CRITICAL ISSUES IN HEALTH REFORM
Actuarial Equivalence

As health reform proposals to increase access to affordable health insurance coverage are developed, key policy considerations include what coverage should look like and how much benefit variation is desirable. As policymakers engage in these discussions, requirements for actuarial equivalence are being considered as a way to provide flexibility among the benefit packages that meet or exceed a minimum standard benefit level.

Actuarial equivalence calculations provide a means to compare the relative generosity of different benefit packages.

Actuarial equivalence is a general term used to describe two or more benefit plan designs that have approximately the same value. In this context, "value" could mean several things, but it is commonly either the dollar value of average expected benefits paid out by the plan or the average share of total health spending that is paid for by the plan. As long as the other methods and assumptions used are the same, the determination of whether two benefit plans are actuarially equivalent will be the same, regardless of which specific measure of actuarial value is used. If minimum benefit standards are imposed, actuarial equivalence comparisons could determine whether alternative plan designs meet or exceed these standards.

Several plan design components are used in actuarial equivalence calculations.

Potential plan design differences considered when performing actuarial equivalence comparisons include cost-sharing features—deductibles, coinsurance, copayments, out-of-pocket limits, and benefit limits. Any differences in services covered are also included, as are any differences in cost sharing by service type. Higher cost-sharing requirements can result in lower health care utilization, and any major differences in utilization are typically incorporated into actuarial equivalence calcu-

lations. Provider network differences, however, are not typically included in actuarial equivalence comparisons. Typically, actuarial equivalence calculations are based only on in-network benefit levels.

Actuarial equivalence comparisons should be done using an appropriate population.

Health spending patterns can differ across populations. For instance, a population with employer-sponsored health insurance likely has different health spending patterns than a Medicare population (e.g., a Medicare population has higher hospital utilization). As a result, two benefit designs that are actuarially equivalent for an employer population are not necessarily actuarially equivalent for a Medicare population. Therefore, it is important to use a representative population when performing actuarial equivalence calculations.

Benefit design requirements can include limits on plan design variations.

Benefit design requirements can specify that an alternative plan be at least as generous overall as some standard plan. In addition, the requirements can include provisions that limit the amount of variation allowed among plan design components. For example, the Medicare Part D program requires actuarial equivalence and includes benefit design requirements that prohibit plan designs that would substantially reduce coverage for beneficiaries with very high or very low annual drug spending.

OTHER STATEMENTS ON CRITICAL ISSUES IN HEALTH REFORM

Individual Mandate

Market Reform Principles

Gender Considerations in a Voluntary Individual Health Insurance Market

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AMERICAN ACADEMY *of* ACTUARIES

Even actuarially equivalent plans will have different premiums.

Because plan premiums incorporate several factors that are not used in actuarial equivalence calculations, only rarely will actuarially equivalent plan designs have the same premiums. For instance, premiums will reflect expected selection; some plans will attract higher risks, leading to higher average premiums, while other plans will attract lower risks, leading to lower average premiums. Premiums also incorporate actual provider negotiated payments; some plans will have negotiated larger provider discounts than other plans. Similarly, different plans will have different utilization management techniques or provider network breadth, which also will affect premiums, as will local cost and utilization patterns. Finally, premiums also include administrative costs and profit margins, which can vary by plan.[1] These premium difference factors demonstrate the importance of holding as many factors constant as possible when performing an actuarial equivalence comparison. For instance, comparing two plans that have different provider discounts can provide more information on the difference in discounts than how the benefits compare if the provider payments are not held constant between the two plans.

Actuarial equivalence comparisons are not particularly useful for helping consumers decide between different plan options.

Actuarial equivalence calculations can be used to determine whether a plan meets a minimum threshold in order to be offered. But, knowing that a plan is actuarially equivalent to some standard plan isn't particularly useful for consumers choosing between actuarially equivalent plans. This is because actuarial equivalence comparisons are done on an *average* basis for a given population; different plans may be more or less valuable to any particular individual, based on his or her particular health care needs.

The hypothetical example below illustrates how individuals can fare differently under two actuarially equivalent plans, with different cost-sharing provisions. Overall, the plans are actuarially equivalent; the average plan share under each plan is $4,808 or 85 percent of total expected costs. However, the out-of-pocket payments by Person 1 is $2,000 under Plan 1, and $2,500 under Plan 2. In contrast, the other plan participants have lower out-of-pocket payments under Plan 2.

Hypothetical Actuarial Equivalence Example

Plan 1		Plan 2	
Deductible	$500	Deductible	$250
Coinsurance	20%	Coinsurance	30%
OOP Max	$2,000	OOP Max	$2,500

	Total Spending	Plan 1 Patient Cost Sharing			Plan 1 Plan Share	Plan 2 Patient Cost Sharing			Plan 2 Plan Share
		Ded	Coins	Total		Ded	Coins	Total	
Person 1	25,000	500	1,500	2,000	23,000	250	2,250	2,500	22,500
Person 2	1,500	500	200	700	800	250	375	625	875
Person 3	800	500	60	560	240	250	165	415	385
Person 4	500	500	0	500	0	250	75	325	175
Person 5	400	400	0	400	0	250	45	295	105
Total	**28,200**	**2,400**	**1,760**	**4,160**	**24,040**	**1,250**	**2,910**	**4,160**	**24,040**
Average	**5,640**	**480**	**352**	**832**	**4,808**	**250**	**582**	**832**	**4,808**
Cost sharing as % of total spending			15%					15%	
Plan spending as % of total spending				85%					85%

Source: American Academy of Actuaries

Note: For illustrative purposes only. For this example, total spending is assumed to be constant, regardless of plan design. Depending on the purpose of the plan comparison, changes in utilization caused by plan design changes may be considered. In addition, this example assumes that coinsurance rates are the same, regardless of the service type (e.g., hospital inpatient, physician visit). Many plans will vary cost-sharing requirements by service. The highlighted areas show each person's total out-of-pocket spending, under the plan more beneficial to that person.

