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Funding Medicare: An Analysis of Private Accounts

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Executive Summary

Medicare is one of the biggest components of federal spending. Into the future, Medicare spending will continue to increase at a rate faster than inflation. An aging population and rapidly rising medical inflation explain most of the increases in Medicare expenditures.

- Currently, individuals age 65 and older comprise 13 percent of the U.S. population. By 2050, they will comprise 20 percent of the population.

- The Medicare trustees forecast that, by 2050, Medicare's share of national income will more than double to approximately 1/12 of the U.S. economy. That excludes spending on private health care, private health insurance, and Medicaid.

- Medicare expenditures have grown – and are projected to grow – approximately twice as fast as the rate of growth of population age 65 and older and approximately 1.6 times as fast as the rate of inflation.

Medicare is currently funded on a "pay-as-you-go" basis. Today's workers pay a payroll tax to fund today's Medicare expenditures. This brief describes a Medicare funding approach that would permit individuals to accumulate a medical savings balance sufficient to sustain post-retirement health care expenses currently paid by Medicare.

- A hypothetical individual who begins receiving benefits in 2009 and lives to the age of 85 would require approximately $191,000 in the account to fund benefits received through age 85.

- To fund expected future expenditures, a total of $2,490 (in 2009 dollars) would have to be added to the account each year.

Background

According to a 2009 report by the board of trustees for Medicare and Social Security, Medicare spending will continue to increase at a rate faster than inflation. The trustees forecast that the Medicare hospital insurance trust fund will become insolvent by 2017.

Spending on Medicare and Medicaid is projected to grow dramatically in coming decades. An aging population and rapidly rising medical inflation explain most of the increases in Medicare expenditures. The 2009 long-term budget outlook published by the Congressional Budget Office (CBO) has indicated that future growth in spending per beneficiary for Medicare and Medicaid will be the most important determinant of long-term trends in future federal spending. CBO concludes that changing Medicare in ways that reduce the growth of costs will be the long-term challenge in setting federal fiscal policy.

Medicare is currently a "pay-as-you-go" system. Today's workers pay a payroll tax to fund today's Medicare expenditures. Because younger workers pay for benefits received by retirees, Medicare is what is known as a generation transfer system. Under the current Medicare system, the size of the benefit received by beneficiaries is not tied in any way to an individual's previous work history or his or her previous Medicare tax payments.

The goal of this project is to describe a Medicare funding approach that would permit individuals to accumulate a medical savings balance sufficient to sustain post-retirement health care expenses currently paid by Medicare. Sources of annual contributions to this personal account may include payroll taxes, premiums, and a public subsidy.[1] The analysis evaluates the funding demands, assuming that the benefits (i.e., the costs) of the existing program remain unchanged.

Analysis

The Medicare program has two components.[2]

1. **Hospital Insurance**, Medicare Part A, helps pay for hospital, home health, skilled nursing facility, and hospice care for the aged and disabled. Part A is funded by payroll taxes imposed on employers and employees. The employer and employee's contributions amount to 2.9 percent of payroll.

2. **Supplementary Medical Insurance** consists of Medicare Part B and Part D. Part B helps pay for physician, outpatient hospital, home health, and other services for the aged and disabled who have voluntarily enrolled. Part D provides subsidized access to drug insurance coverage on a voluntary basis for all beneficiaries and premium and cost-sharing subsidies for low-income enrollees. Part B and Part D are funded with premiums and general revenues (e.g., income taxes).

Currently, Medicare has 46 million people enrolled, and individuals age 65 and older comprise 13 percent of the U.S. population. The Census Bureau forecasts that the population of individuals age 65 and older is expected to grow at a faster rate that the rest of the population (Figure 1). By 2050, Medicare enrollment is expected to be more than 91 million, and the population of individuals age 65 and older will comprise 20 percent of the population (Figure 2).

Medicare trustees calculate that current Medicare expenditures are $503 billion (Figure 3). This amounts to 3.6 percent of national income measured by gross domestic product. By 2050, the trustees forecast that Medicare's share of national income will more than double. The Medicare trustees forecast that total Medicare expenditures will comprise 8.7 percent of U.S. gross domestic product by 2050.

