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ACTUARIAL VALUE AND THE ACTUARIAL VALUE OF ORIGINAL A/B MEDICARE

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An Overview of the Actuarial Value (AV) of the Medicare Plan of A/B Medical Benefits and the Corresponding Cost-Sharing Paid by Medicare Beneficiaries for Services.

This paper discusses the actuarial value of the original (fee for service) A/B Medicare plan of benefits and its cost-sharing implications for Medicare beneficiaries. Medicare's medical coverage is social insurance for eligible residents of the United States and its territories. It is a relatively rich plan with comprehensive benefits and modest cost sharing for the average beneficiary. It covers more than 50 million people today—about 42 million elderly and 8 million disabled.

Most Medicare beneficiaries live on fixed or declining incomes; they generally have considerably lower incomes than the non-elderly, non-disabled population. Hence, dollar-for-dollar, Medicare beneficiaries are more sensitive to cost sharing, especially the oldest beneficiaries, who tend to have higher medical spending than younger beneficiaries. On a per member per month (PMPM) basis, Medicare beneficiaries spend about three times as much for medical care as the average person under 65. As the population ages and more people live longer, retirement security and health security become increasingly important and more closely related to each other.

As a health benefit plan, fee for service (FFS) A/B Medicare covers a comprehensive set of basic health care needs for the Medicare population. It does not cover pharmacy benefits available by prescription through retail and mail-order drug stores—these are covered by Medicare Part D, which began in 2006. Nor does FFS Medicare cover hearing benefits, such as hearing aids, vision, such as glasses and contacts, dental, or out of country medical costs. We will refer to these as non-Medicare covered benefits in this article. Some of these additional non-Medicare covered benefits may be covered by Medicare Advantage plans. For the sake of clarity, Medicare Advantage (MA) plans are not discussed at length in this paper.

SUMMARY

The projected 2014 actuarial value of Medicare is 84 percent. This means that the federal government is expected to pay 84 cents of every dollar of total Medicare medical spending incurred by the average beneficiary enrolled in the original A/B Medicare plan. It also means the average Medicare beneficiary is expected to pay 16 percent, which is 16 cents of every dollar of total Medicare medical spending incurred. (Beneficiary cost sharing does not include the Part B premium paid by the member, which is about $105 for most beneficiaries in 2013.) Medicare's 84 percent actuarial value (AV) is considerably greater than that of the average individual medical insurance plan sold in the U.S. commercial market for those under 65. It is closer in value to the AV of group commercial health plans, both fully insured and self-funded. (Medicare is also referred to as original Medicare, fee for service A/B Medicare, and traditional Medicare. It is important to distinguish Medicare from Medicare Advantage—the latter is a private plan. Original Medicare is a public program of social insurance.)

According to the Centers for Medicare and Medicaid Services (CMS) in their annual Announcement (see pages 10 and 11), the average aged or disabled Medicare beneficiary in the United States in 2014 is expected to spend about $1,850 on cost sharing for Medicare-covered benefits in the form of deductibles and coinsurance. In total, the average beneficiary is expected to incur $11,390 of medical spending; this includes the beneficiary's $1,850. ($11,390 = 12 x ($154.12 + $795.11) = 12 x $949.23). The calculation of the AV of Medicare is shown below:

84% AV = $795.11 / ($154.12 + $795.11) = $795.11 / $949.23

The $795.11 is the federal government's portion of total average cost per beneficiary per month; the $154.12 is the beneficiary's portion that is paid in the form of deductibles and coinsurance.

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These amounts are for aged and disabled beneficiaries and exclude those with end stage renal disease.

Unlike any plans which pay for commercial health coverage for the non-elderly, there is a robust market for the sale of Medigap (also called Medicare Supplement) insurance plans that pay for some or all of the Medicare beneficiary's cost sharing. There is also supplemental coverage that may be provided by some employers for their Medicare-eligible retired employees. These supplemental insurance plans reduce the Medicare beneficiary's cost sharing. Regardless of how many Part A or Part B services the beneficiary utilizes, the AV will be greater than 84 percent and as much as 100 percent for those with some form of insurance coverage that supplements Medicare, such as Medigap or employer-sponsored coverage. Medigap Plan F, for example, which represents over half of all Medigap policies in force, has an AV of 100 percent, and it covers non-par provider balance billing, which is a non-Medicare covered benefit.

