid services for dual-eligible individuals by actively encouraging states to adopt more fully integrated programs. There are three main approaches that states can take to integrate Medicare and Medicaid:

- Dual-eligible special needs plans (D-SNPs);
- Program of All-Inclusive Care for the Elderly (PACE); and

- The Financial Alignment Initiative (FAI), a demonstration that integrates coverage and financing.

Dual-Eligible Special Needs Plans

Congress permanently authorized D-SNPs through the Bipartisan Budget Act of 2018.⁵⁰ That law also established new integration standards for D-SNPs and unified Medicare and Medicaid grievance and appeals procedures for certain D-SNPs beginning in contract year 2021.⁵¹

CMS released regulations in April 2019 implementing the new D-SNP requirements.⁵² Under the regulations, D-SNPs must meet the integration criteria beginning CY 2021. Plans must: (1) be a fully integrated dual-eligible special needs plan, called FIDE-SNP, or a highly integrated dual-eligible special needs plan, called HIDE-SNP,^{iv} or (2) notify the state Medicaid agency, or its designee, of hospital and skilled nursing facility admissions for at least one group of high-risk full-benefit dual-eligible individuals.⁵³ Beginning CY 2021 through CY 2025, CMS will impose the intermediate sanction of prohibiting new enrollment into a D-SNP if it determines the D-SNP does not meet the new integration standards.⁵⁴

iv The regulation, codified at 42 CFR § 422.2, defines a FIDE-SNP as a type of D-SNP: (1) that provides dual-eligible individuals access to Medicare and Medicaid benefits under a single entity that holds both an MA contract with CMS and a Medicaid managed care organization contract under section 1903(m) of the [SSA] with the applicable State; (2) whose capitated contract with the state Medicaid agency provides coverage, consistent with state policy, of specified primary care, acute care, behavioral health, and long-term services and supports, and provides coverage of nursing facility services for a period of at least 180 days during the plan year; (3) that coordinates the delivery of covered Medicare and Medicaid services using aligned care management and specialty care network methods for high-risk beneficiaries; and (4) that employs policies and procedures approved by CMS and the State to coordinate or integrate beneficiary communication materials, enrollment, communications, grievance and appeals, and quality improvement. The regulation, codified at 42 CFR § 422.2, defines a HIDE-SNP as a type of D-SNP offered by an MA organization that provides coverage, consistent with state policy, of long-term services and supports, behavioral health services, or both, under a capitated contract that meets one of the following arrangements— (1) the capitated contract is between the MA organization the Medicaid agency; or (2) the capitated contract is between the MA organization’s parent organization (or another entity that is owned and controlled by its parent organization) and the Medicaid agency.

D-SNPs must have a coordinated Medicare and Medicaid grievances and appeals process beginning CY 2020, while FIDE-SNPs and HIDE-SNPs with exclusively aligned enrollment must implement a unified Medicare and Medicaid grievances and appeals process beginning CY 2021.^{55, v} The unified grievances and appeals process will allow individuals to follow one resolution pathway at the plan level when filing a complaint or contesting an adverse coverage determination for Medicare non-Part D benefits and Medicaid services.⁵⁶

Enrollment in D-SNPs, which have the highest number of participants compared to other integrated plans, varies significantly by state, and includes both rural and urban populations. Texas, Arizona, and New Mexico – states with the largest populations

residing in frontier counties – have relatively high D-SNP enrollment.⁵⁷ Yet other rural states such as North Dakota, South Dakota, and Iowa have virtually no dual-eligible individuals enrolled in D-SNPs.⁵⁸ States with significant urban areas, including Florida, California, New York, and Massachusetts, have higher percentages of eligible individuals enrolled in D-SNPs.⁵⁹

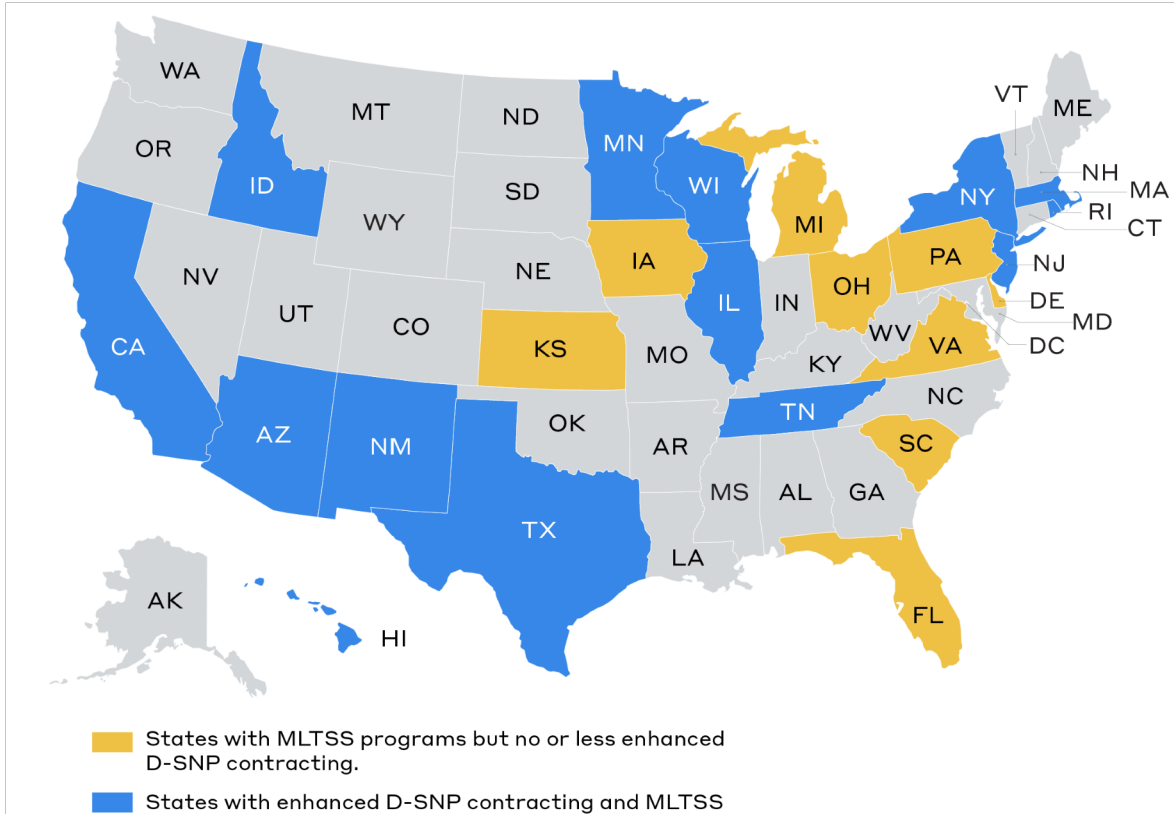
Information on health outcome and cost measures for dual-eligible individuals is insufficient in states with low enrollment in integrated care models, making comparisons difficult.⁶⁰ Overall, Medicaid outcomes by state may be skewed by this discrepancy as well. Even states such as Texas, which have robust integrated care models, have numerous counties that lack data, presenting an issue for researchers and policymakers, especially when it comes to examining disparities within counties and states.⁶¹

The Affordable Care Act required D-SNPs to either have contracts with states to provide Medicaid benefits or arrange for them to be provided to dual-eligible enrollees. Fourteen states, highlighted in blue in Figure 3, require D-SNPs to align with Medicaid managed long-term services and supports, or MLTSS, programs. Similarly, other states have developed Medicaid MLTSS programs with the potential to align D-SNP and MLTSS programs.^{62 63}

-
- v Exclusively aligned enrollment occurs when the state limits enrollment into a D-SNP to fullbenefit dual-eligible individuals who are also enrolled in a Medicaid MCO that is offered by the D-SNP’s MA organization, the D-SNP’s parent organization, or by another entity that is owned and controlled by the D-SNP’s parent organization.

Figure 3: States with Aligned D-SNPs and Managed Long-Term

Services and Supports Programs, 2017



Source: ASPE Report: U.S. Department of Health and Human Services, Assistant Secretary for Planning and Evaluation, *Integrating Care through Dual Eligible Special Needs Plans (D-SNPs): Opportunities and Challenges*, April 2019, 9.

Financial Alignment Initiative

Under the FAI, states may test any of three integrated care models: (1) a capitated managed care model; (2) a managed FFS model; or (3) a state-specific model.⁶⁴ Under the capitated managed care model, states enter into a single three-way contract with CMS and health plans.⁶⁵ Most states participating in the demonstration chose to implement the capitated managed care option. Plans operating under this contract, known as Medicare-Medicaid Plans, receive a blended capitated rate for all Medicaid and Medicare benefits.⁶⁶ Using this model, a plan provides all Medicare-covered and all or most Medicaid-covered services with a high level of care coordination.⁶⁷ As of December 2019, nine states are participating in the capitated managed care model.^{vi 68}

vi California, Illinois, Massachusetts, Michigan, New York, Ohio, Rhode Island, South Carolina, and Texas are participating in the capitated managed care model under the financial

In the managed FFS model, CMS and a state enter into an agreement that allows the state to provide coordinated care by building on the existing FFS delivery system.⁶⁹

Specifically, states have built on the Medicaid Health Homes model and Accountable Care Organizations.⁷⁰ Under this model, the state invests in care coordination and receives a retrospective performance payment if certain quality thresholds are met and Medicare achieves target savings levels.⁷¹ Only Washington State and Colorado have implemented this model.⁷² Colorado has ended its demonstration; Washington’s demonstration is ongoing.⁷³

The state-specific model allows states to implement innovative models that may include elements of demonstrations under the FAI or other types of delivery system reforms, such as alternative payment methodologies, value-based purchasing, or episode-based bundled payments.⁷⁴ As of December 2019, Minnesota is the only state participating in the state-specific model under the FAI with a focus on administrative alignment.⁷⁵

PACE

PACE is a permanently authorized program that offers comprehensive medical and social services, including those beyond Medicare and Medicaid – if deemed necessary – to those above age 55 who need nursing home-level care. Almost all PACE enrollees are dual-eligible individuals and the care model is centered on adult day care centers with each patient taken care of by an interdisciplinary team.⁷⁶ While PACE represents a high-degree of Medicare-Medicaid integration, it is not widely available and less than 50,000 people are enrolled given the eligibility limitations and start-up costs associated with establishing adult day care centers.

Program Evaluations

Dual-eligible individuals enrolled in integrated models in some areas generally experience some reductions in health care utilization compared to their counterparts not in integrated models, according to a July 2019 MACPAC report – although evaluations of specific integrated models make it difficult to generalize about the effects of integrated care broadly.⁷⁷ According to the report, individuals in integrated models generally experienced decreases in hospitalizations and hospital readmissions.⁷⁸ That is consistent with other studies, which have reported higher beneficiary satisfaction in integrated models than in non-integrated Medicaid FFS arrangements.⁷⁹

At the same time, findings are mixed for use of emergency department services, LTSS, other services, and beneficiary experience related to communicating with health plans and understanding benefits.⁸⁰ Care coordination between Medicare and Medicaid services can be difficult due to lack of access each program has to the other program’s data,⁸¹ but recent demonstrations under MMCO and CMMI have emphasized the

alignment initiative. Virginia participated in the capitated managed care model, but ended its demonstration in December 2017.

incorporation of care coordination into integrated models and, as mentioned earlier, CMS has issued new rules for D-SNPs that require further coordination and unification.

Early cost results are also promising but limited. Lower per-person Medicare spending was associated with some integrated care models, but few evaluations have been able to review changes in associated Medicaid spending due to lack of recent Medicaid data.⁸² The new Transformed Medicaid Statistical Information System, or T-MSIS, is expected to provide more information in the near future on Medicaid spending and service use in integrated models.

The MMCO has reported increased access to care coordination within the capitated model demonstrations under its FAI through metrics including increases in completion of health risk assessments and care plans.⁸³ Many of the states participating in FAI faced declines in enrollment that meant participation was lower than expected.⁸⁴ Washington State did see savings, with the caveat that the savings were in Medicare and did not include the effect of the demonstration on Medicaid.⁸⁵

Studies evaluating D-SNPs have demonstrated evidence of reductions in hospitalizations and hospital readmissions. One study compared individuals in California's SCAN plan with Medicare FFS individuals in the state, and found 14% lower rates of preventable hospitalizations and 25% lower rates of hospital readmissions.⁸⁶ Another study found a 54% decrease in hospitalizations and a 24% decrease in hospital readmissions in the Visiting Nurse Service of New York's Choice health plans.⁸⁷ D-SNPs have also been associated with reductions in long-stay and end-of-life care nursing facility entries⁸⁸ and reductions in per-person Medicare spending, such that a 1% increase in D-SNPs penetration was associated with a 0.2% reduction in Medicare spending per beneficiary.⁸⁹

Because traditional fee-for-service providers in Medicare and Medicaid have no reporting requirements, comparing D-SNPs to FFS is not possible. However, D-SNPs consistently performed higher than MA plans. In a study conducted by the Government Accountability Office, D-SNP performed better on process of care and health outcomes with similar utilization compared to traditional Medicare Advantage Plans.⁹⁰ Specifically, they performed better on the majority of process measures and performed better on all outcomes measures.⁹¹

Studies evaluating PACE have demonstrated reductions in inpatient hospital use,^{92, 93, 94} hospitalizations,⁹⁵ and length of stay.⁹⁶ Specifically, PACE participants compared to a matched group in one study experienced reduced hospitalization rates over a two-year period and a shorter length of stay when hospitalized, with an average reduction of 0.6 hospital days per month, even though they had higher levels of hospitalization six months prior.⁹⁷ The Assistant Secretary for Planning and Evaluation did note that limitations of PACE, like the reliance on adult day care centers, have led to slow growth in enrollment and more-scalable and permanent options were necessary for the integration of care.⁹⁸

Conclusion

While the evidence is still outstanding on the potential for long-term savings for demonstration projects that fully integrate care for dual-eligible enrollees, it is clear this population must have a better coordinated and more seamless system of care. Even those without serious medical or functional impairment should not be asked to navigate two separate programs for services without full accountability on the programs for coordination of care. The current bifurcated system should not continue. BPC health care leaders believe states are in the best position to integrate Medicare and Medicaid services and these options encourage states to move forward with integration. Over the long-term, better integration and care coordination will lead to a better enrollee experience, improve quality of care, eliminate inefficiencies, and result in long-term savings.

Endnotes

- 1 Centers for Disease Control and Prevention, *Coronavirus Disease 2019 (COVID-19): People who are at higher risk for severe illness*, March 2020. Available at: <https://www.cdc.gov/coronavirus/2019-ncov/specific-groups/people-at-higher-risk.html>
- 2 Centers for Medicare and Medicaid Services, Medicare-Medicaid Coordination Office, *Data Analysis Brief: Medicare-Medicaid Dual Enrollment 2006 through 2018*, September 2019, 1.
Available at: <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-MedicaidCoordination/Medicare-Medicaid-Coordination-Office/DataStatisticalResources/Downloads/MedicareMedicaidDualEnrollmentEverEnrolledTrendsDataBrief2006-2018.pdf>.
- 3 MedPAC and MACPAC, *Data Book: Beneficiaries Dually-eligible for Medicare and Medicaid*, January 2018, 38.
Available at: https://www.macpac.gov/wp-content/uploads/2017/01/Jan18_MedPAC_MACPAC_DualsDataBook.pdf.
- 4 Centers for Medicare and Medicaid Services, Medicare-Medicaid Coordination Office, *Data Analysis Brief: Medicare-Medicaid Dual Enrollment 2006 through 2018*, September 2019, 3.
Available at: <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-MedicaidCoordination/Medicare-Medicaid-Coordination-Office/DataStatisticalResources/Downloads/MedicareMedicaidDualEnrollmentEverEnrolledTrendsDataBrief2006-2018.pdf>.
- 5 Centers for Medicare and Medicaid Services, “Three New Opportunities to Test Innovative Models of Integrated Care for Individuals Dually Eligible for Medicaid and Medicare,” *State Medicaid Director Letter #19002*, April 24, 2019, 1.
Available at: <https://www.medicaid.gov/sites/default/files/Federal-Policy-Guidance/Downloads/smd19002.pdf>.
- 6 The Boards of Trustees, Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds Medicare Trustees Report, *The 2019 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds*, 2019, 6. Available at: <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/Downloads/TR2019.pdf>.
- 7 Ibid.
- 8 U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, Office of Disability, Aging and Long-Term Care Policy, *Analysis of Pathways to Dual Eligible Status: Final Report, May 2019*, viii.
Available at: <https://aspe.hhs.gov/system/files/pdf/261726/DualStatus.pdf>.
- 9 Ibid.
- 10 Ibid., 9.
- 11 MACPAC, *Issue Brief: Medicaid and Medicare Plan Enrollment for Dually Eligible Beneficiaries*, October 2016, 2.
Available at <https://www.macpac.gov/wp-content/uploads/2016/10/Medicaid-and-Medicare-Plan-Enrollment-for-Dually-Eligible-Beneficiaries.pdf>.
- 12 Ibid.
- 13 Ibid.
- 14 Ibid.
- 19
- 15 The Boards of Trustees, Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds,

- 2019 Annual Report of The Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds, 2019, 6. Available at: <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/Downloads/TR2019.pdf>.
- 16 Kaiser Family Foundation, *The Facts on Medicare Spending and Financing*, August 2019, 2. Available at: <https://www.kff.org/medicare/issue-brief/the-facts-on-medicare-spending-and-financing/>.
- 17 MACPAC, *MACStats: Medicaid and CHIP Data Book*, December 2019, 2. Available at <https://www.macpac.gov/wpcontent/uploads/2020/01/MACStats-Medicaid-and-CHIP-Data-Book-December-2019.pdf>.
- 18 § 1902 of the SSA.
- 19 Ibid.
- 20 MACPAC, *MACStats: Medicaid and CHIP Data Book*, December 2019, 38. Available at <https://www.macpac.gov/wpcontent/uploads/2020/01/MACStats-Medicaid-and-CHIP-Data-Book-December-2019.pdf>.
- 21 Bipartisan Policy Center, *Delivery System Reform: Improving Care for Individuals Dually Eligible for Medicare and Medicaid*, September 2016, 17. Available at: <https://bipartisanpolicy.org/report/dually-eligible-medicaremedicaid/>.
- 22 Centers for Medicare and Medicaid Services, Medicare-Medicaid Coordination Office, *Data Analysis Brief: Medicare-Medicaid Dual Enrollment 2006 through 2018*, September 2019, 3. Available at: <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-MedicaidCoordination/Medicare-Medicaid-Coordination-Office/DataStatisticalResources/Downloads/MedicareMedicaidDualEnrollmentEverEnrolledTrendsDataBrief2006-2018.pdf>.
- 23 Ibid., 3.
- 24 Ibid., 2.
- 25 Centers for Medicare and Medicaid Services, Medicare-Medicaid Coordination Office, *Medicare-Medicaid Dually Eligible Individuals Fact Sheet*, March 2019, 1. Available at: https://www.cms.gov/Medicare-MedicaidCoordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/Downloads/MMCO_Factsheet.pdf.
- 26 Acumen LLC, prepared on behalf of the Bipartisan Policy Center. Analysis of Chronic Condition Prevalence and Spending Amongst Beneficiaries Dually Eligible for Medicare and Medicaid. July 2016.
- 27 Acumen LLC, prepared on behalf of the Bipartisan Policy Center. Analysis of Chronic Condition Prevalence and Spending Amongst Beneficiaries Dually Eligible for Medicare and Medicaid. July 2016.
- 28 U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, *Report to Congress: Social Risk Factors and Performance Under Medicare's Value-Based Purchasing Programs*, December 2016, 8. Available at: <https://aspe.hhs.gov/system/files/pdf/253971/ASPESESRTCfull.pdf>.
- 29 MedPAC, *Section 4: Dual-Eligible Beneficiaries June 2019 Data Book: Health Care Spending and the Medicare Program*, June 2019, 40. Available at http://www.medpac.gov/docs/default-source/data-book/jun19_databook_entirereport_sec.pdf?sfvrsn=0.
- 30 MedPAC, *June 2019 Data Book: Health Care Spending and the Medicare Program*, June 2019, 40. Available at: http://www.medpac.gov/docs/default-source/data-book/jun19_databook_entirereport_sec.pdf?sfvrsn=0.
- 31 Acumen LLC, prepared on behalf of the Bipartisan Policy Center. Analysis of Chronic Condition Prevalence and Spending Amongst Beneficiaries Dually Eligible for Medicare and Medicaid. July 2016.
- 32 Centers for Medicare and Medicaid Services, Medicare-Medicaid Coordination Office, *Data Analysis Brief: Medicare-Medicaid Dual Enrollment 2006 through 2018*, September 2019, 1.

