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MEDICARE POLICY IN THE 1990s

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This paper was originally prepared for a conference at the Kennedy School of Government on American Economic Policy in the 1990s, and a modified version of the paper will appear in a book by the same name to be published by MIT Press in 2002. My vantage point on Medicare comes from serving on the various Commissions the Congress created to advise it with respect to Medicare. I was a Commissioner of the Physician Payment Review Commission from 1993 to 1996 and the chair of the Prospective Payment Assessment Commission in 1996 and 1997. The Balanced Budget Act (BBA) of 1997 combined these two Commissions into the Medicare Payment Advisory Commission (MedPAC), and I have served on that Commission from 1997 to the present. As a result of this experience, my viewpoint likely gives a larger role to the Congress and a lesser role to the Executive Branch than might a chapter written by someone who served in the Executive Branch. I wish to thank David Cutler, NancyAnn DeParle, Victor Fuchs, Michael O'Grady, Jon Gruber, Mark McClellan, Peter Orszag, Robert Reischauer, and Bruce Vladeck for comments. Any errors are my responsibility. The views expressed herein are those of the author and not necessarily those of the National Bureau of Economic Research.

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ABSTRACT

I describe several changes to Medicare in the 1990s, their rationale, and their likely effects. I focus principally on issues in the administered price systems Medicare uses to pay medical providers, especially those used for post-acute care providers, Health Maintenance Organizations (HMOs), and physicians. The changes to these systems in the 1990s, although directed at important problems, have introduced new and serious problems of their own. For example, the post-acute care system now pays different amounts for the same service, depending on the site of care, and the HMO system is on a trajectory to pay substantially less than traditional Medicare in high rate areas and more in low rate areas, thereby unbalancing local medical markets. I consider future directions for the program, including its long-term financing and a prescription drug benefit.

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Medicare, which accounts for about an eighth of the federal budget, covers health care costs for three groups of beneficiaries.[1] The great bulk of the spending, approximately 85 percent, provides benefits for those over 65.[2] About 10 percent covers those eligible for Disability Insurance, and the remaining five percent covers those of any age with end stage renal disease (kidney failure).[3] Enacted in 1965 as part of the Great Society, the program was implemented in July 1966 and extended to the disabled and those with renal disease in 1972. It now enrolls approximately 40 million individuals.

Given that Medicare pays an average of more than $5,000 per beneficiary, it should not be surprising that it is a voting issue for the elderly and near elderly and hence an issue that no President or member of Congress can ignore. Of those voters 60 years of age and over who responded in exit polls following the 1996 presidential election, Medicare/Social Security ranked as the top issue (Blendon, et al., 1997). And the elderly vote disproportionately; 61 percent of those 65 and over voted in the 1994 Congressional elections versus 20 percent of those 18 to 24 and 32 percent of those 25 to 34 (Blendon, et al., 1995).

In this chapter I first describe Medicare as the 1990s began and then discuss some of the important changes made to the program in the 1990s. I next analyze current issues, dividing them into relatively short-term issues of reimbursement methods, longer-run issues of financing, and potential future benefit expansions. I conclude by commenting on certain administrative issues. A more extensive economic analysis of many of the issues discussed below can be found in (Newhouse, 2002). Because

Medicare is complicated, describing it and the changes to it during the 1990s does not always make for easy reading. Nonetheless, I have tried to minimize the detail.

Much of the public debate of the last several years has been about financing Medicare a decade or more hence when the baby boomers start to swell the ranks of the beneficiaries. Although I touch on this issue, my focus is more on Medicare in the here and now. Medicare relies on administered price systems that are not likely to see us through the next decade. But improving those systems raises difficult substantive and political issues.

Medicare at the Beginning of the 1990s

Benefits. The Medicare insurance contract remains patterned after the indemnity policies that prevailed in the 1960s. Part A, an entitlement financed from payroll taxes, covers services of institutional providers, most notably hospitals and skilled nursing facilities.[4] It accounts for roughly 60 percent of Medicare spending. Part B is a voluntary insurance program covering physician and other outpatient services. It is financed 75 percent from general revenues and 25 percent from premiums paid by the elderly; given this degree of subsidy, over 95 percent of the elderly purchase Part B.[5] Importantly, Medicare was designed to cover the cost of acute medical services and not chronic long-term care. As we shall see, however, in practice this distinction has become somewhat blurred.

Reflecting the insurance policies of the 1960s, Medicare does not cover outpatient prescription drugs, nor does it have a stop-loss feature that limits a beneficiary's out-of-pocket spending in a year. Hospital coverage, in fact, gives out entirely after a 90-day stay.[6] Hospital services have a deductible equal to the average cost of a day in

the hospital ($792 in 2001), well above the deductible in almost all employer-provided policies for the under 65; Part B services have a $100 annual deductible and a 20 percent coinsurance rate. Home health services are an exception and have no cost sharing.

Probably because Medicare lacks a stop-loss feature, a supplementary insurance industry has grown up. Over 90 percent of beneficiaries have some form of supplementary insurance that covers much of the cost sharing, thereby converting cost sharing at the point of service to premium payments. This supplementary insurance comes from four sources: employer-provided retiree health insurance (36 percent of beneficiaries in 1999); individually purchased coverage ("Medigap," 27 percent); additional benefits provided to those who join a Health Maintenance Organization (HMO, 17 percent); and Medicaid (11 percent) (Rice and Bernstein, 1999).

Overall Medicare covers about two-thirds of expenses among those elderly living in the community. Supplementary insurance, both employer-provided and individually-purchased, covers 11.5 percent, Medicaid covers 2.5 percent, and 15.2 percent is paid for out-of-pocket (Medicare Payment Advisory Commission, 1999b).[7]

Reimbursement. Medicare also emulated the insurance policies of the 1960s in giving its beneficiaries freedom to choose among almost all providers with little or no difference in price to the beneficiary. Moreover, Medicare's designers did not want providers to bill beneficiaries additional amounts, or at least wanted to limit such "balance billing."[8] Not only could balance billing undermine freedom of choice, but it would defeat the entire purpose if providers charged patients what they would have

charged without Medicare and collected Medicare reimbursement in addition. If Medicare was to shoulder the bulk of the reimbursement load and there was to be freedom of choice, Medicare had to pay physicians and other providers at rates that virtually all of them would accept. Of course, Medicare could not agree to reimburse any price a provider named, and it therefore developed administered pricing systems that have grown steadily more elaborate. Initially the program followed the methods of Blue Cross and Blue Shield insurance plans by reimbursing institutional providers such as hospitals its share of costs and physicians their usual fees, subject to an area wide ceiling.[9]

In FY1984 a major change occurred in hospital reimbursement, which increased the incentive for efficient production (Shleifer, 1985). A Prospective Payment System (PPS) was introduced over a five-year transition. The PPS reimbursed a fixed amount per admission rather than Medicare's share of hospital costs. The amount paid varied with the patient's diagnosis and whether certain procedures were performed; this information was used to classify the patient into one of about 500 Diagnosis Related Groups (DRGs), to which a relative weight was attached. The Congress legislated a "conversion factor," which translated the weight into a dollar figure, which was "updated" each year. The payment also varied with the hospital's area wage index, the number of interns and residents per bed at the hospital, and with the size of the city in which the hospital was located (McClellan, 1997).

Other institutional providers, including hospital outpatient departments, continued to be reimbursed on the basis of cost, which not only offered no incentive for efficient production, but gave hospitals an incentive to adopt accounting conventions that

shifted as much joint cost as possible from prospectively reimbursed inpatient services to other parts of the hospital, such as the outpatient department, the Skilled Nursing Facility (SNF), and the rehabilitation unit.[10]

HMO Reimbursement. When it began in 1966 Medicare had no mechanism for paying HMOs a set amount per member per month, the method by which they were paid for their under 65 members. Rather, HMOs billed Medicare like any other provider, that is, on a fee-for-service basis.[11] Medicare enrollment in HMOs was modest; indeed, in 1966 when Medicare began even the enrollment of the under 65 in HMOs was modest.[12]

By the early 1980s the notion grew that HMOs might be an efficient means to deliver care and that Medicare should be more accommodating toward them. The 1982 Tax Equity and Fiscal Responsibility Act authorized risk contracts under which HMOs would be reimbursed a fixed amount per member per month. This amount, called the Adjusted Average per Capita Cost (AAPCC), was, for an average enrollee, 95 percent of traditional Medicare's average payment in the enrollee's county of residence. The five percent off-the-top reduction was taken so that Medicare could share in the assumed efficiencies of HMOs.

The AAPCC payment was adjusted for the enrollee's age, sex, institutional status (e.g., was the person's residence a nursing home), and whether the person was eligible for Medicaid. For example, if 65-69 year old females, living at home and not on Medicaid, spent 93 percent as much as the average Medicare beneficiary, the HMO received 93 percent of the AAPCC amount for enrolling a person with those characteristics. In addition to the AAPCC, HMOs could charge their members a

premium up to the actuarial value of the cost sharing provisions in traditional Medicare. If HMOs could provide services for less than the AAPCC payment plus the allowable premium, they were to reduce the premium or provide additional services to beneficiaries or both.[13]

Changes to Medicare in the 1990s

The First Six Years

Compared to the second half of the 1990s, the first part of the decade was relatively quiet for Medicare. The major change was to physician payment.

Changes in Physician Payment. The OBRA89 legislation enacted a major reform of physician payment, which began to be implemented in 1990. Despite attempts in the 1980s to restrain fees, physician spending had grown very rapidly. An increased quantity of services had more than offset the fee restraints, and by 1989 Part B spending, 75 percent of which was for physician services, was the largest domestic program funded from general revenues. At a time of large deficits, the Congress sought additional constraints on Medicare physician spending. In addition, many felt that Medicare fees for procedures were too high relative to those for evaluation and management services such as taking a history. As a result, the Congress legislated a series of ad hoc reductions in certain "overpriced" procedures in the late 1980s.[14]

The essence of the 1989 reform addressed both the issues of spending growth and the structure of relative prices across physician services. Effective in 1990 it put in place a formula, the Volume Performance System (VPS) that set a target for the total amount of money Medicare would pay to physicians in a year. Under the VPS a target increase ("performance standard") in physician spending was set. The target

was a function of a five-year moving average of the annual increase in the quantity of physician services, on the grounds that this value would reflect scientific and technical advances for which Medicare should pay. If the quantity of services ("volume") increased above its five-year trend, unit prices two years later (the "conversion factor") would be proportionately decreased to constrain total spending on physician services. Conversely, a fall in volume below the five-year trend caused unit prices to rise in the short run. As volume stayed low, however, the five-year moving average would start to fall, and the target would fall, thereby lowering future updates. Although not realized at the time, this method was to cause substantial instability in physician fees and would be changed in 1997.

The VPS, however, was effective in constraining spending growth on physician services (Figure 1). The real growth rate in spending declined from the 9.7 percent rate of the prior 15 years to 2.8 percent between 1990 and 1997.

In addition to the VPS, Medicare adopted a new schedule of relative prices for physician services that reflected the amount of "work" for each service (Hsiao, et al., 1988). The new relative fees implied a substantial redistribution across specialties. In particular, procedure oriented specialties, such as surgeons and certain medical subspecialists such as invasive cardiologists, were to have fees for many services reduced, whereas primary care physicians were to receive higher fees.

Not surprisingly the losers resisted the reform. As a result, the potential redistribution was initially mitigated in two ways. First, the implementation of the new fee schedule (but not the VPS) was put off three years, until 1992, after which time there was a four-year (linear) transition to the new fee schedule, so that the new

relative prices were not fully in place until 1996. Second, "practice costs" were excluded from the reform, and continued to be passed through under the earlier reimbursement rules. Practice costs refer to the approximately half of physician revenue that is not net physician income; that is, they encompass "overhead" costs such as office rent, salaries of assistants, supplies, and so forth. Excluding practice costs from the reform, therefore, approximately halved the redistributional effect.

Although some practice costs can be directly associated with individual services, many are joint costs, the allocation of which to any specific service is arbitrary (e.g., the rent, the telephone bill). Nonetheless, there was continuing political pressure from the potential winning specialties to include practice costs, and in the Balanced Budget Act (BBA) of 1997 the Congress mandated the inclusion of "resource-based" practice costs. After an initial unsuccessful try at allocating such costs empirically, the Health Care Financing Administration (HCFA) resorted to physician judgment to allocate practice costs among procedures. (On June 14, 2001 Secretary Thompson announced that HCFA would be renamed as Centers for Medicare and Medicaid Services; for convenience I will refer to the agency as HCFA.)

A curious development arose from the rhetoric that accompanied the 1989 reform – that by setting a target spending level, physicians would have an incentive to reduce volume in order to increase their fees. Such rhetoric was economic nonsense, since it ignored each physician's incentive to free ride and increase income by providing more services. Around the time of the reform, however, the rate of increase in the volume of surgical procedures fell substantially for reasons that even today are not entirely clear. Seizing upon the rhetoric, surgeons took credit for this fall and

successfully argued that their services should not be pooled with those of other, more profligate physicians. As a result, the Congress in 1990 created a separate performance standard for surgical services effective in 1991, which implied a separate conversion factor (price per relative value unit) for surgical services. Primary care physicians then asked to have a separate target and conversion factor for evaluation and management and other primary care services, so that the increasing volume of non-surgical procedures such as endoscopy and coronary angiography would not drag down their fee increases. In OBRA93 Congress also granted this request, effective in 1994, so there were then three conversion factors.

By law the increases in the three conversion factors were inversely related to volume increases for each of the three groupings of services, and the increases differed across the three targets each year. After a few years the conversion factors differed by 21 percent, with surgical services having the highest conversion factor.[15] But this spread undid whatever logic there was to the effort in the relative price scale to achieve equal pay across specialties for equivalent work. The Congress addressed this issue in the BBA, as described below.

Two Non-Events in the 1990-1996 Period. Two proposals from the 1990-1996 period were not enacted into law but set the stage for future events. From the beneficiaries' perspective the Health Security Act left Medicare mostly alone, reflecting its political sensitivity, but it did contain an outpatient drug benefit for Medicare, a topic I take up below. From the providers' perspective, however, the Act proposed numerous payment reductions to finance coverage for the uninsured.

