

The Economics of Medicare Reform

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Chapter 1 - The Rise and Fall of Medicare

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We are coming to the end of Medicare as we know it. This end will come about not because Medicare is not popular and not because the reason for Medicare's existence is past, but because Medicare's financing cannot sustain its expenditures. Spiraling per-capita benefit costs and the prospect of an avalanche of new members in the program will force Congress to find new revenues or to drastically cut benefits. The natural questions are: How did we get here? And, why didn't we see the crisis coming? Yet the answers to these questions only give us the source of our problems and not the solution, if there is one. In this book, we follow Medicare through its relatively short life, pointing out the reasons for the briefness of its healthy period and proposing a permanent solution to the crisis. We deal with all three aspects of the Medicare program that have worked together to get us to the current situation: a payment scheme that ensures the users of the system will not care what it costs; a financing system that involves generation transfers as its principal source of revenue; and the penchant of Congress to fund "worthy" causes with any funds that appear available. The remainder of this chapter presents an overview of the factors that have resulted in the potential insolvency of Medicare and our solution to the Medicare crisis.

WHO PAYS AND THE ESCALATING PER-CAPITA COST OF MEDICARE

As a point of departure, consider the difference between the full-page grocery store advertisements that appear in every daily newspaper and those touting your local hospital or health care provider. The grocery store ads, no matter in what city they appear, are dominated by one thing: the price of the advertised goods. Health care firms also advertise, and their ads inform us about why we should use their respective facilities, but price is never mentioned. Only the nonprice components of care are the subject of hospital and medical clinic ads.

Why is price prominent in grocery advertising but never mentioned in ads for hospitals or medical clinics? The reason is simple, and it is a major reason for the escalating per-capita cost of Medicare: the majority of consumers of medical care are not concerned about its cost because they aren't paying for it (at least not directly). Because buyers are not concerned about medical care costs, the sellers of medical care aren't either. Consumers are happy to demand state-of-the-art care, and providers are happy to supply it.

Consider hospitals, for example. Well over 90% of all payments to hospitals in the year 1990 were not paid by the recipients of hospital services. For physicians services, over 80% of all payments were not paid by patients. Even for dental services and prescription drugs, relative newcomers to the prepaid insurance market, more than 50% of payments in 1990 were not made by the patients. If the patients aren't paying, who is? The payers are the federal government, through Medicare, and the patients, indirectly through various medical prepayment plans (commonly known as medical insurance, although the insurance companies simply administer group plans and are not at risk as they would be if insurance was really involved).

Private insurance, or prepaid medical care, works this way. Suppose you are fully aware that your next year's group premiums depend solely on your group's expenditures this year. Suppose further that you are a member of a group of 1,000 and contemplate an additional \$1,000 worth of medical services. This extra \$1,000 in expenditures will raise your next year's premium only one dollar, because the other 999 members will pay the rest (\$1 each). Thus, you have every incentive to treat medical care as essentially free. Furthermore, you can't expect the providers of medical care to be concerned about the cost if you are not. In this type of environment, no hospital will advertise price, but rather what state-of-the-art services they can provide. After all, you can and will pay anything, because you are not actually paying; your fellow workers are.

Imagine if the air-travel market operated the same way as the market for health care. You are in Florida and want to travel to California. Your choices are 1) fly from, say, Orlando to Los Angeles on any major carrier in coach for perhaps \$500; 2) fly the same route and carrier first class for \$2,000; 3) fly the space shuttle at a full cost of \$50 million (assuming convenience of schedule and flight safety were equal to those of the airlines). Looking at actual travel statistics, most Americans choose the \$500 coach ticket. Why? Because they are paying for the ticket. The airlines know this and spend a lot of money telling prospective travelers what it will cost to fly on their airline. Now imagine you had Travelcare insurance that was operated in the same manner as most U.S. health insurance. Voila! Now all three modes of travel cost you the same. You can opt for first class or the space shuttle for the same price as coach. How many coach seats would airlines supply? You would be right if you said "none." What would airline advertisements look like? Well, you can be sure that they would not mention the price of the ticket. You can also be sure that the NASA budget would be much higher as more and more shuttle trips were flown.