While the average expected beneficiary cost sharing for Medicare is only 16% = 100% – 84%, in actuality, that percentage may vary from one beneficiary to another. Likewise, the amount of cost sharing in actual dollars per beneficiary per year will vary as well. Some Medicare beneficiaries may have total medical costs that far exceed the average—even if that beneficiary's share of those costs is the average 16 percent, that can be expensive. Half of the approximately 50 million plus Medicare beneficiaries live on an annual income of less than $23,000; hence, Medicare cost sharing is a significant budget issue when beneficiaries' incomes and assets are considered.

When considering each individual's cost sharing in whole dollars, it is also important to relate this amount back to that individual's income and assets. On average, Medicare beneficiaries have more limited means than the working population. $1,850 of average FFS Medicare cost sharing over an average income of $23,000 is 8 percent, which is a sizable portion, given the amount of that income and all else that it must buy. If we add on the $105 per month for Part B premium, average medical cost sharing exceeds 13 percent, in total. For the small number of beneficiaries with an unusually large dollar amount of cost sharing in a given year, medical cost sharing comes with significant financial consequences.

For those Medicare beneficiaries with sufficiently low income and assets, Medicaid will pay their Medicare cost sharing; Medicaid may also pay low income beneficiaries' Part B monthly premiums, which are about $105 per month for most beneficiaries in 2013. (Those with sufficiently high incomes pay more.) A beneficiary who is impoverished by an enormous amount of cost sharing may eventually fall into the Medicaid safety net and have her subsequent Medicare cost sharing paid by Medicaid.

AV is a measure of the generosity of a health plan for the average member. Since the passage of the Affordable Care Act (ACA) and the work by Center for Consumer Information and Insurance Oversight (CCIIO) on metal plans, AV has become the default tool to quickly assess the relative generosity of a benefit plan. It is a shortcut mental device, a heuristic. For plans without an out-of-pocket maximum on beneficiary cost sharing, such as FFS Medicare, AV alone is an insufficient measure to fully portray the risk associated with member cost sharing. Since FFS Medicare does not have an out-of-pocket maximum, every beneficiary without some type of supplemental coverage has a potentially unlimited cost-sharing liability. Redesigning the FFS Medicare benefit by instituting a maximum out-of-pocket limit would eliminate the potential for that unlimited liability. This option not only has been discussed but also has been implemented, temporarily, under the Medicare Catastrophic Coverage Act of 1988. Although such a seemingly simple fundamental benefit change would seem to have a substantial positive effect on ben-

eficiaries, it could be difficult to achieve (again) politically because of the various ramifications it would have on different stakeholders. The lack of a maximum out-of-pocket (MOOP) in Medicare has existed for almost 50 years, and whole industries have developed to help beneficiaries manage the risk of unlimited cost sharing. In that sense, Medigap replaces an uncertain amount of future cost with a certain monthly insurance premium. Since its inception, Medigap has been questioned and opposed by some policymakers because it induces utilization in the Medicare program itself.

While 84 percent is a relatively generous actuarial value, it represents only the actuarial value for the average beneficiary. It is important to understand actual beneficiary cost sharing in absolute dollars for each individual beneficiary across the entire spectrum of beneficiaries. In a given year, some may have no cost sharing, and others may pay out tens of thousands of dollars in shared costs. Hence, it is necessary to understand the statistical distribution of Medicare beneficiaries' actual out-of-pocket costs. If every beneficiary had exactly $1,850 of annual cost sharing, those expenses would be much easier to manage than the actual risk, in which some beneficiaries have little cost sharing while others have substantial amounts in a given year. The primary concern to focus on and mitigate is the risk of a beneficiary having a large amount of Medicare A/B cost sharing in a given year.

Whereas the recent commercial small group and individual health insurance plans now being sold through health exchanges as a result of the ACA were originally required to have a MOOP spending amount of $6,350 or less for 2014, original A/B Medicare does not have a MOOP. When Medicare was introduced in 1965, it was not uncommon for benefit plan designs to be without MOOPs, but they have become an essential aspect of the plan design of most health insurance plans today, for obvious reasons. Medicare's lack of a MOOP is a significant disadvantage for the small portion of beneficiaries today who are without a supplemental policy such as Medigap, or without a Medicare Advantage (Part C) plan that replaces the beneficiary's FFS Medicare A/B plan. Medicare Advantage plans in 2013 and 2014 are required to have a MOOP of $6,700 or less.