Second, Medicare was a prime target for budget savings for the Republican Congress that came to office in the November 1994 elections. Among other issues was the elderly's share of Part B premiums. In 1966, when Medicare was enacted, the elderly paid 50 percent of Part B premiums and the other 50 percent came from general revenues. Part B spending, and hence the elderly's premium payments, increased more rapidly than the elderly's income, however, so in 1972 the Congress limited the increase in the elderly's premiums to the cost-of-living increase in Social Security payments. With this limit in place, over the next decade the elderly's share of Part B spending fell to 25 percent. At that time the Congress began to regularly pass legislation setting the premium at 25 percent of the cost. In 1990, however, Congress mandated specific dollar increases in premiums rather than a percentage for the 1991-1995 period; the dollar amounts were intended to keep the elderly's share at about 25 percent. Part B costs, however, grew less rapidly than the Congress had projected, so that the elderly's share of the premium rose from 25 to 31.5 percent.

In 1995 Republicans proposed keeping the share at 31.5 percent to achieve budgetary savings, but Democrats wished to return to 25 percent. Given the projected increases in Part B spending, even a constant share of 25 percent implied an increase in beneficiary premiums that would be greater than the increase in income among the elderly. This particular Republican proposal was among the most salient issues in the three-week shutdown of the federal government in late 1995, and both it and the shutdown were used to great political advantage by President Clinton in his 1996 re-election campaign.

Republicans made numerous other proposals for reductions in provider payment at this time, many of which echoed the Administration's proposals from the Health Security Act. Despite the Administration's rejection of the overall Republican package in 1995, it was clear that Medicare could not keep on doing business as it had in the past. The groundwork for the Balanced Budget Act of 1997 had been laid.

The Balanced Budget Act

By far the most important piece of legislation affecting Medicare in the 1990s was the Balanced Budget Act (BBA), enacted in 1997. 1997 was still an era with federal budget deficits projected as far as the eye could see, and the Administration and the Republican Congress agreed on the desirability of reducing the deficits. Part B of Medicare, with its large budget share, could not be left unscathed. Moreover, in 1996 the Trustees of the Medicare Hospital Insurance Fund ("Part A") had estimated that the Part A Trust Fund would have a zero balance in 2001. Outlays had slightly exceeded income in 1995 and were expected to exceed income by ever greater amounts in all subsequent years. And the budgetary picture became much grimmer when the leading edge of the baby boomers started to turn 65 in 2010 and especially when they started to turn 75 in 2020.

The projection of a zero balance in the Part A Trust Fund in 2001 was translated in the press as Medicare's "going broke," the political equivalent of shouting "fire" in a crowded theater. Thus, the pressure was on both the Congress and the Administration to reduce the rate of growth in Medicare spending, and especially Part A spending, since there was no appetite on either side of the aisle for an increase in payroll taxes to finance Part A.

This pressure resulted in the BBA, which made sweeping changes in how Medicare paid health care providers. Fundamentally it all but eliminated the considerable portion of cost reimbursement that remained in the program. In doing so, however, it created a new set of problems. I first describe several of the changes made by the BBA and then turn to some problems those changes created. I focus especially on post-acute care services, HMO reimbursement, and physician payment.

Post-Acute Services

After 1988 the use of post-acute services – home health services, Skilled Nursing Facility (SNF) services, rehabilitation services, and long-term hospital services – began to rise at very high rates (Table 1). From 1988 to 1997 home health visits per beneficiary increased by nearly a factor of 7 and SNF days per beneficiary by nearly a factor of 5. Spending on post-acute services rose from about 3 percent of Part A spending in the mid 1980s to 26 percent of Part A spending in 1996, a time when Part A spending itself was rising at rates well in excess of the growth in tax revenues.[16] Spending on post-acute services appeared out of control.

The fundamental causes for the increased spending were several: reimbursement that was primarily cost-based (though this was a readier explanation for high rather than increased spending); generous reimbursement of new entrants; the incentive the PPS offered to unbundle inpatient hospital services to post-acute sites; and, in the case of home health services, an ill-defined criterion for eligibility for benefits. In addition, court decisions in 1986 and 1988 held that prior HCFA regulations and interpretations of law, which had been used to hold down home health and SNF spending, were illegal.[17] Furthermore, states became more aggressive about shifting

some chronic long-term care spending from the Medicaid budget to Medicare, which added to the increase in SNF spending. Because it remains a problem, I now analyze Medicare payment policy for post-acute services in more detail.

Reimbursement for Post-Acute Services Prior to the BBA. I focus on the three largest components of post-acute spending, home health services, SNF services, and rehabilitation hospitals and units. In 1996 Medicare spent $16.8 billion on home health services, $9.6 billion on SNFs, and $4.6 billion on rehabilitation facilities (Health Care Financing Administration, 1999), (Medicare Payment Advisory Commission, 1999a).

Prior to the BBA, home health agencies were paid their cost per visit up to a limit of 112 percent of the national mean cost per visit.[18] SNFs were paid their cost per day for routine expenses up to a limit of 112 percent of the national mean.[19] Ancillary services delivered to SNF patients, for example physical and speech therapy, were reimbursed on a reasonable cost basis, as were capital costs.[20] At rehabilitation hospitals and units reimbursement per admission was related to a target figure, a base year cost per admission trended forward by the Consumer Price Index. Hospitals and units shared half of any deviation from this target within a band of 90 to 110 percent. Outside that band the government bore all costs and kept all savings.

New Entrants. New home health agencies and SNFs received cost reimbursement, just as older entities did. New rehabilitation hospitals and units (units were units within acute care hospitals) were reimbursed their costs for the first three years; the costs in the second full cost reporting period were used to set their target value for future reimbursement. Not only did cost reimbursement give little incentive

to economize on initial costs, to the degree that the new rehabilitation units could subsequently economize or reduce per case costs as volume increased, they could keep half of the cost reductions from their target values to a maximum of 10 percent.

The generous reimbursement rules for new entrants caused the number of post-acute care facilities to rise rapidly. The number of SNFs grew 6.8 percent per year between 1990 and 1996, the number of rehabilitation hospitals and units rose 4.3 percent annually, and the number of home health agencies grew 9.3 percent annually (Prospective Payment Assessment Commission, 1997). Hospitals had an additional incentive to open or acquire these entities, because they could allocate some joint costs to these units (e.g., the CEOs salary), where they would be reimbursed, and away from inpatient services, where reimbursement was fixed by the PPS. Relative to freestanding entities, therefore, the number of hospital-based SNFs and rehabilitation units grew particularly rapidly in the 1990-1996 period, at annual rates of 10.5 percent and 5.8 percent respectively.

Unbundling. The fixed PPS payment per inpatient admission together with the additional reimbursement for post-acute services offered hospitals an incentive to unbundle inpatient services, that is, to substitute post-acute care services for the last days of stay in the hospital. As a result, length of stay and beneficiary days per thousand fell, and post-acute services rose (Tables 1 and 2). That much of this fall could be attributed to the payment system can be seen by comparing the fall in length of stay between 1988 and 1996 for Medicare beneficiaries and all others, whose inpatient stays were usually paid on a per day rather than a per admission basis. Medicare length of stay fell 27 percent; length of stay for all patients (including

Medicare) fell 15 percent.[21] Moreover, among the ten DRGs with the largest number of post-acute care users, average length of stay dropped 1.3 to 2.0 days between 1994 and 1996 among post-acute care users, but only 0.6 to 1.8 days among non-users (Medicare Payment Advisory Commission, 1998a).[22] Finally, hospitals that operated post-acute services had greater drops in length of stay (Prospective Payment Assessment Commission, 1996).

At the time of the BBA hospitals were enjoying the highest margins the industry had experienced since the first two years of the PPS in 1984 and 1985 (Table 2).[23] The Medicare Payment Advisory Commission (MedPAC) estimates that unbundling was responsible for a substantial portion of this fiscal improvement by lowering hospital costs per Medicare (inpatient) case by about 10 percent with no corresponding adjustment in payment (Medicare Payment Advisory Commission, 2001a).

The BBA Provisions for Post-Acute Care. The BBA addressed the unintended overpayment to hospitals in five ways. First, in an effort to better match payment for inpatient services with the cost reductions from unbundling, which had not been accounted for in setting prior hospital updates, the hospital update factor for 1998 was zero. Further, the BBA mandated that future updates to the PPS be below the rate of increase in hospital input prices. MedPAC estimates that these reductions have to date offset about two-thirds of the overpayment from unbundling; in other words, the payment rate for inpatient services is still about 3 percentage points above where it would have been if the rate had been adjusted for the unbundling – and of course hospitals have profited from the unbundling in the interim.

Second, the BBA attempted to end cost reimbursement for post-acute services by mandating that HCFA develop prospective payment systems for those services. In particular, HCFA was to put in place prospective payment systems for SNFs in 1998, for home health in 1999, for rehabilitation services in 2000, and was to develop (but not implement) a system for long-term hospitals in 1999. Despite the short time frames and the lack of experience with prospective payment systems for post-acute facilities, the agency largely met its targets. It introduced the Resource Utilization Group (RUG) system for SNFs in July 1998. This system had been developed for chronic long-term care services, and when transplanted to the post-acute environment it proved to have problems. Nonetheless, this was probably the only option open to HCFA if the schedule mandated in the BBA was to be met. In October 2000 the Agency introduced a prospective case-based system for home health agencies, the Home Health Resource Groups (HHRGs), and in January 2002 it will introduce a prospective system for rehabilitation hospitals and units.

Third, just as with inpatient hospital services, the BBA substantially reduced the growth rate of reimbursement for post-acute services. In the case of SNFs, these reductions came through the RUG system, which ended cost reimbursement and gave the Congress control over rate increases. In the case of home health care, HCFA was given two years to develop a prospective payment system. In the interim the BBA mandated a payment system that substantially tightened the limits on cost reimbursement. Previously the limit on cost reimbursement was 112 percent of the mean cost of freestanding agencies; this was reduced to the lesser of 105 percent of the median cost or a 75-25 blend of the agency's *1994* cost and the average cost in the

Census region. Because of the increase in cost after 1994, the blend was usually the binding constraint. Moreover, the BBA provided that when the prospective payment system was ultimately introduced, there was to be a 15 percent reduction from a budget neutral amount. The Congress clearly considered home health spending excessive and was intent on rolling back spending to earlier levels.

Fourth, the BBA substantially tightened the rules for new entrants. As of 1998 target amounts for new rehabilitation facilities were limited to 110 percent of the national mean target amount even if their initial costs were greater. New SNFs were subject to the prospective payment system for SNFs that was implemented in 1998, and new home health agencies were subject to the revised payment limits in the interim system.

Fifth, the BBA modified the DRG payment for patients in certain DRGs who were discharged after a relatively short stay and who used post-acute services. In particular, for patients in ten DRGs who were discharged before the geometric mean length of stay for that DRG, the hospital would be paid per day rather than per admission. In implementing this regulation HCFA chose ten DRGs with high use of post-acute services. For those ten DRGs this change made the payment system more neutral (lower powered in contract theory jargon) with respect to whether the marginal day would be spent as an inpatient or in a post-acute setting.

In addition to these changes, the BBA attempted to clarify eligibility rules for home health services. Patients are eligible for Medicare home health benefits even without a hospital stay if they are homebound and need part time or intermittent skilled nursing services or physical or speech therapy.[24] These terms had, however,

not been defined in statute. After the 1988 court decision substantial ambiguity about the meaning of the terms remained; the BBA defined these terms.[25]

Because no prior hospital stay was required for eligibility, under the old definition a number of home health services that were essentially chronic long-term care rather than post-acute services had de facto become covered Medicare services. For example, in 1994 over half of all home health visits went to the 12 percent of users who had more than 150 visits per year. This group averaged 275 visits per user per year, or nearly daily visits, and they received a disproportionately high percentage of nurse aide as opposed to nurse visits (Prospective Payment Assessment Commission, 1997). Aide visits are more likely to be for a chronic problem; the aide, for example, might give an elderly person assistance with bathing. The BBAs definitions of eligibility are not likely to reduce this kind of service, although the new prospective payment system may well do so.

One change the BBA made was mainly an accounting change. It shifted the cost of all home health visits over one hundred in a year plus all visits that did not follow a hospital stay from Part A to Part B. Although this change did not affect payment rates by beneficiaries (the BBA waived the Part B coinsurance on such services) nor payment rates to home health agencies, both the Administration and the Congressional Republicans could take credit for prolonging the life of the Part A Trust Fund. The only real effect, however, was to shift the cost of these services from payroll tax to general revenue financing.

Shifting State Monies to Medicare. Another cause of increased post-acute care spending was left untouched by the BBA. Patients are eligible for the SNF benefit if

they stay in the hospital at least three days.[26] The SNF benefit then covers up to 20 days of a stay in the facility with no copayment and another 80 days with a copayment of one-eighth the hospital deductible (in 2001 this is just under $100). Although intended to apply to patients who need a period to recuperate from their illness but do not need the intensity of service that a hospital provides, states have aggressively pursued Medicare reimbursement for Medicaid-eligible nursing home residents who are hospitalized and then return to the nursing home, which will typically have a SNF facility. If Medicare rather than Medicaid pays for any of the nursing home stay, of course, the state save its share of Medicaid reimbursement of the nursing home. Medicare's responsibility in principle ends when the episode of illness that caused the hospitalization ends (up to a maximum of 100 days of SNF care), but defining the end of the episode is often ambiguous, especially in the nursing home population.

As a result of state efforts to shift the financing of nursing home residents from Medicaid to Medicare, the proportion of nursing home revenues that come from Medicare has risen substantially. Only 2 percent of nursing home revenues came from Medicare in 1980 and even as late as 1991 only 3 percent came from Medicare. By 1998, however, this proportion had risen to 12 percent, another example of chronic long-term care services being covered by Medicare (Cowan, et al., 1999). Whether this trend has run its course is unclear.

The BBA Provisions for Medicare+Choice

During the 1990s the share of beneficiaries enrolled in HMOs grew from 3 to about 15 percent (Figure 2). This growth was prompted in large part by inefficiencies

in traditional Medicare that were then transmitted to HMO reimbursement through the AAPCC and which HMOs could exploit. (Recall that the AAPCC was 95 percent of traditional Medicare payment in a county.) HMOs were concentrated in larger metropolitan areas, where there were often several HMOs, and competition among them forced the efficiency gains through to beneficiaries in the form of additional benefits and reductions in premiums. The estimated value of these benefits was directly related to the level of plan payment, averaging $121for the highest decile, 29 percent above the national average, but only $48 in the lowest decile (Table 3).[27]

The growth in HMO enrollment posed two issues. First, the geographic dispersion in reimbursement became more visible. As long as Medicare simply sent checks to individual physicians and hospitals on a service-by-service basis, the geographic dispersion in payments, which was well known to researchers, seemed to remain below the political radar screen. When it was summarized by the AAPCC, however, it did not. And the dispersion, which mirrors large variation in rates of procedures in the Medicare population, was large (Chassin, et al., 1986) (Table 4).[28]

Politically this dispersion created a demand for more equality, especially from rural areas, which are well represented on the Senate Finance Committee. But the demand also came from metropolitan areas such as the Twin Cities and Portland, Oregon, which had AAPCCs that were only around 50 to 60 percent as large as those of Miami and New York City. The Congressional representatives from these low rate areas argued that their constituents were not being treated fairly by a program that was to provide uniform benefits across the nation.

