



AMERICAN ACADEMY *of* ACTUARIES

EXPOSURE DRAFT for Peer Review

**Actuarial Equivalence for
Prescription Drug Plans and
Medicare Advantage Prescription Drug Plans
under the Medicare Drug Program**

November 2007

Developed by the
American Academy of Actuaries'
Actuarial Equivalence PDP/MA-PD Practice Note Work Group

This practice note was prepared by the AE PDP/MA-PD practice note work group organized by the Health Practice Council of the American Academy of Actuaries.

The work group was asked to:

- Review the regulations from Centers for Medicare & Medicaid Services (CMS) that require certification by an Academy member that a prescription drug plan (PDP) or a Medicare Advantage prescription drug plan (MA-PD) meets the actuarial equivalence standard; and
- Publish a practice note addressing the procedural and professional aspects of the certification.

Purpose

The purpose of this practice note is to provide guidance to the actuary certifying to the actuarial equivalence of a PDP or a MA-PD under the requirements of 42 CFR 423.265 and is based on interpretations of 42 CFR 423.265 and current CMS guidelines and requirements. This practice note is not a promulgation of the Actuarial Standards Board, is not an Actuarial Standard of Practice, is not binding upon any actuary and is not a definitive statement as to what constitutes generally accepted practice in the area under discussion. It is intended to supplement existing ASOPs. The actuarial comparison of plan values required by the regulation involves methods common to health actuaries but in an entirely new circumstance. It provides examples of current methods, techniques and considerations for actuaries practicing in this area, as well as possible responses to certain situations and issues, but should not be considered a complete representation. This note describes what the work group believes to be the common practices of U.S. health actuaries. Events occurring subsequent to this publication of the practice note may make the practices described in this practice note irrelevant or obsolete.

PDP and MA-PD plan sponsors are required to submit bids to CMS annually. If a plan offers benefits that differ from the Part D Defined Standard Benefits, the bid must include the demonstration that the proposed benefits are actuarially equivalent to the Defined Standard Benefits. Bids are submitted on standardized forms, and CMS publishes detailed regulations and guidelines governing bid development. The methods described below are consistent with current CMS guidelines. Other approaches may also be reasonable, but may only be used if approved by CMS. Appropriate alternatives to methods mentioned herein may develop over time and come into generally accepted use.

Comments are welcome as to the appropriateness of the practice note, desirability of updates, substantive disagreements, etc. Comments should be sent by **December 31, 2007** to Heather Jerbi, the Academy's senior health policy analyst (federal), at jerbi@actuary.org or American Academy of Actuaries, 1100 17th St. NW, 7th floor, Washington, DC 20036.

The members of the work group responsible for this practice note are Margaret Wear (chairperson), Charles Bloss, April Choi, Darrell Knapp, Lynette Trygstad, Donna Novak, Wesley Royse, and Tom Wildsmith. This group consists of actuaries experienced in working with or for health plans that may be sponsoring a PDP or MA-PD. All members have the necessary expertise to provide technical guidance to this new actuarial certification process.

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I. Introduction

The Medicare program was established under Title XVIII of the Social Security Act of 1965. The program established hospital and medical care coverage for seniors in the United States aged 65 and older and certain disabled individuals. The program is administered and regulated by the Centers for Medicare and Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services. Medicare is administered and financed federally, from taxes on wages, premiums paid by (or on behalf of) beneficiaries, and general tax revenues.

The Medicare Prescription Drug, Improvement, and Modernization Act (MMA) of 2003 established a new voluntary outpatient prescription drug benefit effective as of January 1, 2006. This new benefit is the most significant and major enhancement to the Medicare program since the program's enactment. The prescription drug benefit (also referred to as Medicare Part D) is provided by private plans authorized by CMS. The plans are either stand-alone prescription drug plans (PDPs) or Medicare Advantage Prescription Drug plans (MA-PDs) offering both medical and prescription drug coverage. These plans are required to offer a standard drug benefit described by the MMA but have the flexibility to vary the drug benefit as long as it is at least actuarially equivalent to the standard design. The MMA also provides for subsidized premiums and lower cost sharing for eligible low-income beneficiaries. These plans may also offer supplemental benefits for an additional premium.

The CMS required standard coverage is defined as follows:

- Member (beneficiary) is required to pay 100 percent of drug cost up to a deductible (\$275 for 2008).
- Member pays 25 percent of drug cost from the deductible up to the Initial Coverage Limit (ICL) (\$2,510 for 2008).
- Member pays 100 percent of drug cost above the ICL until the member incurs the True Out of Pocket (TrOOP) costs (\$4,050 for 2008). If the member has only the standard pharmacy coverage, the TrOOP cost limit of \$4,050 in 2008 is reached at \$5,726.25 in allowed drug costs. (The \$275 deductible, plus 25 percent of spending above the deductible and up to the \$2,510 ICL, plus 100 percent of the spending above the ICL and up to \$5,726.25 equals the \$4,050 TrOOP.) If the member has better than standard coverage, it will take a higher level of allowed costs to reach the TrOOP cost limit. The term "catastrophic threshold" is used in the remainder of this practice note to indicate the allowed cost level at which the member no longer is liable for 100 percent of drug costs. CMS also refers to drug costs between the ICL and the catastrophic threshold as the "gap."
- Above the catastrophic threshold, member pays 5 percent of drug cost—in 2008, \$2.25 if the drug is generic, or \$5.60 if the drug is brand, whichever is greater.