To see the impact on the industry of who pays, consider the following facts. The real cost of a hospital room, adjusted for the change in consumer prices has risen over 450% during the last 30 years. In contrast, the adjusted costs of physician services and dentist services have risen 170% and 130% respectively,

while that of pharmaceuticals has fallen 20%. What is different about these latter three categories of medical care? Why is there such a difference in real costs relative to the hospital sector? Perhaps the answers are in who is paying. For example, on average over the last 30 years, hospital patients paid less than 13% of all hospital bills and real costs have risen at 5% per year. Patients have paid on average less than 40% of physicians' bills and real costs have risen just under 2% per year. On the other hand, patients have on average paid more than 75% of their dental bills and the real cost of dental services has risen less than 1% per year; likewise, they have paid more than 80% of all their prescription bills, and real costs have fallen at an annual rate of just less than 1% per year. These are powerful facts that relate increases in costs of medical care to whether or not buyers care what it costs.¹

THE TRAGEDY OF MEDICARE FINANCING

When the Social Security Act was passed in 1935, the financing was envisioned as being fully funded by those working, so that when they retired there would be enough in the "Old-Age Reserve Account" to pay for their retirement.² Through a combination of failure to enact the programmed tax increases, premature initiation of payments to retirees, and the expansion of benefits, the trustees of the Social Security Trust Fund estimate that the fund will be bankrupt by the year 2029. When Medicare was passed and the Medicare Trust Fund was established in 1965, there was never any pretense that the "trust funds" in that fund would be adequate to pay for the health care expenditures of the covered population. Not surprisingly, then, bankruptcy of the Medicare Trust Fund is expected by the year 2007.

As bad as all this sounds, the real issue may be even worse. The Social Security and Medicare trust funds—indeed, all government trust funds—are not trust funds at all. A trust fund, as you or I use this term, means resources put away to meet some future contingency. However, that is not what the Social Security and Medicare trust funds are. The assets of government trust funds are promises of the government to use future tax revenues to pay for the future expenditures that are guaranteed by the trust funds. These promises are not the source of any future revenues, and that is the problem.

As originally conceived, the Social Security Trust Fund (the name was changed from the Old-Age Reserve Account in 1939) was to buy in the market outstanding U.S. government bonds. The purchase of these bonds would have indeed represented a real investment, because these purchases would have reduced the future commitment of the government to pay interest on the purchased bonds, making these resources available for the retired. What in fact has occurred is that the tax revenues flowing into the trust funds have been treated as normal tax revenues to be spent on general expenditures; new, special U.S. government bonds

have been issued and placed into the trust funds, which increases the net indebtedness of the government but is never entered in any official accounting of the outstanding federal debt.

To better see the relation between what a trust fund contains and that fund's ability to finance future expenditures, let us consider an education trust fund established for a newborn child. Consider two types of assets in a college education trust fund for this child: bonds issued by entities other than yourself and bonds issued by you. In the former case, the trust fund has as its assets the ownership of income that others are legally obligated to pay to the trust. As a result, if the college education of your children depends only on the availability or the financial status of the issuers of the bonds to repay when your child enrolls in college, you have prepaid for your children's education. On the other hand, if the trust fund has as its assets only your promise to pay for your children's college education when they enroll in college, there is no prepayment. Imagine that you place in the trust fund each year 15.3% of your earnings (15.3% is equal to the sum of the 12.4% Social Security tax and the 2.9% Medicare tax). Instead of investing this money in stocks or bonds each year, you take the money back out, spend it on a trip to Europe, and replace it with a promise to pay the trust fund when your children enroll in college. Now the costs of your children's college education depend solely on your willingness to reduce your living standard by an amount equal to the costs of college education for your children. The education of your children depends on your promise to mend your spendthrift ways by the time they reach college age.³

