Telemental Health in Today's Rural Health System

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Overview

Telemental health has long been promoted in rural areas to address chronic access barriers to mental health care. Policymakers and advocates tend to view telehealth technology as particularly promising given the chronic shortage of mental health clinicians and long travel distances to care. While support and enthusiasm for telemental health in rural areas remains quite high, we lack a clear picture of the reality of telemental health in rural areas, compared to its promise.

The term "telemental health" is intentionally used broadly within the literature to refer to the provision of mental health care at a distance.[1] Services provided using telemental health are generally considered to be the same as those delivered in person. In this study, we define a telemental health program as a program in which direct "one-on-one" services for the treatment of a mental health condition are provided through two-way televideo technology with the specialty mental health provider at one location known as the "**distant**" site and the patient located at another location known as the "**originating**" site.* The distant site may also be referred to as the presenting, hub, specialty, provider/physician, referral, or consulting site. The originating site may also be referred to as the spoke, patient, remote, or rural site.

Early telemental health demonstrations in the 1960s established the possibility of delivering services between distant sites. Early telemental health programs were more complex (capital and labor intensive) than current programs and relied on technology less mobile than it is today. These programs typically had fixed "studios" where the equipment to transmit the video and audio communication were located. Both the originating and distant sites required staff to manage the connection and transmission process and to address the problems that frequently arose. Because transmitting technology tended to be relatively large and expensive, it was often housed at academic medical centers or at larger medical institutions and its use in smaller institutional settings was limited. While these programs included audio-visual interaction, they were generally quite limited in the technology they used and in the number and type of sites where services were provided.

Pilot and demonstration programs in the 1990s established the improving technical feasibility of telemental health.[2] Today's technology is more mobile, less expensive, more reliable, and may be located almost anywhere. The days of "fixed studios" are gone; now the equipment

Key Findings

The scope and volume of services provided are often modest suggesting that the business case for these programs may be weaker than the clinical case.

The programs in our study were able to secure funding and other supports to implement services, but their ability to maintain and expand services to address unmet need is less certain.

Telemental health primarily addresses issues related to the distribution of providers and travel distances to care. However, there are underlying practice management issues, common to all mental health practices in rural areas, which pose challenges to the scope and sustainability of telemental health, including reimbursement, provider recruitment and retention, practice economies of scale, high rates of uninsurance, and high patient "no show" rates.

It is becoming increasingly apparent that telehealth technology, by itself, cannot overcome service delivery challenges without underlying reform to the mental health service system.

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* This definition of telemental health is consistent with services currently reimbursable through Medicare as well as some Medicaid and commercial payers. Some mental health stakeholders are advocating for a broader use of technology to deliver behavioral health services under the term "e-mental health". Few, if any, third party payers currently reimburse providers for delivering services using these broader technologies. This definition is also consistent with that currently used by the American Telemedicine Association.[1]

can be cost effectively located in small hospitals, clinicians' offices, and their homes. While telemental health technology is becoming more mobile, the "parts" of the rural health delivery system are increasingly being reassembled into both smaller and larger (more formal) networks of care. Consequently, individuals can, and do, access telemental health care in a variety of rural settings.

As technology improves and its costs decrease, interest continues to grow in using technology to expand access to mental health services to rural residents. Despite this interest, many telehealth experts note that current barriers to greater use of telehealth are less about the technology and more about the services that can be provided to patients across service delivery settings At a 2012 IOM telehealth workshop, a representative from the American Telemedicine Association noted a number of "deadly" barriers to the ongoing expansion of telehealth, including (1) money (limited reimbursement rates; fear of driving up costs; attracting technology companies that see large financial opportunities but do not understand health care delivery); (2) licensure and practice regulations; and (3) hype (excitement and enthusiasm that exceed practice realities and challenges).[3]