When plan sponsors (either PDP or MA-PD) want to offer a benefit with a structure that differs from the standard coverage, the statute allows these differing plan designs as long as they are actuarially equivalent or better than the standard plan design. CMS has further subdivided actuarial equivalent plans into two broad categories. The first is standard coverage with actuarially equivalent cost sharing. For this type of plan design:

- The deductible and the ICL must be the same as for defined standard coverage; and
- The average coinsurance percentage for amounts between the deductible and the ICL must be actuarially equivalent to 25 percent; and
- The average coinsurance percentage above the catastrophic threshold must be actuarially equivalent to the percentage for defined standard coverage.

The second category is alternative coverage design, either a basic alternative coverage or an enhanced alternative coverage, including changes in the deductible or the value of the ICL. CMS has defined five tests that must be met for any alternative plan to be deemed actuarially equivalent. Plans in this category are referred to as basic alternative plans if there is no supplemental premium required, and enhanced alternative if there is a supplemental premium. Collectively, these plans are referred to as alternative plans.

This practice note offers guidance on the actuarial equivalence requirements for both categories of MA-PD and PDP Part D plans. There is a separate practice note for employer plan sponsors seeking the tax-exempt federal subsidy.

II. Generally Accepted Actuarial Principles

In the determination of what constitutes generally accepted actuarial principles and practices, the Code of Professional Conduct and, by reference, the Actuarial Standards of Practice (ASOP) have the highest standing. Other items—such as practice notes, textbooks, examination study notes, and articles in professional journals—do not have the same binding authority. Since the actuarial certification required for actuarial equivalence under the MMA is relatively new, no ASOP has been adopted specifically and exclusively to apply to actuarial work performed to comply with CMS requirements.

The actuary may consider several existing ASOPs as valuable sources of guidance when performing the actuarial certification, including:

- No. 5: Incurred Health and Disability Claims
- No. 23: Data Quality
- No. 25: Credibility Procedures Applicable to Accident and Health, Group Term Life, and Property/Casualty Coverages
- No. 31: Documentation in Health Benefit Plan Ratemaking
- No. 41: Actuarial Communications

The actuarial equivalence testing is generally expected to rely heavily on the use of prescription drug price and utilization experience. The concepts of continuation tables and claim distributions will normally be used in this type of analysis. Appropriate adjustments will usually be made to project historical medical and prescription drug claim data to the plan year of the actuarial equivalence certification and to possibly adjust for any benefit and formulary changes. An actuary should be satisfied that he or she has the necessary experience and qualifications in this or comparable work to perform the actuarial certifications. Guidance in such work is beyond the scope of this practice note.

III. Actuarial Equivalence Concepts

It should be noted that “actuarial equivalence” under MMA has a regulatory meaning related to legislated requirements that is different from normal actuarial use of this term. In addition, actuarial equivalence for purposes of the tax-exempt federal subsidy for qualified retiree health plans has a very specific meaning under the MMA, conceptually different from the definition for the qualified Part D plan design. Further, the conceptual meaning given the term “actuarial equivalence” in this regulatory context is not explicitly stated, and can only be inferred from the way it is tested. Nonetheless, it is an important factor that must be considered. In MMA, the term relates to the dollars that would be spent by a given enrollment under two alternative cost-sharing patterns after changes in utilization resulting from the different cost sharing. (Typically, as used by actuaries, it relates to changes only if all service use remained the same, as if the calculation were made retrospectively.)

Actuarial equivalence tests for the first plan type—actuarial equivalent cost-sharing plans—are relatively straightforward. They merely compare the effective coinsurance in the defined standard coverage between the deductible and the ICL and above the catastrophic threshold to the effective

coinsurance of the proposed plan. If the difference in the effective coinsurance between the two plans is below a threshold percentage specified by CMS, the proposed plan is deemed to be actuarially equivalent.

However, the actuarial equivalence tests for the second plan type, alternative plans, are quite different. The MMA and associated regulatory guidance contain five detailed tests, which must be met for a Part D plan design to qualify as an alternative plan. These tests are addressed in detail in the methodology section.

The actuarial equivalence tests for alternative coverage are designed to consider several perspectives, rather than to be an overall test of relative average costs of one plan design over another. These tests ensure that not only is the overall cost of the selected plan design similar to the defined standard coverage, but that certain additional safeguards are maintained:

- Beneficiaries are protected from any plan design that would substantially reduce coverage for beneficiaries with very high or very low annual drug spending.
- The Medicare Part D Trust Fund is protected in two ways. First, by testing the overall cost of the alternative plan design and requiring that any “excess” benefits be funded by beneficiary premiums (or application of MA rebate money¹). Second, the methodology restricts the pricing variables that may differ between estimating the cost for the defined standard coverage versus the alternative benefit. This includes the requirement that the Part D trust fund not fund the cost of any additional utilization due to plan design.
- Basic alternative design changes are constrained by the equivalence tests. This restricts the range of permissible “basic” plan designs to a subset of all the possible designs that would be actuarially equivalent to the defined plan (e.g., a basic plan that trades reduced benefits below the initial coverage limit in exchange for partial benefits in the coverage gap would not be permissible). It may also have the effect of promoting *price* competition among actuarially equivalent plans, rather than *benefit* competition.