The Original Medicare A/B benefit is essentially a medical benefit without a pharmacy benefit. Prescription drug coverage is made available to Medicare beneficiaries through the separate Medicare Part D program, usually at some cost to the beneficiary. Unlike FFS Medicare, Part D is a private program sold through private health insurers; the majority of the cost of the Part D program, however, is borne by the federal government. In this paper, only the FFS Medicare benefit is considered, not Medicare Part D for drugs. Nonetheless, for the sake of fair comparison, when FFS Medicare is compared with commercial plans, this fundamental benefit difference should be taken into consideration since commercial plans typically include some pharmacy coverage.

WHAT IS ACTUARIAL VALUE (AV)?

The term actuarial value is often used in conjunction with the ACA. In this context, AV is simply a measure of the percentage of the expected average total cost of a health insurance plan that is paid by the insurer on behalf of the average member. The total cost consists of the combined cost of the insurer and the member. By definition, the member's cost consists only of the cost sharing that arises from deductibles, copays and coinsurance, which are collectively referred to as member cost sharing. (In reality, beneficiaries may also incur medical costs for certain services not covered by Medicare. These costs are paid out of pocket. They are not considered part of the total cost of original Medicare and are thus not included in the denominator of the AV calculation.) AV is an important indicator of the generosity or "richness" of a health plan. For plans without a MOOP expenditure, however, such as FFS Medi-

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care, the AV is only part of the story—this is an essential part of the message of this paper.

AV = N / D , where:

- the numerator, N = Expected Costs Paid by Insurer for the average person covered, and
- the denominator, D = Total Expected Costs Paid for the average person covered, including the average individual's Expected Out-of-Pocket Cost. D = N + Avg Member's Expected Out-of-Pocket Cost-Sharing.

In the equation that explains the calculation of the 84 percent AV for Medicare (shown at the beginning of this paper),

N = $795.11 per beneficiary per month, and

D = $949.23 = $795.11 + 154.12 per beneficiary per month.

While this seems like a relatively simple concept, it becomes more complicated when all the details and nuances are fully considered. It is important to bear in mind that the denominator depends on what the plan covers. FFS Medicare A/B covers a full range of essential medical benefits, with few benefit exclusions. The additional non-Medicare covered benefits mentioned earlier, such as glasses, hearing aids and dental, are more predictable and budgetable; they represent lower financial risk to the beneficiary than the cost of an unforeseen catastrophic illness. Some Medicare Advantage plans cover more benefits than traditional Medicare. This makes for an unfair comparison between Medicare Advantage and traditional Medicare, if one uses AV only.

There are various types of medical expense that a beneficiary may incur out-of-pocket that are not covered by Medicare.

Since the denominator of the AV ratio includes 100 percent of the plan's total cost (insurer's + beneficiary's), but not 100 percent of an individual's total medical spending, this aspect of the denominator must be considered carefully. There are various types of medical expense that a beneficiary may incur out-of-pocket that are not covered by Medicare. Glasses and hearing aids were mentioned earlier—while these are an obvious example, a less obvious example of non-Medicare benefits is the inpatient or skilled nursing facility days that a beneficiary might utilize after meeting the covered days limit. None of these non-covered expenses are included in the denominator of the AV calculation. It is important to distinguish between the two types of out-of-pocket costs: First is the cost sharing paid by beneficiaries for Medicare covered services. Second is the cost of the services that Medicare does not cover; thus beneficiaries must pay for them entirely out of their own pocket.

This limitation of the denominator is true for other non-Medicare insurance plans as well. It becomes a source of difficulty in comparing metal plans under the ACA. The variation in denominator from plan to plan is the other consideration to bear in mind when using AV to compare plans. It is also important to remember that actuarial value is a concept that applies on average to a large group of insured people whose claims and cost sharing in aggregate will be subject to the law of large numbers; a large population is needed to mitigate the noise of statistical fluctuation. If, for each individual in an insurance plan, we calculate the actual member cost sharing divided by their actual total cost, including member cost sharing, the results will vary widely around the expected percentage of 100 percent - AV. One exception is a plan in which the only type of member cost sharing is coinsurance applied at the same rate to all services. Even in this special case, each member will have a different dollar amount of cost sharing depending on the total cost of the Medicare A/B services they utilize.

AV is an average expected percentage, a portion of unity between 0 percent and 100 percent; it typically ranges from approximately 60 percent to 100 percent for most types of health insurance coverage. The complement of AV (100% – AV), represents the average person's expected cost sharing as a percentage of total spending. It typically ranges from 0 percent to 40 percent. If an insured person has 0 percent cost sharing, this would mean that the person has no liability, be-

cause all the liability is borne by the insurer. In that case, health care is a free good. The Rand study is often cited to explain the induced utilization that occurs as a result of reducing member cost sharing.