The Social Security and Medicare trust funds both have earmarked revenues from payroll taxes placed in them, and thus they have all the appearances of the first form of a college education trust fund, one in which real assets are put away to pay future expenditures. It is the next step that is crucial to what has happened to these two trust funds. The government takes the income going into the trust funds and replaces it with its own promises to pay in the future. This is not a problem if the government invests the trust fund revenues in real overhead capital that enhances the real productive capacity of the nation, because when the time comes to use the trust funds, the ability of the government to pay the cost has been enhanced because of the real investments made. Unfortunately, even a casual look at the federal budget over the past 20 years indicates that the revenues have all been spent on current consumption rather than on investment.

In every sense, the Social Security and Medicare trust funds are fiction. There are no resources put aside to meet the future expenditures that these trust funds were designed to insure. As a result, if the Medicare Trust Fund's "value" were sufficient to pay for Medicare for the entire millennium, the taxpayers of this nation would be no better off: every dollar of Medicare expenditures for the millennium would still have to come from taxpayers at the time of these

expenditures. There simply is nothing real in the Medicare Trust Fund.

In another sense, this fact does not matter. Only if the nation is willing to tighten its belt will it have the real resources necessary to provide for the retirement and health care of a growing elderly population. If we are not willing to do this, then we must begin to put something real away. If the government will not invest for the future, then we must restructure the system so that private individuals can do so.

THE WORTHY-CAUSE EFFECT

In addition to the lack of real assets in the Medicare Trust Fund, Medicare's funding problems have been exacerbated by expansion of its original scope. By 1972, Congress was already finding worthy causes on which to spend the excess of Medicare tax revenues over actual Medicare expenditures, making the all-but-fictitious trust fund balance even smaller than it would have been. These causes were in three areas: an expansion of those eligible to receive Medicare benefits, an expansion of the benefits themselves, and other non-Medicare but health-related expenditures.

Legislation approved in 1972 extended Medicare coverage to disabled persons under age 65 who were eligible for benefits under Social Security or Railroad Retirement and to certain other individuals under age 65 suffering end-stage renal disease. Coverage was also extended to any individual not eligible for Medicare as a result of not being eligible for Social Security or Railroad Retirement who was aged 65 or older and enrolled in the voluntary Supplemental Medical Insurance (SMI) program. In 1985, Medicare benefits were extended to state and local government employees not covered by Social Security, and coverage was also extended to include spouses of workers who were not currently covered but would be eligible. Finally, in 1986, Medicare was made the secondary payer for individuals and their spouses when their work-supplied health care insurance was exhausted.

By 1967, Congress was already adding to the benefits of Medicare: 60 additional days of in-patient hospital care were added to the lifetime limit. In 1972, payment for the services of interns and residents in podiatry training was added to the benefit package. In 1980, unlimited home health visits were allowed, as was the use of alcohol detoxification facilities. In 1985, Medicare added payment for liver transplant services.⁴ The only break in this steady expansion of benefits occurred with the Balanced Budget Act (BBA) of 1998. The BBA, in an effort to reduce the deficit in the flow of funds into the Medicare Trust Fund, moved home-health-care coverage from the Hospital Insurance portion of Medicare—the part of Medicare directly funded by the Medicare tax and for which the Medicare Trust Fund applies—to the SMI portion of Medicare. This move did nothing real except

to take expenditures out of one category and place them in another; total expenditures remained the same. It saved the trust fund, but there is nothing in the trust fund, so the future tax implications of the program remain unchanged.