The Centers for Medicare and Medicaid Services report

Medicare expenditures since 1965 and have projected Medicare expenditures through 2018. Inflation and changes in the population age 65 and older statistically explain nearly all of the increases and projected increases in Medicare expenditures. Figure 3 shows expenditures from 2005 through 2050. The figures are not adjusted for inflation.

Medicare expenditures have grown – and are projected to grow – approximately twice as fast as the rate of growth of population age 65 and older and approximately 1.6 times as fast as the rate of inflation.[3] For example, if from year to year the population age 65 and older increases by 2 percent and inflation is 2.5 percent, then Medicare expenditures would increase by 8 percent.

Medicare expenditures per person age 65 and older are approximately $12,700 in 2009 (Figure 4). If the long-run trend in Medicare expenditures continues, then by 2050, expenditures per person would be approximately $116,500 ($43,200 in 2009 dollars).

Cohen and Naumova (2009) estimate the relationship between Medicare expenditures and the age of the beneficiary. Per-person expenditures are higher in the first year of Medicare coverage (age 65). Between ages 65 and 66, per person expenditures decrease slightly, then increase steadily until peaking in the late 70s, at which time expenditures level off and then begin to decrease steadily. Per person expenditures tend to increase with age from age 66 through the early 90s, at which time they begin to level off.

Figure 5 applies the findings of Cohen and Naumova (2009) to the projected expenditures in Figure 4 to estimate the annual expenditures for a hypothetical individual who begins receiving benefits in 2009 and lives to the age of 85. The remainder of the analysis is for such a hypothetical individual. It assumes that the individual began making contributions to the Medicare account at age 20. Contributions increase with growth in wage income through time, or approximately 3.9 percent per year.[4] Contributions earn the rate of return on one-year Treasuries, which averaged 6.25% between 1974 and 2009.[5] At age 65, the individual receives benefits and draws down the account until age 85 (Figure 6). Benefits include projected premium payments and projected expenditures for services that would be "out-of-pocket" if individuals had private accounts. During this time the account continues to earn interest on the funds remaining in the account.

The present discounted value of projected per-person Medicare expenditures amount to $191,000 at age 65. In other words, based on the expenditure estimates in Figure 5, an individual who begins receiving benefits in 2009 would require approximately $191,000 in the account to fund Medicare expenditures through age 85.

To fund the account the individual would have to contribute $2,490 (in 2009 dollars) to the account each year. If the individual began saving at age 30, then the annual contribution would increase to $3,640 (in 2009 dollars). This amount would be much lower if the rising costs of Medicare are curbed by consumer choice.

A 20-year-old today would need more than $1 million in his or her account to cover projected Medicare expenditures when they retire 45 years from now (assuming Medicare continues on its currently projected cost path).

Note that this analysis examines only Medicare expenditures, rather than total medical expenditures from age 65 and older. Out-of-pocket medical expenses that are not covered by Medicare – such as dental care – are not included in the projections in this study.

Discussion

This brief describes a Medicare funding approach that would permit individuals to accumulate a medical savings balance sufficient to sustain post-retirement health care expenses currently paid by Medicare. The analysis evaluates the funding demands, assuming that the benefits (i.e., the costs) of the existing program remain unchanged. The funding demands of Medicare can be reduced substantially only if the growth in Medicare costs can be reduced.

Medicare is a single-payer approach. It uses government-mandated insurance, direct regulation of provider prices and wages, and controls over the quantity and quality of services in the attempt to contain costs.

Medicare beneficiaries are shielded from most of their costs of health care. This produces a price illusion in which the price paid by consumers does not reflect the true cost. It creates the illusion among consumers that the good or service is low-cost or free. As a result, beneficiaries demand more health care services than they would if they were to pay the full cost of care or a greater share of the cost of care.

Medicare can be compared to an all-you-can-eat buffet. At a buffet, diners eat until they are full with no worry about how much each dish cost to prepare. Because every diner eats until they are full, the buffet must put out more food than it would if it charged for each dish. Because it must put out so much food, the buffet must raise its prices to cover its costs. With Medicare, beneficiaries are shielded from much of the costs, so they consume more health care than they would if they bore the full cost of service. The higher demand for health care services works its way up the supply curve and results in a higher cost per unit of service.