Actuarial equivalence tests are performed using the expected utilization under the defined standard and each alternative plan design. If the proposed plan is expected to lower costs due to plan design (e.g., generic/brand co-payment differences that encourage additional generic usage), total claims would be reduced and the benefits would need to be enriched in order to meet the actuarial equivalence test. Such enrichment will be effectively funded by the Part D trust fund (and any beneficiary premium). Conversely, if the proposed plan is expected to increase costs due to plan design (e.g., no upfront deductible and low co-payments that encourage increased utilization), total claims would be increased and the benefits would need to be reduced in order to meet the actuarial equivalence test.

It also cannot be assumed that the actuarial equivalence tests guarantee that there will be no differences between actual emerging costs and the assumptions used in the estimation of those costs. The use of the word “equivalence” in an actuarial context implies a misleading sense of theoretical precision. Actuarial analysis is inherently an estimation exercise and hence is somewhat inexact. There will be issues with the data sources used, the projection methodologies, and other elements that mean any result of actuarial analysis is inherently an estimate rather than a precise number. Pharmacy costs are influenced by the introduction of new technology (e.g., new medicines) and rapid changes in prices (e.g., as patents expire and generic competitors become feasible). The combination of target population, benefit design, formulary, and new technology etc., has an interactive effect on the ultimate unit cost and utilization level. The effect due to a single influencing factor cannot be precisely measured in isolation.

This uncertainty affects both the estimation of the defined standard coverage cost and the basic alternative cost, but the magnitude may differ between the two elements. If slight changes in the data set,

¹ The MA rebate under Medicare Part C equals 75 percent of the excess of the benchmark over the sponsor’s bid, both at the expected risk profile. MA rebate amounts must be returned to members in one or more of the following ways: reduced A/B cost sharing, other A/B mandatory supplemental benefits, reduced Part B premium, reduced basic or supplemental Part D premiums.

the methodology, or the assumptions would cause the test results to fail, then the actuary would usually find it prudent to be prepared to defend the choice of data set, methodology and assumptions against other alternatives. The actuary may also want to perform sensitivity testing, although this is not a requirement of CMS. Defensibility and documentation of the methodology and assumptions will become more important as experience emerges. For the contract year 2008 bids, CMS added much more extensive and specific documentation requirements to its bid submission guidelines.

IV. Summary of Regulations

In the Code of Federal Regulations (CFR), subpart A, Sec. 423.4, actuarial equivalence is defined as follows: “Actuarial Equivalence means a state of equivalent value demonstrated through the use of generally accepted actuarial principles and in accordance with section of 1860D-11(c) of the Act and with CMS actuarial guidelines.” CMS’s interpretation is that actuarial equivalence refers to a determination that, in the aggregate, the dollar value of drug coverage for a set of beneficiaries under one plan can be shown to be equal to the dollar value for those same beneficiaries under another plan, including any change due to a different level or pattern of utilization of prescriptions.

CMS has commented that although the statute sets forth specific requirements for actuarial equivalence and valuation, there is no official definition of actuarial equivalence. CMS is relying on the actuarial certification to provide assurance that the actuarial values in the bids will be prepared in accordance with actuarial standards and methodologies.² In addition, CMS established interpretive guidance on methods required to demonstrate actuarial equivalence, and developed the PDP Bid Instructions and Pricing Tool to evaluate whether its requirements are met.

The concept of actuarial equivalence is applied in several different contexts in Title I of the MMA, and they are:

1. *Certifying the actuarial value of the bid components.* For Part D sponsors offering coverage other than the standard drug coverage, actuaries need to provide an actuarial valuation of the drug coverage to ensure that the value of the drug coverage offered by Part D sponsors either equals or exceeds the standard drug coverage. Actuarial equivalence is addressed in terms of cost sharing, expected benefits and bid submissions.
2. *Determining Creditable Coverage for late enrollment penalty.* If a Part D eligible individual fails to maintain continuous creditable drug coverage during the period of non-enrollment, a late enrollment penalty amount would be added to the monthly beneficiary premium. Actuaries need to determine if the coverage is creditable (that is, if it satisfies the actuarial equivalence requirement) by determining whether the value of the beneficiary’s drug coverage either equals or exceeds the actuarial value of standard drug coverage. This test would be the same as the “gross value test” used for the employer subsidy and it is a simpler test than those done in the bid tool.
3. *Certification of actuarial equivalence to standard coverage for subsidy payments under employer sponsored programs.* Employers seeking subsidy payment from the government need to satisfy certain tests and provide an annual certification that the actuarial value of the drug coverage under the plan is at least equal to the actuarial value of standard drug coverage.

This practice note focuses only on the actuarial value of the bid component.

In determining the actuarial value of the bid components, actuaries should follow the regulatory requirements stated in 42 CFR Part 423, subpart F, Sec. 423.265.³ It is also recommended that the

² 42 Code of Federal Regulations (CFR) Parts 400, 403, 411, 417, and 423. Medicare Program; Medicare Prescription Drug Benefit; Final Rule. Federal Register/Vol 70, No. 18/Friday, January 28, 2005/Rules and Regulations. For specific reference to actuarial equivalence, see F(4) on page 4291 and F(3) on page 4290.

³ CFR Sec. 423.265, <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=21a8c560e2c004efa4c72aa2c1bf1e79&rgn=div8&view=text&node=42:3.0.1.1.10.6.2.3&idno=42>

“Comments and Responses” section preceding the main body of the regulation be reviewed, since it represents CMS’s interpretation of the statutory requirements.