Second, because of favorable selection into the program, the growth of HMOs cost the government money; that is, the government was paying more for the beneficiaries that joined an HMO than it would have paid for them had they remained in traditional Medicare. Estimating just how much more the government was paying was controversial, but the most widely cited estimates were in the 6 to 8 percent range, even net of the 5 percent that the government took off the top (Brown, et al., 1993), (Riley, et al., 1996), (Congressional Budget Office, 1997).

An influential study by the Physician Payment Review Commission found that those who enrolled in HMOs in the 1989-1994 period spent 38 percent less in the six months before they joined than the control group who did not join, after adjusting for age, sex, institutional status, welfare status, and county of residence. By contrast, those disenrolling spent 42 percent more than the control group (Physician Payment Review Commission, 1996). In other words, the healthy appeared to be joining HMOs and the sick appeared to be leaving them. The same study compared mortality rates of those who joined HMOs in the year following enrollment with a control group who never joined HMOs, controlling for age, sex, and county of residence. The mortality rate among those who joined was 25 percent less than in traditional Medicare.[29] Although an HMO lobbyist might claim some health benefits from the more integrated care that HMOs could in principle provide, no one could seriously maintain that an HMO could cause anything like a 25 percent reduction in mortality.

The HMO industry's response to these findings was to assert that they were based on data from a period when HMO enrollment was only a tiny share of Medicare, but by 1997 the share was much higher and therefore it was likely that HMOs had a more

representative risk mix. Moreover, HMOs asserted that it gave a misleading picture to use data from the period around the time of enrollment because as HMO beneficiaries remained in the HMO they would age and therefore their spending and mortality experience would regress toward the mean. The overall 6 to 8 percent overpayment figure reflected the regression to the mean. This latter argument, of course, did not deny that some overpayment existed around the time of enrollment.

In response to these arguments, the BBA mandated a study by MedPAC similar in method to the Physician Payment Review Commission study of selection discussed above, but one that used more recent data. Although this subsequent study had some methodological differences with the earlier study, it essentially confirmed its findings. In particular, it showed that those enrolling in 1997 spent 28 percent less in the twelve months before enrollment than those in traditional Medicare (Medicare Payment Advisory Commission, 2000a). (But it found no difference in spending between those disenrolling and the control group.) Moreover, in the first year after enrollment (1998) there was a 21 percent mortality difference. Although this mortality difference fell as beneficiaries were in the HMO longer, it never returned to the mean, and for all HMO enrollees the difference was 15 percent (Figure 3).

Furthermore, the selection was threatening to create ever worse overpayment through a death spiral. If those joining HMOs in any time period are drawn from the population of the best risks remaining in traditional Medicare, as seems likely, mean costs for the groups in traditional Medicare and in HMOs will both rise but will steadily diverge (Cutler and Reber, 1998).[30] That is, the traditional Medicare mean will increase by a greater amount than the HMO mean, so that payment in traditional

Medicare, the basis for the AAPCC, will become ever more overstated as a measure of the cost of treating HMO enrollees. In 1997 HMO enrollment in some counties was approaching 50 percent of beneficiaries; thus, the bias could be appreciable.

In addition to addressing geographic differentials in payment and overpayment from selection, many Congressional Republicans wished to increase enrollment in HMOs.[31] But HMOs had several complaints about how Medicare paid them, which they argued reduced their willingness to participate. First, payment could change substantially from year to year, especially in rural areas, for reasons that had little to do with HMO costs (Table 5). Second, within metropolitan areas payment rates could differ substantially by county (Table 6). From the HMOs perspective just because a person moved her residence across the line from the District of Columbia to Montgomery County, for example, did not justify a thousand dollars less annual payment for that person's care. Finally, physicians lobbied for the rights to form their own HMOs, since they wished to appropriate monies that were otherwise going to health plans.

The BBA and HMOs. The BBA responded to these various complaints and ills in several ways. To address the differences in payment rates by area, it created a floor of $367 per month ($4,404 per year) for the AAPCC in 1998. This floor was binding in counties with about 12 percent of beneficiaries, or about half of all non-metropolitan beneficiaries. The BBA also moved the AAPCC partway toward a national payment rate by making it a blend of the county rate and the national mean rate. For each of the next five years, the weight on the national rate was to increase by 10 percentage points, so that by 2003 there would be a 50-50 blended rate. In

order to protect the high payment areas, however, all HMOs would get at least a 2 percent annual update. Thus, payment to an HMO was to be the maximum of the floor payment, the blended rate, or the 1997 rate updated by 2 percent per year.

In the Benefits Improvement and Protection Act (BIPA) of 2000 the Congress went further along this road, increasing the floor payment in non-metropolitan areas by 18 percent, from $402 per month in 2000 to $475 in 2001, and introducing a floor of $525 $(6,300 per year) for metropolitan areas with more than 250,000 population. These increases make the floor rates binding for 40 percent of the beneficiaries.

In response to selection, the BBA took two actions. First, it lengthened the lock-in period for enrollees who opted for HMOs, although implementation of this provision was deferred for five years. Previously, enrollees had been allowed to opt into or out of health plans on the first of every month, unlike the private sector where enrollees are typically locked into their plan for a year. Although enacted as a beneficiary protection measure, the ability to change plans monthly clearly increased the opportunity for selection. The BBA changed the monthly lock-in to an annual lock-in period starting in 2002.[32]

Second, the BBA mandated that by 2000 HCFA introduce a risk adjustment method based on health status. In other words, in addition to the age and sex of the beneficiary, HCFA was to account for the health status of the beneficiary in determining how much to pay the HMO. On the correct assumption that HCFA would want to use a method that accounted for a beneficiary's diagnosis, the BBA mandated that health plans report information on diagnosis to HCFA. Many health plans only had accurate diagnostic information on those who had been hospitalized,

so the BBA required that only inpatient diagnostic information be reported initially, but it also set a requirement that outpatient information ultimately be reported. Because it would partially correct for selection, risk adjustment based on health status would reduce payment for the average health plan; as a result, the BBA provided for a transition to fully risk-adjusted payment, a transition that BIPA lengthened.

In response to the volatility of rates, the BBA fixed in statute annual updates to the AAPCC as a percentage increment from the prior year's rate, so that updates were no longer a function of the past year's spending in traditional Medicare. This also eliminated the possibility of ever increasing overpayment at the national level, or a death spiral, since annual updates in payment to HMOs and to traditional Medicare could now differ. In response to physicians' wishes to form HMOs, the BBA permitted this, but there has been minimal response to this provision.

Two New Options. The BBA also created two new options for beneficiaries, Medical Savings Accounts (MSAs) and a private fee-for-service option; the ensemble of these options, plus the HMO option, was termed Medicare+Choice to distinguish it from traditional Medicare. MSAs are plans with a large deductible (the legislation set this between $3,000 and $6,000 per person annually). If a beneficiary elected an MSA, he or she would receive the AAPCC, adjusted by the relevant risk adjusters, less a premium for the large deductible plan. This amount would not be taxable if it was spent for medical care. Unspent balances could accrue and could ultimately be used to finance long-term care or used as a bequest.[33]

There was intense political activity around MSAs. Many Republicans saw MSAs as a way to reduce moral hazard; most Congressional Democrats and the

Administration saw them as a further opportunity for selection, because only good risks would profit from choosing a plan with a large deductible. Because of inadequate risk adjustment, such selection would benefit well off and healthy seniors at the Treasury's expense. The compromise was an agreement on a demonstration project that would be capped at 300,000 participants. Subsequently, however, no insurance company entered the market offering MSAs, so the issue was moot.

The private-fee-for service option stemmed from complaints by physicians that Medicare's limitations on balance billing abridged their freedom and the freedom of the beneficiary to contract for a fee. This had been a longstanding issue with physicians, who, at the time of Medicare's enactment, had often price discriminated among patients according to ability to pay (Kessel, 1958). When it began, therefore, Medicare offered weak incentives to not balance bill, but in OBRA86 these limitations were greatly strengthened, and physicians were not permitted to bill more than 10 percent above the fee schedule. Particularly in the light of the changes in relative fees that were being introduced, physicians lobbied for "freedom to contract."

The religious right also supported the private fee-for-service option. They were concerned that increasing fiscal constraints in the Medicare program would lead to restrictions on care near the end of life. They therefore supported structuring the private fee-for-service option so that physicians must be paid on a fee-for-service basis (i.e., no element of capitation) and their fees could not be reduced as a function of utilization (i.e., no bonus to the physician for keeping utilization low).

Thus, beneficiaries electing the private fee-for-service option buy an insurance policy that insures Medicare covered services. The insurer is allowed to contract with

physicians at any rate mutually agreed upon and can charge beneficiaries a premium to cover any increment in fees above the Medicare fee schedule. To help pay the premium for this policy, the beneficiary receives the AAPCC. Unlike the MSA option, the private fee-for-service option appears as if it will have considerable consequences, as I come to below.

The BBA and Physician Payment

At the time of the BBA, payment to physicians suffered from two problems, one related to the effort to cap physician spending and one related to relative prices. First, as described above, under the VPS increases in target spending for physician services were in part a function of a five-year average of the rate of increase in the number of units of services. The five-year average was to measure the cost of technological change. But the volume of surgical procedures had stopped increasing very much. Because their initial spending target was based on much higher historical volume, the fall in volume led to large short-run increases in surgeons' fees, 10 percent in 1994 and 12.2 percent in 1995. In the longer run, however, the low annual rates of increase in volume started to reduce markedly the five-year average rate of increase, and by the time of the BBA, it had affected the average enough that, together with other actions the Congress had instituted to reduce spending on physician services, nominal physician fees were projected to fall for at least the next ten years.[34] This was not tolerable politically, in part because fees in the commercial market were not expected to fall in nominal terms, and a substantial divergence between Medicare and commercial fees might lead some physicians to refuse to see Medicare patients.

The Congress therefore abandoned the VPS and substituted the Sustainable Growth Rate (SGR) system. Under this method, increases in target spending are a function of real GDP growth rather than past increases in units of service. The rationale was to tie physician payment to the government's ability to pay. Because GDP growth was very robust in the immediate post-BBA years, physicians did well. I discuss below the merits of a spending cap for physician services.

There was also a problem with relative prices. As described above, the Congress had established three conversion factors, which were diverging, thereby undermining whatever rationale the relative value scale had. In the BBA the Congress therefore returned to a single conversion factor. Because this was done in a budget-neutral fashion, the conversion factor for surgical procedures was reduced a little more than 10 percent. Hence, surgeons took a double hit; the conversion factor for surgical services was reduced, and so-called resource-based practice costs were phased in, as described above. Both these changes have now been accomplished, and, as far as is known, most surgeons continue to accept Medicare patients, suggesting that there were rents in surgical fees.

Other Changes Made by the BBA

The BBA made a host of other changes in Medicare, four of which I briefly describe here. These relate to hospital outpatient departments, teaching hospitals, disproportionate share payments, and additional preventive care benefits.

Hospital Outpatient Departments. If a physician treats a patient in the outpatient department or in an ambulatory surgery center rather than in an office, Medicare reimbursement is complicated. The physician receives payment under the physician

fee schedule, but for 650 services there is a "site-of-service" adjustment, a 50 percent reduction in payment for practice cost on the grounds that Medicare is also paying the outpatient department or ambulatory surgery center a "facility fee" to cover the costs of personnel and supplies. Between 1984, the beginning of the PPS, and 1996 these facility fees grew by more than 12 percent per year, amounting to $10.5 billion in 1996.[35] Both the growth and the cost-based nature of these fees led the Congress to mandate that HCFA develop a prospective payment system for hospital outpatient departments and ambulatory surgery centers. I turn below to the resulting problems.

A second provision applying to outpatient departments concerned beneficiary cost sharing. Due to an unintended consequence of how the law had been written in the late 1980s, hospital outpatient departments were able to increase revenues from patients by raising charges, but this had the effect of raising the cost sharing percentage for beneficiaries to an average around 50 percent, far above the standard 20 percent figure for Part B (Medicare Payment Advisory Commission, 1998b).[36]

The BBA sought a remedy, but to bring all services back to a 20 percent coinsurance rate was estimated to cost $4 billion in an Act that was trying to reduce Medicare spending.[37] The BBA therefore put in a very lengthy transition to reduce beneficiary coinsurance. It held that nominal coinsurance amounts for each service would be fixed at 1999 levels until they reached 20 percent, something that was estimated could take up to 40 years for some services.

Teaching Hospitals. Because they had higher costs per admission, even controlling for DRG, teaching hospitals had been paid more per admission than non-teaching hospitals since the inception of the PPS in FY1984. The amount of the

increment was a function of the house-staff-to-bed ratio, which created an incentive to increase the number of house staff. Moreover, relative to the empirical relationship between house staff and costs, the formula overcompensated hospitals for increases in house staff, reinforcing the incentive to increase their numbers. Because the PPS as a whole was to be budget neutral, this subsidy for teaching hospitals was financed by lower reimbursement for non-teaching hospitals.

Consistent with the incentives, the number of residents increased by about a third from 1985 to 1993, after which it stabilized, suggesting teaching hospitals had adjusted to the new financial regime (Newhouse and Wilensky, 2001). Because the output of US medical schools has been approximately constant since the mid 1970s, this increase came from hiring residents trained at non-US medical schools and from lengthening training periods. The increase in residents occurred at a time when many felt the United States had at least an adequate supply of physicians. And the additional payment to teaching hospitals, of course, increased approximately proportionately to the increase in residents, reaching $7 billion by the mid 1990s, whereas in 1985 it was only $1.4 billion (Newhouse and Wilensky, 2001).[38]

Preserving the additional payments to teaching hospitals was especially important to Senator Moynihan (D-NY), the chairman of the Senate Finance Committee from 1992-1994 and the ranking minority member after 1994 until his retirement in 2000, but the teaching hospital subsidy attracted bipartisan support.[39] As a result, the Congress did not eliminate the subsidy, but after 1984 it steadily chipped away at it in several budget bills. By the time of the BBA the payment had been reduced from an 11.59 percent increment for every 0.1 change in the house-staff-to-bed ratio to a 7.5

percent increment. The BBA further reduced this by 0.5 percentage points per year for four years, down to a 5.5 percent increment. The Balanced Budget Refinement Act of 1999 (BBRA) and the BIPA legislation of 2000 have stopped the transition at 6.5 percent, a figure now scheduled to drop to 5.5 percent for 2003 and beyond. Even the 5.5 percent figure, however, represents a subsidy to teaching hospitals.[40]

The BBA also capped the number of residents that a hospital could count toward reimbursement at 1996 levels. Thus, the hospital could no longer gain by expanding its number of residents, but it could still lose monies by contracting.[41] Because of the stability in the number of residents since 1993, however, the cap at 1996 levels is not very binding. The problem remains of how to pay teaching hospitals without distorting the market for house staff.