Although 1 – AV is the average cost sharing percentage, in actuality, some beneficiaries will have cost-sharing that is more or less than the expected 16 percent. More importantly, some people will have much more medical spending than others, and they will, consequently, have significant out-of-pocket cost sharing in terms of total dollars.

Whereas commercial health exchange plans were designed to limit the member's out-of-pocket liability, the fact that original Medicare does not has spawned a multi-billion-dollar industry of insurance coverage to protect the Medicare beneficiary from the adverse financial effects of large unforeseen cost sharing. This could include financial ruin brought on by the low frequency, high severity risk of a large medical claim and its associated out-of-pocket cost sharing. The MOOP concept is a key component of "pooling" in the design of a health insurance plan. This is especially true for medical coverage, which consists of many relatively small annual claim amounts for most people and some extremely large claims for a few. The private sector, not the federal government, can be credited with the creation and development of the MOOP concept; however, the private sector also created the annual and lifetime maximums on insurer liability, which, in some cases, took away some of what the MOOP gave.

For the sake of clarity, it should be pointed out that the term "actuarial value" is sometimes used in a different but related context to represent the whole dollar amount of a medical cost. This was common prior to the ACA, and this dual usage can be confusing. For example, in the annual Announcement issued by CMS each April on the subject of Medicare and Medicare Advantage, the term actuarial value is used to represent the equivalent dollar value of the Medicare deductibles and coinsurance for each of Part A and Part B. Their sum is the $154.12 per beneficiary per month amount that was referred to earlier in the AV calculation for Medicare. This is shown in Table I-3 of the Announcement.

At 84 percent, FFS Medicare has an AV that places it between the Gold and Platinum tiers of a commercial health exchange plan. While this might seem rich, even the least rich commercial metal plan, Bronze, was originally designed with an out-of-pocket maximum that limits the member cost-sharing liability to a maximum amount of $6,350 per person per year in 2014. If Medicare is compared with Medicare Advantage MA-PD plans or commercial health exchange plans, the lack of a MOOP and the absence of pharmacy coverage for Medicare must both be taken into consideration in order to conduct a fair comparison. This points again to the second blind spot of actuarial value as a measure of plan generosity, as mentioned earlier. The fact that the denominator can vary from plan to plan, as does the package of benefits each plan covers, requires one to take this variation into consideration when using AV to compare two commercial insurance plans across state lines. This also complicates the use of AV to compare Medicare Advantage (MA) plans to original Medicare + Medigap, since some MA Plans include some minor additional benefits that are not covered by original A/B Medicare. Furthermore, the Medigap Plan F covers the balance billing of providers who do not participate in Medicare, which is also not in the list of covered services for original A/B Medicare.

DATA PERTAINING TO THE ACTUARIAL VALUE OF MEDICARE

CMS annually publishes Medicare data and estimates used in Medicare Advantage rate-making. The essential elements of the 2014 AV calculation were taken from Tables I-2 and I-3, on pages 10 and 11, of the annual "Announcement," released in April 2013, for the upcoming 2014 contract year. The $795.11 is the U.S. Per Capita Cost of Medicare (USPCC) for the aged and disabled population. It is a per beneficiary per month cost and represents only the federal

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This is especially true for medical coverage, which consists of many relatively small annual claim amounts for most people and some extemely large claims for a few.

government's average liability for each beneficiary's cost sharing. It does not include Medicare beneficiaries with end stage renal disease. This breaks down into Parts A and B as follows:

	Value	Approximate Portion
Part A	$375.59	½-
Part B	$419.52	½+
TOTAL	**$795.11**	

The $154.12 per beneficiary per month is the total cost-sharing value for Medicare deductibles and coinsurance on Parts A and B combined. Separately, this amount breaks down as follows:

	Value	Approximate Portion
Part A	$39.13	¼ -
Part B	$114.99	¾+
TOTAL	**$154.12**	

The total Medicare cost per beneficiary per month is $154.12 + $795.11 = $949.23.

On Part A services only, the average Part A cost sharing is 9.4% = $39.13 / ($39.13 + $375.59). On Part B services only, Part B cost sharing is 21.5 percent of total Part B cost, using the CMS 2014 projections, where 21.5% = $114.99 / ($114.99 + $ 419.52).

WHAT IS THE IMPORTANCE OF MEDICARE AV?