As stated under section 423.265, each bid must include the actuarial valuation. CMS specifies: “The bid must be prepared in accordance with CMS actuarial guidelines based on generally accepted actuarial principles. A qualified actuary must certify the plan’s actuarial valuation and must be a member of the American Academy of Actuaries to be deemed qualified.”

Actuarial valuation consists of performing actuarial equivalence tests for either actuarially equivalent cost-sharing coverage or alternative coverage.

- A. *Tests for actuarially equivalent cost-sharing coverage.* Sponsors are permitted to substitute cost sharing between the deductible and the ICL provided that the proposed cost sharing is “actuarially equivalent” (by CMS definition, i.e., including utilization changes) to an average expected coinsurance of 25 percent. (For 2008, the effective coinsurance for the proposed plan is divided by 25 percent, and the resulting ratio must be between 0.98 and 1.02.) Sponsors are also allowed to establish cost sharing of an amount that is actuarially equivalent to the expected cost sharing above the catastrophic threshold—that is, the greater of 5 percent or, for 2008, \$2.25/\$5.60 co-payments. It’s emphasized that any variant in cost sharing should not lead to discrimination against certain beneficiaries.

Worksheet 4 of the bid tool is designed to capture these two tests, and is described in more detail in the methodology section.

- B. *Tests for alternative coverage.* Sponsors can offer either basic alternative coverage or enhanced alternative coverage. For basic alternative coverage, the sponsor may combine features. This might include a reduction in the deductible, changes in cost sharing (for example, tiered co-payments), and a modification of the ICL, as long as the actuarial value of coverage equals the defined standard drug coverage (within \$0.50 PMPM of the defined standard plan value as of 2006). Enhanced alternative coverage includes basic coverage and supplemental benefits. These supplemental benefits provide for a package of benefits that exceeds the actuarial value of standard coverage. Supplemental benefits can consist of either reduction in cost sharing, or coverage of drugs that are specifically excluded from the definition of Part D drugs.

Sponsors offering either form of alternative coverage must satisfy five tests. These tests were established by Congress to ensure that alternative coverage would be at least actuarially equivalent to standard coverage. These tests are listed in the methodology section covering worksheet 5 of the bid tool.

Actuarial valuation also requires sponsors to submit the actuarial value of the proposed plan in the region for the Part D eligible individual with a national average risk profile and the basis for the estimate. Any increase in costs attributable to increased utilization as the result of enhanced alternative coverage must be excluded from this calculation. Any alternative coverage that does not include supplemental coverage would be, by definition, actuarially equivalent to standard coverage. Any utilization effect that supplemental coverage has on the basic benefit should be priced into the supplemental portion of the bid. For 2008, the projected cost impact on the defined standard benefits is entered on worksheet 5, in Sec. VIII.

Actuarial valuation also requires sponsors to determine the actuarial value of the standard coverage for all bids. It is required either because it is the benefit offered to the beneficiaries or it is used as a comparison for the actuarially equivalence tests.

V. Data Sources

The CMS Bid Pricing Tool (BPT) for Part D provides for use of either historical experience data as a basis for pricing or a manual rate, or a blend of the two. CMS also provides guidelines for credibility factors for partially credible data. Until Part D has been effective for at least two years, CMS has indicated that it expects the BPTs to be based predominately on manual rate pricing. Further, the pattern of enrollment during the first year, characterized by effective dates spread out over the first six months, may delay the time when most sponsors will accumulate experience data reflecting the effects of the deductibles and catastrophic benefits.

There are several data sources to consider in developing manual rates:

- *Historical company experience in a similar product.* Examples of this include pharmacy experience from Medicare Advantage products, Medicare supplement products, employer retiree group coverage, or data from government programs such as the Federal Employees Health Benefits Program (FEHBP) or state retiree prescription programs.
- *CMS-provided data.* Some of the data reports provided by CMS include claims distribution, geographic variation from the FEHBP retirees, extrapolated pharmacy data from the 5 percent sample and Medicare Current Beneficiary Survey, including risk adjustment factor (referred to as 5 percent sample data), RxHCC risk adjustment factors by state and special populations, and Medicaid pharmacy experience by state.⁴
- *State Medicaid data.* Some states will provide detailed Medicaid pharmacy experience data. This data will be most useful in the early years of Part D implementation.
- *Data from actuarial consulting firms, PBMs and other organizations.* Some organizations that provide consulting or healthcare information and services either provide access to databases they have developed or sell the data outright. The Society of Actuaries also sponsored a research project on Medicare pharmacy costs.

Once the sponsors have sufficient Part D experience, they should develop claim-costs estimates based on their own experience, either with full credibility or partial credibility.

It is important to understand the source and nature of any data source. If appropriate, adjustments should be made to reflect differences in utilization and average cost between the data source and the Part D plan being priced.

Pricing based on manual rate pricing or experience pricing should take the following factors into consideration:

- Plan design
- Utilization management programs
- Risk characteristics of the population, especially for auto-enrolled dual eligibles, institutionalized members or members of special needs plans
- Risk score assessment of the target population
- Selection effects in the underlying population
- PBM contract
- Pharmacy network contract
- Pharmacy rebate contract
- Formularies
- Trends for utilization and cost

⁴ At the time of this writing, these CMS data reports can be found at:

- <http://www.cms.hhs.gov/statistics/rx-cost-distributions>
- <http://www.cms.hhs.gov/pdps/BidInst.asp>
- http://www.cms.hhs.gov/researchers/projects/medicaid_rx/

The actuary should document the data source and its description thoroughly as well as any adjustments that have been made.