Disproportionate Share Payments. In the mid-1980s the Congress enacted a Disproportionate Share Hospital (DSH) program. This program paid higher DRG rates to hospitals that treated many Medicaid patients. Initially this program had the rationale that such patients were more expensive to treat, a finding based on an analysis of data from the state of Massachusetts (Epstein, et al., 1990). A later study using national data replicated the finding for Massachusetts, but showed that the Massachusetts finding did not generalize; there was no difference in the cost of Medicaid and non-Medicaid patients using national data (Kominski and Long, 1997).

Not surprisingly, recipients of DSH monies had an interest in continuing to receive them, and so the program acquired other rationales. Many legislators, especially Democrats, wanted to use Medicare monies to aid safety-net hospitals with their burden of uncompensated care for the under 65 population. Such safety-net

hospitals were usually large urban public hospitals. Aid for safety net hospitals would have been more logically financed from general revenues, but it did not appear likely that general revenues would be appropriated for this purpose. Another rationale, more specific to Medicare, was that the safety-net hospitals were important sources of care for those Medicare beneficiaries that lived near them.

At the time of the BBA the Medicare DSH monies amounted to $4.5 billion, up from $1.1 billion in 1989. Given the various articulated and unarticulated goals for the DSH program, the formula for allocating the monies among hospitals had several important defects. The formula set a threshold before a hospital was eligible for any funds based on the proportion of its total admissions (including the non-elderly) that were eligible for Medicaid and its share of Medicare admissions that were Medicaid eligible. Importantly the formula did not include a measure of uncompensated care or the hospital's share of patients who lacked insurance coverage. This was a critical omission to the degree that the program was intended to support safety-net hospitals, because the correlation between Medicaid and uncompensated care admissions was weak. Fundamentally the low correlation arose because Medicaid patients were insured; hence, other things equal, the more generous the eligibility for the state's Medicaid program, the fewer uninsured in the state. The situation was exacerbated in the mid-1990s when certain states began to expand Medicaid eligibility dramatically, most notably Tennessee and Oregon, thereby expanding their share of DSH monies.

DSH payments to hospitals were structured as a percentage increment to their DRG rate, but the increment was sharply progressive in the percentage of Medicaid patients, reflecting the desire to target the urban safety-net hospitals. These hospitals

not only had the largest uncompensated care burdens; they had a relatively small share of *Medicare* patients, and DSH monies were simply additional reimbursement for each Medicare patient. Making the formula progressive, therefore, was a way to give the safety-net hospitals more money in spite of their relatively small number of Medicare admissions. Rural hospitals, however, had many Medicare patients (often they were they only local hospital in a community with a high proportion of elderly persons), and the Congress did not intend the progressive formula to apply to rural hospitals. The Congress therefore put in place a much higher eligibility threshold for rural than for urban hospitals. The threshold was so much higher, however, that 96 percent of the DSH monies went to urban hospitals.[42] Not surprisingly, rural hospitals lobbied against this unequal treatment.

Finally, there was a notch at the threshold where DSH payments began; urban hospitals at the threshold received 2.5 percent more for each Medicare admission, whereas hospitals just below the threshold received no increment.

Simply to save money the BBA reduced the funds available for the DSH program by one percent a year for five years (cumulating to 15 percent at the end of five years) and asked for studies to lay the groundwork for later reform of the DSH program. Importantly, it mandated that hospitals start to report the share of admissions from uninsured patients, so a measure of uncompensated care could be included in the formula for allocating DSH monies. Subsequently the BBRA and BIPA have mostly restored the BBA cuts in the DSH program; under current law there is only a 2 percent cut in 2001, 3 percent in 2002, and no reductions at all after 2003.

Preventive Care Benefits. The BBA added several preventive benefits to Medicare. For example, coverage for mammograms went from bi-annual to annual and for Pap smears from every three years to annual. Coverage for prostate cancer screening was instituted for the first time, and a number of other preventive benefits were added. This cost relatively little, but it generated beneficiary support to offset the resistance from providers for the reductions in reimbursement and kept the BBA from being portrayed as simply a takeaway.

The Effects of the BBA and Some Givebacks

The BBA succeeded in its main goal of reducing the rate of growth in Medicare outlays. Nominal spending in 1998 and 1999 was below spending in 1997, which had never happened before, and in real terms spending in 2000 was still below the 1997 level (Table 7). The reductions were concentrated in post-acute care. Between 1997 and 1999 home health spending fell 45 percent, from $17.5 billion to $9.7 billion, and SNF payments fell 17 percent, from $11.0 billion to $9.4 billion (nominal dollars). The number of home health users per beneficiary fell more than 20 percent, and SNF discharges declined over 8 percent (Medicare Payment Advisory Commission, 2001a), (Medicare Payment Advisory Commission, 2001b).

All the reductions, however, cannot be attributed to the changes in the BBA. Approximately concurrently with the BBA the federal government greatly increased the resources it devoted to anti-fraud and anti-abuse efforts in the Medicare program. These resources were especially targeted on home health services, but they were applied throughout the program. As a result, in 1998 hospitals coded similar cases in lower-weighted DRGs than in 1997, the first time this had happened.

Because of the confounding of the BBA's reimbursement changes and the anti-fraud efforts, a good estimate of the savings attributable purely to the BBA cannot be made. But the low Medicare outlays in 1998 and 1999 were well below the outlays projected at the time of the BBA, leading providers to lobby for higher payments on the grounds that the BBA was unexpectedly harsh.[43] Partly because the long-run fiscal outlook for the Part A Trust Fund had greatly improved (see below), the Congress in the 1999 BBRA and again in the 2000 BIPA increased payment rates for almost all providers above the BBA provisions. In particular, it increased payments to SNFs in 1999 and again in 2000, and it increased monies for home health in 2000. It also stayed the 15 percent reduction in home health rates that the BBA called for when the home health prospective payment system was implemented.

Nonetheless, the givebacks in 1999 and 2000 were modest on the scale of the entire program. The Congressional Budget Office (CBO) estimated that the BBRA givebacks would cost $17.2 billion over 10 years; the BIPA givebacks were estimated to cost substantially more, $81.5 billion over 10 years.[44] But the January 2000 CBO projection for total Medicare spending over the next ten years was $3,226 billion; using that as a denominator, the givebacks raised Medicare spending above what it otherwise would have been by about 3 percent. The givebacks were also small in comparison with the BBA cuts; in August of 1997 the CBO expected the BBA to save $385 billion over the following ten years. Two years later it had doubled its estimate of savings in the 1998-2002 period.[45]

In sum, the BBA almost certainly reduced Medicare outlays, which helped restore the long-run fiscal health of the program (see below). It increased the incentives for

efficient production by mandating the development of prospective reimbursement systems for post-acute care and for hospital outpatient departments, thereby ending cost-based reimbursement virtually throughout the Medicare program. It addressed the geographic differences in payment in the Medicare+Choice program, though not in traditional Medicare, and it changed physician payment from a course that appeared unsustainable. Nonetheless, the changes the BBA made have left a new set of problems. Before discussing the program's long-range financing, I take up the problems the BBA created in post-acute care and hospital outpatient reimbursement, the Medicare+Choice program, and physician payment.

Some Current Issues

Post-Acute Care and Hospital Outpatient Departments

As noted above, HCFA has implemented new prospective schemes for home health agencies, SNFs, rehabilitation facilities, and outpatient departments, and did so on or near the very tight deadlines specified in the BBA. Nonetheless, one can be skeptical that the new schemes will function tolerably well. The problems are fourfold.

First, and fundamentally, for all the post-acute services the new payment methods largely do not pay more for additional services; in contract theory jargon they are high powered. Our ability to specify a priori and monitor a desired bundle of services for these services, however, is markedly less than for inpatient services. Hence, economic theory suggests that payment should be lower powered, so the BBA's changes seem to have gone in the wrong direction. Put another way, providers now have a financial incentive to underserve or stint on these services. The home health

reimbursement system is particularly high powered, with zero marginal revenue for all visits past five within a 60-day period.[46] And monitoring is particularly difficult in home health, where auditing or verifying what actually happened during a visit is a daunting task.

Second, the new payment systems set different prices for the same service in different settings, yet many patients can obtain the service in multiple settings. Physical therapy, for example, can be given in a hospital outpatient department, in a SNF, in a rehabilitation hospital or unit, or if the patient is well enough to go home, through home health. Both the level and basis of reimbursement vary considerably across these sites. Because the most intense treatment is given in rehabilitation hospitals and units and the least intense at home and because the new systems were implemented in a budget neutral fashion for each site, reimbursement is highest in rehabilitation facilities and lowest at home. Furthermore, patients in rehabilitation facilities are reimbursed per stay, SNF patients reimbursed per day, and home health patients per 60-day episode. As a result, the payment system is far from neutral as to where a given patient should be treated. We have little data, however, about whether the non-neutral incentives have affected patient care.[47]

Third, 18 percent of patients discharged from a hospital use multiple post-acute providers (Medicare Payment Advisory Commission, 1999b). In effect, many, if not most of these patients receive part of their treatment at one site (e.g., a SNF) and then transfer to another site to complete their treatment (e.g., home). Accounting for partial episodes of treatment in various sites introduces substantial additional complexity, as well as possibilities for gaming.

Fourth, the difficulty of securing reliable data on what services were delivered at the patient level has hampered the development of case-level adjustments. Partly for this reason MedPAC's judgment in March 2001 was that the RUG system, which was initially developed for chronic long-term care, could not be adapted for the post-acute care of SNF patients. It therefore recommended that HCFA stop work on refining the RUG system and focus on developing a new system (Medicare Payment Advisory Commission, 2001a). Although this view is controversial, it indicates the depth of the problems with the new post-acute payment methods. Furthermore, the large reduction in the number of home health visits after the BBA suggests that the HHRG weights based on historical data are inappropriate.

One proposed method for reimbursing post-acute services is to bundle payment for them with the DRG payment to the hospital, with a reasonably high fraction of cases receiving some kind of payment at the margin (i.e., lowering the power of the system). Freestanding post-acute providers, however, are fiercely opposed to such a method because they would then become contractors to the hospital.[48]

The problem of payment rates for the same service that vary by site also appears in reimbursement for ambulatory services. Virtually all of these services can be delivered in at least two of three settings: the hospital outpatient department, the Ambulatory Surgery Center, or the physician's office. But the rates Medicare reimburses differ substantially among these sites (Table 8). Additionally, some patients can be treated on either an inpatient or outpatient basis, for which payment also differs. Thus, the payment system is far from neutral in this domain as well. Moreover, the rules for determining whether the building adjacent to the hospital will

be reimbursed as the outpatient department or the medical office building, or for that matter the Ambulatory Surgery Center, are ambiguous. As with post-acute care, the importance of the non-neutrality of payment across sites is unclear.

Medicare+Choice

There were three salient effects of the BBA on the Medicare+Choice program: reductions in reimbursement in response to selection; an effort to narrow geographic differences in spending within the Medicare+Choice program; and the introduction of diagnostic-based risk adjustment.

Taking back the profits of selection. In response to the reductions in payment to HMOs mandated by the BBA, HMOs pulled out of several counties on January 1 of each subsequent year. These pullouts attracted a great deal of publicity for at least two reasons. Some saw competition among health plans as the future of the program, but the withdrawals cast doubt on whether this was realistic. Second, growth in HMO enrollment before the BBA had been rapid, and no plans had previously pulled out. As a result, most thought growth would continue. The CBO, for example, had projected in 1997 that HMO penetration would reach 30 percent by 2005, a projection that four years later looks distinctly optimistic (Congressional Budget Office, 1997).

The pullouts had serious consequences for some beneficiaries. Those enrolled in HMOs that no longer contracted with Medicare potentially had to change physicians and probably lost some supplementary benefits. On the other hand, it would be poor policy for the program to pay a rate sufficiently high to keep every health plan in business, no matter how badly run. And enrollments in HMOs tended to climb back in the months after the January 1 pullouts, so that although the share of beneficiaries

enrolled in Medicare+Choice has fallen from its high of 16 percent, it remains at around 15 percent (Figure 2). Nonetheless, enrollment is now stagnant after growing rapidly in the 1990s.

Payment floors. The Congress established floors on payment to health plans in response to perceived geographic inequity; in particular, beneficiaries in the high rate areas were getting drug benefits and those in low rate areas were not or were getting fewer benefits. Perhaps some conservatives may have also had an eye toward reducing pressure for enacting an outpatient prescription drug benefit by giving beneficiaries an option to join HMOs to obtain drug coverage. But the effort to address geographic equity has the potential to change the nature of the Medicare+Choice program radically, because it has unbalanced local health care markets. That is, because the Congress did nothing about variation in spending in traditional Medicare, traditional Medicare is now more attractive in the high rate areas and less attractive in the floor areas.

In the high rate areas rate increases for Medicare+Choice plans are now limited to 3 percent per year (up from 2 percent in the BBA). To the degree costs rise faster than this and the plan market is competitive, which for the most part it is in the high rate areas, supplementary benefits will be taken off the table, and beneficiaries will tend to drift back toward traditional Medicare.

The Congress put the floors in place in an effort to attract HMOs – preferably bearing drug benefits – to small population counties that lacked them. This policy assumed that the reason HMOs were not in these areas was the low rate of payment, but this assumption is likely misplaced. The structure of small markets is not

attractive to HMOs. In many small areas there is one local hospital, and there may be only one type of a given specialist. Thus, in many instances HMOs are unable to obtain rates below the Medicare fee schedule, because their threats to shift business to another provider is not credible. In short, the market structure means HMOs have difficulty making a profit. Similarly, a threat to terminate a provider from the HMOs network for not following quality guidelines is not credible. Consistent with this argument, HMOs have not entered in response to the higher floors.

