

Testimony before the House Budget Committee

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Introductory Comments

Thank you for this opportunity to discuss the challenges Medicare faces in the future. Since October of last year I have had the pleasure of serving as a Public Trustee of the Social Security and Medicare Trust Funds. During these few short months my already high regard for the professionalism and objectivity of the actuaries who prepare the Trustees Reports has risen. Let me say at the outset that my comments do not represent the opinions of the Social Security Administration or the Health Care Financing Administration.

I would like to comment briefly on reforms that affect the Medicare programs expenditures revenues. Most reforms, from those enacted as part of the Balanced Budget Agreement in 1997 to the recommendations of the majority of the members on the National Bipartisan Commission on the Future of Medicare, concentrate on reducing expenditure levels and expenditure growth. Reforming the program's finances also deserves attention. Currently, health care consumption of the elderly is paid for by tax revenues. Even if the cost containment reforms are successful in moderating expenditure growth, the tax bite will still undoubtedly grow. For this reason, I investigate an alternative to transfer payment financing. In the last section of this report I will introduce the simulated effects of making a transition to prepaid retirement health insurance.

Medicare Revenues and Expenditures

Figure 1 presents total Medicare expenditures expressed as a percentage of taxable payroll along with the system's dedicated revenues. The Hospital Insurance (HI) portion of Medicare has a dedicated payroll tax of 2.9% which is supplemented by revenues collected as a result of taxing Social Security benefits. The Supplementary Medical Insurance (SMI) portion of Medicare is financed with a combination of premium payments and general revenue taxes. While these two parts of Medicare are usually discussed separately, they are part and parcel of the overall Medicare program and any reform of Medicare must deal with all of Medicare. As such, the remainder of my remarks will treat the entire Medicare program, that is, the sum of both the HI and SMI parts of current Medicare.

The revenues depicted in Figure 1 are the HI tax revenues and the premium payments required for participation in SMI. The latter revenues are set to 25% of the SMI expenditures. The expenditure estimates depicted in Figure 1 are based on the Health Care Financing Administration (HCFA) Technical Panel recommendations released in December of 2000 that long run Medicare expenditures should be assumed to grow at a rate equal to per capita GDP growth plus 1%.¹ The technical panel charged with reviewing the financial projections in the Trustees reports maintained that rapid technological changes in medical care and the historical evidence, among other reasons, justify a higher growth rate. Health care expenditure growth faster than GDP growth implies that the share of income being dedicated to medical care will continue to rise indefinitely and that the share

¹This growth assumption was one of the primary recommendations published in *Review of Assumptions and Methods of the Medicare Trustees Report: Financial Projections*, December 2000. My estimates are not adjusted for the age distribution of Medicare enrollees.

of non-health care will fall indefinitely. Importantly, this assumption does not imply that in the long run all GDP will be health care.

The difference between the revenue and expenditure series shows the magnitude of the funding shortfall in each year that must be made up from general revenues. In 2000 the difference was 1.13% of a payroll, but by 2040 the transfer from the rest of the budget will grow more than sixfold to 7.54% of payroll. By 2070 the differential will grow to a staggering 13.5% of taxable payroll.²

Another way to quantify the financial challenge arising from transfer programs like Medicare and Social Security is to calculate their accrued liabilities. These accrued liabilities are presented in Figure 2. The accrued liabilities of Medicare and Social Security are equal to the value today of what is owed to current program participants. The present values are calculated using a 5.5% real discount rate. This rate is higher than the real government borrowing rate, reflecting the uncertainty associated with receiving future payments from the programs.

Social Security's accrued liabilities are the present value of the cumulative benefits all current taxpayers and retirees can expect to receive based on their earnings up to the year 2001. For example, the accrued liabilities owed to today's 65 year olds are the benefits they will receive for the rest of their lives. For 45 year olds, it is the present value of the future benefits they would receive based on their first 23 years in the labor force, assuming they started working at the age of 22. For Social Security the accrued debt is estimated to be \$8.8 trillion in 2001, roughly 2 ½ times greater than the national debt.

²Paying Social Security benefits to the elderly and to survivors in 2040 will cost 15.5% of taxable payroll. Combined with Medicare the costs will climb to 27.7% of payroll.