In response to high – and rising – Medicare costs, the government regulates the prices that providers can charge. In economics, this is known as a price ceiling because the price cannot go any higher than the price set by the government. Typically, the price ceiling is set below the market price, so the fees received from Medicare beneficiaries are lower than from non-Medicare patients.

It is well known in economics that binding price ceilings

cause shortages in which the quantity demanded exceeds the quantity supplied. Evidence of shortages is relatively easy to observe. In the short run, empty shelves, long lines, and black market activities are all signs of price ceilings interfering with market prices. In the longer run, price ceilings drive suppliers out of the marketplace as they search for more profitable uses for their assets.

Medicare price ceilings are causing shortages and driving physicians from the Medicare market. The Medicare Payment Advisory Commission (2009) reports that of Medicare beneficiaries who were looking for a new primary care physician in 2008, 28 percent reported problems finding one. As a result, the Commission is "concerned" about the continuing trend of greater access problems for primary care. The Texas Medical Association (2008) found that only 58 percent of physicians would accept all new Medicare patients. More than 50 percent of physicians responded that they are considering changing their status with the Medicare program so that they would no longer automatically accept Medicare's payment for services.

CBO (2009) concludes that the bulk of projected future increases in health care spending reflect higher costs per beneficiary rather than an increase in the number of beneficiaries associated with an aging population. Moreover, universal coverage of individuals age 65 and older is considered the *raison d'être* for Medicare. Thus, it would be unrealistic to consider proposals that would affect who are covered by Medicare. Therefore, any efforts to contain costs must focus on utilization and unit costs.

The present funding mechanism for Medicare is unsustainable. It is built on the premise that a large base of workers would support a relatively small group of retiree/beneficiaries. Around the time Medicare was established, four workers supported one retiree (Spriggs and Price, 2005). Today, the ratio is approximately 3-to-1; and it will approach 2-to-1 over the next 40 to 50 years. Thus, it can be argued that in the long run, the current pay-as-you-go funding mechanism is more unstable than a self-funding mechanism.

A sustainable self-funding option would have the following components:

- A health savings account with a relatively high deductible insurance component. Each individual account would be supported by individual contributions via a combination of self-funding, payroll deductions, and other sources. Employer contributions may be used to ensure that all individuals have a minimum contribution per year. Tax deductibility of contributions would provide an incentive for individuals and their employers to fund the accounts.

- After age 65, the beneficiary can access the health savings account to pay for any medical expenses. After the deductible is reached, the insurance component funds additional health care. The high deductible insurance component ensures that catastrophic events do not put an excessive financial burden on retirees. Funds remaining in the savings account after the beneficiary dies would remain with the estate. Tax deductibility of withdrawals and exempting a remaining balance from estate taxes would provide an incentive for individuals to participate in the program.

- Because the insurance component would have a relatively high deductible, the beneficiary has an incentive to weigh the benefits and costs of medical care.

- By internalizing the costs of care, the program would reduce both utilization and unit costs, thereby reducing total costs of care.

This analysis focuses on the basics of self-funding projected Medicare expenditures. While the costs of transitioning to such a system may be relatively high, the future savings likely would offset such costs by several multiples. Moreover, any self-funding system must have a way to cover individuals who do not have sufficient earning to fully fund the account (e.g., non-working spouses and low-wage workers). For detailed descriptions of potential transitions from a pay-as-you-go system to a self-funding system, see Rettenmaier and Saving (2000) and Liu et al. (2003).

The health savings account/insurance program outlined here reasserts the beneficiaries' role as a health care consumer. In this way the beneficiary can work with his or her health care providers to develop a health care plan unique to that individual without interference from the burdens of bureaucracy or the caprice of political considerations.