VI. Methodology

This section describes the specific methodology for determining actuarial equivalence under CMS rules and its BPT worksheets for MA-PD and PDP plans under Part D. The references here to CMS worksheet numbers and any line numbers or section numbers specifically relate to the BPT worksheets established and used for bidding for 2008.

The worksheets relating to actuarial equivalence include worksheets 4, 5 and 6. While worksheets 4 and 5 are before worksheet 6 in the package, worksheet 6 must be completed first since a number of data elements in worksheets 4 and 5 are carried forward from worksheet 6 and used in the actuarial equivalence calculations. Therefore, this note reviews methodology for worksheet 6 before worksheets 4 and 5.

Worksheet 6 – Script Projections for Standard Coverage, Actuarially Equivalent Cost Sharing or Alternative Coverage

This worksheet provides CMS an illustration of the assumptions used and a comparison of the assumptions between the standard coverage and the proposed plan design chosen (actuarial equivalent cost sharing or alternative plan design). In particular, it allows CMS to understand how utilization is expected to be affected by the proposed plan design, using the defined standard benefits as a basis for comparison. Additionally, information provided on worksheet 6 is used on worksheets 4 and 5 for testing actuarial equivalency.

In completing this worksheet, the population on which pricing is based should be divided into three main groups according to their annual expenditures under standard coverage;

- Group 1 is made up of those whose total drug spending is not expected to exceed the ICL *under standard coverage*.
- Group 2 is made up of those whose total drug spending is expected to exceed the ICL *under standard coverage*.
- Group 3 is made up of a subset of Group 2, those whose expenditures under standard coverage exceeds the catastrophic coverage threshold.

For all groups, utilization and expenditures for the same enrollees are projected under standard coverage (the left three columns of box II) and under the proposed plan (the right three columns of box II). In addition, formulary and drug pricing should also be held constant. However, the utilization impacts under the two plan designs (defined standard and the proposed plan design) may differ. Consequently, some of those in Group 1 may have higher expenditures than the ICL under the proposed plan (and those in Group 2 lower than the ICL).

For the top box in Section II (lines 1-9), use Group 1 data. This is for both the standard coverage and the proposed plan being offered, even if the group for the proposed plan might not be the same under the ICL as the standard coverage. The same is true for the second box. Use Group 2 for lines 10-18 for both the standard coverage and the proposed plan.

For the third box (lines 19-27), use data on drug spending below the ICL for all individuals in Group 2.

For the fourth box (lines 28-35), use Group 3 data, which is a subset of the Group 2 population (i.e., those who have expected claims under the standard coverage above the catastrophic threshold).

Columns (f) and (g) for the standard coverage and (i) and (j) for the proposed plan are relatively straightforward; (f) and (i) being the expected number of prescriptions broken into categories for the

standard coverage and the proposed plan respectively. The categories are generic, preferred brand and non-preferred brand, reported separately for retail and mail.

For column (h), the amount in lines 1-9 represents the member cost sharing under the standard coverage under the ICL, ignoring the deductible, so column (h) is 25 percent of column (g).

For column (k) lines 1-9, again ignoring any deductible, calculate the member cost sharing using the amounts under the proposed plan design and for the expected scripts and allowed dollars for that plan design as reported in columns (i) and (j).

For columns (h) and (k) lines 19-27, the calculation is similar to the above, but the member cost sharing is based on the member cost share after the member reaches the catastrophic threshold for standard coverage column (h) and the proposed plan design for column (k).

Line 37 is to be completed only for the proposed plan. It represents the expected script volume, allowed claim dollars, and member cost sharing for any drugs the plan covers that are otherwise excluded under Part D. For any plan that covers drugs excluded under Part D, the plan will be an enhanced plan.

If the proposed plan of benefits has cost-sharing requirements that vary significantly from those of the defined standard benefits, the resulting changes in utilization should be reflected in the pattern of scripts projected in column (i) and in the allowed costs and beneficiary cost sharing reported in columns (j) and (k).

Worksheet 4 – Actuarial Equivalent Cost Sharing Coverage

Worksheet 4 is completed only if the proposed plan is in the category of actuarially equivalent cost sharing.

When the proposed plan has modified cost sharing between the deductible level and the ICL, the total cost sharing must be actuarially equivalent to the cost sharing of the standard coverage, or 25 percent. When the proposed plan has modified cost sharing above the catastrophic threshold, the cost sharing must be actuarially equivalent to the standard coverage. Cost sharing of the standard coverage for 2008 above the catastrophic threshold is the maximum of \$2.25 for generic drugs or multi-source brand drugs or \$5.60 for single-source brand drugs or 5 percent of the prescription cost.

This worksheet tests both of the required actuarial equivalences. There are four specific inputs to the worksheet:

- Allowed PMPM below the ICL with the actuarially equivalent cost sharing
- Allowed PMPM above the catastrophic limit with the actuarially equivalent cost sharing
- Low-income subsidy PMPM
- Total rebates for the proposed plan

All other items are automatically entered from worksheet 3 and worksheet 6.

Section I is general information taken from Section I of worksheet 1.

Section II is the projected member months and average risk score from Section II of worksheet 3.

Section III develops the standard bid and all information is taken from Section V of worksheet 3.

Section IV develops the actuarial equivalent bid with information from Section V, from the federal reinsurance attributable to other insurance and Part D as secondary from Section III of worksheet 3, and from the entry of the low-income subsidy PMPM for the actuarially equivalent benefit.