Available at: <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-MedicaidCoordination/Medicare-Medicaid-Coordination-Office/DataStatisticalResources/Downloads/MedicareMedicaidDualEnrollmentEverEnrolledTrendsDataBrief2006-2018.pdf>.

- 33 Centers for Medicare and Medicaid Services, Medicare-Medicaid Coordination Office, *Dually Eligible Individuals – Categories*, December 2019, 3-4. Available at: <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination-Office/Downloads/MedicareMedicaidEnrolleeCategories.pdf>.
- 34 MACPAC, *Issue Brief: Medicare Savings Programs: New Estimates Continue to Show Many Eligible Individuals Not Enrolled*, August 2017, 11. Available at: <https://www.macpac.gov/wp-content/uploads/2017/08/MedicareSavings-Programs-New-Estimates-Continue-to-Show-Many-Eligible-Individuals-Not-Enrolled.pdf>.
- 35 Centers for Medicare and Medicaid Services, Medicare-Medicaid Coordination Office, *Data Analysis Brief: Medicare-Medicaid Dual Enrollment 2006 through 2018*, September 2019, 1. Available at: <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-MedicaidCoordination/Medicare-Medicaid-Coordination-Office/DataStatisticalResources/Downloads/MedicareMedicaidDualEnrollmentEverEnrolledTrendsDataBrief2006-2018.pdf>.
- 36 Ibid.
- 37 Centers for Medicare and Medicaid Services, *What Medicare Covers*. Available at: <https://www.medicare.gov/what-medicare-covers>.
- 38 U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, Office of Disability, Aging and Long-Term Care Policy, *Analysis of Pathways to Dual Eligible Status: Final Report, May 2019*, vi. Available at: <https://aspe.hhs.gov/system/files/pdf/261726/DualStatus.pdf>.
- 39 Ibid.
- 40 Ibid., 10.
- 41 Ibid., ix, 10.
- 42 Bipartisan Policy Center, *Update on Demonstrations for Dual-Eligible Medicare-Medicaid Beneficiaries*, August 2017, 6. Available at: <https://bipartisanpolicy.org/report/update-on-demonstrations-for-dual-eligible-medicare-medicaid-beneficiaries/>.
- 43 MedPAC and MACPAC, *Data book: Beneficiaries dually eligible for Medicare and Medicaid*, January 2018, 64. Available at: http://medpac.gov/docs/default-source/data-book/jan18_medpac_macpac_dualsdatabook_sec.pdf.
- 44 Ibid.
- 45 Centers for Medicare and Medicaid Services, Medicare-Medicaid Coordination Office, *FY 2019 Report to Congress*, 2019, 3. Available at: <https://www.cms.gov/files/document/mmco-report-congress.pdf>.
- 46 Ibid.
- 47 Bipartisan Policy Center calculation based on MedPAC and MACPAC, *Data book: Beneficiaries dually eligible for Medicare and Medicaid*, January 2018, 16 and 32. Available at: http://medpac.gov/docs/default-source/databook/jan18_medpac_macpac_dualsdatabook_sec.pdf. For enrollment: Assuming 10.7 million dual-eligible beneficiaries as stated on page 16, that number was divided by total Medicare and Medicaid beneficiaries as listed on page 32 with a subtraction of 10.7 million to avoid double-counting. For spending: The percentage of spending for dual-eligible beneficiaries was converted to billions of dollars and divided by total spending for both programs.
- 48 Bipartisan Policy Center calculation based on Centers for Medicare and Medicaid Services, *National Health Expenditure Fact Sheet*, 2018, Table 1 in NHE Tables. Available at:

- 49 Centers for Medicare and Medicaid Services, Medicare-Medicaid Coordination Office, *FY 2019 Report to Congress*, 2019, 9. Available at: <https://www.cms.gov/files/document/mmco-report-congress.pdf>.
- 50 Public Law 115-123, Bipartisan Budget Act of 2018. Available at: <https://www.congress.gov/bill/115thcongress/house-bill/1892>.
- 51 Ibid.
- 52 Centers for Medicare and Medicaid Services, “Medicare and Medicaid Programs; Policy and Technical Changes to the Medicare Advantage, Medicare Prescription Drug Benefit, Programs of All-Inclusive Care for the Elderly (PACE), Medicaid Fee-For-Service, and Medicaid Managed Care Programs for Years 2020 and 2021,” *Federal Register*, 84: 15680, April 16, 2019. Available at: <https://www.govinfo.gov/content/pkg/FR-201904-16/pdf/2019-06822.pdf>.
- 53 42 CFR §§ 422.2, 422.107(d).
- 54 42 CFR § 422.752.
- 55 42 CFR §§ 422.562, 422.629 – 422.634.
- 56 Ibid.
- 57 Centers for Medicare and Medicaid Services, *SNP Comprehensive Report*, February 2017. Available at: <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MCRAAdvPartDENrolData/Special-Needs-Plan-SNP-Data-Items/SNP-Comprehensive-Report-2017-02?DLPage=1&DLEntries=10&DLSort=1&DLSortDir=descending>.
- 58 Ibid. 59 Ibid.
- 60 U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, Office of Disability, Aging and Long-Term Care Policy, *Integrating Care Through Dual Eligible Special Needs Plans (D-SNPs): Opportunities and Challenges*, April 2019, 30. Available at: <https://aspe.hhs.gov/system/files/pdf/261046/MMI-DSNP.pdf>.
- 61 Ibid.
- 62 J. Verdier , A. Kruse, R.L. Sweetland, A.M. Philip, & D. Chelminsky, *State contracting with Medicare Advantage dual eligible special needs plans: Issues and options*, Princeton, NJ: Integrated Care Resource Center, 2016. Available at: http://www.integratedcareresourcecenter.com/PDFs/ICRC_DSNP_Issues_Options.pdf.
- 63 Center for Health Care Strategies, *Medicaid Managed Long-Term Services and Supports Programs: State Update*, June 2017. Available at: https://www.chcs.org/media/MLTSS_FactSheet-06-26-17.pdf.
- 64 Centers for Medicare and Medicaid Services, Medicare-Medicaid Coordination Office, “Capitated Model,” September 30, 2019. Available at: <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicareand-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/CapitatedModel>.
- 65 Centers for Medicare and Medicaid Services, “Re: Three New Opportunities to Test Innovative Models of Integrated Care for Individuals Dually Eligible for Medicaid and Medicare,” *State Medicaid Director Letter #19002*, April 24, 2019, 2. Available at: <https://www.medicaid.gov/sites/default/files/Federal-Policy-Guidance/Downloads/smd19002.pdf>.
- 66 Centers for Medicare and Medicaid Services, Medicare-Medicaid Coordination Office, *Capitated Model*, September 30, 2019. Available at: <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicareand-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/CapitatedModel>.
- 67 Centers for Medicare and Medicaid Services, “Re: Three New Opportunities to Test Innovative Models of Integrated Care for Individuals Dually Eligible for Medicaid and Medicare,” *State Medicaid Director Letter #19002*, April 24,

- 2019, 2. Available at: <https://www.medicaid.gov/sites/default/files/Federal-Policy-Guidance/Downloads/smd19002.pdf>.
- 68 The Center for Medicare and Medicaid Innovation, “Financial Alignment Initiative for Medicare-Medicaid Enrollees,” September 24, 2019. Available at: <https://innovation.cms.gov/initiatives/Financial-Alignment/>.
- 69 Centers for Medicare and Medicaid Services, “Re: Financial Models to Support State Efforts to Integrate Care for Medicare-Medicaid Enrollees,” State Medicaid Director Letter #11-008. July 8, 2011, 5. Available at: https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/MedicareMedicaid-Coordination-Office/Downloads/Financial_Models_Supporting_Integrated_Care_SMD.pdf.
- 70 Centers for Medicare and Medicaid Services, “Re: Three New Opportunities to Test Innovative Models of Integrated Care for Individuals Dually Eligible for Medicaid and Medicare,” State Medicaid Director Letter #19-002. April 24, 2019, 4-5. Available at: <https://www.medicaid.gov/sites/default/files/Federal-PolicyGuidance/Downloads/smd19002.pdf>.
- 71 Centers for Medicare and Medicaid Services, *Guidance on the Managed Fee-For-Service Model*, April 17, 2013. Available at: https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/Downloads/MMCO_MFFS_Guidance_4_17_13.pdf.
- 72 Centers for Medicare and Medicaid Services, “Re: Three New Opportunities to Test Innovative Models of Integrated Care for Individuals Dually Eligible for Medicaid and Medicare,” *State Medicaid Director Letter #19002*. April 24, 2019, 4-5. Available at: <https://www.medicaid.gov/sites/default/files/Federal-Policy-Guidance/Downloads/smd19002.pdf>.
- 73 Ibid. 74 Ibid.
- 75 Centers for Medicare and Medicaid Services, Medicare-Medicaid Coordination Office, “State Proposals.” Available at <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/StateProposals>.
- 76 Centers for Medicare and Medicaid Services, “Re: Ten Opportunities to Better Serve Individuals Dually Eligible for Medicaid and Medicare,” *State Medicaid Director Letter #18-012*. December 19, 2018, 5. Available at: <https://www.medicaid.gov/sites/default/files/federal-policy-guidance/downloads/smd18012.pdf>.
- 77 MACPAC, *Evaluations of Integrated Care Models for Dually Eligible Beneficiaries: Key Findings And Research Gaps*, July 2019, 2. Available at: <https://www.macpac.gov/wp-content/uploads/2019/07/Evaluations-of-Integrated-Care-Models-for-Dually-Eligible-Beneficiaries-Key-Findings-and-Research-Gaps.pdf>.
- 78 Ibid.
- 79 MLTSS Institute, *The Value of Pursuing Medicare-Medicaid Integration for Medicaid Agencies*, November 2019, 11. Available at: http://www.advancingstates.org/sites/nasuad/files/Advancing%20States%20Value%20of%20Integration%20Report%20112219_3.pdf.
- 80 MACPAC, *Evaluations Of Integrated Care Models For Dually Eligible Beneficiaries: Key Findings And Research Gaps*, July 2019, 2. Available at: <https://www.macpac.gov/wp-content/uploads/2019/07/Evaluations-of-Integrated-Care-Models-for-Dually-Eligible-Beneficiaries-Key-Findings-and-Research-Gaps.pdf>.
- 81 Seema Verma, “Better Care for People Dually Eligible for Medicare and Medicaid,” *Health Affairs*, April 2019. Available at: <https://www.healthaffairs.org/doi/10.1377/hblog20190423.701475/full/>.
- 82 Y. Zhang and M. L. Diana, “Effects of Early Dual-Eligible Special Needs Plans on Health Expenditure,” *Health Services Research* 53, no 4: 2165–84, October 2017. Available at <https://doi.org/10.1111/1475-6773.12778>.
- 83 Centers for Medicare and Medicaid Services, Medicare-Medicaid Coordination Office, *FY 2019 Report to*

Congress, 2019, 10. Available at: <https://www.cms.gov/files/document/mmco-report-congress.pdf>

- 84 D. Grabowski, et al., “Passive Enrollment of Dual-Eligible Beneficiaries into Medicare and Medicaid Managed Care Has Not Met Expectations,” *Health Affairs* 36, no. 5: 846–854, May 2017.
- 85 E. Walsh, *Report for Washington Managed Fee-for-Service (MFFS) Final Demonstration Year 3 and Preliminary Demonstration Year 4 Medicare Savings Estimates: Medicare-Medicaid Financial Alignment Initiative*, RTI International, CMS Contract No. HHSM-500-2014-00037i TO#7, August 2019, ES-1-2. Available at: <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-MedicaidCoordination-Office/FinancialAlignmentInitiative/Downloads/WACostReportDY3and4.pdf>.
- 86 Avalere Health LLC, “Dual Eligible Population Analysis for SCAN Health Plan: Hospitalizations and Readmissions,” March 2012, 4. Available at: <https://docs.house.gov/meetings/IF/IF14/20170726/106325/HHRG-115-IF14-20170726-SD007.pdf>.
- 87 M.B. Johnson and D. McCarthy, “The Visiting Nurse Service of New York’s Choice Health Plans: Continuous care management for dually eligible Medicare and Medicaid beneficiaries,” *Commonwealth Fund*, January 2013, 3. Available at: https://www.commonwealthfund.org/sites/default/files/documents/_media_files_publications_case_study_2013_jan_1659_mccarthy_care_transitions_vnsny_case_study_v2.pdf.
- 88 JEN Associates, Inc., “Massachusetts Senior Care Option 2005-2010 Impact on Enrollees: Nursing Home Entry Utilization,” Aug 14, 2013. 3-4. Available at: <https://www.mass.gov/files/documents/2016/07/rg/scoevaluation-nf-entry-rate-2004-through-2010-enrollment-cohorts.pdf>.
- 89 Y. Zhang and M. L. Diana, “Effects of Early Dual-Eligible Special Needs Plans on Health Expenditure,” *Health Services Research* 53, no 4: 2165–84, October 2017. Available at: <https://doi.org/10.1111/1475-6773.12778>.
- 90 U.S. Government Accountability Office, *Disabled Dual Eligible Beneficiaries: Integration of Medicare and Medicaid Benefits May Not Lead to Expected Medicare Savings*, GAO-14-423, August 2014, 31-32. Available at: <http://www.gao.gov/assets/670/665491.pdf>.
- 91 Ibid.
- 92 J. Beauchamp, V. Cheh, et al., “The Effect of the Program of All-Inclusive Care for the Elderly (PACE) on Quality,” *Mathematica Policy Research, Inc., Contract No: 500-00-0033 (01)*. 53-54, February 2008. Available at: https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Reports/downloads/Beauchamp_2008.pdf.
- 93 Louise A. Meret-Hanke, “Effects of the Program of All-Inclusive Care for the Elderly on hospital use,” *Gerontologist* 51, no. 6: 774–85, 781, December 2011. Available at: <https://doi.org/10.1093/geront/gnr040>.
- 94 M. Segelman, et al., “Transitioning From Community-based to Institutional Long-term Care: Comparing 1915c Waiver and PACE Enrollees,” *Gerontologist* 57, no. 2: 300-08, April 1, 2017. Available at: <https://academic.oup.com/gerontologist/article/57/2/300/2631971>.
- 95 Louise A. Meret-Hanke, “Effects of the Program of All-Inclusive Care for the Elderly on Hospital Use,” *Gerontologist* 51, no. 6: 774–85, 781-83, December 2011. Available at: <https://doi.org/10.1093/geront/gnr040>.
- 96 Ibid. 97 Ibid.
- 98 U.S. Department of Health and Human Services, Assistant Secretary for Planning and Evaluation, *Integrating Care through Dual Eligible Special Needs Plans (D-SNPs): Opportunities and Challenges*, April 2019, 1. Available at: <https://aspe.hhs.gov/system/files/pdf/261046/MMI-DSNP.pdf>.



Bipartisan Policy Center

1225 Eye St NW, Suite 1000
Washington, DC 20005

bipartisanpolicy.org

202 - 204 - 2400

Policy Areas

Economy

Energy

Finance

Governance

Health

Housing

Immigration

Infrastructure

National Security

The Bipartisan Policy Center (BPC) is a Washington, D.C.-based think tank that actively fosters bipartisanship by combining the best ideas from both parties to promote health, security, and opportunity for all Americans. Our policy solutions are the product of informed deliberations by former elected and appointed officials, business and labor leaders, and academics and advocates who represent both ends of the political spectrum.

BPC prioritizes one thing above all else: getting things done.

 [@BPC_Bipartisan](https://twitter.com/BPC_Bipartisan)
 facebook.com/BipartisanPolicyCenter
 instagram.com/BPC_Bipartisan



**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

APPENDIX 30

**WASHINGTONIANS ARE LESS
RELIGIOUS THAN EVER,
GALLUP POLE FINDS**

[Gene Balk / FYI Guy](#)

Washingtonians are less religious than ever, Gallup poll finds

Originally published April 20, 2018 at 6:00 am Updated April 20, 2018 at 7:31 pm

Since Gallup began tracking religiosity at the state level, Washington has been among the least religious in the union. Forty-seven percent of adults in the state say they are not religious, and seldom or never attend services.

Share story

By

[Gene Balk / FYI Guy](#)

Seattle Times columnist

Ever since pollsters began asking Americans about their faith, Washington has ranked among the less-religious states in the country. But Washington has never been as secular as it is right now.

A record number of state residents didn't identify with any religion in 2017, according to polling giant [Gallup](#). Forty-seven percent of adults in the state say they are not religious, and seldom or never attend services.