Figures

FIGURE 1

U.S. population by age, 1965–2050

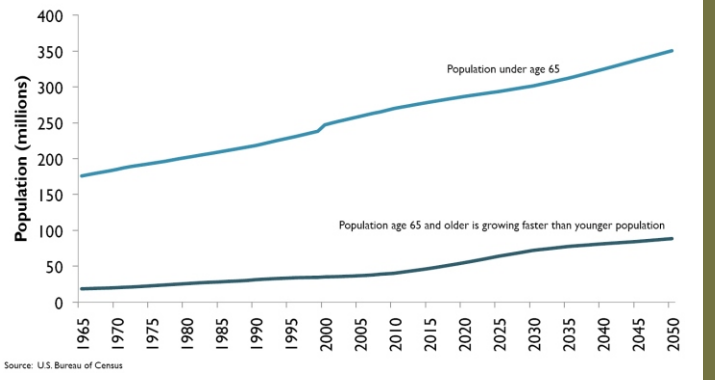


FIGURE 2

Population age 65 and older as percent of U.S. population, 1965–2050

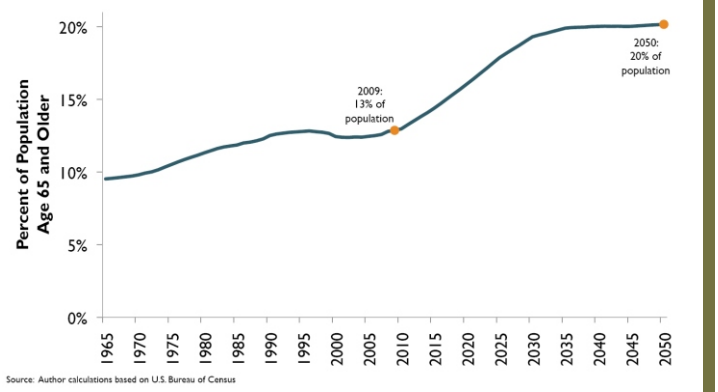


FIGURE 3

Annual Medicare Expenditures, 2005–2050

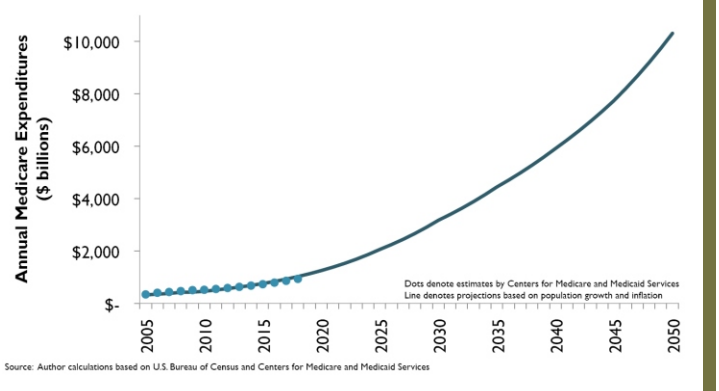


FIGURE 4

Annual Medicare Expenditures Per Person 65+, 2005–2050

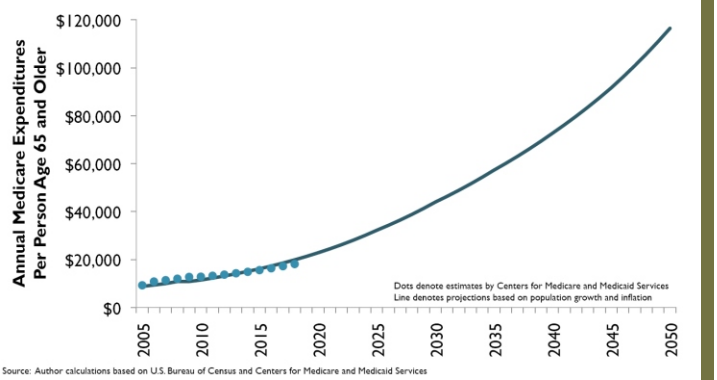


FIGURE 5

Estimated Medicare Costs Per Person by Age 65–85

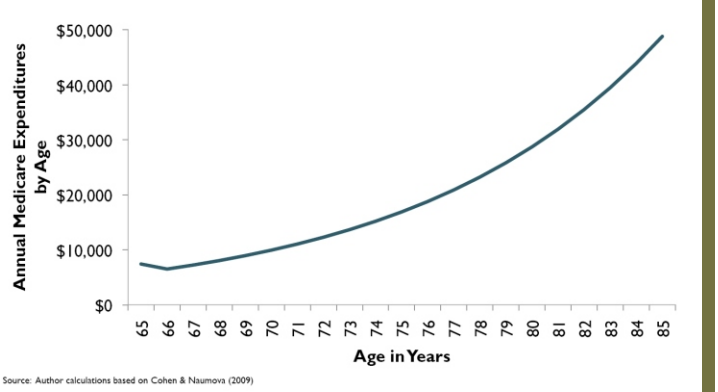
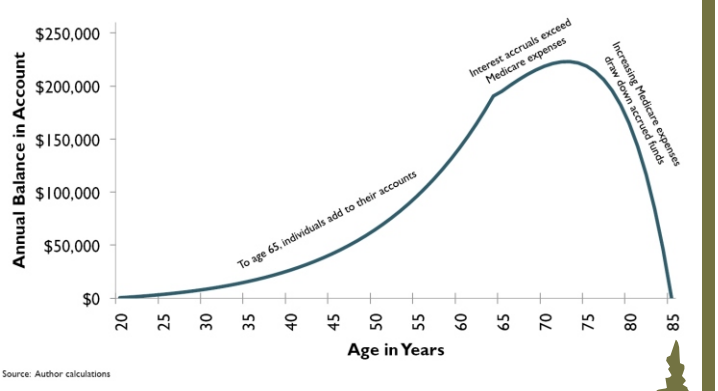


FIGURE 6

Hypothetical Medicare Savings Account Balance by Age 20–85



Endnotes

1. For detailed descriptions of potential transitions from a pay-as-you-go system to a self-funding system, see Rettenmaier and Saving (2000) and Liu et al. (2003).

2. Medicare also has a Part C, which serves as an alternative to traditional Part A and Part B coverage. Under this option, beneficiaries can choose to enroll in and receive care from private "Medicare Advantage" and certain other health insurance plans that contract with Medicare. The costs for such beneficiaries are generally paid on a prospective, capitated basis from the HI and SMI Part B trust fund accounts.

3. Estimated using an ordinary least squares regression on the natural logarithm of Medicare spending (dependent variable), Consumer Price Index, and population age 65 and older. Estimated coefficient on population is 2.0, estimated coefficient on Consumer Price Index is 1.6. Estimated coefficients are significant at all standard levels of confidence, Adjusted R-squared statistic is 0.997.