But in the floor counties there is a good deal more money now in Medicare+Choice plans than in traditional Medicare, more than $2000 per beneficiary per year in some counties. These additional funds make the private fee-for-service option attractive in the floor counties. There were very few utilization controls within traditional Medicare, so equivalent medical care can be delivered under the private fee-for-service option at considerably less than the payment. In short, there are rents to be appropriated. Economics would predict that providers with market power will ultimately capture most of these rents. But until there is competition among private fee-for-service insurers, many of the rents will accrue to the early insurer entrants in this market. Some of the rents may go to beneficiaries to induce them to leave traditional Medicare, but physicians in the floor counties may simply stop participating in traditional Medicare and tell their patients to choose the private fee-for-service plan. In non-floor counties, private fee-for-service is unlikely to succeed. Because almost all physicians accept Medicare beneficiaries in those counties, there is little incentive for beneficiaries to pay more for a private fee-for-service plan. In the floor counties, however, beneficiaries will not have to pay more.

Thus far only one private fee-for-service plan has entered the market, although it has entered in 35 states. It disproportionately serves floor counties. HCFA is currently reviewing the application of a second private fee-for-service plan.

Risk Adjustment. HCFA did carry out the risk-adjustment mandate of the BBA by proposing a method based on Diagnostic Cost Groups (DCGs). Like the DRGs for hospital patients, DCGs group patients by their diagnosis (if any), and pay health plans more for their enrollees with costly diagnoses. Confirming favorable selection, HCFA estimated that the average health plan would lose 7 percent of its revenues when this method was fully implemented. Health plans, arguing that reimbursement was already inadequate, lobbied for budget-neutral risk adjustment. This they did not obtain. But the health plans also argued that the risk adjustment method HCFA proposed offered an incentive to distort treatment choices. This problem arose because HCFA had to employ diagnostic information from the inpatient setting only.

Reliable diagnostic information is available on inpatients because the DRG and hence hospital reimbursement is a function of diagnosis. If hospitals do not report diagnosis accurately, they are liable for criminal penalties. Although physicians are to report diagnosis on their Part B claims, their reimbursement does not depend on diagnosis; as a result, there is substantial undercoding of diagnosis for office visits. One study examined those who had a claim in 1994 with a diagnosis of a serious chronic condition, such as stroke, coronary artery disease, and diabetes. Among those who survived, only a little over half had a Part B claim with the given diagnosis in 1995 (Medicare Payment Advisory Commission, 1998a).

As a result, HCFA faced two problems. First, the weights for a given DCG were likely in error because patients were misclassified. Second, there was an enormous potential for upcoding if HCFA were to pay on the basis of outpatient diagnoses. That is, given the new financial incentive to code accurately, many more patients would appear in higher weighted DCGs than was the case in the historical data being used to set rates on a budget neutral basis. Given that likelihood, HCFA opted to introduce risk adjustment using inpatient data only. But this gave health plans an incentive to hospitalize patients merely to record the diagnosis and hence obtain the higher payment. HCFA recognized the problem; it therefore proposed not only a four-year transition to a fully risk adjusted payment but also basing only 10 percent of the reimbursement on the risk adjusted payment in the first year. This percentage would rise to 35 in the second year, 80 percent in the third year, and in the fourth year outpatient data would be incorporated. The transition also mitigated the payment reduction from risk adjustment.

The plans subsequently lobbied to defer diagnosis-based risk adjustment indefinitely. Although Congress did not agree to this request, it did slow the transition. Payment is still only 10 percent risk adjusted, so most of the incentives for plans to select healthy beneficiaries within age-sex classes are still in place. Moreover, if and when outpatient data are used, there will almost certainly have to be another transition to estimate and allow for effects of upcoding.

More fundamentally, although the DCGs are a substantial improvement over the prior methods, or at least will be once outpatient data are incorporated, no one knows whether they will suffice to render selection behavior negligible. They will, however,

lessen the profitability of certain selection strategies. If a plan enrolled a random sample from the 20 percent of traditional Medicare enrollees who spent the least in 1991, it would earn $2,134 per enrollee in 1992 if the risk adjustment method used only the demographic adjusters of the AAPCC (and if the patient received the same care as in traditional Medicare). With the DCG method (and using outpatient diagnoses) the profit would be $424 per enrollee, still a healthy profit rate on mean spending of $3,800, but much less than $2,134. At the other extreme, if the plan enrolled a random sample of the 20 percent who spent the most in 1991, it would lose an average of $4,425 in 1992 with demographic adjustment but only $1,311 with the DCG method (Ellis, et al., 1996). Thus, a plan that can devise inexpensive methods to select still stands to profit handsomely at the expense of the government.

For that reason I and others have proposed what is variously termed partial capitation or supply-ide cost sharing (Ellis and McGuire, 1986), (Ellis and McGuire, 1993), (Newhouse, 1986), (Newhouse, et al., 1989), (Newhouse, 1996), (Newhouse, et al., 1997), (Newhouse, 1998). In its simplest formulation reimbursement to the plan would be a weighted average of what would otherwise be paid under a risk-adjusted capitation and what would be paid under traditional Medicare, but non-linear formulations are also possible. Such a formulation sacrifices incentives for efficiency in production in order to reduce both incentives for selection and incentives to stint or underserve (Laffont and Tirole, 1993). MedPAC and its two predecessor commissions have all recommended this, but health plan opposition has blocked the proposal legislatively. Health plans' reasoning is clear; just as with risk adjustment, partial capitation reduces the profit from the favorable selection that they now enjoy.

Physician Payment

The BBA, as mentioned above, made increases in spending on physician services a function of, among other things, real GDP growth. This method of setting total spending differs from the method used for other providers, where the Congress sets rates or prices with no explicit or formulaic account taken of past changes in the quantity of services or of GDP growth. The method stemmed from the rapid increase in physician spending in the 1970s and 1980s and the belief that if fees were reduced, physicians would simply order more services to offset the loss in income.

There was empirical support for the view that physicians increased services when fees fell, strong enough support in fact so that when the new fee schedule was introduced in 1992, HCFA actuaries allowed for a "behavioral offset." Specifically, the actuaries assumed physicians would offset a third to half of the fee cut by increasing the quantity of those services whose fees were being reduced. Hence, they applied an additional reduction to the conversion factor to reach the desired spending cut (Physician Payment Review Commission, 1993). In fact, the actuaries overestimated. Although physicians did on balance increase those services whose fees had been reduced, they also decreased services whose price had increased. These effects approximately netted out (Zuckerman, et al., 1998).

Nonetheless, the view has persisted that a physician can simply order services to reach his or her desired income, so that policy must cap total spending. I think the evidence against this view is compelling. But even if this view is correct, a cap is problematic as policy because of the possibility of substitution of care among sites. As shown in Table 8, hospitals are paid substantial amounts to cover costs for

outpatient department services (e.g., nurse salaries, supplies). Because physicians do not bear these costs in the outpatient department but do bear them in their offices, the practice cost component of physician reimbursement is reduced 50 percent for services performed in the outpatient department and in Ambulatory Surgery Centers (relative to the physician's office), as described above. But outpatient physician services move across various outpatient sites in response to technological change, as well as from the inpatient to the outpatient setting, in ways that a fixed target cannot accommodate. As a result, MedPAC has recently recommended that the Congress abandon its approach to controlling spending on physician services and set physician fees in a fashion similar to rates for hospitals and other institutional providers (Medicare Payment Advisory Commission, 2001a).

Financing Medicare in the Long Term

The Bipartisan Commission. The BBA set up a Bipartisan Commission on the Future of Medicare, whose chair was Senator John Breaux (D-LA) and whose administrative chair was Congressman William Thomas (R-CA). The Commission's main agenda was to consider how to finance Medicare over the longer term. Medicare had for many years grown at rates far in excess of the growth rate of federal tax revenues, and in 1997 this seemed likely to continue indefinitely (Figure 4). The 1996 Report of the Trustees of the Medicare Trust Fund, the backdrop for the BBA, projected that the Part A Trust Fund would have a zero balance in 2001; the 1997 Report pushed that date back to 2005. And, if Medicare was going to be gasping for funds in 2005, matters were going to become much worse after 2010. In short, at the

time of the BBA the long-run financing of Medicare appeared to be a very serious substantive and political problem.

Senator Breaux and Congressman Thomas favored shifting Medicare toward a defined contribution approach that would include traditional Medicare. That is, the government would pay a lump sum, as those employers that offer multiple plans often do, and the beneficiary would be responsible for paying the marginal dollar. Such an approach has been endorsed by a wide variety of economists of varying political persuasions, including myself (e.g., (Cutler, 1995), (Aaron and Reischauer, 1995), (Butler and Moffit, 1995), (Wilensky and Newhouse, 1999)).

Those advocating this approach saw several advantages. First, it would make the government neutral among choice of health plan. Presently a lower cost plan has a limited ability to pass on lower costs in the form of lower premiums. Specifically, the plan may not offer rebates, so that the most money a beneficiary can save by joining a health plan is any Medigap premium plus the expected value of any remaining cost sharing.[49] Any additional savings must be taken in the form of more covered services, which the beneficiary may or may not value at their cost to the plan. Second, a defined contribution approach may lead to more efficient production by freeing up pricing underneath the plan rather than relying on the current administered pricing systems and the distortions they induce. It may also avoid some of the problems described below in introducing new products.

Those opposing a defined contribution approach worried that traditional Medicare will become more expensive because better risks would tend to leave it. In the extreme, traditional Medicare could go into a death spiral. In other words, true

neutrality among competing health plans assumes adequate risk adjustment, something that at present requires a leap of faith, although use of partial capitation can reduce the load that risk adjustment needs to bear. Additionally, there were concerns about geographic adjustment; if enrollees from low cost areas were pooled with those from high cost areas with no geographic adjustment, for example, they would be worse off. Finally, there were concerns among some that low-income Medicare beneficiaries not eligible for Medicaid could be coerced into plans with skimpy benefits or high cost sharing.

The Commission of 17 members operated under rules that required a supermajority of 11 to make formal recommendations. Initially it was hoped there might be a deal that involved changing Medicare to a defined contribution approach and adding an outpatient prescription drug benefit. But only ten votes could be mustered for the chairs' proposal that embodied defined contribution principles and addressed the drug issue. Specifically, the chairs proposed a new fee-for-service option involving private sector insurers partnering with HCFA to offer policies with a stop-loss provision and drug benefits, although there would be no commingling of money or management between HCFA and the private companies. Medicare HMOs would simply have the actuarial value of the stop-loss and drug benefits added to the AAPCC, so that they could offer additional benefits (e.g., a higher drug maximum). When 11 votes for this proposal could not be found, the Commission did not file a formal final report, but the Chairmen's Report, transcripts, and other Commission documents can be found on the Commission's website.[50]

At the time the Commission disbanded in 1998, the Administration attacked the suggestion that Medicare move to a defined contribution framework. This may have resulted from pressure from Congressional Democrats who wished to run on this issue, hewing to the successful 1996 strategy of not changing traditional Medicare for the 85 percent of the beneficiaries who had elected it. In 1999, however, the Administration did an about face and introduced a proposal that could perhaps have been compromised with the proposal that attracted 10 votes from the Commission.

The Administration's 1999 proposal made one important change from the proposals that the ten-person majority on the Bipartisan Commission favored. Whereas the Commission had proposed that the government's contribution be increased in the future at the rate of the weighted average premium across plans, the Administration proposed that it increase it at the rate of increase in the premium for traditional Medicare. Thus, the Administration protected beneficiaries who chose to remain in traditional Medicare against an increase in their Part B premium. Initially, however, both proposals kept the Part B premium at the level of current law. This left open a possible compromise of making the government-beneficiary split less favorable to beneficiaries over time, which seems likely to happen if health care costs increase at historical rates (Fuchs, 2001). Second, if enrollees chose a lower cost plan, they would only receive 75 percent of the savings, rather than the 100 percent under the Commission's proposal, though under both plans if they chose a more expensive plan they would pay 100 percent of the excess.

The Administration's proposal, while an important departure for a Democratic Administration, came a little over a year before the 2000 elections, a time when

Congressional Democrats – and probably a number of Republicans – did not want to take up major reform of the Medicare program. As a result, nothing came of it.

Moreover, the increase in payroll taxes from the economic boom along with the unexpectedly large reductions in spending from the BBA and the anti-fraud efforts meant the long-term finances of the program looked dramatically better. By 1999 the Trustees Report projected that the Part A Trust Fund would not have a zero balance until 2015, the 2000 Report pushed that date out to 2025, and the 2001 Report set a date of 2029 (Board of Trustees, 2001a). As the date receded, the political impetus for large-scale reform decreased. Changing Medicare to a defined contribution approach involved sufficient political pain that many members of Congress were happy to leave this job to their successors.

I should add that I find the Trustees' projections optimistic about the long-run rate of Medicare cost increase, and therefore believe the long-run financing problem is more serious than their estimates imply. The projections using the intermediate assumptions, which are those commonly cited and the basis for the dates cited above, assume that between now and 2025 real hospital payments per beneficiary will increase annually at approximately the rate of per capita GDP plus 1 percentage point, whereas the rate of increase between 1975 and 1996 was GDP plus 2.25 percentage points (Board of Trustees, 2001a).[51] Even the Trustees' "high" assumption assumes that costs only grow about 2 percentage points more than GDP.

In the case of Part B spending, the Trustees are even more sanguine, assuming that annual spending per beneficiary increases only 0.7 percentage points faster than the rate of GDP between now and 2025 (Board of Trustees, 2001b). Between 1975

and 1996, however, spending per beneficiary on Part B grew a full 4.15 percentage points more than GDP. Although Part B spending per beneficiary is unlikely to grow as rapidly in the future as in the past, an assumption that it will fall by a factor of five seems distinctly optimistic.

Finally, none of the Trustees' projections includes a prescription drug benefit, which, depending on its structure, could add perhaps 10 to 20 percent to Medicare spending on a once-and-for-all basis. And most analysts expect the rate of increase in drug spending to exceed that on other health care services, so the steady-state rate of growth in Medicare would also probably increase if a drug benefit were enacted.

Paying for Technological Change. Two quite different issues are created by welfare-increasing but costly technological change, something that seems to happen almost daily in medical care. The first is how to share the burden of paying for such change between the elderly and the non-elderly. Under the current, mainly tax financed program most of the cost of technological change inevitably falls on the non-elderly. In a defined contribution approach, the division between the elderly and non-elderly turns on how the government's contribution will be updated to account for cost-increasing change.