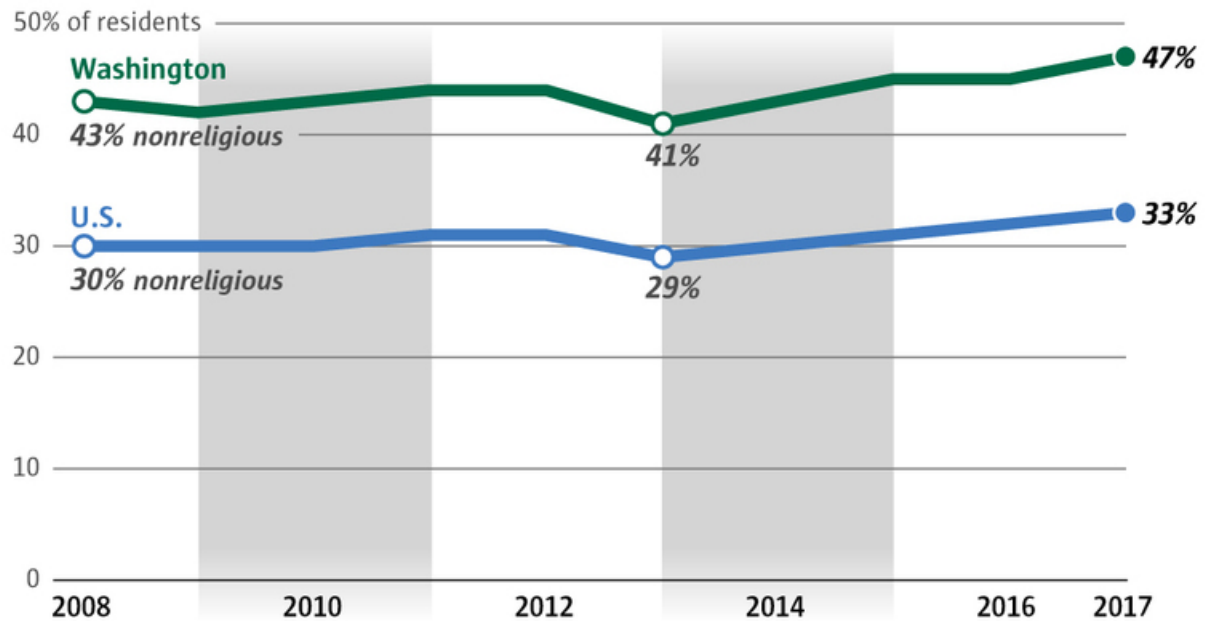
When Gallup began polling about religious belief at the state level in 2008, 43 percent of Washingtonians identified as nonreligious. That

number didn't change much year-to-year, except for a hard-to-explain dip to 41 percent in 2013 (the nation as a whole also saw the percentage of nonreligious drop that year).

After that, the number started to rise. That's true for many other states as well. In fact, the U.S. as a whole is also at a record high, with 33 percent saying they are not religious.

New high for nonreligious residents

Forty-seven percent of Washington adults are not religious, the highest number since Gallup first began polling the state in 2008.



Source: Gallup

EMILY M. ENG / THE SEATTLE TIMES

It's primarily young people who are beefing up the numbers of the nonreligious in the U.S. The poll data show that just 28 percent of those younger than 30 are very religious, compared with 47 percent of those aged 65 and older. And it's possible that the influx of young newcomers to the Seattle area is the driving force behind the change in Washington's numbers.

Washington ranks as the sixth-least-religious state, in a tie with Alaska. Oregon has tended to poll just slightly less religious than Washington, and that held true in 2017. Forty-eight percent in the Beaver State have no religion.

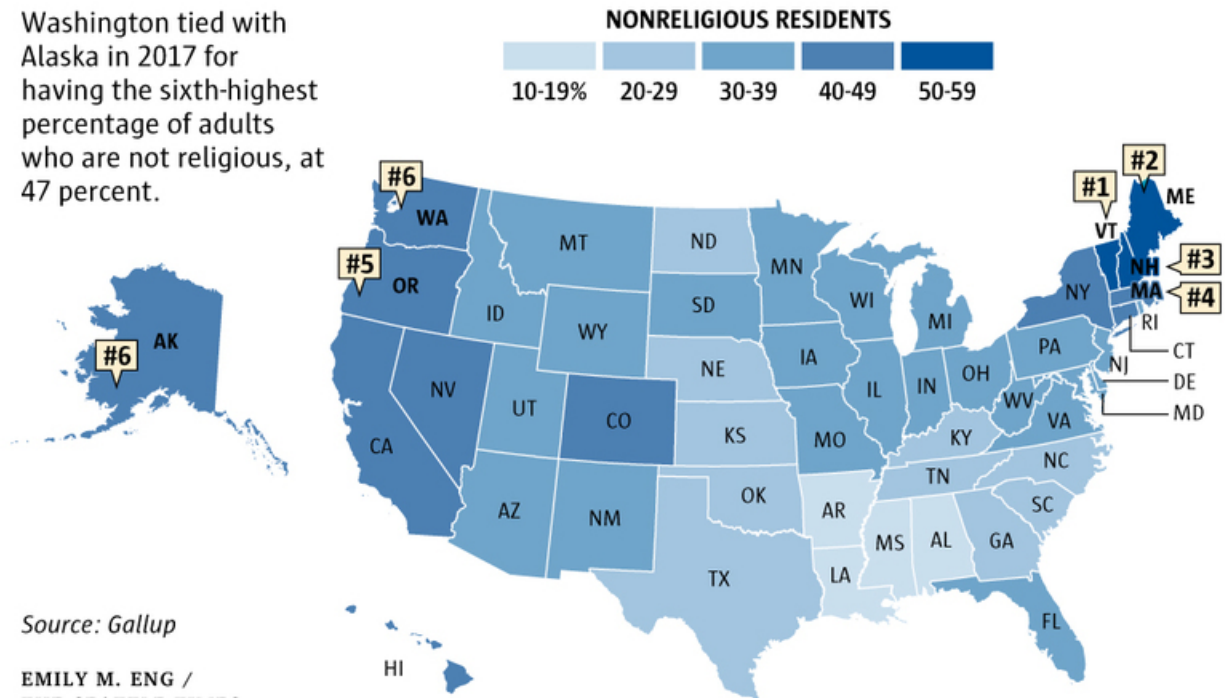
Washington is one of 19 states, plus the District of Columbia, where the plurality of adults are nonreligious (as opposed to very religious or moderately religious). Just 28 percent of adults in Washington identify as highly religious, and say they attend services weekly — 19 percentage points lower than those who are nonreligious.

In fact, in all the other Western states — Oregon, California, Alaska and Hawaii — the percentage of adults who are not religious also outweighs the percentage who are very religious by double digits.

The most- and least-religious states are, perennially, Mississippi and Vermont — and I'm sure you can guess which one is which without me telling you. In 2017, 59 percent of Vermonters had no religion, while only 12 percent of Mississippians did.

Washington ranks as sixth-least-religious state

Washington tied with Alaska in 2017 for having the sixth-highest percentage of adults who are not religious, at 47 percent.



New England is the least-religious part of the country, claiming the top four states, but the Western U.S. is right behind. The Southern “Bible Belt” states are the most religious, although Utah ranks up there too. It’s one of just four states where the majority of residents identify as highly religious.

That make sense because the polling shows that Mormons are the most devout religious group in the U.S., with 73 percent identifying as very religious. They’re followed by Protestants (50 percent), Muslims (45 percent) and Catholics (40 percent). Jews are far and away the least devout group, with just 18 percent saying they’re very religious.

In terms of race and ethnicity, blacks are a more likely group to be very religious (48 percent)

APPENDIX 30

compared with whites and Hispanics (both at 36 percent).

The data comes from Gallup's daily tracking poll, which is conducted throughout the year. In 2017, about 129,000 U.S. adults were interviewed, including nearly 3,400 in Washington. The margin of error is +/- 2 from 2013 to 2017, and +/- 1 from 2008 to 2012.

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 31
MAINTAINING DIGNITY**



MAINTAINING DIGNITY

Understanding and Responding to the Changes Facing Older African Americans

Original report dated February 2018, updated for printing February 2020

AARP.ORG/RESEARCH

© 2020 AARP ALL RIGHTS RESERVED
<https://doi.org/10.26419/res.00217.006>

AARP RESEARCH

The original report and related materials can be found at **www.aarp.org/dignitysurvey**.

**APPENDIX 31
MAINTAINING DIGNITY**

AARP[®]
Real Possibilities

**APPENDIX 31
MAINTAINING DIGNITY**

Table of contents

Methodology	
5	
Summary	
9	
Key Findings	
Today	13
As They Age	21
Detailed Findings	
Today	27
As They Age	41
Appendix	
53	

| © 2020 ALL RIGHTS RESERVED

APPENDIX 31
MAINTAINING DIGNITY



METHODOLOGY

| © 2020 ALL RIGHTS RESERVED

Methodology

From October 27 to November 12, 2017, Community Marketing & Insights (CMI) fielded an online survey for AARP to better understand LGBT community members ages 45 and over living in the United States.

CMI's research panel of 85,000+ members was developed over a 20-year period by partnership with more than 300 LGBT media, events, organizations and social media. The panel is used for research purposes only, never marketing.

Importantly, the panel mostly includes "out" LGBT community members who interact with LGBT media and organizations. Panelists do not include LGBT community members who are more "closeted" about their sexual orientation or gender identity.

Also important, the methodology of an online survey tends to attract more educated and digitally engaged individuals than the general population. However, research participants represent people most likely reached through LGBT-specific outreach.

A random sample of panelists was recruited from CMI's proprietary LGBT research panel and invited to the online survey via email. Panelists were provided with an incentive of a chance to win one of twenty \$50 cash or gift card prizes, and they could take the survey in English or Spanish.

To gain more insight, the study intentionally oversampled LGBT community members who indicated a qualifying "gender expansive" identity. Gender expansive includes participants who identify as transgender and nonbinary, including transgender, trans woman, trans man, intersex, nonbinary, genderqueer, and gender fluid.

Sample overview

1,762 LGBT community members completed the 10-minute survey. The final sample included 627 lesbian women, 680 gay men, 162 bisexual and pansexual men and women, and 264 gender expansive community members, all age 45 or over and living in the United States. The gender expansive participants included 224 with a transgender identity and 40 with a nonbinary identity. A small number of participants (29) identified as part of the LGBT community but did not fit into the four major categories mentioned above.

For the purposes of this report, gay and bisexual men, and lesbian and bisexual women are occasionally reported together by gender. The LGB groups are all cisgender.

The data in this report is based on a sample that is representative of CMI's panel but is not meant to be generalizable to the LGBT 45+ population at large.

The survey sample was compared to the full CMI LGBT panel as well as same-sex households and total population data from various United States Census reports in order to assure demographic ratios were reasonably in balance with the overall US population ages 45 and over. No gold standard LGBT population estimate is currently available from the U.S. Census Bureau or other public data resource.

Due to the oversample of gender expansive participants, all LGBT results were weighted as following: 47% male, 47% female, and 6% gender expansive.

References for weighting and tracking assumptions: CMI reviewed a number of references to assure a reasonable sample was obtained for this study including the Community Marketing & Insights overall LGBT panel demographics; Pew Research: A Survey of LGBT Americans 2013; US Census: 2015 American Community Survey for Same-Sex Couple Households; and the US Census American Fact Finder Tool for the 2016 American Community Survey to obtain general population statistics for age 45 and over.

APPENDIX 31
MAINTAINING DIGNITY



SUMMARY

AARP surveyed more than 1,700 LGBT adults age 45-plus in a 2018 national survey working with Community Marketing & Insights (CMI), a leader in LGBT consumer research. All originally published materials from the study are available at aarp.org/dignitysurvey.

This report summarizes and synthesizes the findings of the earlier release. The “Today” section of this report captures LGBT participants' current situation regarding social networks and supports, living arrangements, community, and healthcare. The “As They Age” section reveals their concerns and preferences around these areas as they age.

Survey findings show that while the LGBT community as a whole shares some common concerns and experiences, different cohorts within it have unique and diversified needs.

To start with, same-sex couples do not “partner” at the same rate by gender. Survey data show gay men age 45-plus are far more likely to be single and living alone compared to lesbians and are less likely to be parents. When asked about their social support network, gay men report being less connected than lesbians on every relationship type tested, including friends, partners, and neighbors. This lack of social support may put gay men at greater risk of isolation as they age and potentially influences the types of services they will need later in life.

Similarly, bisexual men and women ages 45 and older are less likely to identify publicly as bisexual and therefore can be harder to reach with general LGBT outreach compared to lesbian women, gay men, and transgender community members. This disconnect may limit their access to appropriate supportive services and needed information.

Transgender or gender expansive individuals are least likely overall to be connected to sources of social support, including family. Although more than half of transgender or gender expansive survey respondents have children or grandchildren, this group is least likely to say they consider gay or straight friends, family, or neighbors part of their personal support network, which exacerbates the level of risk implied by possible discrimination as they age from health care providers, long term care service providers, or housing facilities.

LGBT older adults are about as likely to live in suburban, rural, and small communities as large urban metropolitan areas, and while access to LGBT-dedicated services may be better in urban areas, it turns

out that a community's LGBT friendliness is a much more important determinant than community size for the social and emotional supports that enable healthy aging. The LGBT friendliness of the community seems to correlate with higher levels of support today, but as people prepare for aging, the protective factor is not as certain.

Concerns about long-term care within the LGBT community are great, particularly for gender expansive individuals. Majorities cite concerns about neglect, abuse, refused access to services, or harassment. The possibility of being forced to hide one's identity as a condition of receiving care is a concern for just under half of lesbian, gay, and bisexual respondents, and for 70% of transgender and gender expansive respondents. For black and Latino members of the LGBT community, sexual orientation or gender identity are yet another reason, in addition to race or ethnicity, to feel at risk for poor quality of care.

The data and insights in this report show the acute need for public policy protections of LGBT older adults and demonstrate the opportunity for private industry solutions that enable them to choose how they live as they age.

**APPENDIX 31
MAINTAINING DIGNITY**

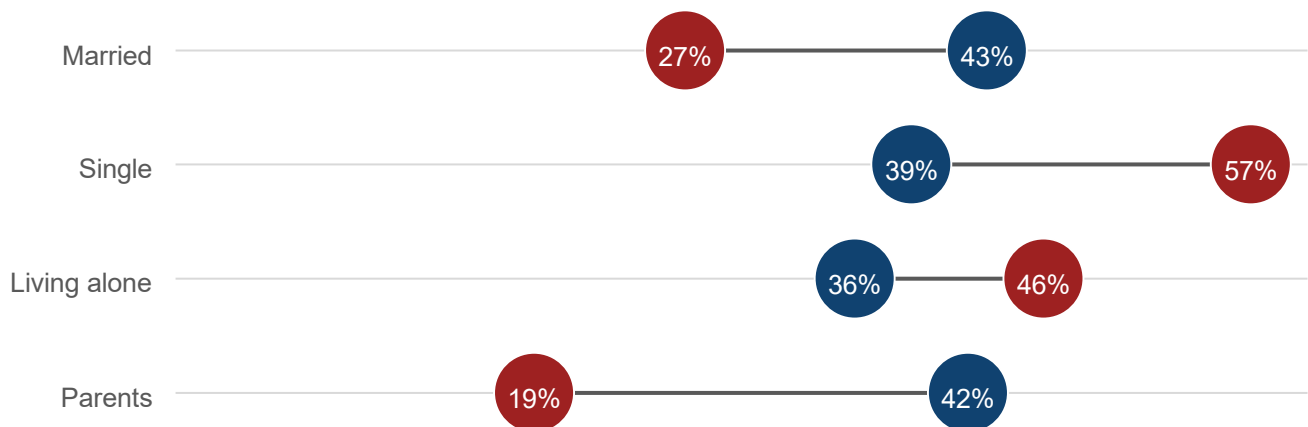


KEY FINDINGS: TODAY

Gay men may be at greater risk of being isolated than lesbian women.

Same-sex couples do not partner at the same rate by gender. Gay men who participated in the survey are far more likely to live alone, which will influence the types of services that gay men will need as they age. Further, when asked about their social support network, gay men were less connected than lesbian women on every relationship type tested: LGBT friends, straight friends, partners, and neighbors.

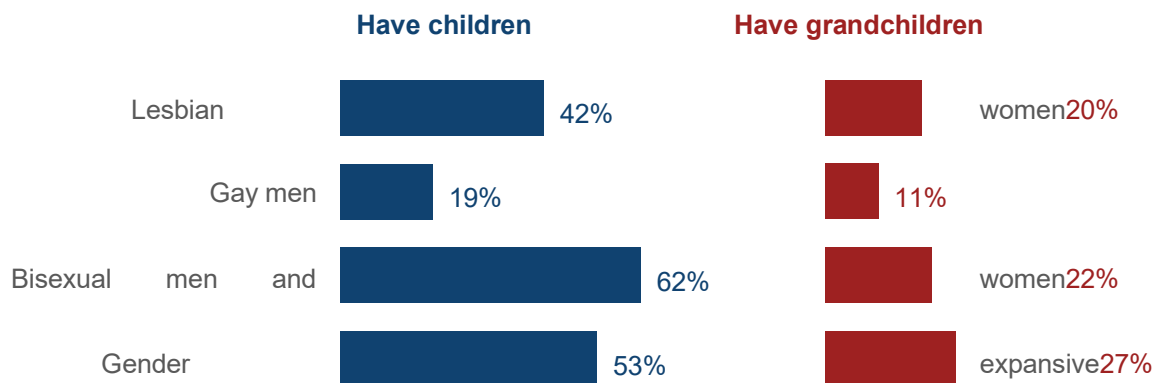
Percent of lesbian women and gay men who are...



Older LGBT community members are also parents and grandparents.

Many older LGBT survey participants have children and grandchildren, especially bisexual and gender expansive participants. For some older LGBT adults, children could be from opposite-sex relationships. Recognizing LGBT community members as parents is a recent trend, but LGBT grandparents are often overlooked. Many older LGBT community members could benefit from information, imagery, services, and products designed for older LGBT parents and grandparents.

Percent of LGBT community members who have children or grandchildren



Bisexual men and women ages 45 and older are less likely to identify publicly as bisexual and can be harder to reach with general LGBT outreach than lesbian women, gay men, and transgender community members.

Outreach to the bisexual community can be more difficult than LGT outreach. The bisexual community may not see outreach campaigns intended for gay and lesbian audiences, and bisexual people often report that LGBT outreach approaches do not always connect with them personally. Advertising and articles will often address the issues of aging from the lesbian, gay, or transgender perspective, but articles rarely address aging specifically from the bisexual perspective.



LGBT participants felt they had a broad social support network, but they had relatively weak support from their family, especially gender expansive participants.

The vast majority of LGBT participants (92%) felt that they have some social support network, comprising a high level of both LGBT and straight friends. Though family was important, support networks had fewer family members than friends, especially for gender expansive participants.

Results also show a higher level of support from online communities for gender expansive participants, the social support connection between the bisexual and gender expansive communities, and lesbian women’s higher connection with neighbors.