The low-income subsidy PMPM is entered for the proposed plan at the anticipated average risk score for the projected population. This amount should be based on the projected low-income membership for each low-income category. Utilization must reflect the differences in cost sharing in the proposed plan compared to the standard coverage.

Section V provides the information used to calculate the bid for the actuarial equivalent benefit in Section IV and performs the test of actuarial equivalence.

Data is pulled from worksheet 3 for the standard coverage for comparison to the actuarially equivalent cost-sharing coverage. The actuarially equivalent cost-sharing coverage amounts are entered, including the allowed PMPM under the ICL and above the catastrophic threshold. Also entered are the rebates for the actuarially equivalent cost-sharing coverage with reinsurance.

The allowed PMPM below the ICL with the actuarially equivalent cost sharing is the amount entered as the estimated allowed amount under the ICL for the proposed plan design. This is based on the actuary's modeling of expected claims cost under the ICL after adjustment for expected changes in utilization.

The allowed PMPM above the catastrophic threshold with the actuarially equivalent cost sharing is the amount entered as the estimated allowed amount above the catastrophic threshold for the proposed plan design. This is based on the actuary's modeling of expected claims cost over the catastrophic threshold after adjustment for expected changes in utilization.

The rebates for the actuarially equivalent cost-sharing coverage are entered with reinsurance. The rebates should reflect any adjustments for changes in utilization (e.g., changes due to a different proportion of generics).

Data is pulled from worksheet 6 to test the required actuarial equivalence. Worksheet 6 data is used to calculate the cost-sharing percentage for claims under the ICL, which is then compared to 25 percent. Worksheet 6 is used to calculate both the standard coverage and the actuarially equivalent cost-sharing coverage percentage of cost sharing for claims over the catastrophic threshold.

Worksheet 5 – Alternative Coverage

Worksheet 5 is completed only if the proposed plan is in the category of alternative coverage. The purpose of this section is to explain the five tests in worksheet 5 that determine actuarial equivalence for either basic alternative or enhanced alternative prescription drug plans. Note that much of the information in this worksheet is calculated from data entered in worksheet 6.

Worksheet 5 performs five tests to determine if the proposed alternative plan meets the requirements of "actuarial equivalence" as defined by the MMA. The five tests are:

1. The total covered costs of the proposed plan must equal or exceed the total covered costs of the standard coverage.
2. The unsubsidized value of the proposed plan must equal or exceed that of the standard coverage.
3. The average plan liability at the ICL for the proposed plan must equal or exceed that of the standard coverage. In 2008, for example, the plan coverage for claimants who have claims greater than the ICL would need to be greater or equal to \$1,676 [(\$2,510-\$275) x (1-25 percent) = \$1,676.25]. This amount can be viewed as the average net plan costs for an enrollee who has pharmacy spending exactly equal to the ICL during the plan year.
4. The deductible for the proposed plan must be equal to or less than the standard deductible amount.
5. The average cost sharing percentage for catastrophic coverage for the proposed plan must not exceed that for the standard coverage. For the standard coverage, the enrollee's cost sharing is the greater of:
 1. 5 percent of allowed drug cost
 2. \$2.25 copay for generic or multi-source brand drugs for 2008
 3. \$5.60 copay for single-source brand drugs for 2008.

Each of these tests is discussed separately below.

TOTAL COVERED COSTS

This test measures whether the sum of the values for Part D-covered drugs, non-pharmacy expenses, gain/loss margin, and federal reinsurance amount for the proposed plan is greater than or equal to the sum of the same values for the standard coverage.

a) Part D covered drugs

To calculate the value of Part D covered drugs for the proposed plan, the following amounts are subtracted from the proposed plan allowed cost:

- i. Actuarial value of the proposed deductible
- ii. Actuarial value of enrollee cost sharing up to the ICL (calculated from values entered on worksheet 6)
- iii. Expected government reinsurance subsidy
- iv. Estimated value of manufacturer rebates (reduced for the portion allocated to reinsured costs)
- v. Expected payout from other forms of insurance (reduced for the portion allocated to reinsured costs). This should be based on actual experience, when available. And as such, it may not be available in the early years.

Finally, the amount of expected costs covered by a secondary payer is added to arrive at the Part D covered drugs amount.

When developing the allowed costs for the proposed plan, CMS guidelines require the actuary to consider the effect of induced utilization resulting from differences in beneficiary cost sharing between the proposed plan and the defined standard benefits.

b) Non-pharmacy expenses

This amount is identical to the amount developed for the standard coverage in worksheet 3.

c) Gain/loss margin

This amount is identical to the amount developed for the standard coverage in worksheet 3.

d) Federal reinsurance amount

The expected value of federal reinsurance subsidy will vary based on whether the plan is filing for participation in the Part D Payment Demonstration Program. Due to the nature of reinsurance provided by CMS, it is important to use an actuarial model that accurately reflects the plan's likely pattern of high-cost drug claims to develop the estimated reinsurance subsidy amounts. Changes in the underlying distribution of drug claims based on the proposed plan design can have a significant impact in the value of the claims over the catastrophic threshold. In 2006, CMS provided a separate BPT for plans applying for the demonstration program. The spreadsheet used the reinsurance subsidy amount developed in worksheet 3 as the expected reinsurance subsidy amount for the proposed plan design priced in worksheet 5.