Two formulaic proposals for updating a defined contribution both appear unsatisfactory. One would index the government's contribution by a medical care price index. Setting aside the important upward biases in the current official indices ((Berndt, et al., 2000), (Newhouse, 2001)), conceptually such a proposal would put the entire burden of costly new products on the elderly. A second approach would index the contribution by a measure of change in private insurance premiums, which

would put almost all the burden on the non-elderly, since they pay a disproportionate share of the taxes. In practice a defined contribution approach is likely to steer between these two approaches, although a proper price index might be a reasonable lower bound for an update.

The second issue around new products is how Medicare's administered price methods reimburse for them, a traditional problem for administered price systems. The problem is most acute for the physician and outpatient department systems. In those systems if there is no billing code for a new product, there is no reimbursement. The situation is only marginally better in the hospital system, where there is no immediate change in the DRG payment if a cost-increasing but welfare raising product comes to the market. In the hospital case, however, if the product is sufficiently better that it is introduced despite no incremental reimbursement, its costs will begin to be reflected in the updates to the DRG weights (relative prices).[52]

In the case of the outpatient reimbursement systems, obtaining a billing code may require a coverage decision, but even if it does not, there is generally a substantial lag. The BBRA attempted to rectify the resulting bias against new products by mandating pass through payments for certain drugs and devices in the new hospital outpatient payment system, to be implemented in August 2000. But allowing the hospital to simply pass through its costs for specific products invites manufacturers of drugs and devices with high Medicare outpatient shares to set high prices. It also undercuts price competition among substitute products. To limit potential federal spending under this provision, the Congress capped these payments beginning in 2003, but political pressure precluded imposing any cap before that time. Thus, spending in

this area could rise substantially; indeed, whether the caps now in law will in fact be imposed seems problematic (Medicare Payment Advisory Commission, 2001a).

A Prescription Drug Benefit

The two principal services Medicare does not cover are outpatient prescription drugs and chronic long-term care. Proposals to cover long-term care within Medicare have occasionally been made, but the cost and the availability of Medicaid as coverage of last resort have deterred serious policy consideration. (Cutler and Gruber, 2002) discuss the Clinton Administration's initiatives in long-term care.

By contrast, adding a prescription drug benefit to Medicare has not only been considered for many years but was in fact enacted as part of the Medicare Catastrophic Coverage Act of 1988. Starting in 1991, the Act would have provided a benefit of 50 percent coinsurance above a $600 deductible. By 1993 the coinsurance was to drop to 20 percent, and the deductible was to rise so that about a sixth of the beneficiaries would exceed it in any one year. The Act was to be financed entirely by the elderly, through an increase in the Part B premium and a surcharge on beneficiaries with incomes above $40,000. The surcharge was as much as $800 in 1989 and was projected to rise to over $1,000 in 1993. Many higher income beneficiaries already had drug coverage through employer-provided retiree health insurance, and were unenthusiastic about paying the surcharge for no additional benefit to themselves. Their political opposition was strong enough so that the Congress repealed most of the provisions of the Act a year later, including the drug coverage. Thus, the drug benefit never went into effect.

The 1993 Health Security Act proposed a more generous Medicare drug benefit than the Catastrophic Act, namely a $250 deductible, 20 percent coinsurance, and a $1,000 stop-loss provision. The deductible and stop-loss amounts were to be indexed so that slightly over half the beneficiaries would receive some benefits. The benefit was to be added to Part B, with about 75 percent of the financing from general revenues and about 25 percent from additional Part B premiums. The Act also proposed mechanisms to control drug prices. Manufacturers were to give Medicare rebates equal to the greater of the difference between average wholesale and retail prices or 17 percent of retail prices, with an additional rebate for drugs whose price increased faster than inflation. To address the resulting incentive to price new drugs higher than otherwise, the Secretary could exclude new drugs from coverage if an agreement on price could not be reached.

Not surprisingly, the pharmaceutical industry intensely opposed these provisions to control its prices, arguing that they would deter new drug development. Although the principal cause for the defeat of the Health Security Act was its employer mandate to provide insurance, the pharmaceutical provisions were a contributing factor.

The impetus for a drug benefit has remained, however, spurred by the increased spending on drugs in recent years and by price discrimination, whereby those without drug insurance pay higher prices. Largely because of the growth in the number of efficacious drugs, Medicare beneficiaries spent 4.1 percent of their income on prescription drugs in 1998, up from 2.4 percent in 1988 (Medicare Payment Advisory Commission, 2000b), (Berndt, 2001). The elderly disproportionately use drugs;

although only 13 percent of the population, those over 65 account for more than a third of the (domestic) spending on drugs.

Responding to the financial burden of drug spending for the elderly, as well as potential distortions in care from failing to cover drugs, the Administration in 1999 introduced a proposal to cover drugs through a Medicare Part D. Coverage was to be offered by private health insurers or Pharmacy Benefit Managers (PBMs), who would compete for a single contract for the business of a local area. Benefits were much less generous than in the Health Security Act; beneficiaries would pay 50 percent coinsurance, up to a maximum of $2,000 initially, after which there was no coverage (i.e., a maximum of $1,000 in government payments). The $2,000 maximum was to increase to $5,000 by 2008. There was no deductible. Coverage would be voluntary, but general revenues would subsidize 50 percent of the premium to reduce the burden on the elderly and to combat selection. To reduce selection further, beneficiaries would only be allowed to purchase drug insurance when they first became eligible for Medicare or if their employer dropped drug coverage from retiree health insurance.

The concern over selection certainly seemed warranted given the experience in the individual Medigap market. The additional premium for those Medigap policies that cover drugs, plans H, I, and J, exceeds the value of the benefit even for those who spend the maximum amount on drugs (the maximum covered amount is $1,250 or $3,000, depending on the policy). Table 9 compares premiums for Plans C and I in five cities; the differences are much greater than the $500 benefit someone spending the maximum on drugs would obtain, so that Policy C is close to strictly dominating Policy I because of selection.

To assist the low-income elderly, the Administration proposed that both the premiums and the coinsurance would be fully subsidized for those elderly with incomes below 135 percent of the federal poverty level, with partial premium subsidies for those with incomes between 135 and 150 percent of poverty. To prevent crowdout of existing retiree health insurance, employers who offered drug coverage to retirees that was at least as generous as the Medicare benefit would receive a subsidy equal to two-thirds of the Medicare benefit. HMOs would also be given the value of the benefit as an addition to their reimbursement, so whatever drug coverage they had in place could be improved. The Administration estimated the cost of its proposal at $118 billion over ten years; CBO estimated costs of $168 billion. Steady-state costs would be substantially more than either estimate, because of the phase-in of the benefit through 2008.

In addition to the demands on the budget, this and other proposals for Medicare drug coverage raise five issues that deserve further discussion: 1) The lack of stop-loss coverage; 2) The universality of the benefit; 3) Possible selection among competing insurers; 4) The provisions to reduce crowdout of retiree health insurance; and 5) How much authority insurers or PBMs would be given to exclude certain drugs in order to achieve lower prices.

Stop-loss provisions and cost sharing. The front-end nature of the benefit in the Administration's proposal violated elementary insurance principles, but would have paid something to the 86 percent of beneficiaries who have at least one prescription in a year rather than the sixth of beneficiaries who would have received some payment given the deductible of the Health Security Act. On the other hand, the 6 percent of

beneficiaries who spent more than $3,000 on prescription drugs in 1999 would have been left with open-ended liability.

Senator Kennedy (D-MA) and Congressman Stark (D-CA) introduced a bill that was considerably more generous than the Administration's proposal, as well as more in accord with traditional insurance principles. It had a deductible of $200, coinsurance of 20 percent rather than 50 percent, and a stop-loss feature, set initially at $3,000 per year. I have not found a cost estimate for this proposal, but in 1999 CBO estimated a cost of around $30 billion per year for a similar but somewhat less generous proposal. Subsequently the Administration proposed earmarking $35 billion from 2006 to 2010 for catastrophic drug spending, but details were unclear.

More generally, the cost sharing provisions in the Administration bill were much greater than most drug coverage for the under 65. Under 65 persons with drug benefits typically pay a modest copayment if they use a generic drug or a drug that is on a formulary, for example, $10 for a month's supply. (A formulary is a list of favored drugs within a therapeutic class, such as anti-hypertensives, for which the plan has negotiated a low price.) Off-formulary drugs may carry a copayment of $25 or even $50 for a month's supply. The cost sharing in virtually all Medicare proposals is much greater than this to keep costs down, but the disparity with the benefits among the under 65 means that there will be continuing political pressure to reduce the cost sharing, should any Medicare drug benefit be enacted. Reductions in cost sharing, however, if not compensated for by premium increases, raise the issue of the division of the Medicare spending burden between the elderly and taxpayers.

Provisions for the low-income population and the universality of the benefit. The Administration would have required Medicaid to pay both the premiums as well as the 50 percent coinsurance for those with incomes under 135 percent of poverty, about 30 percent of the Medicare beneficiaries.[53] The average state share of the Medicaid program is 43 percent; thus, the proposal would have created a substantial new burden for states to cover the drug spending of those between 100 and 135 percent of poverty.[54] Whether Congress would have imposed this additional financing requirement on states is problematic.

Senator Breaux and Congressman Thomas, on the other hand, proposed limiting the drug benefit to those with incomes below 135 percent of poverty. This would, of course, have substantially reduced the cost of the plan and would also have largely avoided the crowdout issue with respect to retiree health insurance, because few low-income beneficiaries have such insurance. It would, however, have violated the social insurance principle of universality upon which Medicare is based. Furthermore, there is little correlation between income level and drug coverage currently, so substantial numbers of Medicare beneficiaries would have remained without drug coverage (McClellan, et al., 2000).

Selection among competing insurers. In structuring competition among insurers, the Administration favored competition for a local contract. The winner would receive a temporary local monopoly, for example, for three years.[55] Under this arrangement the government would specify classes of drugs, and at least one drug from each class would have to be covered. Such an arrangement should achieve competitive pricing while preventing selection.

An alternative is that insurers or PBMs compete for individual beneficiaries. Under this arrangement it is unclear whether the government would require that any competing plan cover at least one of a certain type of drug (e.g., anti-depressant, anti-arthritis drug). If there were such a requirement, prices drug manufacturers receive should be similar to competition for a contract, but there would be additional marketing costs for little gain. If there were not such a requirement, selection will divide the risk pool; certain beneficiaries would opt for the plan that, for example, includes Viagra and excludes anti-diabetic drugs, while diabetics would need to ensure that their plan covered the drugs they needed.

The structure of competition at the retail level is also important, because distribution costs account for about 20 percent of drug spending. Most current plans among the under 65 use pharmacy networks chosen in part on the basis of price; thus, a drug will cost the consumer substantially more at a non-network pharmacy. In determining the number of network pharmacies, there is usually a constraint to ensure access, such as a certain percentage of beneficiaries living within a certain distance of a network pharmacy. Use of a network of pharmacies could help Medicare minimize retail costs, but this implies excluding some pharmacies, a politically problematic outcome.

Provisions to reduce crowdout. Thirty-one percent of beneficiaries have drug coverage through their former employer. The Administration sought to keep this coverage in force by offering a subsidy of two-thirds of the value of the Medicare benefit to employers. It assumed that the remaining third of the cost would be covered through the tax deductibility of the drug benefit. Although the subsidy would

have arguably kept existing insurance in force, it would not have prevented crowdout in a fiscal sense. By assumption, the full cost of the plan for those with retiree health insurance would be covered entirely by the government, two-thirds by the on-budget subsidy costs and one-third by the tax expenditure. Without such a provision, however, one would expect employers to drop or restructure their retiree health insurance if a Medicare drug benefit were enacted. In other words, it appears that crowdout is simply part of the price of a universal Medicare drug benefit.

Price determination for pharmaceuticals. Among those under 65, 70 percent of drug coverage is contracted to PBMs. As already described, PBMs employ differential copayments to direct consumers to those drugs on their formulary. Formularies lower drug prices by increasing the elasticity of demand that manufacturers face; they are the drug analog of a network of physicians and hospitals. Because the PBM market is reasonably competitive, most discounts are passed on to consumers.

Medicare could adopt an analogous procedure of reference pricing; under this method drug manufacturers would submit bids within classes of drugs, and consumers would pay the entire marginal dollar for drugs that are not the cheapest.[56] Pharmaceutical manufacturers would be paid at their bid prices. In effect, the resulting insurance is a lump-sum transfer for specific drugs, with the amount of the lump sum set through a bidding process.

But traditional Medicare has avoided the use of bidding arrangements and differential pricing to consumers that favors low-bidding suppliers, perhaps because of the tradition of freedom of choice of provider with which it began and the

resistance to change from the affected providers. Rather, it has used administered price systems, such as the PPS, with minimal or no difference among alternative suppliers in prices to the beneficiary. For example, the amount beneficiaries pay for hospital care is completely independent of the hospital they use, and for practical purposes this is true for physician services as well. There is no reason in principle why prescription drugs could not be an exception, but this runs counter to the political pressure to cover services from all or almost all potential suppliers.

Although price competition among pharmaceutical manufacturers can be effective when there are competing drugs, some branded drugs have no close substitutes. If Medicare covers such drugs, there must be some kind of price control, because Medicare cannot agree to reimburse any price a manufacturer names. In private insurance the PBM can negotiate with the pharmaceutical firm and potentially not cover the drug if its price is too high. It is not clear that Medicare in practice could exclude the drug. Not surprisingly the pharmaceutical industry remains strongly opposed to any element of price control, arguing correctly that the monopoly rents on a few blockbuster drugs support the industry's research and development effort (Scherer, 2000). Indeed, the industry's fear of price controls has been an important factor in the failure of prior efforts at Medicare prescription drug coverage.

Medicare does now in fact spend about $2 billion per year to cover certain outpatient drugs, and its procurement of those drugs does not inspire confidence in its ability to operate an efficient administered price scheme for drugs. For those suffering from End Stage Renal Disease Medicare covers erythropoetin, a product to stimulate red blood cell production. It appears that the rate HCFA pays dialysis

centers for the erythropoetin they dispense has been well above the price that the centers pay for the drug. Indeed, the margin appears large enough that the centers can offset losses they incur on other services. (The composite rate centers receive for a dialysis session has been approximately constant in nominal terms since 1983, a fall of one-third in real terms (Medicare Payment Advisory Commission, 2001a).)