Medicare's accrued liabilities are calculated in a similar manner. Again, a 5.5% discount rate is used, but since benefit payments are not tied to past earnings like Social Security's, the accrued liabilities are the present value of expected benefits for all individuals who are vested in the program. Anyone who qualifies for Social Security by working and paying taxes for at least 10 years or who is married to a qualified beneficiary can receive Medicare. Thus, almost everyone over the age of 32 is vested in Medicare. The present value of SMI benefits are net of expected premium payments. Together the estimated implicit debts of the Hospital and Supplementary Medical Insurance programs are equal to \$8 trillion dollars in 2001.

Reforms Aimed at Reducing Expenditures

Regardless of the long range growth rate used to estimate future expenditures, Medicare is underfunded by its current revenue sources. As Figure 1 illustrates, the growth of Medicare will have a dramatic impact on the funds projected to be transferred from the rest of the budget to Medicare. The accelerating Medicare costs will, in the absence of meaningful reform, not only drive Medicare spending to levels that may prove to be unsustainable for future generations of taxpayers, but has already created an unfavorable environment for adding much needed prescription drug coverage to the beneficiaries' benefit package because any efforts to expand benefits would inevitably worsen Medicare's financing situation. The goal of most reform proposals is to reduce the level of expenditures and/or the growth rate in expenditures.

Projection of future Medicare costs incorporates considerations on future demographic change, income growth, health care market structure, and medical technology progress. There is not much that can be done to manipulate the demographic trend, although, as I will argue later, that prepaying Medicare would go a long way to help cope with the expected hike of Medicare costs

when the tidal wave retirement of Baby Boomers comes.³ Demand for medical care tends to increase with income growth, but income growth-induced higher demand for medical care is not a bad thing and we certainly need not contain income growth to save on the costs of Medicare. Hence, we are left with relying on changing the structure of health care markets to encourage competition. Such competition has the potential of reducing the current level of expenditures through demand reductions and price competition and at the same time encouraging the development of new technology directed toward cost reduction.

The current Medicare payment system, especially the dominant fee-for-service part, is partly responsible for the very high current level of Medicare costs. Fee-for-service Medicare, combined with supplemental insurance, effectively gives many beneficiaries nearly first dollar coverage. Without real cost sharing requirements in place, beneficiaries tend to have little regard for the price of health care services. When consumers have little regard for the cost of services, we can be certain that the suppliers of services will have little regard for the price they charge. In addition, the benefits of developing cost saving technology are positive only if those who demand services care about cost. Thus, technological changes that increase our ability to find solutions for current conditions for which there are no treatments, will result in higher expenditures. Such expenditures increases will be wholly or partially offset by the development of cost reducing technology with the proper incentives.

We can develop an estimate of the demand effect of introducing a no-first-dollar coverage Medicare system by using the results of the RAND Health Insurance Experiment. The RAND

³On a related matter, faster introduction of young immigrants to this country may offer some help on the revenue side, but as some studies show, the scale of immigration that may generate a significant impact on Medicare and Social Security's financing is likely to be politically infeasible.

experiment found that a policy with a \$500 deductible in 1983 dollars and 100% coverage above the deductible reduced total expenditures relative to fee care by 27%.⁴ Similarly, Christensen and Shinogle (1997) estimated that Medicare beneficiaries who have Medigap coverage used 28% more service than do beneficiaries who are not covered.⁵ With Medigap, Medicare can be essentially converted to a first dollar coverage policy.

Using results from the RAND study to estimate the expenditures associated with a \$2,500 deductible policy results in 24% savings. These savings only reflect reductions in demand on the part of consumers. The effects will be even larger as suppliers compete to provide the services consumed under the deductible amount. While switching to a higher deductible policy is seldom mentioned as a Medicare reform, it is instructive to consider designing an insurance package that includes no-first-dollar coverage. Concerns over how lower income retirees will pay for care below the higher deductible can be addressed by providing them with a need-based transfer. The transfer must be designed, similar to a medical savings account, to give them the incentive to consider the cost of care.

Balanced Budget Act of 1997

The Medicare+Choice program initiated with the passage of the Balanced Budget Act (BBA) of 1997 was expected to expand the set of private insurers available to Medicare beneficiaries. The act allowed preferred provider and provider sponsored organizations to enter the Medicare market

⁴See *The Demand for Episodes of Medical Treatment in the Health Insurance Experiment*, Emmit B. Keeler, Joan L. Buchanan, John E. Rolph, Janet M. Hanley, and David M. Reboussin, 1988, RAND Health Insurance Experiment Series.