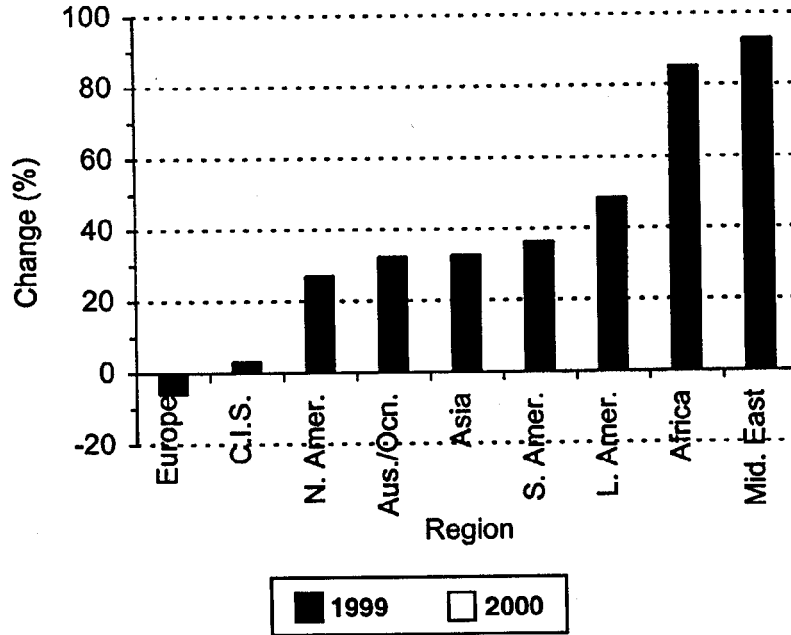
Quite possibly the most controversial use of Medicare tax receipts has been subsidies to teaching hospitals to aid in the training of physicians. This program represented a significant subsidy to those few hospitals that were in the program. These funds subsidized both the training of physicians and the use of the hospitals by indigent patients. Both of these uses might have been worthy of support, but if they were so worthy, it seems that general revenue funds should have been made available.

THE DEMOGRAPHICS FACTOR

In addition to financing and program expansion, demographics plays an important role in the Medicare problem. Over the next 30 years in the United States, and in the rest of the developed world as well, increased longevity combined with lower fertility will result in an increased proportion of population that is above a constant retirement age. In most of the developed world, the fertility rate is below the population-sustaining rate, a fact in startling contrast to the predictions of the Club of Rome that population growth would be the bane of the 21st century. It appears that the economics of procreation have moved us from a world of exploding population to one of perhaps declining population. The trend toward slower population growth, while not carried as far in the developed countries, has even hit the emerging countries: the developing countries of the Pacific Rim are also seeing declining fertility. Figure 1.1 shows the expected change in regional population between 1999 and 2030. Europe's population will decline 5%; at the other extreme, the Middle East's and Africa's populations are expected to grow by over 80%. In the United States, the population is expected to grow by 27%. Given that the U.S. fertility rate is 2.07, most of the growth will be due to immigration.

In 1965, 40% (77 million) of the U.S. population was 19 or younger; 20 years earlier, 33% of the population had been 19 or younger. This dramatic change in the age distribution of the U.S. population provided the potential for change in the nation. As this generation (referred to as the "baby boom") has grown up, it has had a profound impact on America's culture and its economy. Products have been designed for the baby boomers and marketing campaigns have been pitched toward them. More importantly, the biggest impact of these same baby boomers is yet to be experienced, and not just here at home, but worldwide.

Figure 1.1 Change in Population 1999–2030 (%)