To better understand the role that telemental health plays in today's rural health care system, the Maine Rural Health Research Center conducted a national study of rural telemental health programs in two phases. In the first phase, we compiled a list of telemental health programs by: (1) reviewing grantee directories for relevant programs including the Office of Rural Health Policy (ORHP)/Health Resources and Services Administration's (HRSA) Rural Health Outreach, Rural Network Development, and Telehealth grant programs; (2) soliciting nominations from a national advisory group of rural telemental health experts recruited for this study and ORHP-funded Telehealth Resource Centers; and (3) conducting extensive web searches. This approach generated a list of 150 telemental health programs that were invited to complete a short online survey designed to collect data on their organizational context, services provided, staffing patterns, and the areas and populations served. Sixty programs responded to our survey (40 percent response rate). Fifty-three of these programs provide telemental health care; three programs responded to some but not all of the questions in the survey. Responses from these 53 programs provide a useful profile of what current rural telemental health programs are doing.

In the second phase of our study, we conducted semi-structured telephone interviews with administrators from 23 programs to understand the business and clinical environments in which these programs operate; their successes and challenges in establishing programs and delivering services, and the prospects for and challenges of long-term sustainability. These programs were selected to represent different organizational settings (e.g., Critical Access Hospitals (CAHs), Rural Health Clinics (RHCs), Federally Qualified Health Centers (FQHCs), community mental health centers (CMHCs) , academic medical centers, professional training programs, managed care programs, and provider vendors) as well as to yield geographic diversity.

This Research & Policy Brief reports primarily on the first part of our study—the online survey of 53 telemental health programs—and describes the organizational setting, services provided, and the staff mix of these programs. We draw from our telephone interviews with a subset of these programs to help describe the organizational context of telemental health programs. We will present a more thorough analysis of the data from our in-depth telephone interviews of these programs in a separate article in which we examine the clinical and business cases for rural telemental health programs.

Profile of Rural Telemental Health Programs

Organizational setting: Based on the responses to our survey, academic medical centers are the most common setting for telemental health programs (28 percent). Other common telemental health settings include community mental health centers (9 percent), acute care hospitals (9 percent), private vendors (8 percent), FQHCs (6 percent), and RHCs (6 percent).

Table 1: Organizational Uses of Telemental Health Technology (N= 53) *

	Percent (%)
Direct Patient Care	94
Consultations between Providers	72
Care Management/Coordination	46
Staff Supervision	36
Quality Improvement Activities	32

not mutually exclusive

Services provided and Staffing: Nearly all of the responding telemental health programs provide direct patient care (94 percent). Many programs also use the technology for other clinical, supervisory and administrative functions (Table 1). Organizations in and outside of healthcare are also turning to technology to perform these and similar functions

when face-to-face interactions are difficult or not possible. When telehealth technology is not being used for direct-patient care it may be available for these other functions. Larger organizations may be in a position to avail themselves of this capacity.

Fifty of the fifty-three organizations responding to our survey provide direct patient care using telehealth technology. The most common services provided by telemental health programs are medication management, initial diagnostic evaluation, psychotherapy, and crisis stabilization (Table 2). As programs have expanded how they use telemental health, they have relied more on different types of professional staffing. Telemental health services are most commonly provided by psychiatrists, clinical psychologists, clinical social workers, and psychiatric nurse practitioners (Table 3). These figures are not mutually exclusive as telemental health programs can and often do use more than one type of mental health clinician.

Table 2: Direct Care Services Provided in Telemental Health Programs (N= 50)*

	Percent (%)
Medication Management	82
Initial Diagnostic Evaluation	80
Psychotherapy	62
Crisis Stabilization	44
Involuntary commitment assessment	28
Substance Abuse Treatment	26
Crisis Management	26

*not mutually exclusive

Table 3: Mental Health Professionals Providing Telemental Health Services (N= 50)*

	Percent (%)
Psychiatrists	88
Clinical Psychologists	44
Clinical Social Workers	38
Psychiatric Nurse Practitioners	30

*not mutually exclusive

Organizational Context of Rural Telemental Health Programs

Rural telemental health programs are located across a range of organizational settings: free-standing/independent facilities, networks, and large health systems. The size and scope of these programs vary with their specific context as described in the following examples.