⁵“Effects of Supplemental Coverage on Use of Services by Medicare Enrollees,” Sandra Christensen and Judy Shinogle, *Health Care Financing Review*, Fall 1997, pp. 5-17.

alongside traditional health maintenance organizations. A key difference between the traditional fee-for-service Medicare and Medicare+Choice is the program's payment methods. In the former, providers receive a separate payment for each covered medical service while, in the latter, contracted private plans receive a fixed monthly amount for each beneficiary they enroll. Competition among the expanded group of providers was expected to reduce expenditures and slow cost growth.

Thus far, evidence supporting the expectations has been mixed at best. According to a recent GAO study, providers participating in Medicare+Choice continue to attract healthier and less costly beneficiaries.⁶ Reimbursement rates have, up to this point, been based on a formula adjusted for a participant's geographic location, age, sex, disability status and Medicaid eligibility. Since the reimbursement rates are not individually risk adjusted, providers have the incentive to screen patients and reduce their exposure to high risk patients. The patients who participate in the private plans have a lower cost than the average of patients in fee-for-service, yet Medicare+Choice providers receive the average cost. As a consequence, Medicare+Choice has increased, rather than reduced, Medicare costs.

The BBA required the Department of Health and Human services to develop a risk adjustment methodology that accounts for variation in per capita costs based on health status and demographic factors for payment to Medicare+Choice organizations. In its current form, the adjustment factors are a function of age, sex, Medicaid eligibility, location, and inpatient diagnoses called the Principal In-Patient Diagnostic Cost Group (PIP-DCG). The risk-adjusting methodology improves upon the current methodology but can explain only 6% of the total variation in medical

⁶Medicare+Choice: Payments Exceed Cost of Fee-for-Service Benefits, Adding Billions to Spending, August 2000, GAO/HEHS-00-161, General Accounting Office.

expenditures. Other risk-adjustment methodologies are being evaluated, but the GAO study concludes that the new methodology “. . . may ultimately remove less than half of the excess payments caused by favorable selection.”⁷

Reimbursing private providers based on preset risk-adjusted reimbursement rates will continue to induce providers to screen patients. This year, reimbursement rates vary by geographic location, age, sex, Medicaid eligibility, disability status and diagnostic cost group. Providers know beforehand how much they will receive for taking on each type of patient rather than being asked to price each of the risk factors themselves. An alternative to having HCFA establish risk-adjusted reimbursement rates is a competitive bidding process in which suppliers bid for each type of patient.

The Rationale of the Proposed Reforms

A basic idea behind Medicare+Choice and several Medicare reform proposals on the table are to adopt market-oriented approaches to achieve cost efficiencies. These cost-saving approaches have already been successfully adopted by numerous employer-sponsored health care programs and by the Federal Employees Health Benefits Program (FEHBP). All these programs are designed to make beneficiaries sensitive to the cost implications of choosing a particular plan. The demand side cost-saving incentives will then induce providers to deliver medical services that are cost-efficient. Potentially more important, these same cost-saving incentives will eventually lead to a better balance between service-expanding and cost-saving medical innovations, slowing down the growth of Medicare costs in the long-run.

In order to contain the accelerating costs of Medicare and to optimize its benefit package, we must go even further in modernizing Medicare’s payment system by applying market approaches to

⁷GAO, p. 5.

cost efficiencies. This consensus can be seen from several leading proposals on Medicare reform (including the Breaux-Thomas proposal). In addition to benefit expansion, these proposals include the following payment side changes: (1) Fee-for-service modernization, which would enable the traditional Medicare to act as a prudent purchaser; (2) Medicare+Choice modernization, which would encourage plans to compete on costs as well as quality; (3) A premium support system fashioned after the FEHBP, which would make beneficiaries more sensitive to costs of care.

In the following, however, I want to focus on two other issues related to Medicare's cost problem. First, what is the most sensible way to provide prescription drug coverage for Medicare beneficiaries when costs are currently a paramount concern? Second, I want to argue for the case of prefunding Medicare that takes advantage of the baby boom workers still in working.