- i. *If the plan is not applying for the demonstration*, the reinsurance subsidy will equal 80 percent of the total allowed dollars the plan allocates to catastrophic coverage.
- ii. *If the plan is applying for the demonstration*, the reinsurance subsidy developed for the standard coverage (from worksheet 3) will be applied.

UNSUBSIDIZED VALUE OF COSTS

This test compares the Part D covered drugs' value developed from Test No. 1 (see bullet (1a) above) for the proposed plan for the standard coverage. Since the beneficiary premiums cannot be

determined until all bids are submitted, CMS interprets this provision to be that the total Part D bid for the proposed coverage must be greater than or equal to the sponsor's bid for standard coverage (holding constant the plan formulary, drug pricing, and risk mix of population used in the bid).

The first test of actuarial equivalence guarantees that the total value of coverage (including federal reinsurance) for the proposed benefit must be at least equal to the total value of coverage (including federal reinsurance) of the standard coverage. The second test then precludes a proposed benefit structure that increases federal reinsurance costs relative to defined standard coverage.

AVERAGE COST AT ICL

This test measures the net plan liability for the population that is expected to have costs exactly equal to the ICL. For the proposed plan, this amount must be greater than or equal to that for the standard coverage to pass this test.

The net plan liability at the ICL is calculated as the allowed cost for enrollees that have total spending equal to the ICL during the plan year *less* the following values:

- i. Actuarial value of the proposed plan deductible
- ii. Actuarial value of cost sharing (excluding the deductible) up to the ICL for enrollees exceeding the ICL. This amount is calculated from values entered in worksheet 6

PROPOSED PLAN DEDUCTIBLE

This test ensures that the proposed deductible is no greater than the deductible for the standard coverage.

AVERAGE COST SHARING PERCENTAGE ABOVE CATASTROPHIC THRESHOLD

Worksheet 5 calculates the effective coinsurance percentage in the catastrophic range based on the values in worksheet 6. The proposed plan will pass this test if the coinsurance percentage for the proposed plan does not exceed that for standard coverage, when both are expressed as a coinsurance percentage.

VII. Qualification

Certification of actuarial equivalence is a statement of actuarial opinion. Therefore, the signing actuary is subject to the Qualification Standards (including continuing education requirements) for actuaries issuing statements of actuarial opinion in the United States. Under the Qualification Standards (as may be amended or revised periodically), the actuary must satisfy requirements for basic education, experience, and continuing education in the practice area related to the statement of actuarial opinion before issuing a statement of actuarial opinion.

Actuaries who work in a valuation context recognize the benefit of being careful in this area. Actuarial equivalence analysis as prescribed in the law and regulations is, by its nature, a health benefit pricing analysis. While valuation experience alone may be helpful, it is, by itself, not necessarily sufficient qualification to perform this analysis. The actuary may choose to refer to Sec. II of this practice note for additional guidance and applicable Actuarial Standards of Practice. It is usually preferable for the actuary's work experience and continuing education to include health benefit system pricing and analysis.

VIII. Work Papers

This section provides an overview of suggested work paper documentation for the actuarial certification of actuarial equivalence for PDPs and MA-PDs. The actuary develops the work papers in support of the actuarial work product. The sponsor is required to maintain the actuarial valuation, the actuarial certification, and the actuarial report. The MMA requires documentation supporting the bids to be retained for 10 years. The actuary should retain copies of these documents as well as any additional work papers supporting the analysis.

Due to the filing and regulatory nature of the analysis, the documentation is segmented into several components. These components include:

- The actuarial valuation worksheets (i.e., the BPTs) that are submitted to CMS.
- The actuarial certification that accompanies the BPTs as submitted to CMS. If the actuary relied on the work of others in making the certification, the reliance letters should also be retained.
- An actuarial report to the sponsor to provide any additional details regarding the basis for amounts included in the actuarial valuation worksheets. This report should also detail the steps taken that enabled the actuary to make the certification statements included in the actuarial certification.
- This report should be provided to the sponsor and should meet communication standards in ASOP 41. According to ASOP 41, in addition to the actuarial findings, an actuarial report should identify the data, assumptions, and methods used by the actuary with sufficient clarity that another actuary qualified in the same practice area could make an objective appraisal of the reasonableness of the actuary's work as presented in the actuary's report. Part D bids may be determined by applying different plan designs and assumptions to a database of claims data. In this situation, it is not practical to provide the pricing database in the actuarial report. However, the report should include a detailed description of the database, and all modifications and assumptions used in the pricing process. In other words, the report should provide the background information; if an experienced actuary had access to the database, the results could be validated.
- Additional work papers could include any additional supporting documentation relevant to the completion of the work. This could include details on the scope of the engagement, sensitivity analyses performed, and proprietary data and models utilized to project claims cost patterns.

In addition to the above work papers, the actuary should maintain documentation with respect to the component of the actuarial certification that states he or she is a member of the American Academy of Actuaries and meets the qualifications for performing such a certification.

IX. Other Issues

Part D cost estimates

Part D cost estimates are prepared with some assumptions about the population that will be enrolled in the plan. However, the BPT also requires the final estimated cost for the standard coverage and the actuarially equivalent plan (if applicable) to be converted to the cost for a national average risk profile, or an assumed risk factor of 1.00. The BPT converts the values at the plan risk profile to the 1.00 values by dividing the plan risk values by the risk factor that will apply to the Part D payments (RxHCC factor). Some items to note about this approach are:

- All actuarial equivalence testing is performed at the plan risk profile for the expected enrollment, not the 1.00 average risk.