Free Standing/Independent: Programs in this category are free standing health care organizations that are not part of a formal network or health care system. The types of providers in this group include CMHCs, FQHCs, RHCs, acute care hospitals including CAHs, or psychiatric hospitals. Increasingly, private commercial vendors are offering clinical and practice management services to rural providers. A challenge frequently mentioned by respondents is the difficulty of sustaining programs that rely on contracts with independent clinicians. It is often difficult to recruit replacements when a clinician terminates his/her agreement with the practice. One program reported that they had operated under agreements with three different psychiatrists and that the telemental health service was temporarily suspended when they were unable to recruit a replacement for the psychiatrist who terminated his contract.

> *Example:* A private company provides online access to a network of specialists and health providers caring for patients by integrating telemedicine, scheduling, and electronic health records to link securely providers and patients. This relatively new private company is an ambitious attempt to bring together and to scale much of what has been learned and is now possible technologically within mental health. While based in a western state, this company aggressively markets itself nationally and is willing to provide access to healthcare "anywhere, anytime."

Network: Programs in this category deliver telemental health services through systems of collaborating health care organizations. The relationship between network participants ranges from relatively informal agreements to provide services on an as needed basis to more formally structured agreements involving set hours of service and involving a greater commitment of administrative and clinical resources. The majority of the telemental health programs we studied operate as part of a network.

> *Example:* This rural telehealth network development program provides mental health crisis services to the emergency departments (EDs) of six CAHs in the central part of a Midwestern state. The program began as a pilot project at a single CAH linked to the access center of a community mental health center where the psychiatrist and specialty mental health staff are located. It was expanded to five additional CAHs based on the success of the pilot. The access center provides 24/7 crisis evaluation and support using televideo linkages for crisis patients presenting at

the EDs of the six CAHs. The hospitals pay a fee of $125 for each crisis evaluation. Based on the pilot's success, the program has been expanded to all CAHs in the region. The program has enabled the hospitals to substantially reduce their ED length of stay for crisis patients and reduce the number of unnecessary hospitalizations. The program has developed and implemented standard ED treatment protocols and triage algorithms for the program.

System: Programs in this category use telemental health technology to provide services to rural organizational members of hospital-based systems. Examples include urban-based systems with rural members as well as large rural systems of care. Behavioral health resources and services are retained within the system. Telemental health technology allows the systems to more efficiently deploy existing mental health resources, typically located at the parent location, to organizational members located in remote locations.

Example: This telemental health program began providing telemental health services in 2009 from its primary location in a medium size city located in the Great Plains. The system is a regional Catholic health system with 300 locations serving four adjacent states. Services are provided through a comprehensive mental health program that provides inpatient and outpatient services. The system is able to use telemental health technology to deploy clinical resources available at the parent site to serve its rural members. The site that participated in our study included a CAH, two RHCs, two long-term care facilities, a day-care center, and a wellness center. Telemental health was used to fill gaps in access for adolescents, adults, and older persons within the local delivery system.

Telemental Health's Role in the Current Rural Health System

In-depth telephone interviews of 23 programs conducted in the second phase of our study provide important insight into telemental health's current and future role in the rural health system. We will present a thorough analysis of this topic in a separate article. Below we briefly describe some of the key-takeaways from our telephone interviews.

Access

The impetus for first using telemental health in rural areas was to provide a needed service that otherwise would not be available due to the limited number of mental health professionals in rural areas. Equipment and infrastructure costs were substantial, but early demonstration programs established that

services could be provided to at least some rural persons needing them. Since then, telemental health technology has steadily improved and its cost has steadily declined.[4-6] This has led many to assume that telemental health can help reduce the persistent mental health access problem in rural areas.