The AV of Medicare shows us that AV is an inadequate measure when used as the sole metric of a benefit plan's generosity when the plan has no MOOP. The absence of a MOOP for original Medicare creates a long right-tailed distribution of out of pocket (OOP) beneficiary cost sharing. And, regardless of the percentage, beneficiaries with high annual medical spending will also have high cost sharing in absolute dollars, unless they have a supplemental plan that relieves their cost-sharing burden. AV ignores the risk associated with the long right-tailed distribution of the beneficiaries' out-of-pocket expenses. All else equal, given two health insurance plans with the same AV, one with a MOOP and one without a MOOP, the plan with a MOOP presents less risk to the person insured.

Medicare beneficiaries who have a stay of long duration in an inpatient hospital and/or a skilled nursing facility (SNF) setting will likely incur more Part A cost sharing than the average of 9.4 percent calculated previously. The Medicare benefit includes increasing, stepped, cost sharing per day for inpatient and SNF stays. It also allows only a limited number of days of coverage for each setting per "benefit period"; after the days limit is reached, the member must pay the full cost of all subsequent days. Since these non-covered institutional days are not included in the denominator, they do not affect the AV, but they are, nonetheless, an enormous financial burden to the unfortunate beneficiary who has such a long stay. This benefit feature may serve as a deterrent to the use of Medicare as a long-term care plan. Medicare was designed to cover acute care, not long-term care. The institutional days limit may have a sentinel effect that mitigates the potential use of Medicare for custodial care.

The cost of those non-covered institutional days may be greater than the beneficiary's actual cost sharing. Since the beneficiary is responsible for the entire cost of these non-covered days, they represent a significant risk to the beneficiary. These non-covered days represent a low-frequency, high-severity risk to the beneficiary that is not reflected in AV.

CMS maintains data on average beneficiary cost sharing by county and by year for each major category of service. CMS incorporates these percentages into Worksheet 5 (WKS 5) of the Medicare Advantage Bid Pricing Tool for MA. According to WKS 5, the average beneficiary has approximately 7 percent cost sharing for inpatient care and roughly twice as much, 14 percent, for SNF. While these percentages vary by county, they are both less than the average 16 percent of Medicare cost sharing for Parts A and

B combined. As we saw above, Part A cost sharing is 9.4 percent of Part A total costs. For beneficiaries with longer Part A stays, however, the Part A cost-sharing percentage increases. Also, the denominator for the AV of Medicare does not include the cost of the non-covered inpatient and SNF days that exceed the limits per "benefit period" (previously called "spell of illness"). SNF is limited to 100 days per period. Inpatient allows 90 days per period, plus the additional lifetime reserve of 60 days available once per lifetime.

The fact that average Part A cost sharing is less than 16 percent implies that the average Part B cost sharing is more than 16 percent. This seems reasonable, since Part B has a deductible of $147 in 2013 and 20 percent coinsurance for the vast majority of services. Part B, however, includes some free preventive care (without any cost sharing) for certain preventive services, as well as no beneficiary cost sharing on home health care services. However, these two "free" services constitute only a very small portion of Medicare cost. According to the calculation above, Part B cost sharing is 21.5 percent of total Part B cost, which seems reasonable given the Part B benefit structure.

HOW DO MEDICARE BENEFICIARIES MANAGE THE RISK OF LOW-FREQUENCY, HIGH-SEVERITY COST SHARING?

Medicare has existed without a MOOP for almost 50 years. A number of approaches and industries to limit Medicare OOP spending have developed. Employer plans previously filled in many of the Medicare cost-sharing gaps for their retirees of age 65 and older, but these plans have been in decline as the overall cost of medical coverage, in general, has increased at a rate of roughly twice that of general inflation over the past few decades. (In recent times, employers have been more concerned with how to pay for the health care needs of their actively working employees than with their retirees' health care needs. In part, this decline may also reflect a shift in cultural values.) The Medigap industry now insures more than 10 million beneficiaries. Medicare Advantage (MA) is a private program; when a beneficiary chooses an MA plan (for at least one year at a time), it replaces his or her Original Medicare A/B coverage. MA covers almost 15 million people. These two programs alone, Medigap and MA, insulate about half of Medicare beneficiaries from the risk of a catastrophic amount of medical cost sharing. About 20 percent of Medicare beneficiaries have sufficiently low income and assets to qualify for Medicaid, which pays their cost sharing. Some beneficiaries become Medicaid eligible after they have spent down their assets (life savings). This is especially true for beneficiaries who can no longer live independently and must reside permanently in nursing homes. The monthly cost of nursing home custodial care is far greater than the average total monthly medical cost for Medicare beneficiaries.