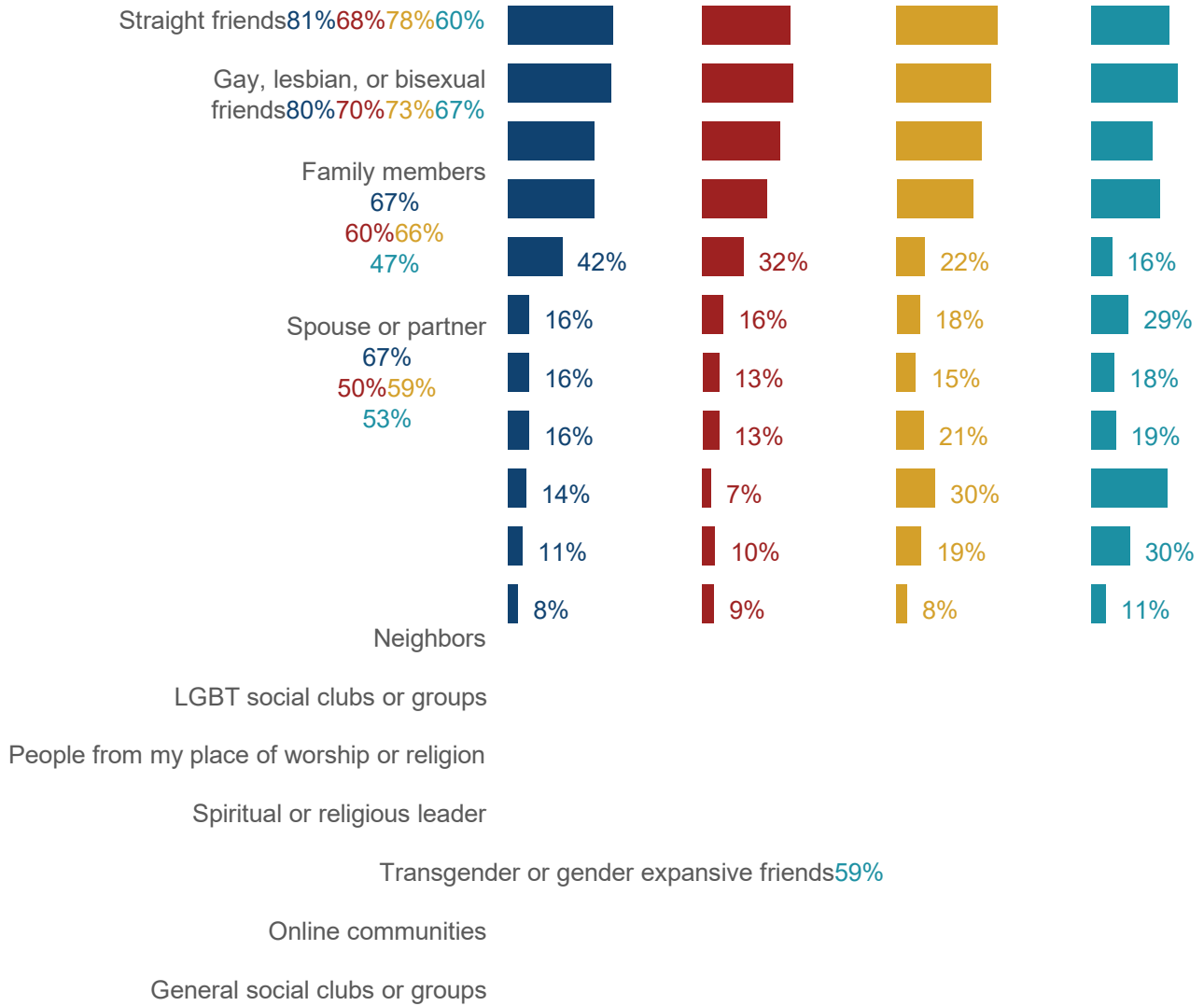
Percent whose support networks include...

Lesbian
women

Gay men

Bisexual

Gender
expansive

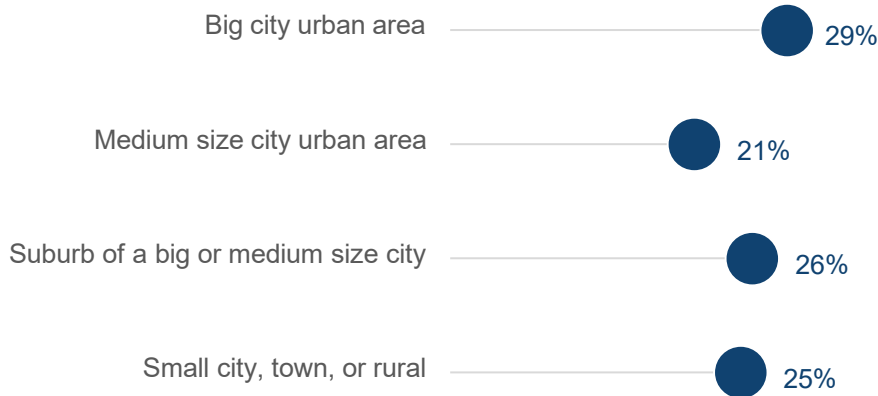


LGBT participants live in cities, towns, suburbs, and rural areas, but they seek out LGBT-friendly local communities, even within more conservative regions of the country.

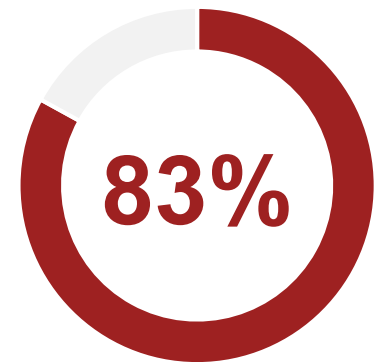
LGBT participants live in communities of all sizes, and 71% of the research participants ages 45 and older indicated that they did not live in big cities. This result underscores the importance of federal and state antidiscrimination laws that cover older LGBT Americans living outside of big cities.

However, even though many participants live in rural areas which are often considered more conservative, 83% of respondents considered their community to be at least somewhat LGBT-friendly, suggesting that LGBT people seek out affirming communities in which to settle, even if the larger surrounding area may not be.

LGBT residence and community size



Percent living in a community that is at least somewhat LGBT-friendly



Though small communities are far less likely to provide access to LGBT-specific healthcare or services, community size is less important than a community’s perceived LGBT-friendliness in determining whether a person feels supported.

One might assume that LGBT people living in small communities (small cities, towns, and rural areas) would have the hardest time being an LGBT older adult, but survey results suggest that we cannot make that assumption universally. Many respondents have found small LGBT-friendly communities. Overall quality of life seems to depend more on the perceived LGBT-friendliness of the community than the size of the community. However, those who live in small communities were less likely to have access to LGBT-specific services such as health centers and services for older adults.

Percent of respondents who agree with the following statements, by community LGBT-friendliness and community size

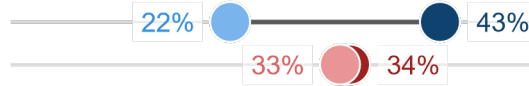
● Very LGBT-friendly ● Not LGBT-friendly ● Big city ● Small community

Feel they have a support network of at least one person in the

97%



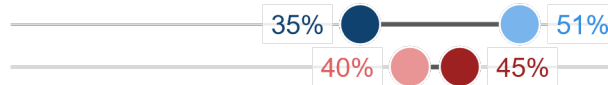
Consider neighbors to be part of their personal support network



Out to all important people in life



Extremely or very concerned about having adequate family and/or social supports to rely on as you age



Open and honest relationship with physician



I have access to an LGBT health center



I have access to LGBT services for older adults



event of a personal emergency

Community friendliness

Community size

Community friendliness

Community size

Community friendliness

Community size

Community friendliness

Community size

Community friendliness

Community size

Community friendliness

Community size

Community friendliness

LGBT participants are largely satisfied with their current healthcare relationships but also fear discrimination and prejudice.

LGBT survey respondents are relatively satisfied with their current healthcare. However, many also are on guard for the potential of healthcare prejudice as they age. Other research conducted by CMI has found that LGBT community members are generally satisfied with their physicians and care because, through trial and error over time, they have identified LGBT-friendly providers. Often, changing providers is a response to experiencing discrimination or unwelcoming treatment. These negative experiences in the past may explain why LGBT adults at midlife and older are both satisfied today and wary of experiencing discrimination or lack of cultural competence in the future.



84% 75%

of LGBT participants would describe their relationship to their provider as open sexual honest or good, **only 6%** identity as negative or unsure



LGBT participants are out with their physician about their orientation or gender and



52% 57%

have concerns about discrimination or prejudice affecting quality of care



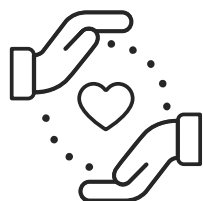
concerns about healthcare providers not being sensitive to LGBT patient needs



KEY FINDINGS: AS THEY AGE

Looking toward the future, the biggest aging concerns in the survey related to long-term care and social supports.

In reviewing the survey, we found that LGBT participants were most likely to be concerned about having adequate support systems in place as they age, potential quality of services in long-term care facilities, and the lack of access to services specifically for older LGBT adults. In some ways their concerns are not that different from all older Americans, but they have a clear LGBT spin. LGBT participants are less likely to be able to count on their biological families and must develop chosen families to assure care. They also seem to want services that are more directly designed for the LGBT community. These factors might explain why so many are interested in LGBT-welcoming housing developments for older adults.



76%

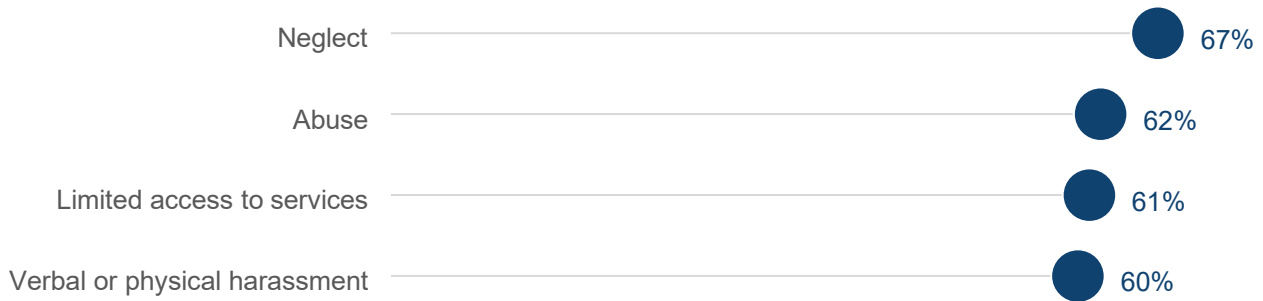
are concerned about having adequate family and/or social supports to rely on as they age



73%

do not have access to LGBT-specific services for older adults

When thinking about long-term care facilities, percent concerned about the following



The gender expansive community faces unique challenges and even greater fear of discrimination. Very high majorities of this community are concerned about quality and access to healthcare as they age.

Survey results suggest that the gender expansive community is more likely to feel vulnerable to discrimination and unfair treatment. While many large cities have gender identity equality laws, most transgender people – 82 percent – who participated in the survey do not live in big cities, underscoring the need for protections on the state and federal level.



47%

say they **can count on family members for support** (much lower than LGB)

75%

are **concerned that healthcare providers are not sensitive** to their needs

46%

are **very or extremely concerned about adequate social support** as they age

70%

are **concerned that they will need to hide their identity** in long-term care

66%

are **concerned that their healthcare will be affected** because of gender identity

55%

fear housing discrimination

Black and Latino LGBT Americans are more concerned about multiple forms of discrimination and negative outcomes as they age.

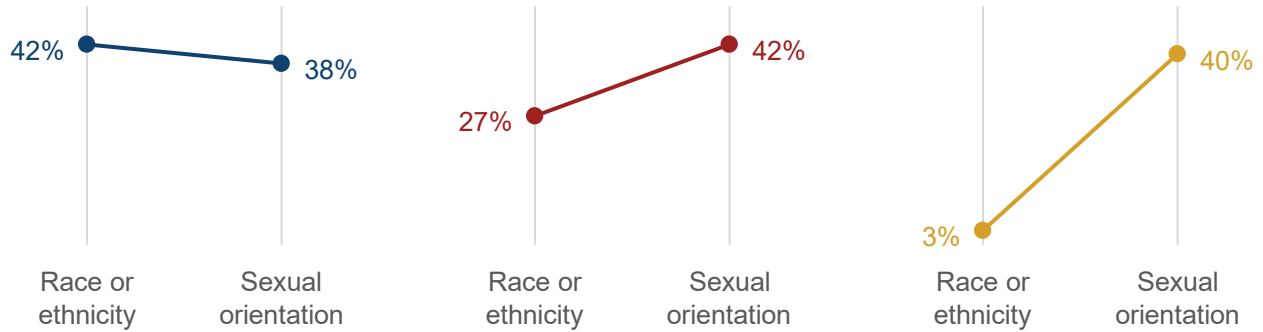
The most striking differences by race/ethnicity among survey respondents were fears of discrimination and bad health outcomes, in particular, for the black LGBT older adult community. For LGBT people of color, concern about discrimination due to their sexual orientation or gender identity was bound up with concern about discrimination due to their race or ethnicity. Black LGBT adult respondents ages 45 and older were likely to worry about both of these aspects of their identity equally as a cause for an adverse experience with healthcare professionals. At the same time, they were most likely to worry about having a family support network to rely on as they age. In general, the survey results suggest that LGBT people of color have more reasons to be concerned about aging than their white counterparts.

Percent somewhat or very concerned that quality of care received by healthcare professionals and staff will be adversely impacted by race or ethnicity or sexual orientation

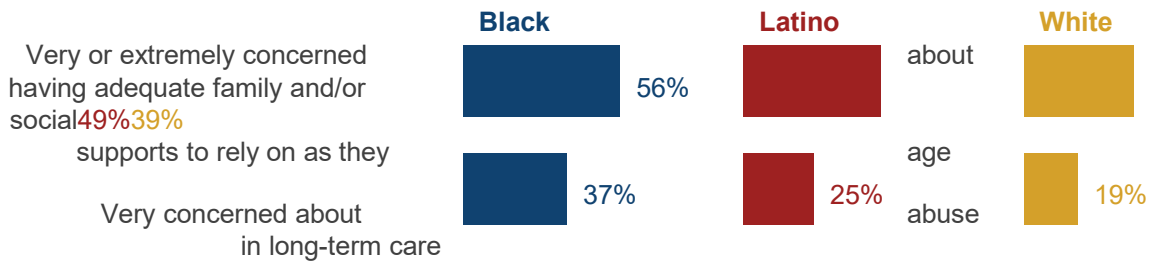
Black

Latino

White



Percent who are...



Long-term care providers and facilities that intentionally affirm LGBT adults will improve patient comfort and quality of care.

Research participants were presented with four ideas on how to improve their confidence about the quality of care they would receive in long-term care facilities. Participants enthusiastically endorsed all four ideas. Of course, these recommendations are not just applicable to long-term care facilities. They are applicable to all types of for-profit businesses and nonprofit institutions.

Percent of LGBT adults who would be more comfortable...

If providers were specifically trained for LGBT



88%



86%



85%



82%

patient needs

To see explicit advertising promoting LGBT-friendly services

To know if providers or staff are LGBT themselves

To see LGBT-welcoming signs or symbols displayed on site/in offices, online, or in communications



Nine out of ten survey participants indicated interest in LGBT-welcoming housing developments for older adults.

Fewer than two-thirds of LGBT participants ages 45 and older own their homes, and more than onethird rent or live with someone else. Renting may be more common in big urban areas, but those living in self-described LGBT-unfriendly communities were seven times more likely to report recent experiences with housing discrimination because of their sexual orientation. Gender expansive participants were also significantly more likely than LGB participants to have experienced housing discrimination recently. Having to hide one's identity in later life to have access to suitable housing options is a concern for one in three LGBT respondents (34%) and more than half of the gender expansive segment (54%). When asked about LGBT-welcoming housing developments for older adults, 90% were extremely (35%), very (27%), or somewhat (28%) interested.

15%

(7.5x)

of those living in **LGBT-unfriendly communities** have recently faced housing discrimination because of their sexual orientation

VS.

2%

of those living in very **LGBT-friendly communities** have recently faced housing discrimination because of their sexual orientation

14% of **gender expansive participants** recently faced housing discrimination because of their gender identity

4% of **gay, lesbian, and bisexual participants** recently faced housing discrimination because of their sexual orientation



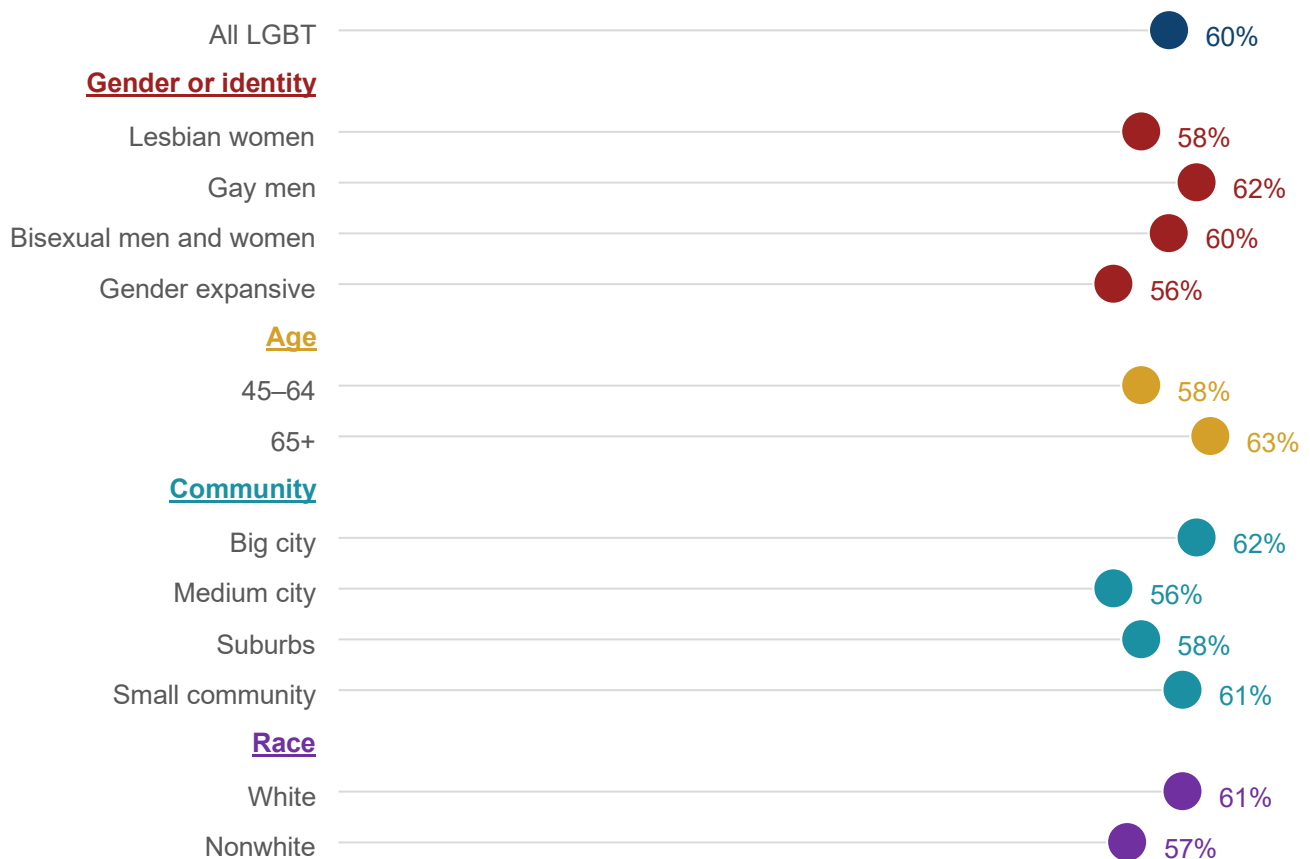
DETAILED FINDINGS: TODAY

The LGBT community is “somewhat” optimistic.