The Case for Prescription Drug Coverage

A major purpose of the Medicare program was to offer senior Americans access to medical care. Yet an important part of current medical care, prescription drugs, are for the most part not covered by Medicare. As a result, only about two thirds of Medicare beneficiaries have prescription drug coverage (through employers' plans, Medicaid, Medigap and Medicare+Choice). Thus, while much of the Medicare reform discussion concerns cost containment, another major Medicare updating plan on the table proposes to make structural changes that add out-patient prescription drugs to the Medicare program. For example, the Breaux-Thomas Medicare reform plan (and the earlier Breaux-Frist plan) proposes making coverage available for prescription drugs and catastrophic medical costs in a broader Medicare reform package featuring market solutions to cost efficiencies on the payment side. In contrast, the President's Immediate Helping Hand Prescription Drug Plan

proposes temporary prescription drug assistance to the neediest seniors until a comprehensive Medicare reform plan including prescription drugs is enacted and implemented.

There are convincing medical and economic reasons for adding prescription drug benefit as part of a reformed Medicare package. Indeed, it is hard to imagine that a modern medical insurance plan does not include outpatient prescription drug coverage as an integral part. Approximately 98% of private health insurance plans offer a prescription drug benefit or a cap on out-of-pocket expenses as an integral part of the benefit package. As a result of innovations on drug therapies, prescription drugs have been playing an increasingly important role in health care. According to the Health Care Financing Administration, Office of the Actuary, for the last several years, overall health care expenditures grew at about 5% annually while nation-wide prescription drug spending grew on average at a much higher 12% per year. Prescription drugs as a component of health care are even more important for the elderly due to aging-related chronic diseases. In 1995, as some studies show, an elderly person's total average annual drug costs were \$600 compared with \$140 for a non-elderly person.⁸

Prescription Drug Coverage Should be Balanced against Cost Concerns

While adding drug coverage to Medicare is important, it raises financing issues to a program whose future funding will strain even optimistic forecasts of future economic growth. At least one study suggests that incorporating outpatient prescription drugs into the Medicare benefit package

⁸The first number is from M. Davis et al., "Prescription Drug Coverage, Utilization, and Spending Among Medicare Beneficiaries," *Health Affairs*, Vol. 19, No. 1, 1999 and the second number is from Agency for Health Care Policy and Research Center for Cost and Financing Studies, National Medical Expenditure Survey Data, Trends in Personal Health Care Expenditures, Health Insurance, and Payment Sources, Community-Based Population, 1987-1995 (March 1997). <http://www.meps.ahrp.gov/nmes/papers/trends/intnet4d.pdf>

could add between 7% and 13% annually to Medicare's total cost.⁹ The President's budget proposal for fiscal year 2002 includes \$230 billion in expenditures on Medicare and, in addition, the President proposes an Immediate Helping Hand Prescription Drug Plan to offer low-income seniors prescription drug assistance and all seniors catastrophic drug coverage (more than \$6,000 in out-of-pocket drug costs) which entails spending \$11.2 billion in 2002 and \$153 billion in the next ten years.¹⁰ So even a prescription drug plan targeted only to the neediest would add a significant share (almost 5%) to the costs of the traditional Medicare program.

While I believe the new drug benefit initiative featured in the President's IHH plan is carefully crafted to balance competing concerns about the sustainability of Medicare and the hardship faced by some beneficiaries, I do not think a plan providing universal drug coverage with no conditions about other reforms would be a financially responsible policy option. Adding full-scale drug coverage to all Medicare beneficiaries would effectively replace private sector financing with public financing. In 2001, seniors are expected to spend approximately \$69 billion dollars on prescription drugs. This amount by itself is equal to 1.3% of taxable payroll.

Moreover, as Figure 3 shows, the surge in prescription drug price inflation has coincided with the significant decrease in the share of prescription drug purchases that are paid by individuals. During the 1960s and 1970s, prescription drug prices increased at an annual rate of just over 1% while third party payers covered only 16% of expenditures. Individuals paid the remaining 86% of

⁹M.E. Gluck, National Academy of Social Insurance Medicare Brief: A Medicare Prescription Drug Benefit (April 1999). <http://www.nasi.org/Medicare/Briefs/medbr1.htm>.