Medicare also covers certain cancer chemotherapy drugs. It reimburses for those drugs at 95 percent of the average wholesale price, a price that, as in the erythropoetin case, appears to be well above the transaction prices at which oncologists actually purchase the drugs.[57]

No legislation resulted from the Administration's 1999 proposal to cover drugs, in part because of industry opposition and in part because Congressional Democrats were happy to run on this issue in 2000 if they could not obtain their preferred outcome of a universal drug benefit. Both candidates for President in 2000 made enacting a Medicare prescription drug benefit a high priority, as did many candidates for Congress. Nonetheless, the prior experiences at adding such a benefit suggest enactment of a bill will be difficult, and much disagreement remains on the issues just discussed.

Conclusion

The main substantive changes in Medicare during the Clinton years were those enacted in the Balanced Budget Act of 1997. By reducing the rates Medicare paid providers and by ending cost reimbursement, the Act generated an unprecedented slowdown in the rate of growth of Medicare spending. It thus importantly contributed to the Administration's great economic achievement of the first budget surpluses in

decades. It also greatly prolonged the expected life of the Part A Trust Fund, which surely helped the Administration maintain political support among the elderly.

Much of the recent public discussion of Medicare has focused on how it should be financed after 2010 and especially after 2020. Although this issue is certainly important, the administered price methods that Medicare is now using have serious problems and are likely to need large-scale revision over the next several years. Within traditional Medicare the separate "silo" method of paying by provider or site of service does not appear likely to work well for two reasons. First, the same service is reimbursed at different rates in different sites. Second, in the case of physician services, an expenditure cap implicitly presumes the same proportion of services continue to be delivered in the office, as opposed to the outpatient department or the ambulatory surgery center. One way to reduce the silo problem is to bundle payment for post-acute care with the payment for inpatient hospital care, but that does not appear politically possible now. A second is to abandon the cap on spending for physician services and update fees using methods similar to those used for hospitals and other institutional providers. How Medicare should pay for new procedures and products is another of the many important pricing problems within traditional Medicare, which constitutes 85 percent of the program.

The administered price methods for Medicare+Choice also face serious issues, especially the effort to bring more equality to rates across regions. This has unbalanced local markets between Medicare+Choice and traditional Medicare. Further, the availability of the private fee-for-service option in the floor counties potentially involves greater Medicare expenditure for little gain to beneficiaries.

The short-run pricing issues, however, should not obscure Medicare's long-run financing problem, assuming historical rates of increase in health care spending resume. On the assumption that much of the historical increase in spending represents additional medical capabilities that are worth their costs, and that those capabilities will keep appearing, how to divide the burden of paying for them between future taxpayers and beneficiaries is a first order political issue. Medicare now consumes more than two percent of GDP, a figure that will rise into the four to six percent range two to three decades hence. Perforce it will almost surely be on the agenda of every subsequent Administration and Congress.

Table 1

Substitution of Post Acute Care for Medicare

Inpatient Hospital Days

Year[a]	Inpatient Days per 1000 Beneficiaries	Skilled Nursing Facility Days per 1000 Beneficiaries	Home Health Visits per 1000 Beneficiaries	Rehabilitation Admissions per 1000 Beneficiaries
1981	3,827			
1982	3,889			
1983	3,786			
1984	3,217			
1985	2,823			
1986	2,784	268	1,106	2.8
1987	2,815	229	1,104	3.3
1988	2,804	334	1,104	3.7
1989	2,721	889	1,350	4.0
1990	2,749	749	2,052	5.1
1991	2,728	669	2,880	6.0
1992	2,642	812	3,763	6.6
1993	2,474	948	4,661	7.2
1994	2,436	1,006	6,020	7.8

1995	2,317	1,053	7,125	8.8
1996	2,056	1,053	7,546	
1997	1,979	1,519	7,519	
1998	1,895	1,527	4,590	
AAGR[b]	-4.1%	15.6%	12.6%[c]	12.1%

Sources: Inpatient Days through 1993, Health Care Financing Review, "Statistical Supplement, 1996," Table 23. Inpatient Days, 1994 and 1995, Statistical Abstract of the United States, 1997, pages 115-6. 1996-1998 inpatient days from http://www.hcfa.gov/stats/stats.htm. Other values calculated from Prospective Payment Assessment Commission, "Medicare and the American Health Care System," June 1997, chapter 4. SNF values for 1997 and 1998 and home health value for 1997 are unpublished data from the Health Care Financing Administration. 1996-1998 data for rehabilitation admissions are not available.

[a]Calendar year for hospital days through 1993; fiscal year for other values. 1994 value from Statistical Abstract because 1994 value in Statistical Supplement excludes managed care enrollees and so is biased upward.

[b]AAGR is average annual growth rate. Value is calculated from initial year shown in the Table to final year.

[c]Value through 1997 is 20.5 percent. The sharp decline in visits in 1998 reflects some undetermined mix of greater anti-fraud enforcement efforts and changes in payment that were effective in October 1997.

Table 2

Length of Stay, Medicare Inpatient and Total Hospital Margins

Year	Length of Stay (days)		Medicare Inpatient Margin (%)[a]	Total Margin (%)	Update Factor (%)
	All Patients	Medicare Patients			
1981	7.2	10.4	[b]	not available	[b]
1982	7.2	10.2	[b]	not available	[b]
1983	7.0	9.8	[b]	not available	[b]
1984	6.7	8.9	13.4	7.3	[b]
1985	6.5	8.6	13.0	6.6	not available
1986	6.6	8.7	8.7	4.3	not available
1987	6.6	8.9	5.9	3.6	not available
1988	6.6	8.9	2.7	3.5	not available
1989	6.6	8.9	0.3	3.6	3.3
1990	6.6	8.8	-1.5	3.6	4.7
1991	6.5	8.6	-2.4	4.4	3.4
1992	6.4	8.4	-0.9	4.3	3.0
1993	6.2	8.0	1.3	4.4	2.7
1994	6.0	7.5	5.6	5.0	2.0

1995	5.7	7.0	11.1	5.8	2.0
1996	5.6	6.5	15.9	6.1	1.5
1997	5.4	6.2	16.9	5.9	2.0
1998	5.3	6.1	13.7	4.3	0.0
1999	5.2	6.0	12.0	2.8	1.1

[a] Excludes graduate medical education payments. Including these payments would raise the margins.

[b] Not applicable because of cost reimbursement.

Sources: All patient length of stay through 1996: Prospective Payment Assessment Commission, "Medicare and the American Health Care System: Report to the Congress," June 1997, page 89; 1997-1999 calculated from Medicare Payment Advisory Commission, "Report to the Congress," March 2001, Table B-1. Medicare length of stay through 1996: Health Care Financing Review: Medicare and Medicaid Statistical Supplement, 1998, page 206; 1997-1999 calculated from Medicare Payment Advisory Commission, "Report to the Congress," March 2001, Table B-1. Margins to 1993: Medicare Payment Advisory Commission, "Report to the Congress: Medicare Payment Policy," March 1999, pages 53 and 55. 1993 and later: Medicare Payment Advisory Commission, "Report to the Congress," March 2001, Tables B-4 and B-18. The Medicare inpatient margin is the ratio of Medicare revenue to the allocated cost of Medicare cases; the total margin is the ratio of hospital revenue from all payers to total hospital cost. Operating updates from Medicare Payment Advisory Commission, "Report to the Congress," March 2001, Table B-1.

Table 3

Standardized Extra Benefits

as a Function of Plan Payment, 1996

Decile	Plan Payment Index	Standardized Extra Benefits
US Average	1.00	$77
10	1.29	121
9	1.15	86
8	1.09	80
7	1.06	86
6	1.03	92
5	0.99	78
4	0.94	68
3	0.88	57
2	0.82	53
1	0.75	48

Source: Prospective Payment Assessment Commission, "Medicare and the American Health Care System," June 1997, Table 2-8. Plans are grouped in deciles of equal numbers of plans according to the level of the AAPCC. The value of extra benefits is the actuarial value of any waived premium for non-covered services and reduced cost sharing, divided by the hospital wage index for the area.

Table 4

The AAPCC in the Six Highest and Six Lowest Counties, 1997

The Six Highest Counties

County	State	Annual Rate
Richmond	NY	$9,208
Dade	FL	8,979
Bronx	NY	8,739
Plaquemines	LA	8,733
St. Bernard	LA	8,638
New York	NY	8,557

The Six Lowest Counties

County	State	Annual Rate
Arthur	NB	$2,651
Banner	NB	2,656
Holmes	OH	2,700
Chippewa	MN	2,728
Presidio	TX	2,756
Saline	NB	2,773

Table 5

Instability in AAPCC Rates, Change in 1997 Rates Relative to 1996 Rates (%)

Rural Counties with Large Changes

County	State	% Change, 1996-7
Culberson	TX	+37
Refugio	TX	+33
Logan	WV	+29
Gilliam	OR	-17
Delta	CO	-24
Loving	TX	-40

Rate Changes among Large Metropolitan Areas

County	State	% Change, 1996-7
Los Angeles	CA	6.0
Maricopa	AZ	3.8
Dade	FL	8.9
Wayne	MI	1.8
New York	NY	-0.2
Middlesex	MA	7.0

Source: Medicare Payment Advisory Commission, unpublished materials.

Table 6

Payment Rates within the Washington, DC Metropolitan Area, 1997

County	Annual Rate
Prince Georges, MD	$7,224
Washington, DC	7,008
Montgomery, MD	5,904
Arlington, VA	5,412
Fairfax, VA	4,812

Source: Medicare Payment Advisory Commission, unpublished materials.

Table 7

Real Medicare Spending, CY1970-2000

Year	Spending[a]	% Increase	Part A[a]	Part B[a]
1970	27.6	--	19.4	8.1
1975	43.6	9.6[b]	30.9	12.6
1980	69.0	9.6[b]	47.9	21.1
1985	104.9	8.7[b]	70.2	34.6
1990	137.1	5.5[b]	82.8	54.4
1991	144.8	5.6	86.5	58.3
1992	158.1	9.2	99.0	59.2
1993	173.0	9.4	107.3	65.7
1994	183.6	6.1	116.4	67.2
1995	200.8	9.4	128.2	72.6
1996	214.2	6.7	138.9	75.3
1997	224.0	4.6	146.3	77.7
1998	221.0	-1.3	140.6	80.4
1999	217.3	-1.7	133.3	84.0
2000	221.8	2.1	131.1	90.7

[a] Spending in billions of 2000 dollars. Total may not add because of rounding error.

[b] Annualized rate over the prior five years.

Sources: (Board of Trustees, 2001a), (Board of Trustees, 2001b). Deflated by the chain-weighted GDP deflator for the corresponding calendar year.

Table 8

Base Payment Rates for Selected High-Volume Ambulatory Services

Type of Service	Description	OPD	Practice Expense	ASC
Surgical	Upper GI endoscopy	$347	$139	$425
	Diagnostic colonoscopy	387	192	425
	Colonoscopy with lesion removal	387	260	425
	Extract cataract, inset lens	1,287	---	934
Radiology	Chest X-ray, one view	38	21	----
	Mammography, both breasts	34	56	----
Diagnostic	Cardiovascular stress test	79	63	----
	Echo exam of heart	213	171	----
Clinic Visit	Office or Outpatient Visit, new patient	48	23	----
	Office or Outpatient Visit, established patient	48	22	----

Source: (Medicare Payment Advisory Commission, 2000b), page 39. OPD is the hospital outpatient department, and ASC is ambulatory surgery center. The practice expense column shows the amount paid for services in the office that is intended to cover practice expenses, as opposed to the physician take home or work component, which is the amount that corresponds to the other two columns for office services.

Table 9

Premiums for Individual Medigap Plans with and without Drug Coverage, 1999

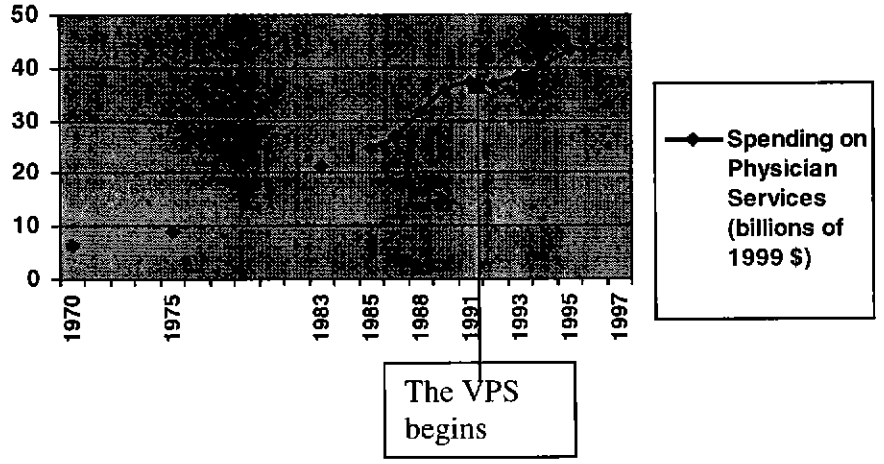
	65 Year Old		75 Year Old	
	Policy C[a]	Policy I[a]	Policy C[a]	Policy I[a]
Dallas, TX	$1046	$2294	$1295	$2974
Denver, CO	974	2589	1199	3221
Los Angeles, CA	1502	3362	1820	4437
Miami, FL	1510	3428	1890	4158
Manchester, NH	917	1945	1247	2581

[a] Policy C does not cover drugs. Policy I covers 50% of drug spending above a $250 deductible to a $1,250 maximum expenditure, so the maximum value of the drug benefit is $500. Policy I also covers any physician fees in excess of Medicare's reasonable charges, but these are limited to an additional 10% of physician fees, and few physicians charge additional fees. Policy I also covers up to 40 home health visits during recovery from an acute illness. Medicare beneficiaries who are homebound and need part-time or intermittent care already have this benefit; for others benefits are limited to $40 per visit. In addition, Policy C, but *not* Policy I, covers the Part B deductible of $100, which anyone using physician services is likely to satisfy. The actuarial value of the Part B deductible coverage in Plan C likely exceeds the actuarial value of the excess physician fee and home health visit features in Plan I, but in any event the premium differences of $1,000 to 2,000 would seem to vastly outweigh the additional benefits in Plan I, even for those spending the maximum amount on drugs.