Participants were optimistic about the future for the LGBT community, but with some reservations. While most agreed that the kinds of problems people face because they are LGBT will largely be solved in the next 20 to 30 years, participants were more likely to “somewhat agree” than to “strongly agree.” The response was relatively stable across demographic groups.

Percent who somewhat or strongly agree with the statement:

“The kinds of problems people face because they are LGBT will largely be solved in the next 20 to 30 years”

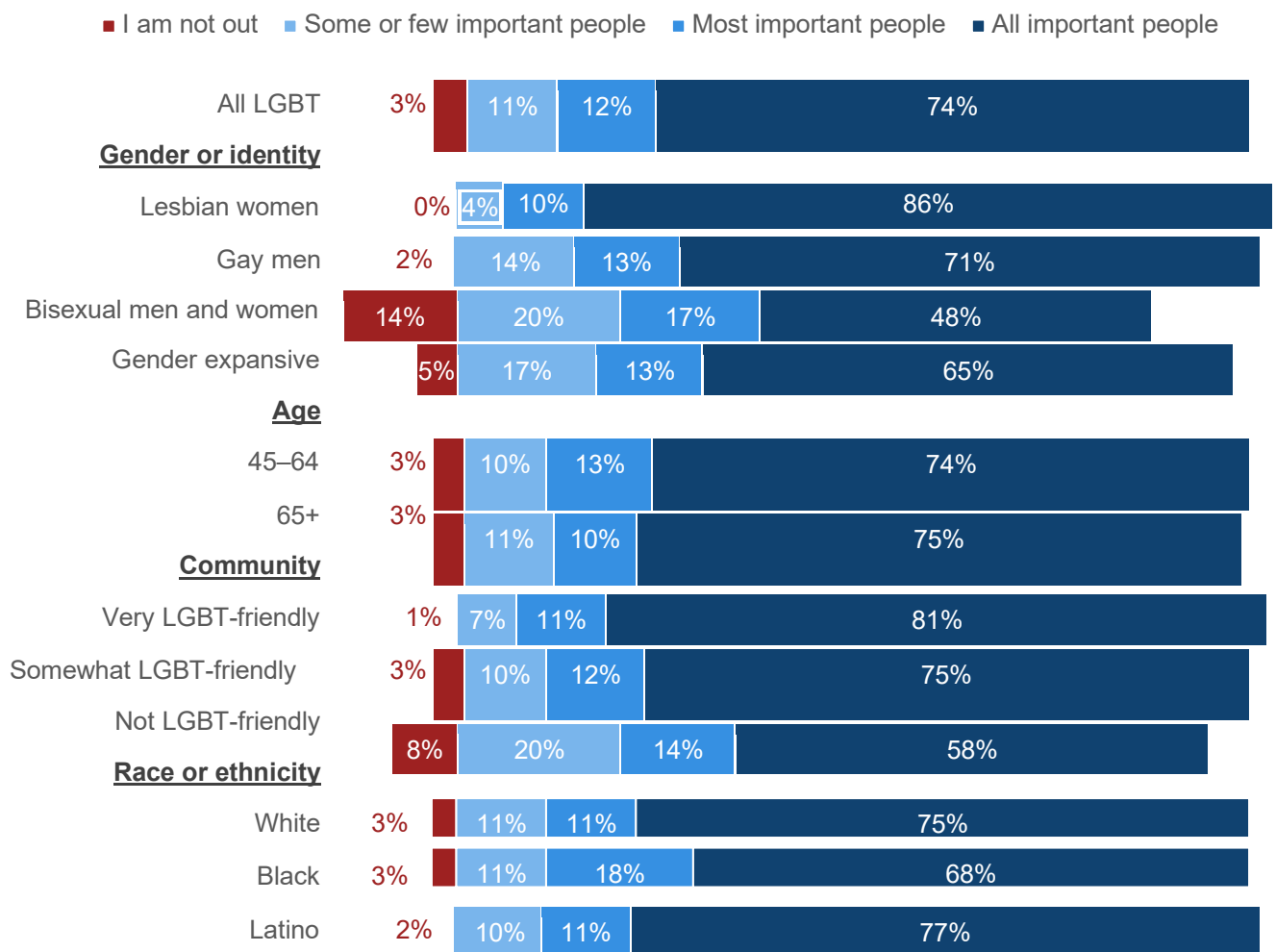


Base: All LGBT, n=1,762; gay men, n=680; lesbian women, n=627; bisexual men and women, n=162; gender expansive individuals, n=264; ages 45–64, n=1,210; ages 65+, n=552; big city, n=486; medium city, n=360; suburbs, n=452; small city, small town, rural, n=464; White, n=1,182; nonwhite, n=523.

Being “out” as LGBT

As previously mentioned, respondents were sampled from an online panel of LGBT people who are largely out and interacting within the LGBT community. However, even within the LGBT panel, not everyone was completely out to all people. Among the research participants, lesbian women were the most out, followed by gay men, gender expansive participants, followed significantly behind by bisexual men and women.

How out respondents are to important people in their lives



Base: All LGBT, n=1,762; lesbian women, n=627; gay men, n=680; bisexual men and women, n=162; gender expansive individuals, n=264; ages 45–64, n=1,210; ages 65+, n=552; very LGBT-friendly community, n=585;

somewhat LGBT-friendly community, n=854; not LGBT-friendly community, n=251; white, n=1,182; black/African American, n=233; Latino, n=199.

The degree of community LGBT-friendliness was an important factor for how out people are. Respondents living in communities that are not LGBT-friendly were the least likely to be out to everyone important to them, and one in five were out only to some or a few important people.

Being out by race/ethnicity was almost even across groups, with some members of the African American community trending less likely to be out to everyone.

Participants were also more comfortable being out to some groups than to others. Bisexual participants were the least comfortable being out to their biological family, but the majority of LGBT parents are out to their children. Gender expansive and bisexual participants were least comfortable being out to coworkers, but gender expansive and lesbian participants were more comfortable than gay men or bisexual participants being out on social media.



Relationship status

Among the participants, relationship status differed by gender. Most of the gay men in the study defined themselves as single, while lesbian women were most likely to be married. Gender expansive and bisexual participants had partnership rates not far behind lesbian women.

Marriage has been readily adopted by the LGBT community, and few indicated a civil union or domestic partnership.

	All LGBT	Lesbian women	Gay men	Bisexual men and women	Gender expansive
Married	35%	43%	27%	39%	35%
In a relationship and living with partner	14%	14%	14%	10%	14%
Civil union or domestic partner	3%	4%	2%	3%	1%

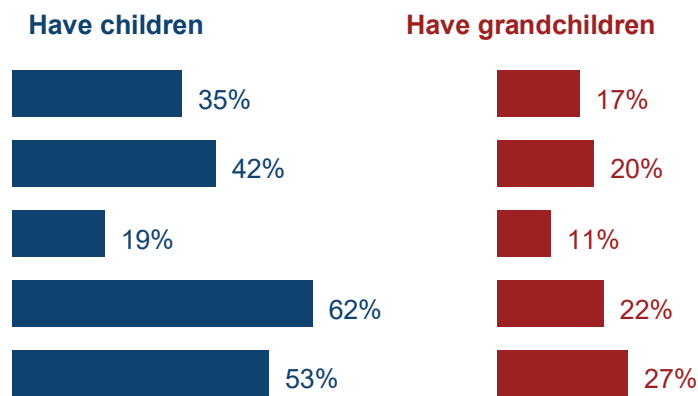
Total partnered	52%	61%	43%	52%	50%
Single	48%	39%	57%	48%	50%

Base: All LGBT, n=1,762; lesbian women, n=627; gay men, n=680; bisexual men and women, n=162; gender expansive individuals, n=264.

Children and grandchildren

More than one-third of all LGBT survey participants have children and grandchildren. Among bisexual and gender expansive respondents, a majority are parents or grandparents.

Percent of LGBT community members who have children or grandchildren



All LGBT

Lesbian women

Gay men

Bisexual men and women

Gender expansive

Base: All LGBT, n=1,762; Lesbian women, n=627; gay men, n=680; bisexual men and women, n=162; gender expansive individuals, n=264.

Social support networks

The vast majority of participants feel that they have some social-support network. Given the small size of the LGBT community compared to the general population, it is interesting to note that most LGBT participants said that they rely on the LGBT community as their primary support system. Furthermore, participants were much more likely to consider LGBT friends and straight friends as part of a personal support network than family members.



While LGBT social clubs or groups and online communities ranked relatively low compared to other support systems, they ranked highest for the gender expansive respondents.

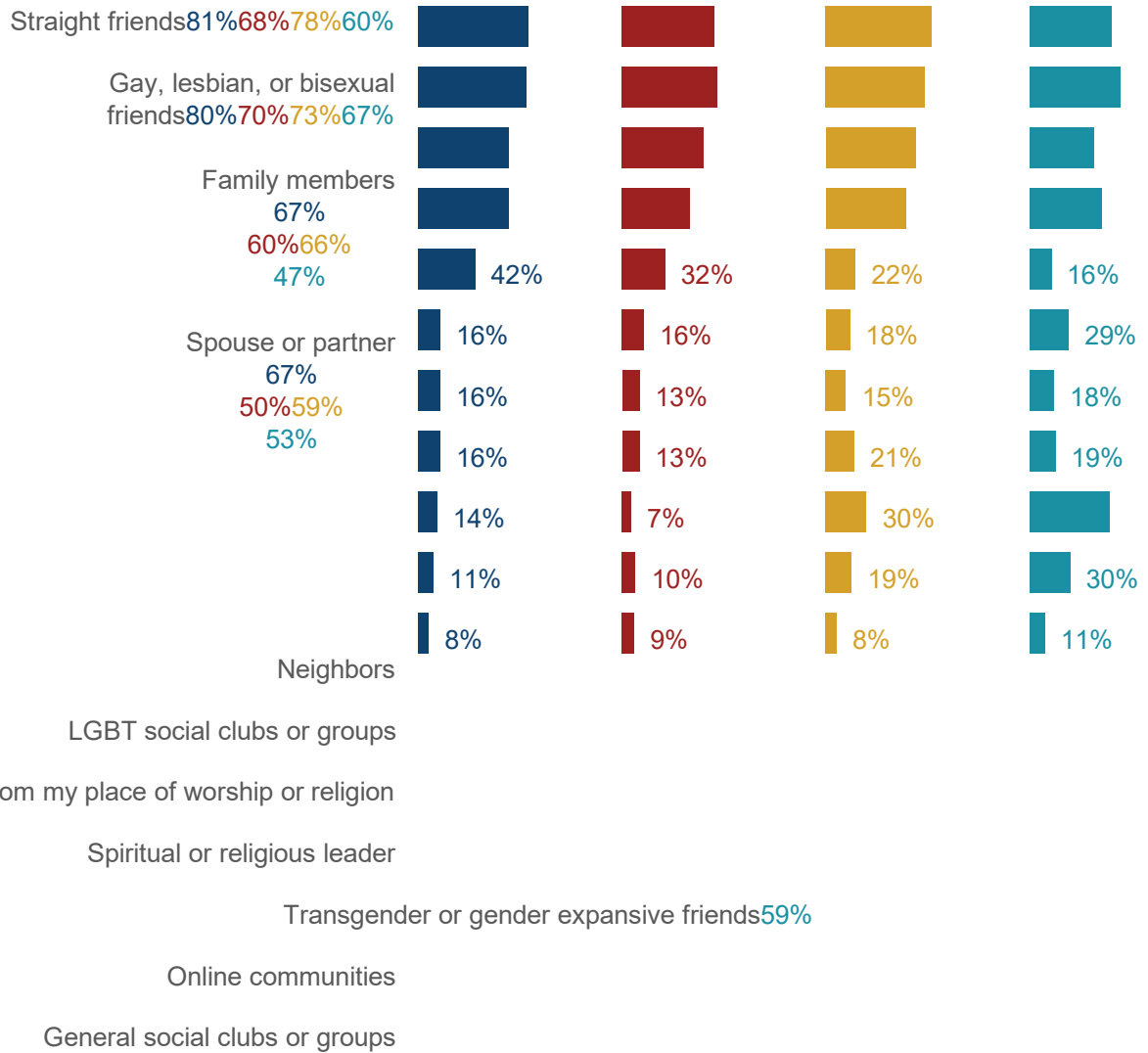
Percent whose support networks include...

**Lesbian
women**

Gay men

Bisexual

**Gender
expansive**

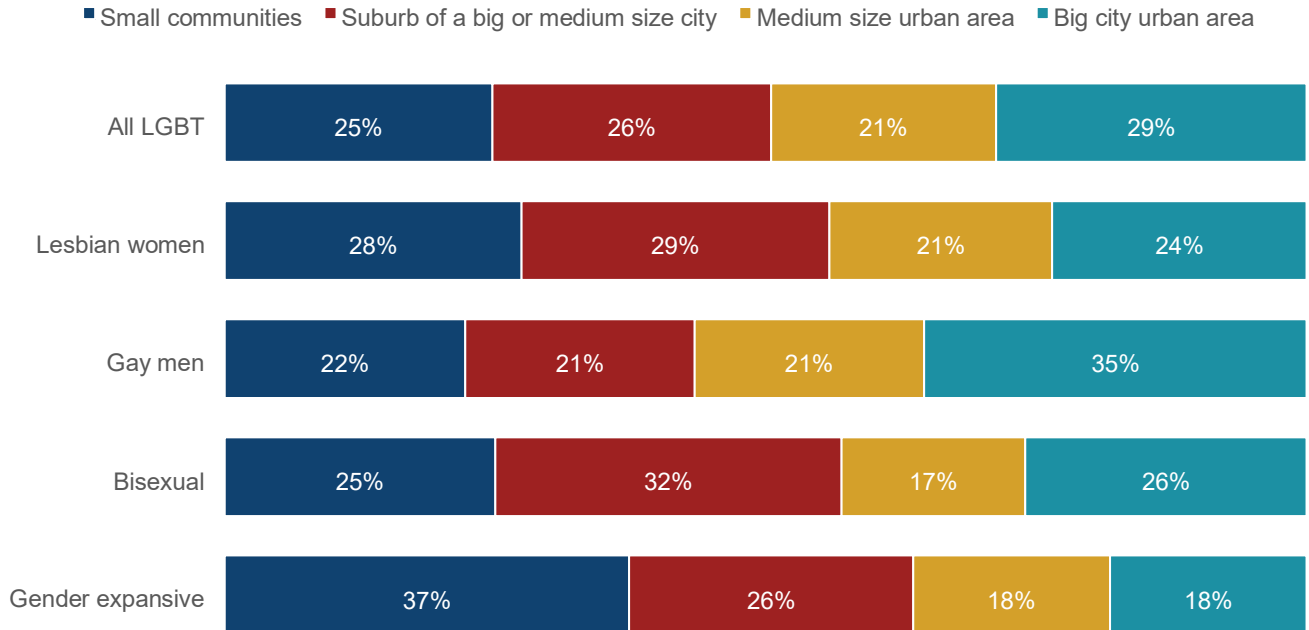


Base: All LGBT, n=1,762; lesbian women, n=609; gay men, n=632; bisexual men and women, n=154; gender expansive individuals, n=238.

Living in all types of communities

Older LGBT Americans live in communities of all sizes, including cities, towns, suburbs, and rural areas. Among total LGBT adults surveyed, 29% live in big cities, 21% in medium cities, 26% in suburbs, and 25% in small and rural communities. Gay men were more likely to live in big cities, and gender expansive individuals skewed more heavily toward small and rural communities.

LGBT residence and community size

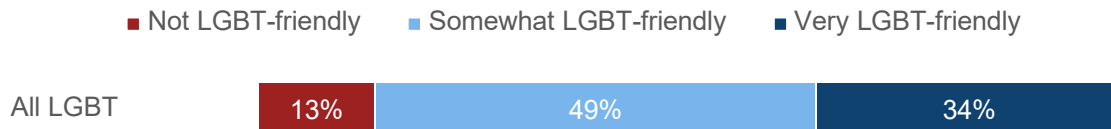


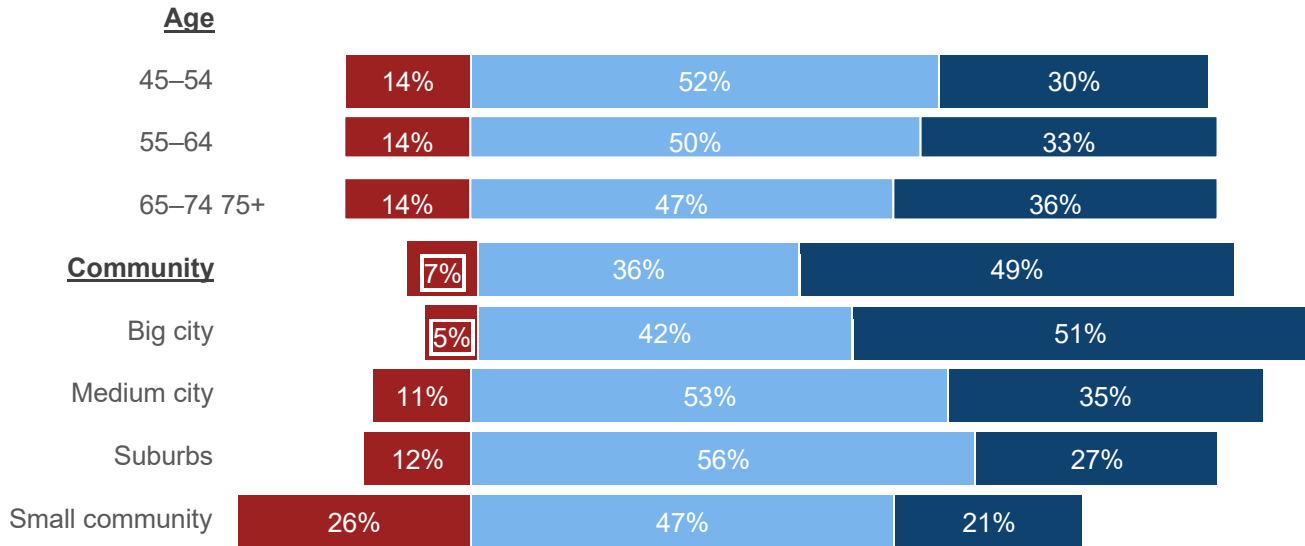
Base: All LGBT, n=1,762; Lesbian women, n=627; gay men, n=680; bisexual men and women, n=162; gender expansive individuals, n=264.