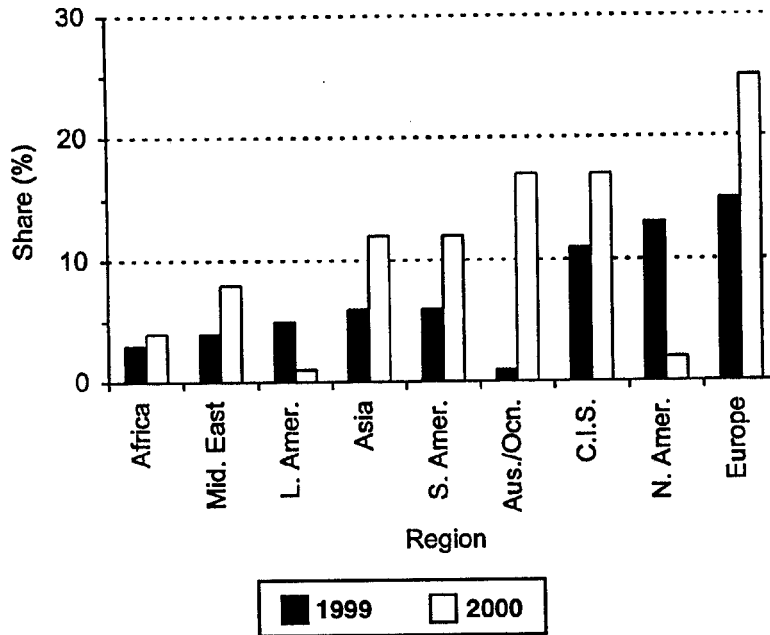


Currently, members of the baby boom generation are experiencing their peak earning years, they dominate politics, and their voting behavior shapes public policy. In a few years they will retire, and again they will be part of a dramatic change in the age distribution of the U.S. population. Once again, this generation will provide the potential for change in the nation, but this time the change will occur as a result of the agedness, rather than the youthfulness, of the population. What changes can we anticipate and how widespread will these changes be? The answer requires some background concerning where the United States fits among the rest of the world's population distributions.

North America and Europe together account for only 13.7% of the world's population, but they produce almost 60% of the world's output. Over the next 30 years, the combined population in North America and Europe will drop to 10.6% of the total. Because of significant expected immigration, the North American population share is expected to decline only 7.8% while Europe's population share is expected to fall 31%.

The combination of the post-war baby boom in the developed world and declining fertility portend great changes in the age composition of the world's population. For the developed world, the elderly (defined as individuals 65 years of age or older) currently comprise between 12% and 16% of the population (Figure 1.2). In Europe as a whole, the elderly account for 15.4%; in France, 16%; in Germany, 16.1%; in England, 15.7%; and in Italy, 17.9%. In Japan, 16.5% of the population is over 65, and in the United States, 12.6%.

Figure 1.2 Share of Region's Population 65 and Above (%)



Over the next 30 years, dramatic increases in the proportion of the population that is elderly will force significant adjustments to government-sponsored pension programs and health care programs that redistribute from workers to retirees. By 2030, the elderly in Europe will account for more than 25% of the total population: 29.6% in Germany, 25.8% in France, 23.5% in Britain, and a startling 29.3% in Italy. In the United States, 20% of the population will be 65, and in Japan, 27.4%.

The proportion of elderly matters because the world's output is basically produced by the young. Most countries have social insurance contracts that encourage the elderly to leave the labor force as a result of labor policies that are still dominated by the Great Depression notion that jobs are limited; by discouraging work by the elderly, we save jobs for the young. These policies fail to view labor as a resource (in fact, the main engine of output). As the age composition of the population changes, the share of the world's workers that reside in Europe and the United States will fall. Equally as important as who produces the world's output is who consumes the output. Currently, the elderly in the developed world consume between 12 and 17% of total production. By the year 2030, their consumption will rise to between 25 and 32%! In Europe, the elderly will be consuming well over 30% of all production; in the United States and Canada, the elderly will consume 25%.

Virtually every country in the world has engaged in a system of taxing workers to ensure the retirement benefits of the elderly. When these systems were instituted, the population share of the elderly was very small and the population was growing at fertility rates well above population sustaining rates. Thus, the proportion of the population that reached retirement age was very small relative to the number of workers, and, as a consequence, the burden on the young of providing for the consumption of the elderly was small. A further consequence was a small effect on any nation's capital stock. Now, everything has changed, and the whole system is about to topple, which will place every country in a funding dilemma.

How the funding dilemma is solved has deep meaning for the future, especially for the next 30 years. When we do long-term planning, we consider how governments will deal with this pending crisis. Privatization of elderly entitlements, including Medicare, is a way to capture the productive capacity of the current population bulge that exists in all of the developed countries. Many of the countries of South America have already privatized their social security systems; England has partially privatized. The alternative to privatization will be a rapid and significant increase in taxation that elected representatives will find unpalatable. The required tax increase will bring the tax rate for funding current U.S. Social Security and Medicare entitlements to 22.12%. If we wait until the problem arrives in earnest, the required tax rate will be almost 29%.