We found that telemental health programs are providing more types of services than in the past in a variety of settings. However, many of the programs we studied, particularly smaller programs, reported serving a relatively modest number of patients through their telemental health services. (Precise estimates were generally not available.) The smallest programs served only several patients per week. Providers also reported using telemental health services to address emergent issues at remote sites, when the providers were not present. Typically, programs were able to say that telemental health enabled them to provide services to rural persons that otherwise would not be available, but often were not able to indicate with any certainty how much additional volume or new services they might be able to deliver in the future.

Reimbursement

Despite receiving some level of third party reimbursement, many respondents reported that they may not be able to sustain telemental health services without grant funding or other supplemental support. It was difficult to determine whether the challenge of sustaining services stemmed from reimbursement barriers, productivity levels, or characteristics of the populations served (e.g., low income, self-pay, uninsured patients, or fee schedules that don't cover costs).

Patient and Provider Satisfaction

Respondents reported that, in general, their patients are satisfied with telemental health services and did not report any resistance to their use. Providers are also generally satisfied with using telemental health technology to provide services.

Successful Use of Telemental Health

Telemental health can be implemented with greater success in certain settings and/or organizational delivery systems than others. For example, smaller practices that contract with private mental health or hospital-based providers to deliver telemental health services frequently report difficulty recruiting a replacement when their existing provider terminates their agreement. This seems to be less of an issue for larger network or system-based programs as they can rely on the resources of the larger organization. These programs can also deploy the services of their clinicians, usually located at a central location, to serve rural locations within their system.

Consequently, there is usually less interruption of services when a clinician departs.

Telemental Health and Health Care Reform

We found that while telemental health is being increasingly used in rural areas, it cannot by itself overcome long-standing barriers to the development and ongoing delivery of rural mental health services. There is a tendency among some advocates to view telemental health as a panacea without understanding the underlying financial and organizational challenges of delivering mental health services in rural communities. Telemental health can address issues related to the location and distribution of specialty mental health providers and reduce patient and/or provider travel barriers ("windshield time"). However, barriers that burden the operation and viability of on-site rural mental health services (e.g., poor reimbursement rates—particularly from Medicaid and some commercial carriers, recruitment and retention difficulties, high rates of un-insurance, and high no show rates) also burden telemental health programs. The ability of telemental health services to overcome chronic rural behavioral health access issues in the current health care environment is likely to be limited until these fundamental system issues are addressed

We believe it is important not to over-promise what telemental health can accomplish. However, it is also important to recognize that telemental health can play an important role under the payment and service delivery models established or promoted under the Affordable Care Act (ACA). The ACA encourages financing structures that do not depend on fee-based reimbursement. Rather these structures provide payment to manage a population in an efficient way. The hope and expectation is that access to care and the patient experience will be maximized, costs will be kept down, and that the health needs of the population will be met within the constraints of balancing these aims. Our study suggests that telemental health may have a role to play in achieving that balance.

ENDNOTES

1. American Telemedicine Association. *Evidence-Based Practice for Telemental Health*. Washington, DC: ATA; July 2009. Retrieved from: http://www.americantelemed.org/docs/default-source/standards/evidence-based-practice-for-telemental-health.pdf?sfvrsn=4

2. Smith HA, Allison RA. *Telemental Health: Delivering Mental Health Care at a Distance*. Rockville, MD: US Department of Health and Human Services; 2001.

3. Institute of Medicine. *The Role of Telehealth in an Evolving Health Care Environment: Workshop Summary*. Washington, DC: National Academies Press; 2012.

4. Baird B. *The Promise and Practice of Telemedicine in Long-Term Care.* 2012, February 13. Available at: http://www.ltlmagazine.com/article/promise-and-practice-telemedicine-long-term-care. Accessed September 29, 2013.

5. Kazal LA, Jr., Conner AM. *Planning and Implementing a Statewide Telehealth Program in New Hampshire: A White Paper*. Concord, NH: Endowment for Health; February, 2005.

6. American Telemedicine Association. *Telemedicine, Telehealth, and Health Information Technology: An ATA Issue Paper.* Washington, DC: ATA; May, 2006.