Perception of community as LGBT-friendly

While the vast majority of LGBT participants felt that their communities were at least somewhat LGBTfriendly, size of community did correlate to the perception of LGBT-friendliness. Those living in smaller communities were least likely to see their community as LGBT-friendly, but a majority still felt that their community was LGBT-friendly (68%).

LGBT-friendliness of community of residence





Base: All LGBT, n=1,762; ages 45–54, n=610; ages 55–64, n=600; ages 65–74, n=422; ages 75+, n=130; big city, n=486; medium city, n=360; suburbs, n=452; small city, small town, and rural, n=464.

Access to services

LGBT community members living in small cities, small towns, and rural areas had the most limited access overall to LGBT-affirming services. Four in ten LGBT respondents in small communities were without access to any LGBT-specific community services where they live.

Access to LGBT services for older adults was particularly low in communities of all sizes and especially outside big cities.

	All LGBT	Big City	Medium City	Suburbs	Small Community
LGBT-affirming churches, synagogues, mosques, or other faith organizations	63%	79%	71%	61%	38%
LGBT establishments such as restaurants, bars, or stores	57%	77%	66%	56%	27%
LGBT cultural or social organizations or events	57%	75%	64%	55%	33%

LGBT community center	54%	78%	57%	56%	21%
LGBT professional or business organizations	43%	67%	43%	44%	14%
LGBT health center	32%	57%	25%	31%	11%
LGBT services for older adults	27%	48%	24%	22%	10%
Other types of LGBT organizations	24%	35%	24%	22%	11%
I do not have access to LGBT organizations where live	18%	5%	10%	16%	43%

Base: All LGBT, n=1,762; Big city, n=486; medium city, n=360; suburbs, n=452; small city, small town, and rural, n=464.

Communication with physician

The majority of LGBT respondents in this survey are out to their physician, but bisexual men and women were significantly less likely to say their primary care physician knows their sexual orientation.

Percent whose primary care doctor knows their...



Gender identity

Gender expansive



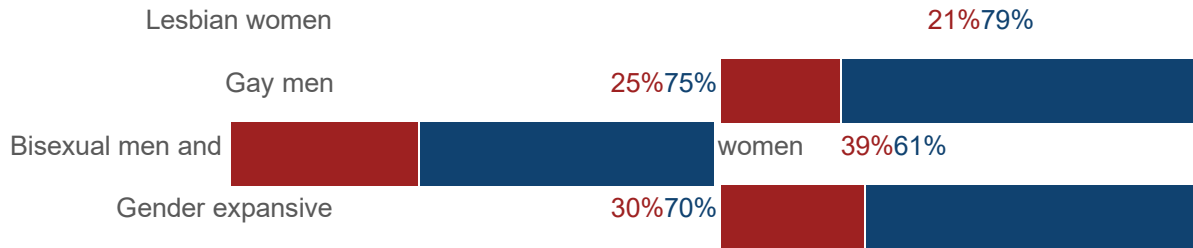
Base: Sexual orientation question to lesbian, gay, bisexual participants, n= 1,446. Gender Identity to gender expansive individuals, n=261.

Relationship with physician

Most LGBT survey respondents have a positive relationship with their primary care doctor or physician, and few of any group said their relationship was neutral or negative. However, similar to the trend of bisexual respondents being less likely to discuss their sexual orientation with providers, they were also most likely to feel reluctant to discuss some issues for fear of being judged by their physician.

Percent who feel they **can** or **cannot** freely discuss all healthcare issues with their primary care doctor or physician





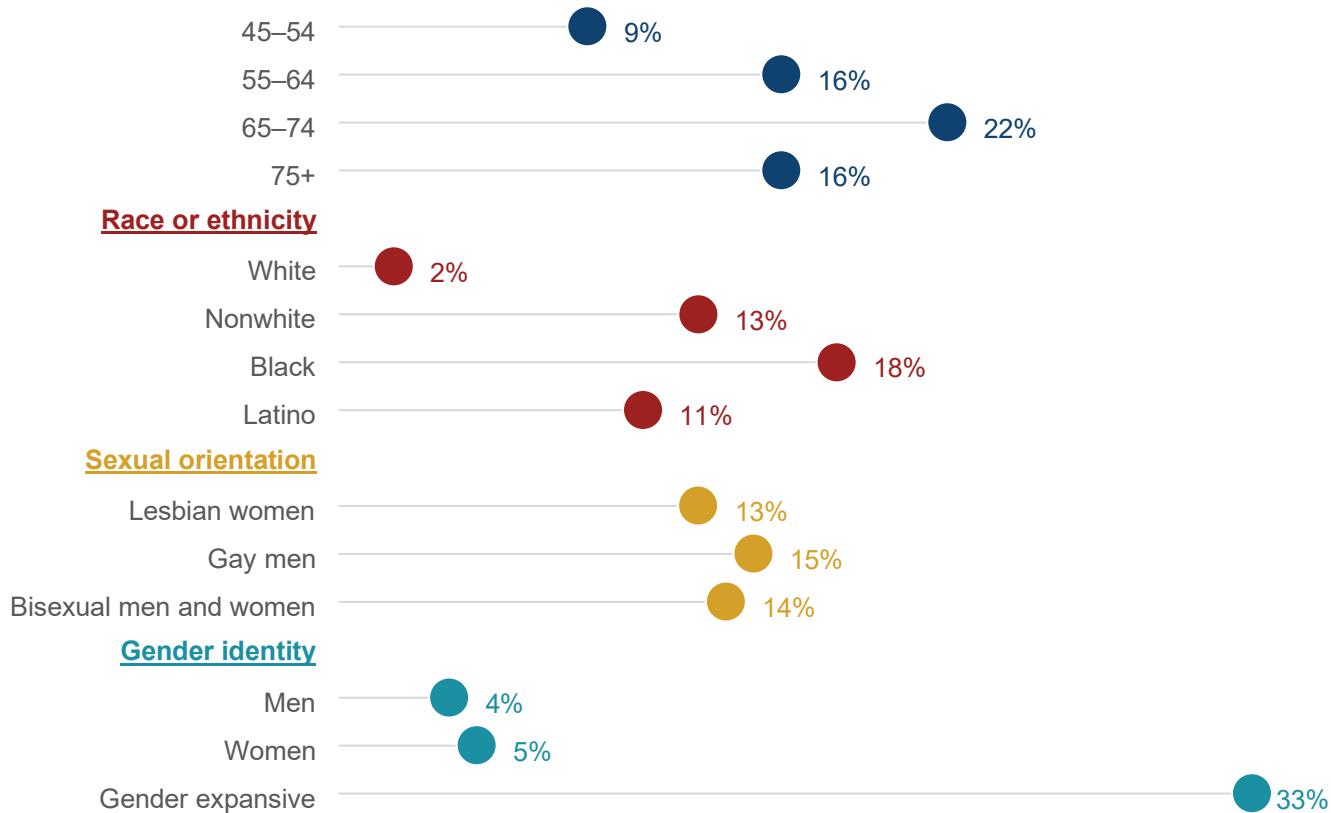
Base: All LGBT with a primary care doctor/physician, n=1,674; lesbian women, n=600; gay men, n=645; bisexual men and women, n=151; gender expansive individuals, n=249; ages 45–64, n=1,138; 65+, n=536.

Volunteering

Forty percent (40%) of survey participants said that they are active volunteers, with more volunteering in non-LGBT organizations (29%) than in LGBT organizations (18%). Survey respondents expressed some concern that volunteer opportunities may be closed to them because of their age, sexual orientation, and gender identity. One in five LGBT adults ages 65 to 74 was concerned that age would limit their opportunity to participate in volunteer activities and one in three gender expansive participants said their gender identity may keep them from being welcomed.

Percent who worry volunteer opportunities may not be open to them based on their age, race or ethnicity, sexual orientation, or gender identity

Age



Base: All LGBT, n=1,762; ages 45-54, n=610; ages 55-64, n=600; ages 65-74, n=422; ages 75+, n=130; white, n=1,182; nonwhite, n=523; black, n=233; Latino, n=199; lesbian women, n=627; gay men, n=680; bisexual men and women, n=162; gender expansive individuals, n=264; male, n=759; female, n=739.

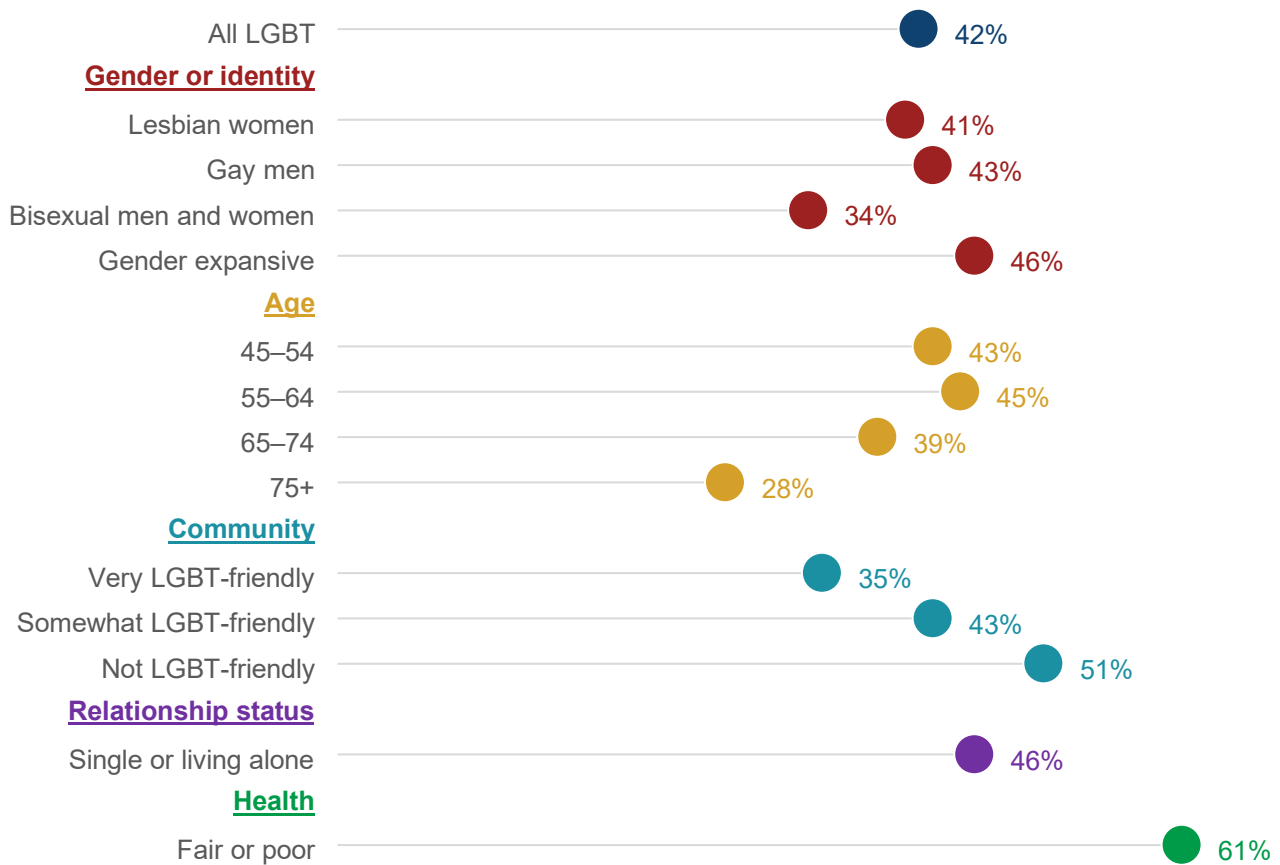


**DETAILED FINDINGS:
AS THEY AGE**

Concern for future support

Four in ten (42%) LGBT participants were either extremely or very concerned about having adequate family and/or social supports to rely on as they age, and 76% were at least somewhat concerned. Gender expansive participants, those ages 55–64, and those living in LGBT-unfriendly communities were most likely to be concerned. LGBT adults ages 45 and older with fair and poor health had by far the highest concern of any group about having adequate family and social support to rely on as they age.

Percent who are very or extremely concerned about having adequate family and social support to rely on as they age



Base: All LGBT, n=1,762; lesbian women, n=627; gay men, n=680; bisexual men and women, n=162; gender expansive individuals, n=264; Ages 45–54, n=610; ages 55–64, n=600; ages 65–74, n=422; ages 75+, n=130; very LGBT-friendly community, n=585; somewhat LGBT-friendly community, n=854; not LGBT-friendly community, n=251; single/living alone, n=829; fair and poor health, n=271.

Healthcare and discrimination

Many LGBT community members expressed some concerns about discrimination in healthcare as they get older because of their sexual orientation, gender identity, age, or ethnicity. Gender expansive participants have the greatest concerns.

Percent somewhat or very concerned that the quality of healthcare received will be adversely impacted by their sexual orientation or gender identity as they age



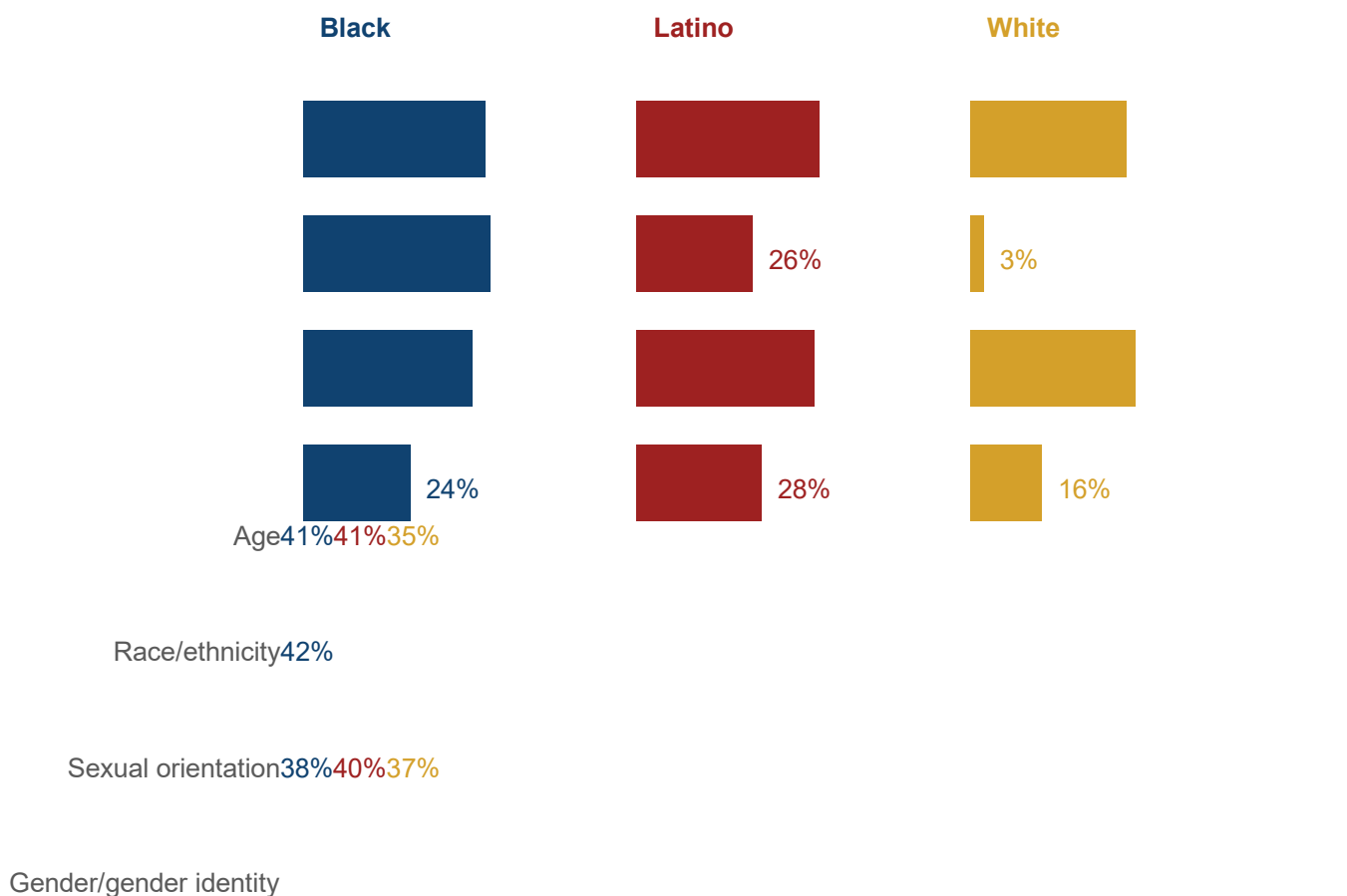
Base: Lesbian women, n=627; gay men, n=680; bisexual men and women, n=162; gender expansive individuals, n=264.



Healthcare and discrimination by ethnicity

Gay men, lesbian women, and bisexual men and women of color (black and Latino) were about as likely as white LGB respondents to be concerned that their sexual orientation and their age may have a negative impact on the quality of care they receive from healthcare providers as they age. However, black and Latino respondents were far more likely to be concerned also about their race or ethnic identities as a reason for poor quality of care, as well as gender or gender identity. Rather than one type of discrimination outranking others, black and Latino members of the LGBT community carry additional reasons to feel at risk of receiving poor healthcare.