¹⁰According to the President's IHH drug plan, Seniors whose incomes are at or below 135% of poverty would have no premium and nominal co-payments for prescription drugs. Seniors whose incomes are between 135 % and 175% of poverty (\$15,000 for a single person) would receive partial drug coverage.

the cost. For the last two decades the average annual increase in drug prices rose to 7.3%, as average third party coverage rates rose to 52%. By 1998, third party payers were covering 73% of the cost of prescription drugs. Thus, without a comprehensive reform, adding comprehensive drug coverage will likely produce rapidly growing costs.

Reforming Medicare's Financing

While most current reform initiatives are aimed at bringing competitive forces to bear on the provision of health insurance for the aged, little attention has been paid to insuring the solvency of Medicare. Over the last few years I have studied the feasibility of prepaying Medicare benefits. Medicare is financed on a pay-as-you-go basis which means that, for the most part, contemporaneous taxes are used to pay benefits. Further, the financing can be thought of as a transfer from the young to the old (including the 75% of SMI benefits paid by the Federal Treasury). Thus, the retirement of the baby boomers will cause severe problems for Medicare that are further exacerbated by the possibility that benefits may grow at a faster rate than the growth in the economy, necessitating transfers that grow as a share of the economy.

A detailed presentation of the prepayment proposal can be found elsewhere, so I will briefly outline its main components here.¹¹ The transition path we have studied is structured as follows. All workers born in 1946 and later would be in the prepaid system and all individuals older than 54 today would remain in traditional Medicare. Beginning today, individuals in the prepaid system would establish and fund a health insurance retirement account that at retirement would be sufficient to purchase health insurance for the rest of their lives. This may seem a tall task, and indeed it is, but

¹¹See the *Economics of Medicare Reform*, Rettenmaier and Saving, The Upjohn Institute for Employment Research, 2000, for a complete discussion of the proposal and for details of our methods.

it is important to initiate the transition now and take advantage of the earning power of the baby boomers while they are workers, rather than waiting until it is too late, when they become retirees and begin to draw benefits.

In Table 1, I present the lifetime contribution rate on labor earnings required to prepay Medicare benefits assuming that per capita benefits grow at the rate of GDP per capita growth + 1%.¹² I present the rates required of new labor force entrants to prepay Medicare benefits and those required to prepay a \$2500 deductible policy. Recall that the prepaid program is phased in for individuals born after 1945, so any move to a higher deductible policy would not affect current or near term retirees. As the rates in the table indicate, prepaying the total Medicare package can be prepaid at rates that are less than the current payroll tax for the HI program by itself. At a 5.4% real rate of return, the contribution rate is 2.68% and if the rate of return is 8.5% the contribution rate is 0.86%. In the following simulation, we allow the rate of return to decline as the accumulated funds in the health insurance accounts increase the nation's means of production. The 5.4% return is roughly the long run return on a portfolio comprised of 60% stocks and 40% bonds. The higher 8.5% return is the pretax rate of return on non-financial corporate capital.¹³ This rate is the marginal product of capital and reflects the rate realized on the accounts if all taxes are waved. The lower rate of 5.4% is after corporate tax payments. In the simulation results, I use the pretax rate and implicitly assume that all taxes are waved on these accounts.

¹²These results are based on a simulation model we developed several years ago. The growth rate assumption is relative to our projection of GDP. Medicare benefits are net of SMI premium payments.

¹³ This rate is from James Poterba, "The Rate of Return to Corporate Capital and Factor Shares: New Estimates Using Revised National Income Accounts and Capital Stock Data," NBER working paper no. 6263, 1999.

We introduce the higher deductible policy to show the level shift in the cost of insurance. The lower cost is due to demand responses exclusively, even though as consumers face the full cost of care below the deductible, suppliers will compete for those first dollars resulting in lower prices. We estimate that contribution rates necessary to prepay the higher deductible policy are 2.27% and 0.73%, at the 5.4% and 8.5% real rates of return, respectively.

The Table 1 shows that the contribution rates for new entrants are low. However, the rates escalate for individuals who have fewer years remaining in the labor force. In the simulation path we have studied, workers pay for contributions to individual accounts for all individuals in the new system and for the Medicare costs of current and near term retirees. In each year the transition tax rate, or tax in excess of the rate that would be necessary without prepayment, is the same for all workers.