What does the fact of declining fertility mean for the promises we have made to provide for the health care of the elderly? The generation-transfer system works so long as the number of young is growing rapidly. A system that is based on population growth cannot continue to provide expanding benefits when that necessary growth stops. The pending retirement of the baby boom generation magnifies the inefficiencies inherent in the generation-transfer system of finance. The current population of elderly stands at about 34 million and will grow to approximately 39 million at the beginning of the baby boom retirement. In the next 28 years, the elderly population will almost double. When the last of the baby boomers retire in 2029, the elderly population will stand at approximately 67 million. At that time there will be 2.2 workers per retiree, down from a current level of 3.9 workers per employee.

In the United States, there are myriad reform proposals being offered in the current Congress that promise to overcome the funding crisis facing Social Security. A handful of these proposals include the provision of establishing private retirement accounts. Medicare's funding crisis is equally severe, but prefunding the program has received little attention. The provision of health care for the elderly population can be made less sensitive to demographic changes if steps are taken to move current Medicare to prefunded, no-first-dollar-coverage retirement health care and to reduce the incentives to retire early. These demographics are hard to escape. We must either raise taxes significantly or reform the system, but only

reform has any chance of reducing the pain of providing the means of producing the output that will be required for the consumption of both the working and retired populations.

A COHORT-BASED SOLUTION

Any complete solution to the problems of Medicare must address both the flow cost of the system and its ability to provide for future recipients. On a flow-cost basis, the Medicare system is already in deficit because the current benefits paid are in excess of current revenues. Thus, we are now drawing down the trust fund, meaning that current tax revenues (which could have been tax cuts) are funding current Medicare expenditures because the trust fund contains only promises to use tax revenues for Medicare. In the following chapters, we will present an approach that is based on each generation prepaying its own Medicare. While prepaying can ensure that the resources necessary to provide benefits in the future are in place, it does not solve the flow-cost problem. For this, we design an alternative benefit package and price this package. Our package, on a total out-of-pocket-cost-to-recipient basis, is only marginally different from current Medicare; however, the incentive structure is very different. The difference in incentives has the potential of bringing the market to bear on Medicare expenditures, resulting in both the buyers and sellers of health care services caring what it costs.

In order to concentrate on the primary issue of providing health care for the aged population, the original purpose of Medicare, we peel away all the non-aged benefits of the current Medicare program. This is not to say that these programs are without merit, but simply that their inclusion confounds the analysis of dealing with the problem of the cost and financing of health care for the aged. In effect, there are many reasons for engaging in transfers from one group of society to another, but we are restricting ourselves to the study of transfers that are related to age and nothing else. In particular, transfers to the poor are not considered, because being poor is not age-related. In a sense, all poor should be treated by the system in a similar manner, independent of age.

Because we are discussing the provision of health care for the aged, the question arises as to how this differs from other programs designed to provide for the consumption of expenditures of the aged, such as Social Security and other retirement plans.. Our answer is that on one hand, there is no difference, and on the other hand, the difference is overwhelming. The similarity lies in the fundamental fact that both provide for the consumption expenditures of the elderly population. The difference, however, is twofold. First, as a society we have decided that we will not tolerate great differences in the level of health care provided for the aged, regardless of ability to pay. As a result, there is little incentive for the young to provide for their own retirement health care. Second, because of rapid changes in technology, we have converted many aspects of what was once considered part of the normal aging process to a medical condition, thus

expanding expenditures on health care. As a result, the level of uncertainty in future health care expenditures is far greater than for general living expenses.

The current structure of Medicare combines the worst of incentives on the market side with a financing system that discourages saving for the future. The result is a lower capital stock for the nation which, when coupled with the upcoming bulge in the population of the aged as a result of the retirement of the baby boomers, is going to bring Medicare to its knees.