- The same RxHCC factor is assumed to apply for both standard coverage and the proposed plan.
- The RxHcc factor is applied to administrative costs and gain/loss margin, as well as the claims costs. Non-claims costs are not likely to vary in the same proportion as the pharmacy claims themselves, which means that the 1.00 values for non-claims are not the “right” amount. However, since actual payments will be adjusted by the risk factor again, the ultimate values are the correct level.
- The same RxHCC factor is used to convert federal reinsurance values. Since these costs are in the “tail” of the cost distribution, the conversion may not be very accurate. Sponsors of special needs plans or those who elect to participate in the payment demonstration will especially want to study this aspect carefully.
- At this time, it is uncertain how well the RxHCC factors will generally reflect cost variation for different risks.

As previously noted, actuarial equivalence testing is performed using the same enrolled population for both the estimated cost of standard coverage and the proposed plan. Some plans are designed for special-needs populations. Some are designed for auto-enrollment of dual-eligible beneficiaries. Even a plan that is not targeted to a specific subset of Medicare beneficiaries may experience a skewed enrollment because Part D is voluntary or because competitor plans are available. These factors should be carefully considered when making the cost estimates and estimating the RxHCC factor.

Non-standard ICL

The actuarial value of a non-standard ICL is represented in worksheet 5, (Sec. IV, cell 12(k) in the 2006 BPT). Because a non-standard ICL “fills in” a portion of the coverage gap, the percentage in this cell should be less than 100 percent to represent the remaining beneficiary responsibility in the gap. One way to model this value is to create a claims simulation or “re-pricing” program that uses a sample population to project the cost in each phase of the benefit. Increasing the ICL has the effect of lowering the total cost in the coverage gap and in the catastrophic phase of the benefit. To find the value for worksheet 5, the additional plan cost created by the non-standard ICL is divided by the amount of total cost in the gap. This ratio is subtracted from 100 percent to find the beneficiary responsibility in the gap.

Deductible that varies between generic and brand

CMS has indicated that plan designs that vary the deductible for groups of drugs (e.g., generic versus brand) are allowable. When the 2006 BPT was designed, it assumed that a single deductible applied to all drugs. If the proposed plan actually does vary the deductible, the BPT is “tricked” by including the value of any proposed deductible with the rest of the cost sharing up to the ICL and the proposed deductible is entered as zero. To accomplish this, complete worksheet 6 as always. In worksheet 5, enter the proposed deductible as zero (line 6, column d, and the value of the proposed deductible (line 8, column f) as zero. The actual value of the proposed deductible will be included with any other proposed cost sharing (since allowed-drug costs on line 10 would be determined without subtracting anything for a deductible).

Reinsurance

To determine allowed dollars in the catastrophic range, the actuary should model the impact of the proposed plan design on the attachment point for catastrophic coverage. Enhancing the benefit has the effect of increasing the attachment point above the standard-coverage catastrophic threshold, which will decrease the actuary’s estimate of expected allowed dollars above the attachment point. The actuary may model this effect by simulating claims re-pricing for an appropriate sample of pharmacy claims data and measuring the impact of various plan designs on the catastrophic attachment point.

Induced utilization

Induced utilization can be described as the additional demand for prescriptions created by an increased level of coverage in the plan. Related to Part D, it is the expected difference in claims volume between an enhanced alternative plan and the defined standard plan for the same population. For the 2006 bid preparation, no claims data existed for the defined standard plan, so the actuary had to rely on other sources of drug claims data to calculate induced demand. Some of these sources are mentioned earlier in this note. This may still be the case for new plans; for contract year 2008 and subsequent bids, most plan sponsors should have appropriate prior Part D experience. If the base period data is fully credible, it will generally be the most appropriate basis for bid pricing.

In general, it is very difficult to isolate the effect of the level of coverage on prescription drug claims volume. To do this correctly, one would need to hold constant all other factors that affect prescription drug claim volume, including: changes in the health status of the underlying population, changes in prescribing patterns, changes in discounted drug prices, and many other factors. The actuary should choose two populations of similar size and health status, but with moderately different levels of drug coverage. The actuary should attempt to normalize the populations for as many of the known differences as possible before calculating the impact of induced utilization.

X. Certification Language

CMS introduced a new actuarial certification process for the FY 2008 Medicare Advantage and Part D bids. CMS’s instructions for the BPT describe the process in detail. The actuarial certification for a bid is now completed online using CMS’s Health Plan Management System (HPMS).

The online certification includes required, standardized language. It also gives the certifying actuary the ability to append free-form text to the standardized certification language. Any modifications or

qualifications made to the standard language through additional text should make it clear to the reader that a change was made, and the nature of that change. Some examples of why a modification may be required are:

- The actuary must clearly disclose his relationship to the sponsor.
- Bids that apply to employer group business are submitted for defined standard coverage; however, the actual plan design offered to a group may differ if actuarial equivalence tests are met. Many actuaries believe the certification language should disclose this fact.
- The standard certification for 2008 included language certifying that “the entire bid is in compliance with the appropriate laws, rules and instructions.” If the certifying actuary does not believe this is true, it should be disclosed.
- When bids are resubmitted, it is recommended that the changes be outlined. This could be in a separate document or it could be included in the actuarial certification. A brief description of the nature of the changes in the resubmission would be appropriate.