Before turning to the simulation results I would like to point out a few favorable consequences of prepaying retirement medical insurance. The first I have already mentioned in passing is; prepayment increases the nation's capital stock. It can be shown that pay-as-you-go transfers reduce savings and the size of a nation's capital stock or means of production. With prepayment, that outcome is reversed; capital stock rises and so does income. The second consequence is that prepayment mollifies the effects of variations in generation size. Without prepayment, the baby boomer's retirement will result in a great burden on the taxpayers, necessitating high tax rates which have severe incentive effects. The final consequence is related to the higher tax rates. By prepaying benefits, future payroll taxes will be reduced, producing significant efficiency gains.

Table 2 presents the simulation results. The first column shows the status quo Medicare tax rate. The rate is the ratio of Medicare expenses for the aged net of benefit payments divided by taxable payroll. We use taxable payroll as the denominator as an accounting metric, realizing that SMI is not financed by a payroll tax. This column shows the tax rate assuming no prepayment. The remainder of the table shows the results with prepayment. The initial marginal productivity of capital is assumed to be 8.5% . Contributions to the individual account are assumed to increase the capital stock dollar for dollar. As the capital stock rises, the marginal product of capital falls and wages rise.

The higher wage base is used as the denominator in the next column titled forecast Medicare costs. The higher wage base results in lower tax rates. The next column shows the benefits paid from the prepaid accounts. The first of the baby boomers retires in 2011, so the prepaid benefits are zero until then. As individuals with prepaid insurance comprise an increasing share of retirees, their share of total benefit payments rise. By 2050 all of the benefits are paid from the prepaid accounts. The next column identifies the share of benefits that must be paid by tax revenues. These are the benefits of those who are born before 1946. As the column indicates, by 2050 these individuals have died and the tax requirement is eliminated. The aggregate prepaid account contributions are shown in the next column. Because the transition path being analyzed requires that all individuals born in 1946 and later have prepaid accounts by the time of their retirement, the aggregate contributions are well above the rates shown in Table 1 for new labor force entrants. Further, the long run rate of 1.24% is above the 0.86% rate in Table 1 because of the decline in the rate of return earned on the accounts. The next column shows the transition cost. These costs are the taxes in excess of the taxes with no prepayment. Until 2018 the total cost of the transition, presented in the last column, exceeds the cost of the pay- as-you-go system. Figure 4 graphically depicts the forecast Medicare costs and the

Medicare tax plus prepaid account contributions. For the first 18 years the transition is more expensive than continuing with the current financing arrangement. Thereafter, the prepaid system is less expensive.

Concluding Remarks

In order to contain the accelerating costs of Medicare, Medicare's payment system can be modified by applying market approaches to cost containment that have been successfully tested by numerous employer-sponsored health care programs and by the Federal Employees Health Benefits Program. Consideration of prescription drug coverage should be balanced against this heightened cost concern. Besides reforming delivery of care, the rising cost pressures also makes a strong case for prepaying Medicare.

Table 1
Lifetime Contribution Rates
as a Percentage of Taxable Earnings
for Labor Force Entrants

Real Rate of Return	Medicare Replacement	\$2,500 Deductible Policy
5.4	2.68	2.27
8.5	0.86	0.73

Table 2
Simulated Transition to Prepaid Medicare

Year	Status Quo Medicare tax rate	Forecast Medicare Costs	Benefits Paid From Prepaid Accounts	Benefits Paid From Tax Revenues	Aggregate Prepaid Account Contributions	Transition Cost	Medicare tax + Prepaid Accounts
2000	4.17	4.17	0.00	4.17	2.71	2.71	6.87
2010	4.66	4.58	0.00	4.58	2.30	2.30	6.87
2020	6.45	6.22	2.94	3.28	1.63	0.00	4.91
2030	9.14	8.70	7.12	1.58	1.31	0.00	2.90
2040	10.88	10.30	9.94	0.36	1.25	0.00	1.61
2050	11.90	11.25	11.25	0.00	1.24	0.00	1.24
2060	13.77	13.05	13.05	0.00	1.24	0.00	1.24
2070	15.91	15.28	15.28	0.00	1.24	0.00	1.24