Source: (Gluck, 1999)

Figure 1

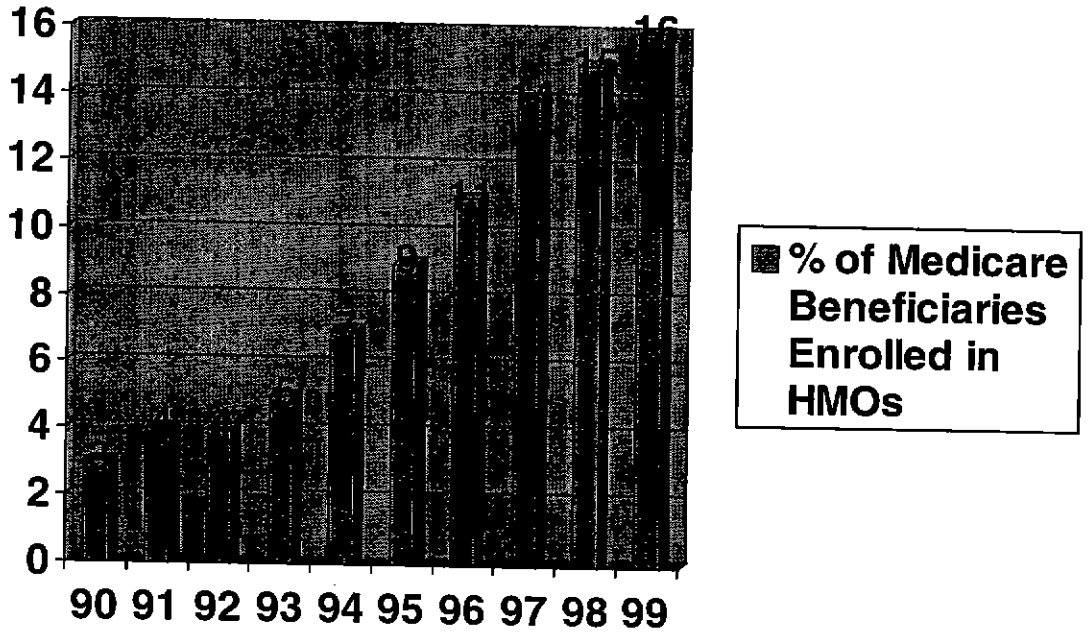
Growth in Real Physician Expenditure, Calendar Years 1970-1997



Source: Health Care Financing Administration, "Medicare and Medicaid Statistical Supplement, 1999," Table 55, adjusted by the GDP chain-type price index.

Figure 2

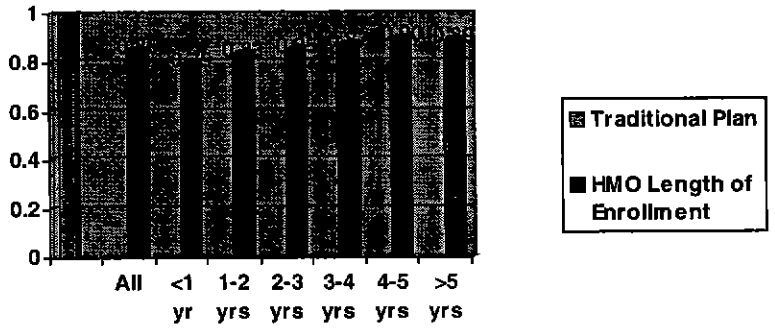
Percentage of Medicare Beneficiaries Enrolled in HMOs



Source: Medicare Payment Advisory Commission, Report to the Congress, March 1998, page 5, and unpublished data.

Figure 3

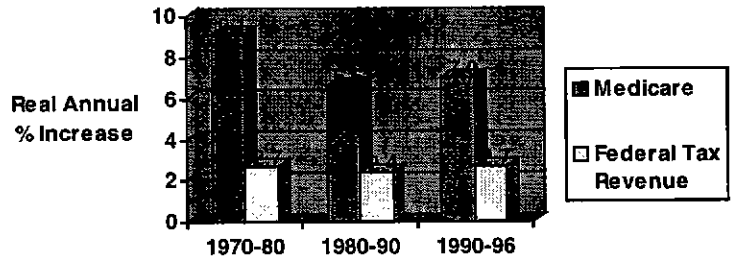
Selection: Mortality in 1998, HMO Enrollees as a Proportion of Traditional Medicare Enrollees, by Length of HMO Enrollment



Source: (Medicare Payment Advisory Commission, 2000a).

Figure 4

Medicare Outlays Increased at a Rate Much Faster Than Federal Tax Revenues



Sources: Statistical Abstract, Economic Report of the President, Congressional Budget Office. Deflators: GDP deflator to 1990, CPI X1 90-96.

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[1]The one-eighth figure includes the Part B payments financed by beneficiary premiums. If they are not considered, Medicare accounts for about 11 percent of outlays.

[2]Medicare is a secondary payer for those over 65 actively employed with group insurance through their employer. Those few elderly not eligible for Social Security must pay a premium for Medicare Part A.

[3]Medicare eligibility for the disabled begins two years after eligibility for disability insurance. Those with renal disease are to be covered through any employer-based coverage for the first 30 months of eligibility.

[4]The payroll tax rate is currently 2.9 percent on all earnings, with half nominally paid by the employer. Prior to 1991, the upper limit on taxable earnings was the same as Social Security. OBRA90 raised the limit to $125,000 from $51,300; the limit was removed entirely in OBRA93, effective in 1994.

[5]The elderly with incomes below the federal poverty line have their Part B premiums as well as their cost sharing paid for by Medicaid, and there is also premium assistance but no cost sharing assistance for those between 100 and 120 percent of the poverty line.

[6]Medicare covers 90 days of a hospital stay within an episode of illness. A new episode of illness begins after a beneficiary has been out of the hospital or the skilled nursing facility for 60 days. Beneficiaries have an additional 60 days of coverage from a one-time "lifetime" reserve.

[7]The remainder comes from other sources such as the Veterans Administration.

[8]From the outset hospitals and other institutional providers could not balance bill. OBRA86 prohibited physicians charging more then 10 percent above the fee schedule.

[9]Medicare's share of costs was defined as its share of patient days; costs were determined from audited cost reports filed by providers.

[10]In the case of the institutional providers not covered by the PPS I am greatly oversimplifying a set of complex reimbursement rules; Medicare sometimes reimbursed a function of a prior year's cost per case updated for inflation (e.g., rehabilitation units), sometimes simply cost (e.g., ancillary services in SNFs), and sometimes costs subject to maximums (e.g., routine costs in SNFs and home health agencies).

[11]In 1972 an option was added for Part B services to be reimbursed on the basis of cost, and in 1982 this was extended to all services. These contracts are now being phased out.

[12]I have not found data on the number of HMO beneficiaries in the early years, but in the 1980s the HMO Medicare market share was only 3 percent. It almost certainly was less than that at the outset of the program. Indeed, the term HMO was not even coined until 1971, although entities such as the Kaiser Health Plan had existed for several decades.

[13]The applicable regulations used the Adjusted Community Rate (ACR), which was the rate charged by the HMO in its private business, adjusted for benefit and demographic differences with the Medicare population. If the cost of services to the Medicare population plus a private business profit rate was less than the ACR, the HMO was to provide additional benefits, lower the premium, or refund the excess to the government. The adjustments in the ACR calculation have considerable arbitrariness and are probably not binding; even so, competition in metropolitan areas among HMOs forced any rents in HMO reimbursement to be passed through to beneficiaries in the form of additional benefits or lower premiums, as I come to below.

[14]That Medicare was overpaying for some procedures was plausible. In the case of several newer, high tech procedures, productivity had improved considerably, but Medicare's administered prices were rigid downward and had no ready way of adjusting for these improvements.

[15]As a result of low volume increases, surgeons in 1994 and 1995 received 10.0 and 12.2 percent (nominal) increases in their conversion factor, whereas other non-surgical, non-primary care services only received increases slightly over 5 percent in each year.

[16]Nominal spending in Part A grew by a factor of 3 between 1984 and 1996, whereas federal tax revenue grew only by a factor of 2.2.

[17]The case on home health was Duggan v. Bowen, 691 F. Sup. 1487 (D.D.C. 1988) and on SNF services was Fox v. Bowen, 656 F. Sup. 1236 (D. Conn. 1986).

[18]The text oversimplifies in that there was a cost limit of 112 percent for each type of covered service (e.g., physical therapy, home health aide), although the limit was applied

to aggregate agency payments. Also, the labor portion of the limit was adjusted by the hospital wage index for the area.

[19]Routine services are room, board, and nursing services. This was the rule for freestanding SNFs. Reimbursement for hospital-based SNFs was somewhat greater.

[20]Ancillary services at SNFs grew particularly rapidly. In 1990 charges for physical, occupational, speech, and respiratory therapy were 15 percent of total Medicare SNF charges; by 1994 they were 30 percent (U.S. House of Representatives, 1996).

[21]Although this comparison does not control for any age-specific factors affecting length of stay (it is not clear which direction they would go), it understates the contribution of the payment system because several private payers changed from paying hospitals a daily rate to a DRG basis of payment in this period.

[22]And the drop for users was greater than for non-users in each of the ten DRGs.

[23]Although it was to have been introduced on a budget neutral basis, the PPS was misnormed so that initial payments were too great.

[24]Prior to 1981 eligibility required a hospital stay, but that requirement was dropped on the argument that making home health services more available would pay for itself by reducing nursing home costs, an argument which later data has not supported (Kemper, 1988). The lack of a hospital stay has led to a heterogeneous population of users. Some receive post-acute services (e.g., a few visits to verify normal recuperation), while others receive almost daily visits because they can barely manage to live independently. The 1988 court decision was directed at earlier regulations that required patients to need part time *and* intermittent services rather than part time *or* intermittent services.

[25]For the purpose of initial eligibility, intermittent care is care that is needed (strictly) less than 7 days a week or less than 8 hours a day for 21 days or less. Once eligible an individual can receive services for any number of days per week, as long as the total is less than 8 hours per day and 28 hours per week.

[26]The three-day stay requirement for SNF services has been contentious for many years. The Catastrophic Coverage Act of 1988 abolished the three-day requirement, and SNF usage shot up in 1989 (Table 2). When the Act was repealed in 1989, the three-day stay requirement was reinstituted.

[27]The dollar values in Table 4 almost certainly understate the spread in the value of the benefits, because they have been standardized by the area wage index. The major supplementary benefit, however, is some drug coverage, and drug prices undoubtedly vary less from area to area than the wage index does.

[28]The dispersion cannot be explained by variation in factor prices. The spread in the wage rate index is a factor of two, and several inputs are purchased in national markets with the same factor price. The fraction of inputs purchased in national markets varies by provider type, but is around 30 percent for hospitals.

[29]With low mortality rates, HMOs profit by avoiding high end-of-life spending.

[30]This uses the fact that health care spending is approximately lognormally distributed.

[31]And many in both parties saw HMOs as a way to provide drug benefits to constituents.

[32]In 2002 beneficiaries can disenroll for the first six months of the period, and in 2003 and later they can disenroll monthly for the first three months of the period.

[33]If used as a bequest, it would be taxable.

[34]The most important of the other actions were arbitrary continuing reductions in the target, which had reached 4 percentage points per year by the time of the BBA.

[35]This figure is understated because it does not include HMO enrollees, the fraction of which grew substantially over this period.

[36]Medicare continued to base its reimbursement to outpatient departments on 20 percent of their costs, but hospitals were permitted to charge beneficiaries 20 percent of their charges. When this law was enacted, charges and costs were not much different, but over time they differed sharply as hospitals raised charges. Moreover, the cost sharing percentage varied substantially by service. For some outpatient department services the cost sharing was at or near the statutory 20 percent for other Part B services; for others, it was in the 60 to 80 percent range.

[37]Because over a third of beneficiaries had employer-provided retiree health insurance that paid much or all of the cost sharing, the incidence of reducing the coinsurance rate would partly redound to shareholders.

[38]The amounts include both Direct and Indirect Medical Education payments.

[39]Although New York received a disproportionate share of these monies, Senator Moynihan's concern for teaching hospitals went well beyond such parochial interests. He viewed these monies as critical for the advances in knowledge being generated at teaching hospitals. During the debate over the Health Security Act he said on the Senate floor that to reduce these payments would be "a sin against the Holy Ghost."

[40]No subsidies would imply about a 3 percent increment for each 0.1 change in the ratio.

[41]The BBA gave some transition funds to hospitals that reduced the number of residents.

[42]Although rural hospitals do not receive a proportionate share of DSH funds, many provisions in the PPS subsidize rural hospitals, including the Critical Access Hospital program, the Sole Community Hospital program, the Medicare Dependent Hospital program, and the Rural Referral Center Hospital program.

[43]In August 1997 the CBO estimated the BBA would save $112 billion between 1998 and 2002. By July 1999 this value grew to $217 billion (http://www.cbo.gov/).

[44] See http://www.cbo.gov/.

[45] See http://www.cbo.gov/.

[46] There is a modest outlier provision.

[47] Regulations limit the ability to shift patients to rehabilitation hospitals and units, where the payment is highest. Such patients must receive an average of three hours of therapy per day, and 75 percent must be in one of ten DRGs. Many patients, especially the frail elderly, cannot tolerate three hours of daily therapy.

[48] If hospitals were given responsibility for post-acute care and contracted with certain providers, there could be a court challenge that such contracting abridged patients' freedom of choice. At issue would be whether, when using a hospital, the patient agrees to use certain providers, as for example the patient does with respect to the laboratory with which the hospital contracts for services. Another possible approach is a separate post-acute reimbursement system for all sites, but this would appear to leave substantial moral hazard around the decision to use any post-acute care.

[49] The 36 percent of beneficiaries with retiree health insurance are unlikely to find anything other than traditional Medicare attractive unless employers offer them

something to give up their retiree health insurance. Defined contribution arrangements might stimulate employers to do so. BIPA allows premium rebates starting in 2003.

[50] See http://medicare.commission.gov/.

[51] I use 1996 as an endpoint to avoid correcting for the BBA shift of home health spending from Part A to Part B, and 1975 as a beginning point to be past the inclusion of the disabled and those with ESRD.

[52] (Kane and Manoukian, 1989) describe a product whose diffusion the PPS deterred.

[53] For those between 135 and 150 percent of poverty premium subsidies would have phased out. In addition to the notch from dropping coinsurance subsidies at an income of 135 percent of poverty, the phase out of premium subsidies implies an addition of 40 to 50 percentage points to the marginal tax rate between 135 and 150 percent of poverty.

[54] Medicaid already covers drug costs for those below 100 percent of poverty.

[55] I have advocated this approach in (Huskamp, et al., 2000).

[56] I have advocated such an approach in (Huskamp, et al., 2000).

[57] See HCFA Program Memorandum AB-00-86.