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[1] Similarly, loss ratios (total benefits paid divided by total premiums received) will vary across actuarially equivalent plans. Benefits paid and premium received will reflect factors not included in actuarial equivalence calculations.

To some extent, knowing that a set of plans is actuarially equivalent could be helpful to a consumer. For instance, consumers in Massachusetts purchasing coverage through the state's newly established health insurance connector can get a general idea of relative plan generosity through the connector's gold, silver, and bronze plan categories. However, determining which plan within a given category is the best value or the best coverage for an individual depends on that individual's specific health care needs.

There are tradeoffs between allowing plan flexibility and avoiding adverse selection.

A rationale for incorporating actuarial equivalence provisions into benefit package requirements is to allow some degree of plan flexibility and consumer choice when setting benefit package minimum standards. However, with flexibility and consumer choice come the potential for adverse selection between plans. In other words, even among actuarially equivalent plans, some plans may have features that appeal to high-risk individuals, and others may have features that appeal to low-risk individuals.

The example above illustrates this potential for selection. People with higher health spending would have lower out-of-pocket costs under Plan 1, and would therefore be more likely to choose Plan 1 as opposed to Plan 2. People with lower health spending would be more likely to choose Plan 2. As a result, premiums for Plan 1 would likely be higher than those under Plan 2 to reflect this adverse selection, all other things equal.

The more similar the plan design features are, the less concern there will be about adverse selection between plans. However, very large differences in plan design features, for instance between a no- or low-deductible plan and high-deductible plan, can cause more serious adverse selection concerns.

Actuarial equivalence determinations are required for Medicare Advantage and Medicare prescription drug plans.

Plan flexibility is allowed under the Medicare Advantage (MA) program and the Part D prescription drug program. MA plans must offer at least the same categories of benefits as fee-for-service Medicare. However, MA plans can impose different cost-sharing requirements, as long as the plans are at least actuarially equivalent to traditional Medicare and any plan design differences are nondiscriminatory.

Medicare Part D contains several actuarial equivalence provisions. First, prescription drug plans must ensure that the drug coverage is at least actuarially equivalent to that of the standard drug plan specified by law, with some further design requirement tests that may limit plan variations. Second, individuals delaying enrollment in Part D can avoid the late enrollment penalty if they were enrolled in a prescription drug program with benefits at least actuarially equivalent to that of the standard drug plan. Third, employers offering retiree drug coverage must meet actuarial equivalence tests to qualify for the retiree drug subsidy. These tests include a gross test, which ensures that the retiree drug plan is at least actuarially equivalent to that of the standard plan, and a net test, which ensures that the portion of the benefit value paid by the employer meets or exceeds the portion of the Part D standard plan value paid by Medicare. In other words, employers don't qualify for subsidies if they don't pay as much of the premiums as the federal government does for the Part D program.

The actuarial equivalence method used will depend on the purpose of the plan comparison.

No one method of performing an actuarial equivalence comparison is appropriate to use in all cases. As illustrated by the different methods required in Medicare Part D, the purpose of the plan comparison will determine the specific method applied. For instance, if the goal of a plan comparison is to ensure that alternative plan designs are at least as generous as a standard plan design, then who pays the premium is irrelevant. However, if the goal is to ensure that an employer provides at least the same value in health benefits after any given legislative change is made as was available before the change (e.g., a maintenance-of-effort provision), then it may be appropriate to net out employee premium contributions.

Whether to incorporate HSA or other account-based contributions depends on whether contributions are voluntary and/or forfeitable.

Whether and how to incorporate contributions to Health Savings Accounts (HSAs) or other health-related accounts into an actuarial equivalence comparison depends on a couple of factors. The first is whether the contributions are automatic or voluntary. If the contributions are automatic, it may be appropriate to simply add the value of the contribution to the actuarial value of the high-deductible health plan. However, if contributions are voluntary, it may be more appropriate to discount the value of the potential contribution to reflect that not everyone will contribute or exclude contributions from the actuarial value altogether. The second is whether the account can be forfeited. HSA accounts are owned by the individual, and can't be forfeited. However, other account contributions, such as those made by an employer to a Health Reimbursement Account, can be forfeited by the individual upon leaving the employer. Therefore, the contributions to forfeitable accounts should be adjusted accordingly.

Actuarial equivalence analysis is an estimation process.

The use of the word "equivalence" in an actuarial context may imply a very strict level of precision. However, actuarial analysis is inherently an estimation process and hence is somewhat inexact. Actuarial value estimates will vary by the data sources, projection methods, and assumptions used, and there may be a reasonable range of appropriate methods and assumptions used to develop these estimates. This also means that there is a range around actuarially equivalent values.

Requiring that actuarial equivalence attestations be performed by members of a U.S.-based actuarial organization can help ensure that appropriate methods and assumptions are used. Such actuaries operate under a code of professional conduct and are subject to qualifications standards and standards of practice. In addition, the American Academy of Actuaries issues practice notes to provide advisory guidance to actuaries on current and emerging approaches to selected actuarial tasks. For instance, the Academy has issued practice notes related to the actuarial equivalence requirements under Medicare Part D and actuarial equivalence attestations under Part D must be certified by a member of the Academy.

The American Academy of Actuaries is a professional association with over 16,000 members, whose mission is to assist public policymakers by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.