Percent somewhat or very concerned that the quality of care they receive from healthcare professionals will be adversely affected by their age, race/ethnicity, sexual orientation, or gender/gender identity

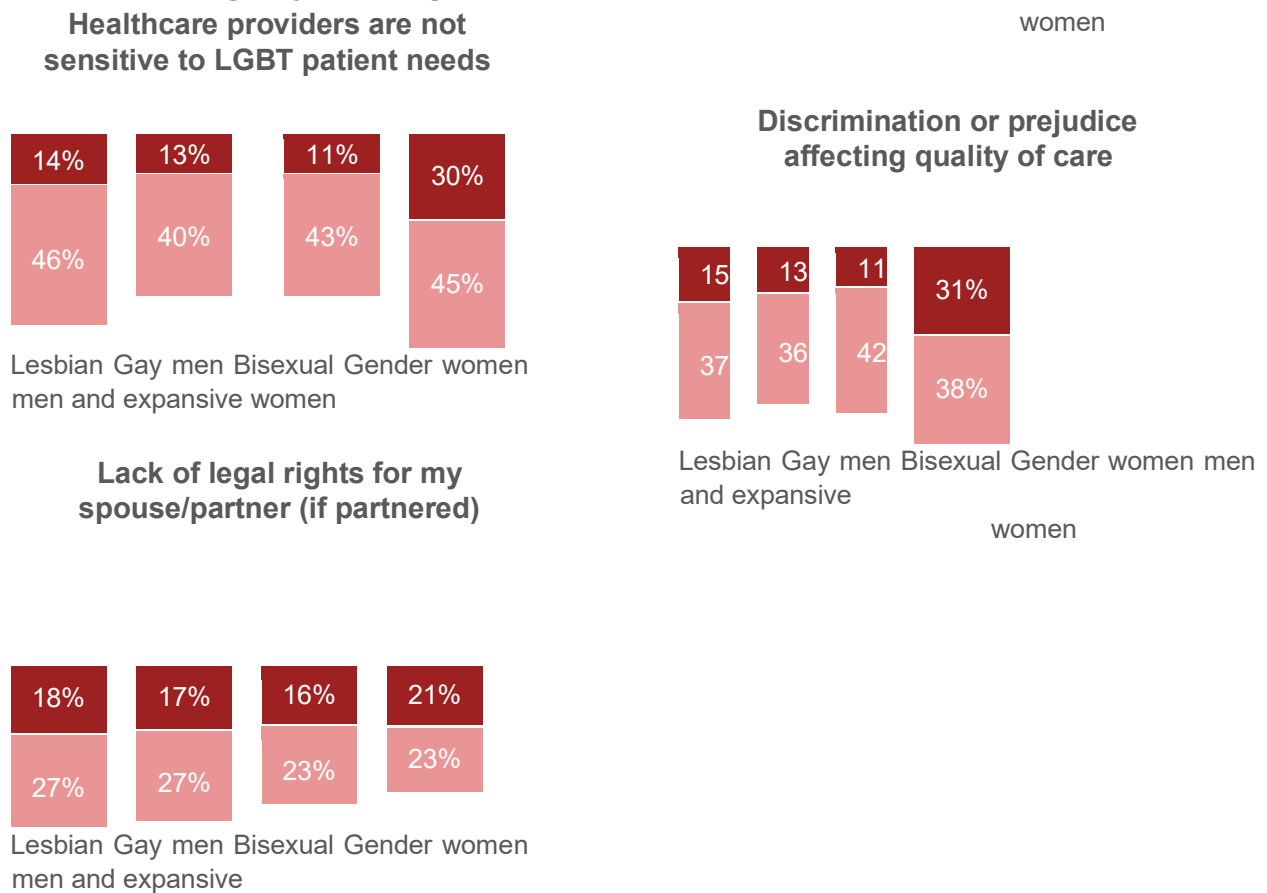


Base (All LGBT): black/African American, n=233; Latino, n=199; white, n=1,182.

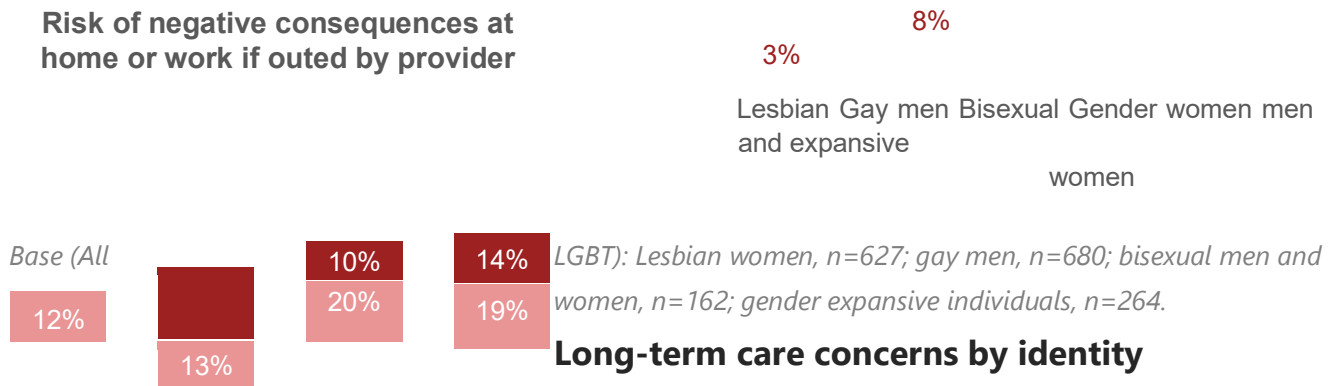
Legal protections

Survey participants expressed significant concern regarding discrimination or prejudice in healthcare. Gender expansive participants were by far the most concerned, both in number and degree. The greatest concern was healthcare providers who are not sensitive to LGBT patient needs, followed by discrimination or prejudice affecting quality of care. For LGBT adults ages 45 and older who are not out with their coworkers and supervisors, 40% are concerned about the risk of facing negative consequences at home or work if they are outed by medical provider.

Percent **somewhat** or **very concerned** about the following if they or their spouse/partner ever had a health emergency requiring medical attention



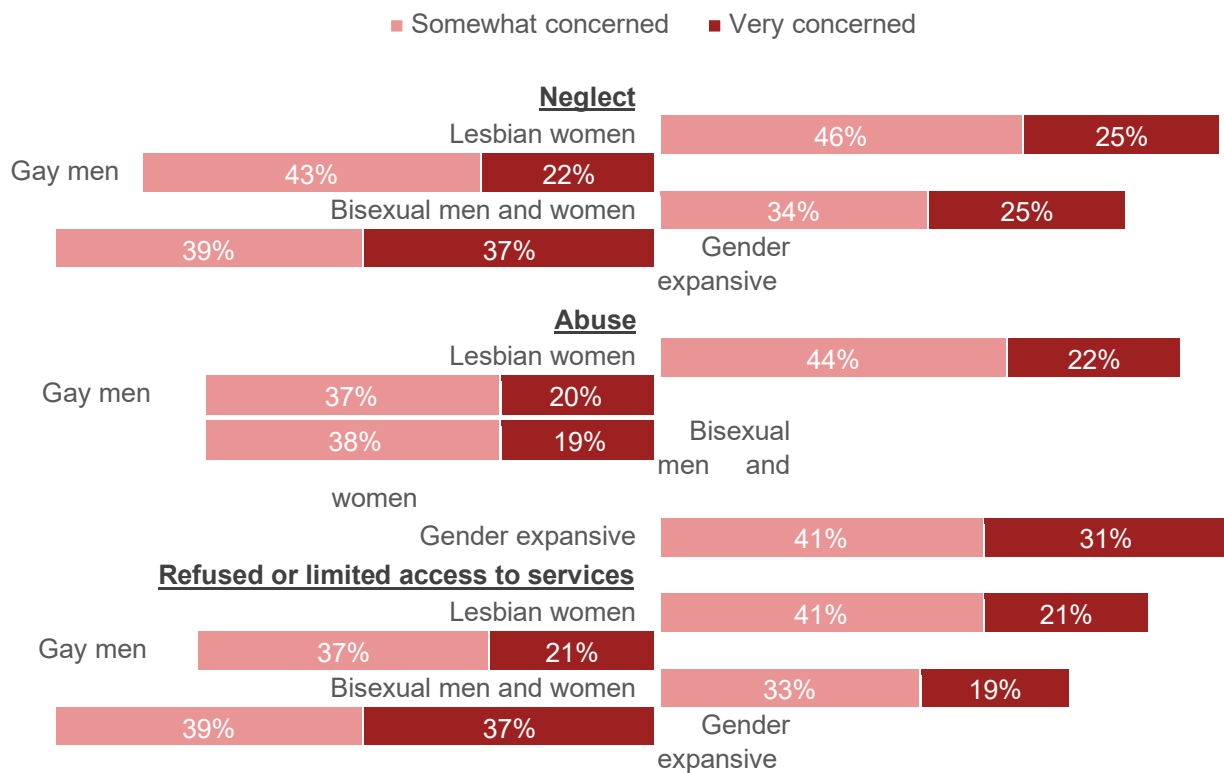
Risk of negative consequences at home or work if outed by provider

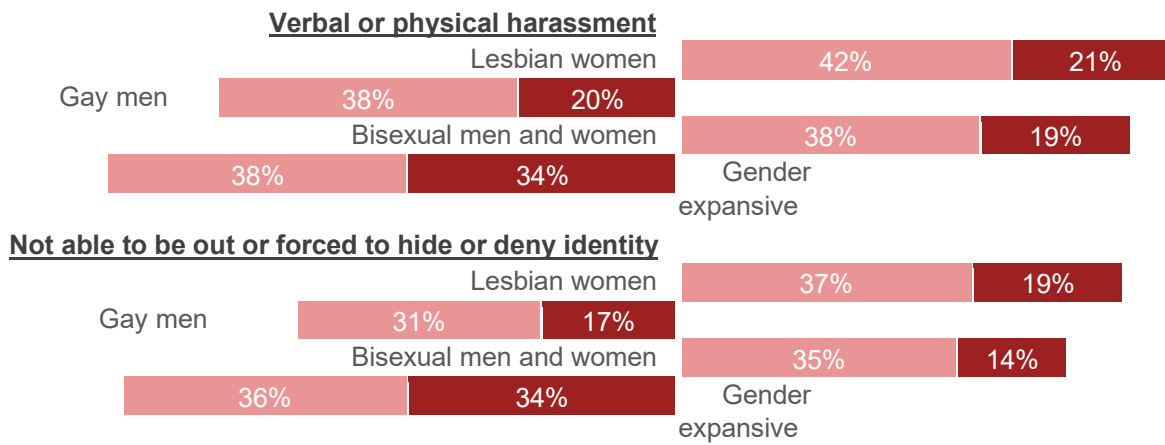


Long-term care concerns by identity

Respondents expressed serious concerns about long-term care, especially gender expansive individuals. A majority of gender expansive respondents cited concerns about neglect, abuse, being refused access to services, or harassment. The most LGBT-specific impact is to be forced to hide one’s identity, which was a concern for about half of LGB respondents and for 70% of gender expansive respondents.

Percent somewhat or very concerned about the following if they or their spouse/partner ever needed long-term care, by gender or identity



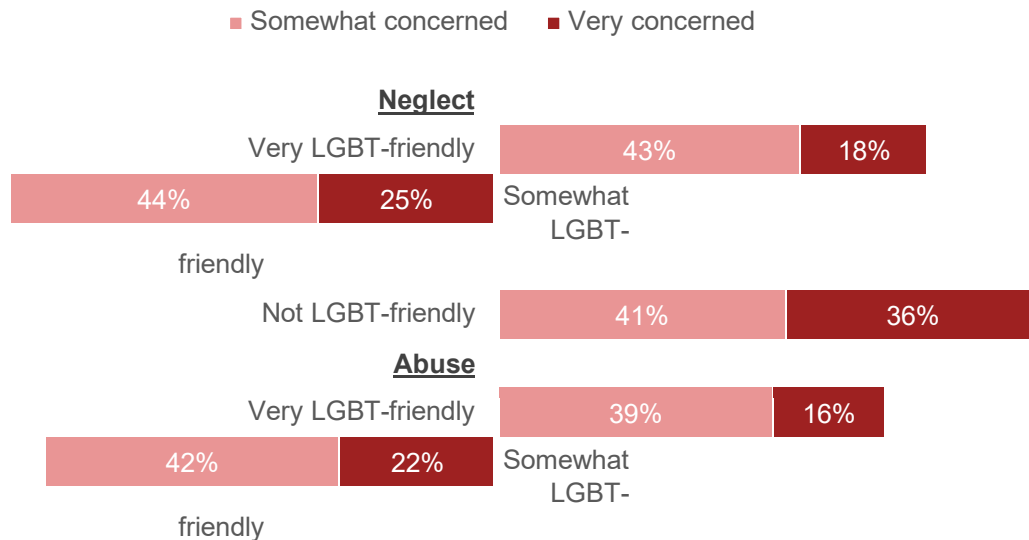


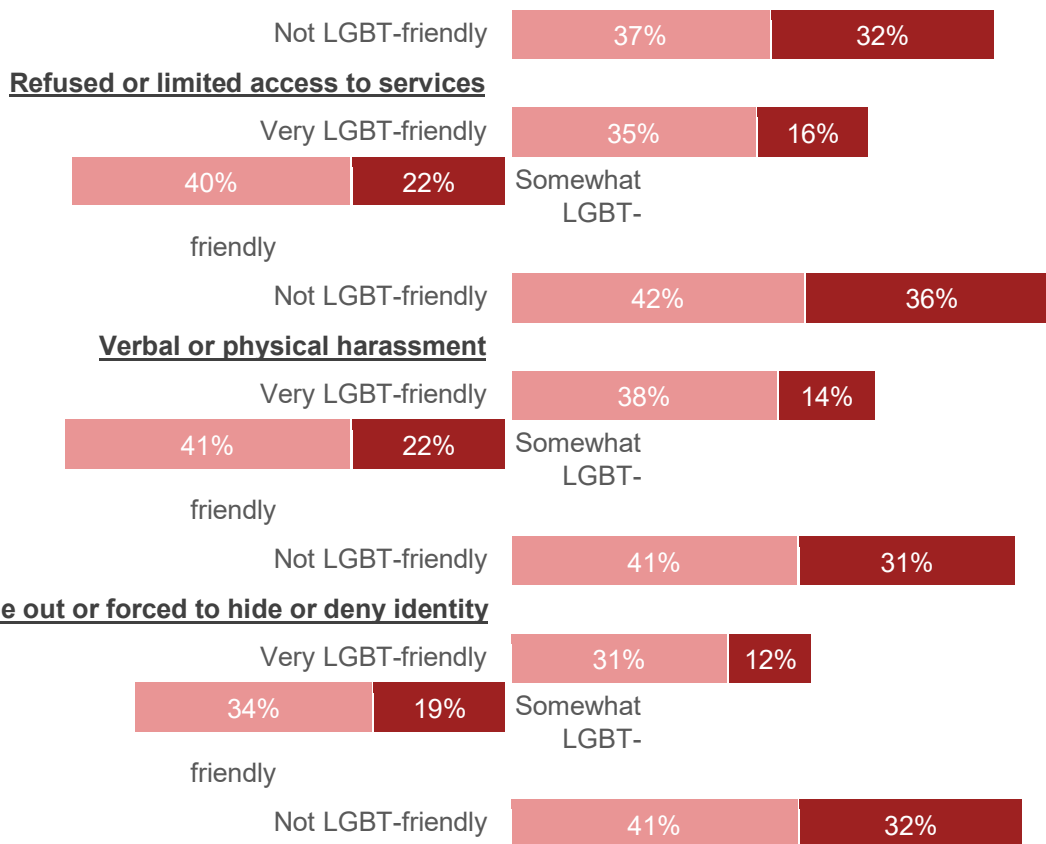
Base (All LGBT): Lesbian women, n=627; gay men, n=680; bisexual men and women, n=162; gender expansive individuals, n=264.

Long-term care concerns by type of community

Large proportions of respondents living in even very LGBT-friendly communities were concerned about their quality of long-term care as an LGBT person. Those living in LGBT-unfriendly communities were even more likely to express concerns.

Percent somewhat or very concerned about the following if they or their spouse/partner ever needed long-term care, by community friendliness





Base: Very LGBT-friendly community, n=585; somewhat LGBT-friendly community, n=854; not LGBT-friendly community, n=251.

LGBT outreach by long-term care services

Survey results show that providers of long-term care services and supports can initiate specific outreach activities to make the LGBT community feel more comfortable including training, hiring LGBT staff, investing in advertising to communicate LGBT-friendliness, and displaying LGBT-welcoming signs in facilities and online. Any of these actions help create LGBT-safe spaces within the long-term care industry and would be roundly welcomed by the LGBT community.

Percent who would be somewhat/much more comfortable if they or their spouse/partner ever needed long-term care if providers had the following

Knowing providers and staff were specifically trained for LGBT patient needs



Base: All LGBT, n=1,762; lesbian women, n=627; gay men, n=680; bisexual men and women, n=162; gender expansive individuals, n=264.

Caregivers

More than two-thirds of LGBT respondents have been or are a caregiver to an adult loved one, and three-fourths expected to be a caregiver or need one themselves in the future. Given the reliance of the LGBT community on friends for social supports in times of need, as well as the level of concern about quality of care from long-term care providers, it follows that such a large share of respondents have provided care for a friend or loved one and expect to either give or receive care in the future.

Past caregiving	Future caregiving
<p>68% have provided caregiving to an adult loved one such as a relative, friend, or spouse or partner</p>	<p>71% think it is likely they will be a caregiver to a loved one in the future</p>
<p>30% have received caregiving as an adult from a loved one such as a relative, friend, or spouse or partner</p>	<p>74% think it is likely they will need caregiving from a loved one in the future</p>

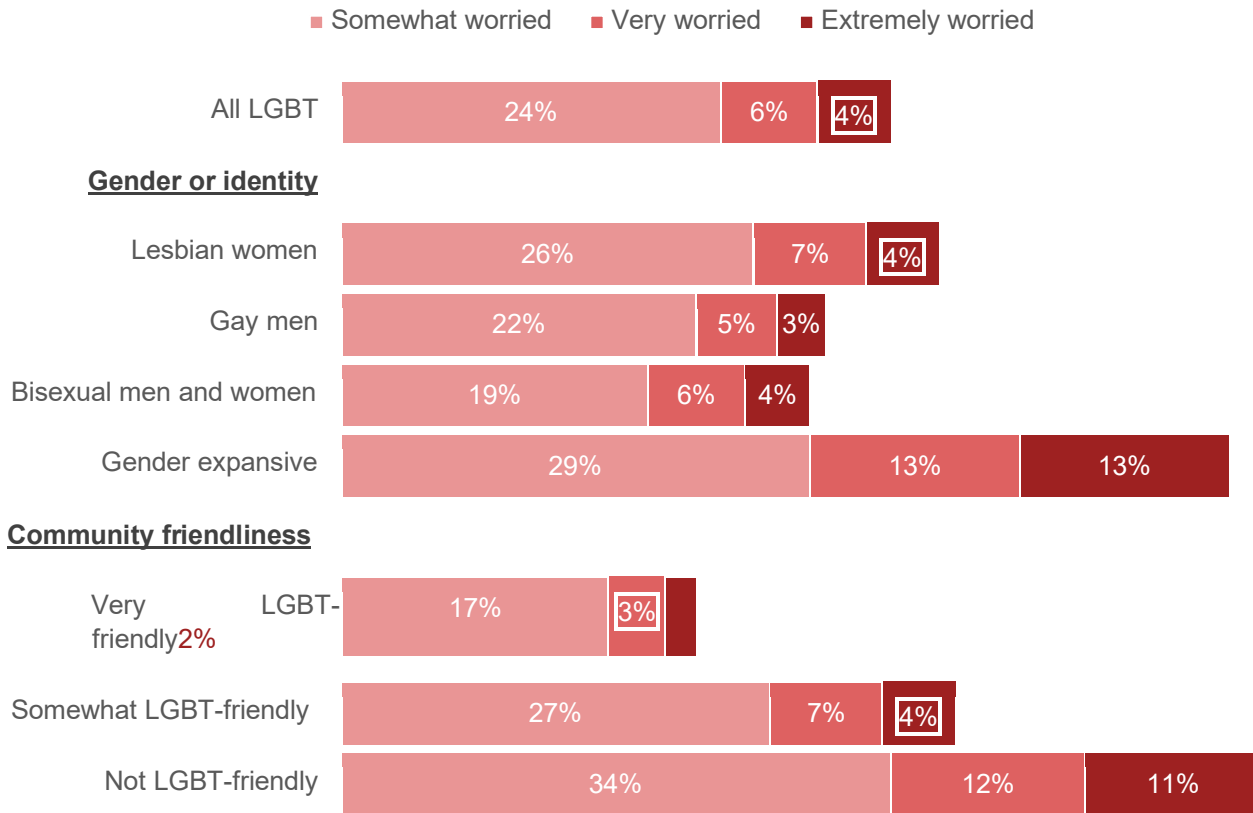
Base: All LGBT, n=1,762.