We propose changing Medicare in two important ways. First and foremost, the generational transfer method of financing must be abandoned; it results in a reduced capital stock and reduces work incentives, both of which reduce national income. Second, we propose introducing health insurance with no first-dollar coverage. Even though in our solution the total out-of-pocket costs of serious illnesses are the same as under Medicare, the requirement that the first dollars spent are the responsibility of the consumers will create incentives to care what health care costs. If consumers care, then competition will result in producers caring what health care costs.

We propose that each age cohort, defined as all individuals born between January 1 and December 31 in any given year, insure itself against retirement and medical expenses. Each worker within an age cohort will make contributions that are direct offsets to their current Medicare tax. These contributions are placed into a Private Retirement Insurance for Medical Expenditures (PRIME) account that, by the time of the cohort's retirement, will contain enough to pay for a lifetime of retirement health expenditures. Because of the considerable uncertainty concerning retirement health care expenditures at the time a cohort begins contributing, the level of contributions must be adjusted as a cohort ages and more information concerning future medical needs is revealed. An additional benefit of cohort-based financing is that it eliminates cohort size risk of the type we are now facing with the pending retirement of the baby boom generation. If the population age distribution experiences a bulge because of greater-than-normal fertility or immigration, the contribution to retirement medical insurance of these cohorts will rise, maintaining the same per capita value as that for smaller cohorts.

All individuals would be required to participate in the program we are proposing. The primary reason for mandatory participation is a result of individuals' incentives to underinsure themselves against medical expenses that arise during retirement. As a society, we have made the decision that individual access to health care will not depend on ability to pay. Thus, individuals have incentives to save too little during their working years to fund retirement health care; they expect "society" to take care of them should they fall ill.

In the past, family units, through implicit intergenerational contracts, provided this insurance function. With today's increased mobility and the changing

dynamics of family units, a new means of insurance is required. Cohort-based insurance in which, at the minimum, all working individuals in a cohort pay into the system, ensures that a sufficient level of assets will be set aside as the cohort ages. By forming cohort risk pools, mandatory participation also solves the problem (i.e., adverse selection) that arises when individuals choose to join the system only when they expect large medical expenses.

Insurance that comes into play if an individual reaches the age of 65 and has medical expenditures that exceed the policy's annual deductible requires smaller contributions than would a medical IRA. Tying a mandatory life insurance program to the purchase of retirement medical insurance simply increases the cost. In addition, we already have a mandatory life insurance program contained in Social Security. Thus, our proposed new Medicare, just as the current Medicare program, has no life insurance component and pays no death benefits to survivors. In its simplest form, catastrophic retirement health insurance coverage is purchased during a worker's years in the labor force, the benefits of which are received only if the worker survives to retirement. The specific insurance we are proposing is comparable to today's \$2,500 deductible policies, which pay all expenses above the deductible.

Since our proposed insurance is universal, it must address the issue of redistribution. With cohort-based insurance, redistribution occurs within each age cohort rather than between cohorts. Within each age cohort, workers subsidize nonworkers and high-wage earners subsidize lower-wage earners. As an age cohort enters the labor force, they do not know who will survive to retirement, who will be sickly, or who will be high-income earners. At this time, they make a compact with one another to pay the same percentage of their wages into a fund that will purchase their retirement medical insurance, should they survive.

The level of retirement medical care that will be demanded by today's young workers is unknown, as is the composition and form of that medical care. Both of these sources of uncertainty affect the timing of the purchase of retirement health insurance. Our approach does not specify when retirement medical insurance will be purchased, but the timing of the insurance purchase determines who bears the risks associated with the medical care purchases that will be made by today's young workers when they are old. The real question is, will future retirees pay for their own medical purchases or will they rely on their children and grandchildren to pay for their medical care?