It is estimated that about 11 percent to 17 percent of Medicare beneficiaries are without any form of supplemental or alternative coverage that mitigates their cost-sharing risk; if they incur a catastrophic expense, it may go unpaid in some cases. Unpaid debt is a cost-shift risk faced by all hospitals and skilled nursing facilities, and especially those which serve a disproportionate share of poor Medicare beneficiaries who are not covered by Medicaid.

Some readers will recall the Medicare Catastrophic Coverage Act (MCCA) of 1988. This was a catastrophic plan for Medicare beneficiaries (also called "Part C") developed during President Reagan's second term and passed by Congress in 1988. It contained an out-of-pocket maximum and other benefit improvements, including a prescription drug benefit. These changes were the most significant Medicare plan reforms since Medicare's enactment. The new benefits were financed with new premiums and an income tax surcharge. The MCCA was ultimately repealed in 1989 during President George H.W. Bush's first term, due to the strong reaction against the changes by some beneficiaries (mainly high income seniors). Seniors did not mind the benefits themselves, but they objected to their

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Unpaid debt is a cost-shift risk faced by all hospitals and skilled nursing facilities, and especially those which serve a disproportionate share of poor Medicare beneficiaries who are not covered by Medicaid.

cost and did not want to pay for them. These new benefits often duplicated those that many seniors already received through their former employer's supplemental retiree coverage.

CONCLUSION

The Actuarial Value of Original A/B Medicare for 2014 is expected to be 84 percent, but that does not reveal the full extent of the cost-sharing risk faced by Medicare beneficiaries. For this reason, AV is a less useful measure of plan generosity for health insurance plans that do not include an out-of-pocket maximum (MOOP). AV has two major deficiencies when used as the sole measure of a benefit plan's generosity or richness: The first occurs when the insurance plan lacks a MOOP. In this case, the AV does not reflect the additional risk of the unlimited member cost-sharing liability. AV has a second weakness, insofar as the denominator of Medicare's AV does not reflect the potential high out-of-pocket cost a beneficiary may incur for non-Medicare services (such as the non-covered institutional days in an inpatient hospital or SNF for stays that exceed Medicare's number-of-days limits for inpatient and SNF).

A large majority of Medicare beneficiaries have some other coverage that mitigates their Medicare cost sharing.

A large majority of Medicare beneficiaries have some other coverage that mitigates their Medicare cost sharing. Multiple options exist for Medicare beneficiaries to manage the risk of high beneficiary cost sharing for medical expenses. For the poorest beneficiaries, there is also the public program of Medicaid, which is a safety net provided without cost to beneficiaries that qualify, based on sufficiently low income and assets. The private sources of risk mitigation include Medigap insurance, Medicare Advantage and employer-sponsored retiree coverage, all of which protect the beneficiary from catastrophic cost-sharing liability to varying extents.

As a number, Medicare's 84 percent AV may seem generous or "rich," relative to a bronze or silver health exchange plan with 60 percent or 70 percent AV, respectively. Medicare beneficiaries, however, have approximately three times the average total medical spending of those younger people insured by the "metal" plans sold on health exchanges under individual and small group coverage. Consequently, Medicare beneficiaries typically have higher annual cost sharing in actual total dollars. Moreover, Medicare beneficiaries are typically non-working and live on lower incomes than working people. Hence, on average, Medicare beneficiaries are more cost-sensitive to cost sharing than most in the working population, who can more easily afford cost sharing.

Medicare is a social insurance program that provides the health security infrastructure for older and disabled beneficiaries in the United States and its territories. It is fundamental to the financial and health security of all Americans. The presence of this social insurance program has complex manifold implications for society. In addition to providing health care to beneficiaries, its downstream ramifications affect the number, type, distribution, and behavior of medical providers who provide medical goods and services to Medicare beneficiaries and non-Medicare patients. The presence of Medicare also affects the wellness, longevity, quality of life, and productivity of beneficiaries, as well as their utilization of medical goods and services. Almost 15 percent of federal spending is presently devoted to Medicare, which covers over 50 million people, and this percentage continues to increase. The number of Medicare beneficiaries is growing, due to aging of the population as well as to growth of the pre-Medicare population itself. For these reasons, Medicare issues are of interest and importance to all Americans.