4. U.S. Bureau of Economic Analysis (2009).

5. Board of Governors of the Federal Reserve System (2009).

Sources

Board of Governors of the Federal Reserve System (2009). H.15 Selected Interest Rates (GS-1).

Boards of Trustees, Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds (2009). 2009 Annual Report of the Boards of Trustees, Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds.

Cohen, S. A. and Naumova, E. N. (2009). The rising costs of Medicare: Spatiotemporal, age-related trends in Medicare expenditures in the elderly, 1998-2002. Presented to Population Association of America.

Federal Reserve Bank of Philadelphia (2008). Survey of professional forecasters.

Liu, L., Rettenmaier, A. J., and Saving, T. R. (2003). The transition to private market provision of elderly entitlements. Proceedings, Federal Reserve Bank of Dallas.

Medicare Payment Advisory Commission (2009). *A Data Book: Healthcare Spending and the Medicare Program.*

Rettenmaier, A. J. and Saving, T. R. (2000). The Economics of Medicare Reform. W. E. Upjohn Institute for Employment Research, Kalamazoo, MI.

Spriggs, W. E. and Price, L. (2005). Productivity growth and Social Security's future. Economic Policy Institute.

Texas Medical Association (2008). Survey results and analysis: TMA 2008 Medicare survey.

U.S. Bureau of Labor Statistics (2009). Consumer price index, seasonally adjusted.

U.S. Census Bureau (various). Population estimates.

U.S. Congressional Budget Office (2009). The long-term budget outlook.

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