CONCLUSION

When one considers the large difference in the potential unfunded liability of the current system and our cohort-based alternative, one wonders, where is the free lunch? After a thorough look at our proposal, however, it will be clear that there is no free lunch—but there is a considerably cheaper lunch that is of better

quality than the one we are currently committed to buying. The current generation-transfer system of financing Medicare reduces the nation's capital stock and thereby reduces national income. By moving to prepaid financing, we remove the disincentives to invest, and the nation will experience an increase in its capital stock and income. It is this increase in the capital stock and national income that provides the additional resources available to pay off most, but not all, of the current system's unfunded liability. Moving to prepaid retirement health insurance is just good business.

Even if it is good business to switch to cohort-based financing, why is it so important to do it now? The answer lies in the income-generating power of the baby boom generation. While the pending retirement of the baby boomers looms like a dark cloud over the present Medicare system, these same baby boomers can become our saviors if we can harness their earning power. To do this, we must act quickly. The baby boomers begin to reach age 65 in 2011 and, given past history, they will begin their exit from the labor force even sooner (as soon as age 50, which was in the year 1996). If we are to succeed in making the transition to a fully funded Medicare system, we must move all the baby boomers into the new system. Each year we delay acting costs us \$100 billion. We must face the fact that the promises we have made to the elderly must be declared null and void unless the system is drastically changed.

In our analysis, we show that using reasonable assumptions about male and female earnings distributions and average rates of return on investments in our nation's capital stock, young cohorts can guarantee their retirement medical expenditures for a fraction of their current Medicare taxes. Moreover, by acting now, we can transition from the current system to a cohort-based system for far less than the unfunded liability implicit in our existing Medicare system. In fact, the difference is staggering. Using current Health Care Financing Administration estimates, the existing Medicare system has an unfunded liability of over \$9 trillion (or 2.5 times our current national debt). Our system, if adopted in the next two years, has a total unfunded liability of only \$700 billion (less than one-tenth the unfunded liability of the current system).

OVERVIEW

In Chapter 2, we present a history of Medicare that details political issues and population demographics that led to its adoption. Our cohort-based solution to the Medicare crisis has as its cornerstone the potential increase in the nation's income that will result by moving from a Medicare financed through intergenerational transfers to a Medicare prepaid by each generation. In Chapter 3, we present the theory that underlies the source of this increase in national income.⁵ Any proposal that uses savings to finance retirement health care expenditures must be based on estimates of both future earnings and health care costs. In Chapter 4, we present a detailed discussion of our earnings forecasts. These forecasts deal

with several issues, such as labor force participation rates and life cycle earnings profiles, to name just two. Chapter 5 provides the same level of detail for our estimates of future retirement health care expenditures. Chapter 6 presents our proposal for a transition to a full funded Medicare system. Finally, Chapter 7 offers concluding comments.

Notes

1. The trend is for all areas of medical care to have increased third-party participation, so that buyers are being taken out of the “who-cares-what-it-costs” loop. Patients currently pay less than 20% of doctor bills and less than 50% of dental and prescription bills. As expected, the real inflation rates of these aspects of medical care have shown a significant increase in the last decade.
2. See A.W. Wilcox (1937) for a complete discussion of the act and the public finance aspects of the Old-Age Reserve Account, now referred to as the Social Security Trust Fund.
3. We should note here that if the trust fund buys back some of your outstanding debt rather than using it to support your current consumption, then the result is exactly the same as buying bonds from others. The proceeds in the trust fund represent a net addition to your asset position and are therefore available for use later. If, on the other hand, you simply issue bonds to the trust fund and spend the proceeds on current consumption, there is a deterioration in your net asset position and there are no funds available for use later.
4. An excellent review of the history of Medicare provisions is contained in the annual statistical supplement to the 1996 *Social Security Bulletin* (Social Security Administration 1996).
5. Of necessity, Chapter 3 is abstract, although the heavy mathematics is relegated to an appendix. If the reader is willing to accept the theoretical propositions that intergenerational transfers reduce the national income and that we can restore this lost income by moving to a prepaid system, then nothing is lost by skipping Chapter 3 and moving immediately to Chapter 4.