Fear of future housing discrimination

One in ten (10%) respondents were very or extremely worried about future housing discrimination as they age because of their LGBT identity, and that share rises to 34% when including somewhat worried. Gender expansive participants again indicated an even greater level of insecurity with more than half (54%) expressing concern about needing to hide their identity to access housing options for older adults.



Percent who are at least somewhat worried about having to hide their LGBT identity in order to have access to suitable housing for older adults

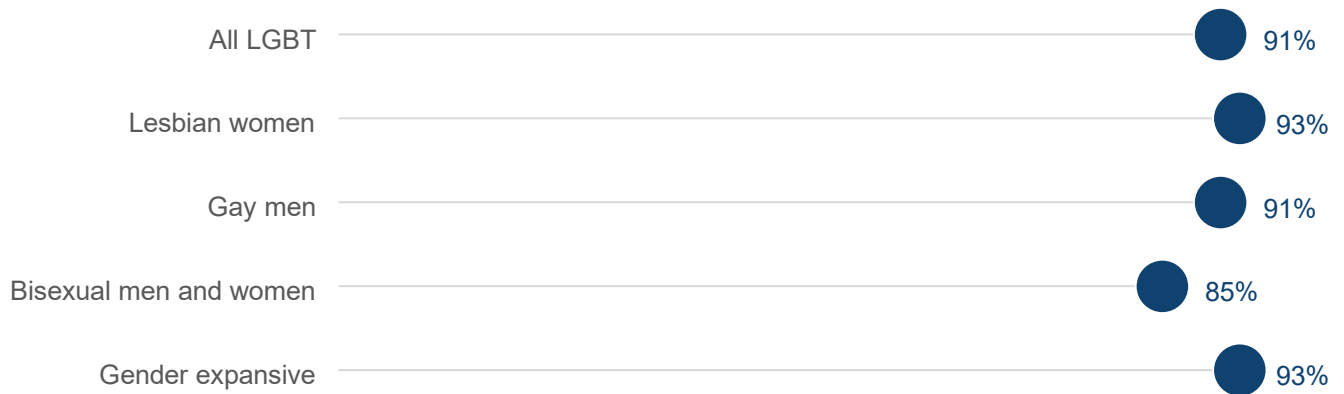


Base: All LGBT, n=1,762; lesbian women, n=627; gay men, n=680; bisexual men and women, n=162; gender expansive individuals, n=264; very LGBT-friendly community, n=585; somewhat LGBT-friendly community, n=854; not LGBT-friendly community, n=251.

LGBT-welcoming housing developments

Nine out of ten respondents expressed an interest in LGBT-welcoming housing developments for older adults if they could afford it. Similarly large majorities showed interest across the spectrum of sexual orientation and gender identity.

Percent somewhat, very, or extremely interested in LGBT-welcoming housing developments for older adults if they could afford them



Base: All LGBT, n=1,762; lesbian women, n=627; gay men, n=680; bisexual men and women, n=162; gender expansive individuals, n=264; ages 45–64, n=1,210; ages 65+, n=552.



APPENDIX

**APPENDIX 31
MAINTAINING DIGNITY**

About AARP

AARP is the nation's largest nonprofit, nonpartisan organization dedicated to empowering Americans 50 and older to choose how they live as they age. With nearly 38 million members and offices in every state, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands, AARP works to strengthen communities and advocate for what matters most to families with a focus on health security, financial stability and personal fulfillment. AARP also works for individuals in the marketplace by sparking new solutions and allowing carefully chosen, high-quality products and services to carry the AARP name. As a trusted source for news and information, AARP produces the nation's largest circulation publications, AARP The Magazine and AARP Bulletin. To learn more, visit www.aarp.org or follow @AARP and @AARPadvocates on social media.

About CMI

Community Marketing & Insights (CMI) has been conducting LGBT consumer research for 25 years. Our practice includes online surveys, in-depth interviews, intercepts, focus groups (on-site and online), and advisory boards in North America, Europe, Australia and Asia. Industry leaders around the world depend on CMI's research and analysis as a basis for feasibility evaluations, positioning, economic impact, creative testing, informed forecasting, measurable marketing planning and assessment of return on investment.

Key findings have been published in the New York Times, Washington Post, Chicago Tribune, Los Angeles Times, Wall Street Journal, Forbes, USA Today, Chicago Tribune, Miami Herald, CBS News, NPR, CNN, Reuters, Associated Press, eMarketer, Mashable, and many other international, national and regional media.

Acknowledgements

AARP Research would like to thank several collaborators on this research: Praveen Fernandes, Michael Yudin and Gabi Huesca with The Raben Group for the environmental scan and discovery research that lay the foundation for this survey; Aaron Tax and Michael Adams of SAGE and Heron Greenesmith of Movement Advancement Project for consultation and review of the survey instrument; Lu Xun from Community Marketing & Insights (CMI) for project management and data analysis; and very special

thanks to David Paisley of CMI for his expert insights on the LGBT community and leading the production of this report. Additional staff in AARP were instrumental in completing this project including Edna Kane-Williams, Nii-Quartelai Quartey, Angelo Greco, Cassandra Cantave, Oscar Anderson, and Koi Hernandez. The authors would also like to thank the members of the LGBT community who participated in this survey.

AARP also wants to acknowledge the following key national partners in our work to support LGBT older adults: Earl Fowlkes of Center for Black Equality; Glenn Magpantay of National Queer Asian Pacific Islander Alliance; Kathy Paspalis of Lambda Legal; Jeff Berger of National Association of Gay & Lesbian Real Estate Professionals; Sam McClure of National LGBT Chamber of Commerce; and Ruben Gonzales of Victory Fund Institute.

Authors

Angela Houghton

AARP Research

Nii-Quartelai Quartey, Ed.D.

AARP Multicultural Leadership

For media inquiries, contact [**media@aarp.org**](mailto:media@aarp.org).



The original report and related materials can be found at www.aarp.org/dignitysurvey.

**EDEN AT KING COUNTY HOSPICE LLC
CERTIFICATE OF NEED APPLICATION**

**APPENDIX 32
THE FACTS ON LGBTQ AGING
&
STONEWALL GENERATION**

The facts on LGBT aging

Caregiving

Caregiving can be a rewarding but sometimes challenging experience. LGBT caregivers face unique obstacles, from healthcare laws that privilege biological families to a lack of resources for LGBT-specific needs. Because LGBT people are twice as likely to age alone and four times less likely to have children, LGBT elders become caregivers more often than their heterosexual counterparts.

- More than half (54 percent) of LGBT elder care recipients receive care from their partner; a quarter (24 percent) receive care from a friend
- 21 percent of older LGBT adults have provided care to friends, compared to only 6 percent of their heterosexual counterparts
- LGBT caregivers are more likely to be doing so in isolation and tend to have poorer mental and physical health

Cultural competency

Due to a lifetime of discrimination, harassment, and violence, LGBT elders are more likely to become ill at an earlier age than their straight peers. In some instances, an LGBT elder might only seek assistance for emergency care, which can be costly not only to their health but also their financial security.

- About 20 percent of LGBT people avoid medical care out of fear of discrimination
- 88 percent of LGBT older adults want long-term care facilities that are culturally competent
- 50 percent of transgender individuals have taught their medical providers about transgender care

Discrimination

LGBT elders can be targets of discriminatory acts ranging from hiring and salary discrimination to neglectful health care providers. LGBT older adults often experience victimization based on their perceived or actual sexual orientation and gender identity. Discrimination can lead to negative

consequences for LGBT elders:

- About two-thirds of LGBT older adults have experienced victimization at least three times in their lives
- Victims of discrimination have a higher likelihood of poor health outcomes
- It's been reported that LGBT older adults have received inferior, neglectful healthcare or have denied healthcare altogether

Health care

LGBT older adults are less likely than their heterosexual peers to reach out to providers, senior centers, meal programs, and other entitlement programs because they fear sexual orientation- or gender-based discrimination and harassment. LGBT older adults experience mental and physical illness more frequently than their heterosexual counterparts:

- Nearly one-third of transgender people do not have a regular doctor and report poor general health
- LGBT older adults have higher rates of poor physical health and mental distress
- 41 percent of LGBT older adults report having a disability, compared to 35 percent of heterosexual older adults
- 9 percent of lesbian, gay, bisexual and queer people report that a doctor or other health care provider used harsh or abusive language while treating them; among transgender people, the number was 21 percent

HIV/AIDS

HIV disproportionately impacts the LGBT community, and the number of LGBT older adults with HIV is increasing. Thirty years ago, the idea that someone with HIV

 Advocacy & Services for LGBT Elders
We refuse to be invisible

The facts on LGBT aging

would live decades was unimaginable. Now people with HIV are living well into their golden years.

- Half of all HIV-infected Americans are over 50 years old
- Adults 50 and older account for 15 percent of all new HIV/AIDS diagnoses, and 29 percent of all persons living with AIDS
- Researchers estimate more than 50 percent of patients with HIV have an HIV-associated neurocognitive disorder

Housing

Older LGBT couples often experience discrimination when seeking rental housing and senior housing. If when they are admitted into a senior housing development or facility, they are frequently discriminated against by property managers, staff, other residents, or service providers, making the experience of living there miserable or even life-threatening.

- 48 percent of LGB couples experience adverse treatment when seeking senior housing; trans individuals experience adverse treatment at even higher rates
- Half the LGBT population lives in states with no laws prohibiting housing discrimination against them
- 34 percent of LGBT older adults fear having to re-closet themselves when seeking senior housing

Legal and financial

A host of variables—gender, generation, ethnicity, state of residence, and marital status—make financial decisions especially challenging for LGBT older adults. Ongoing legal discrimination, compounded with a lifetime of challenges, make it harder for LGBT older adults to be financially secure.

- **In general, LGBT people are poorer and have fewer financial resources than their heterosexual counterparts**
- LGBT people are likelier to be subject to hiring or salary discrimination, making their earnings—and their Social Security payments—lower

- Transgender older adults are more likely to experience financial barriers than non-transgender older adults, regardless of age, income, and education.

LGBT aging

LGBT older people are living vibrant, full lives across the U.S. and around the world. While the U.S. census has never measured how many LGBT people live in America, **reports estimate that there are currently around 3 million LGBT adults over age 50. That number is expected to grow to around 7 million by 2030.** LGBT older people face unique challenges as we age. LGBT elders are:

- Twice as likely to be single and live alone
- Four times less likely to have children
- Far more likely than our heterosexual peers to have faced discrimination, social stigma, and the effects of prejudice
- More likely, therefore, to face poverty and homelessness, and to have poor physical and mental health

But LGBT older adults are resilient. They were the pioneers who stood up and pushed back at the Stonewall uprising. On the whole, we have gained acceptance and rights that were unimaginable in the dark days when we were labeled criminals, sinners, or mentally ill. We have seen gains in federal rights in the areas of marriage and adoption, and nearly half of states have passed legislation to eradicate discrimination in employment and housing.

Social isolation

Accessing safe, friendly services can be difficult for LGBT older adults who do not

sage | Advocacy & Services for LGBT Elders
We refuse to be invisible

The facts on LGBT aging

live in major cities. Social connectedness keeps older adults healthy and helps them live longer. LGBT older adults are twice as likely to live alone, making them vulnerable to social isolation. LGBT older adults living with HIV also face high rates of isolation, which has been shown to have a negative impact on health and well-being, particularly cognitive function.

- Nearly 60 percent of LGBT older adults report feeling a lack of companionship; over 50 percent reported feeling isolated from others
- The health risks of prolonged isolation have been equated with smoking 15 cigarettes daily
- 41 percent of transgender people are reported to have attempted suicide

Wellness

Wellness affects health outcomes and encompasses positive habits such as physical activity, abstaining from cigarettes and alcohol, and receiving regular check-ups from a physician. LGBT older adults have experienced decades of bullying, discrimination, and verbal and physical abuse.

Self-care is frequently more difficult for LGBT elders because they are much more likely to live on their own, have fewer financial resources, and don't necessarily trust their health care providers to treat them from a place of cultural competency.

- LGBT people smoke cigarettes at rates 68 percent higher than the general population
- LGB older adults are significantly more likely to consume alcohol than heterosexual older adults
- LB women sit an average of four to five more hours per week than heterosexuals

The logo for SAGE, featuring the word "sage" in a blue, lowercase, serif font.

- Helps LGBT older people age with the respect and dignity they deserve
- Established in 1978 to support for LGBT elders in New York City
- Advocates at the federal and state levels with and on behalf of LGBT older people
- Nationwide network of affiliates working with LGBT elders across the country
- Five senior centers in New York City with robust calendars of events and activities

SAGE National Headquarters

305 7th Avenue
15th Floor
New York, NY 10001
212-741-2247
info@sageusa.org

 **Advocacy & Services for LGBT Elders**
We refuse to be invisible

Need help? Call the SAGE Hotline: 877-360-LGBT



DONATE

Newsroom

HOME / 'STONEWALL GENERATION' CONFRONTS OLD AGE, SICKNESS — AND DISCRIMINATION

'Stonewall Generation' Confronts Old Age, Sickness — And Discrimination

Two years ago, nursing professor Kim Acquaviva asked a group of home care nurses whether they thought she was going to hell for being a lesbian. It's OK if you do, Acquaviva said, but is the afterlife within your scope of practice?

After Acquaviva's talk, an older nurse announced she would change how she treats LGBTQ people under her care.

"I still think you're going to hell, but I'm going to stop telling patients that," the nurse told Acquaviva.

Acquaviva, a professor at the George Washington University School of Nursing in Washington, D.C., raised the example Tuesday at [a panel](#) hosted by Kaiser Health News on inclusive care for LGBTQ seniors. It was one of many examples of discrimination that these older adults may face as they seek medical care.

LGBTQ baby boomers, dubbed “the Stonewall Generation,” came of age just as the 1969 New York uprising galvanized a push for gay rights. After living through an era of unprecedented social change, they’re facing new challenges as they grow old.

“Fifty years after Stonewall, there’s a new generation of LGBT elders who never thought they’d get an AARP card,” said Nii-Quartelai-Quartey, AARP’s senior adviser and national liaison on the issue who also participated in Tuesday’s panel.

By 2030, there will be an estimated 7 million LGBT people in America over 50. About 4.7 million of them will need elder care and services, according to SAGE, an advocacy group.

In a country where most elder care is left to family, many LGBTQ people are estranged from relatives and don’t have that option. Turning to others for care — in assisted living centers, nursing homes or hospice settings — makes them uniquely vulnerable.

“The fear of living in a situation where they can’t advocate for their own care and safety is terrifying,” said Hilary Meyer, chief enterprise and innovation officer for SAGE.

Three-quarters of LGBT people are worried about having adequate family or social supports, according to a nationally representative survey of AARP members released last year.

More than a third are concerned they'll have to hide their identity to find suitable housing as they age. And at least 60% are concerned about neglect, harassment and abuse, the survey showed.

Often, those fears are founded, according to results of a [forthcoming survey](#) of more than 850 hospice and palliative care providers about LGBT patients and family experiences.

"I think the information we've got is actually quite discouraging and quite concerning," said Gary Stein, a professor at the Wurzweiler School of Social Work at Yeshiva University who co-led the project.

Most providers surveyed said LGBT people received discriminatory care, he said. For transgender patients, two-thirds said that was true.

Caregivers reported hundreds of examples of disrespectful treatment, Stein said.

When LGBT couples would hold hands, staff "might roll their eyes, make faces at each other," he said. They often failed to consult the patients' partners, directing questions to biological family members instead.

In several instances, staff would "try to pray" to the patient or their family, Stein said.

Some LGBT patients were left in soiled diapers or rationed pain medication in a "punishing way" because of their sexual identity, he added.

"For transgender patients, there was lots of discomfort around what to call the person," Stein said. "A number of people said patients were called 'it' instead of a pronoun."

Twenty states have laws that specifically protect LGBT people against discrimination, but most don't, Stein noted. A recently enacted Trump administration "conscience rule" allows providers to decline to provide care that goes against their moral or spiritual beliefs. Advocates said the new rule could make it easier to discriminate against LGBTQ people.

Still, a growing number of senior housing and care sites are putting non-discrimination policies in place and training personnel to provide LGBTQ-inclusive care.

The SAGE staff has trained more than 50,000 people at more than 300 sites nationwide, Meyer said. They learn best practices for asking questions that don't perpetuate stigma.

"It's even something as simple as asking somebody, a woman, if her husband will be visiting," said Meyer, noting that the question forces the person to decide whether to announce her sexual identity. "Having to come out of the closet that way can be very challenging."

In a few high-profile instances, LGBTQ couples or individuals have sued providers for discrimination.

In 2016, Lambda Legal, a gay advocacy group, sued an Illinois senior residential facility for failing to protect Marsha Wetzel, 70, a disabled lesbian, from harassment and violence by other residents. The 7th Circuit Court of Appeals ruled that a landlord may be held liable under the Fair Housing Act for failing to protect a tenant from known, discriminatory harassment by other tenants.

Karen Loewy, Wetzel's attorney, would say only that "the matter has been resolved," and Wetzel is now living at a Chicago-area facility.

Last summer, in Missouri, a married lesbian couple, Mary Walsh, 73, and Bev Nance, 69, sued a senior-living facility that denied their housing application. The Friendship Village assisted living center cited a “cohabitation policy” that defines marriage as between one man and one woman as the reason.

A U.S. district judge dismissed the suit in January, saying that their claims of discrimination were “based on sexual orientation rather than sex alone.” The distinction is important because neither federal nor state laws explicitly prohibit discrimination based on sexual orientation. The suit has been stayed pending Supreme Court decisions that could affect the outcome.

In the meantime, the couple has remained in their single-family home, where Walsh has developed health problems, said their lawyer, Julie Wilensky of the National Center for Lesbian Rights.

“They wanted to be planning in advance so that they would have stability when issues might come up in the future,” Wilensky said.

Not every LGBTQ person will want to step forward in the way Wetzel, Walsh and Nance have, said Loewy.

“When you feel like you’re being denied care ... you may not want to be out there to wave the banner,” she said.

Finding an LGBTQ-tolerant facility can be difficult. People are often bound by geography, and options are limited.

Still, LGBT people and their families can — and should — have candid conversations with potential caregivers before they make a choice, Loewy said.

One key question: Ask what kind of experience staff have working with LGBTQ people.

“If they say they haven’t [treated any such patients], don’t believe them,” Loewy said. “You want to hear a real clear commitment to ensuring every resident of this facility is going to be treated with dignity.”

This article originally appeared in *Kaiser Health News* on May 22, 2019.