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The Costs of a Medicare Prescription Drug Benefit: A Comparison of Alternatives

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MR-1529.0-NIA

January 2002

RAND Health

This research was supported by the National Institute on Aging (P01AG08291) and RAND Health. The estimates and views expressed herein are solely those of the authors. It has been formally reviewed but has not been formally edited.

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Published 2002 by RAND
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Abstract

Medicare does not have an outpatient prescription drug benefit. Recently, there has been renewed interest in adding a prescription drug benefit to the program. In this paper, we present a microsimulation model to predict drug expenditures in 2001 for a representative cohort of Medicare beneficiaries under the status quo and three different plans: (1) a catastrophic plan modeled on the Medicare Catastrophic Coverage Act (PL 100-360), which was passed in 1988 but repealed one year later after higher-income Medicare beneficiaries protested new premiums, (2) a zero-deductible plan that caps out-of-pocket expenses at $4,000 per year, and (3) a zero-deductible plan that does not cap out-of-pocket expenses. We use data from a representative sample of Medicare Part B beneficiaries from the 1995 Medicare Current Beneficiary Survey (MCBS) Cost and Use file. Under the status quo, drug expenses average $1,459 per beneficiary, out-of-pocket costs average $646, and 8.2% of the population has catastrophic expenses (defined as more than $2,000 out-of-pocket for drugs). Under a catastrophic plan, average annual drug expenses are $1,344, out-of-pocket costs are $645, and 6.8% of beneficiaries have catastrophic expenses. Under a zero-deductible plan that does not cap out-of-pocket expenses average annual drug expenses are $1,395, out-of-pocket expenses are $459, and 5.3% of beneficiaries would have catastrophic expenses. Under a zero-deductible plan that caps out-of-pocket expenses at $4,000 per year, average annual drug expenses are $1,414, out-of-pocket expenses are $442, and 5.5% of beneficiaries have catastrophic expenses.

Introduction

Medicare is the only large health insurance carrier that does not include an outpatient prescription drug benefit[a]. This exclusion is particularly consequential because the elderly are among the biggest consumers of pharmaceuticals. Medicare beneficiaries comprise 13% of the U.S. population, yet account for over 36% of total outpatient drug expenditures.[1] Private arrangements often fill this gap, and about 65% of Medicare beneficiaries have some type of prescription drug insurance. The principal source of that coverage is employer-sponsored insurance, but additional coverage comes from Medicaid, individually-purchased private plans like Medigap, and health maintenance organizations (HMOs).[2] Further, many states currently offer some type of prescription drug benefit to the elderly and disabled.

Numerous plans have been proposed to add such a benefit to Medicare, although none has been implemented to date. The principal concern is the cost of providing access to expensive medications for a rapidly growing elderly population. Average drug expenditures among Medicare enrollees are estimated to exceed $1,450 in 2001, with out-of-pocket expenditures of almost $650 per beneficiary. Further, the distribution of expenditures is highly skewed. More than 13% of Medicare enrollees have no prescription drug expenses in a year, while nearly 24% spend $2,000 or more annually.

This issue culminated recently in the 2000 presidential election. During the primaries, rival Democratic candidates Al Gore and Bill Bradley furiously debated the merits of competing plans for a new elderly drug benefit. These proposals and other plans have been discussed widely, and there have been renewed calls by the George W. Bush Administration and Congress to enact such plan (New York Times, December 31, 2001). To date, no reforms have been implemented, but it still remains a potent issue.

The chief impediment to implementing such a plan is the cost. In this paper, we outline some of the parameters that affect such a calculation, and simulate the cost of providing drug benefits to Medicare

[a]Medicare does cover physician-administered drugs and a small number of self-administered drugs. Examples of Medicare-covered self-administered drugs include blood clotting factors, epoetin alfa for dialysis patients, immunosuppressive drugs after a Medicare-covered transplant, certain oral cancer drugs, and certain oral anti-emetic drugs.

patients under the status quo and three alternative drug plans: (1) a high-deductible catastrophic plan, (2) a zero-deductible plan that does not cap out-of-pocket expenses, and (3) a zero-deductible plan that caps out-of-pocket expenses at $4,000 per year. We also discuss the economic issues that affect the costs of each plan, and the degree to which each plan provides protection against high expenditures.

Background

This paper considers the cost of various alternatives for adding an outpatient drug to Medicare. In so doing, we purposefully ignore the question of whether a drug benefit *should be offered.* This is clearly worth pondering. Proponents—especially in the public health community—argue that these plans will improve the health and wealth of the (poor) elderly. Approximately 6.5 million Medicare beneficiaries are either living in poverty or are near-poor based on federal poverty levels. The poorest of the poor may qualify for protection from high drug expenses through Medicaid, although only 42% of beneficiaries below the federal poverty line have such coverage.[3] These facts, by themselves, do not argue for adding a drug benefit to Medicare. Low-income elderly who do not qualify for Medicaid and lack employer-provided coverage can purchase supplemental policies in the Medigap market, although these plans are expensive and few elderly purchase them.[4] Thus, the implicit argument for adding a drug benefit to Medicare is based on equity. Elderly not eligible for Medicaid must pay all the drug costs of illness themselves—either *ex post* out-of-pocket or *ex ante* through the Medigap premium—whereas those with Medicaid coverage are subsidized.

Some proponents also argue that lack of coverage adversely affects the health of the elderly, presumably generating negative externalities on others who do not want to see them sick and providing a motivation for public coverage. The evidence here is uncertain. Smith and Kirking found little evidence that increased patient cost-sharing for prescription drugs adversely affects patient health.[5] A series of studies by Soumerai and colleagues, however, suggests that inadequate insurance coverage or restrictions that reduce utilization of prescription drugs can adversely affect both physical and mental well-being.[6,7,8] In one of the studies, elderly Medicaid enrollees in New Hampshire purchased significantly fewer

"essential" drugs such as insulin for diabetes, lithium for mental illness, and cardiovascular agents for heart disease after the state Medicaid program restricted coverage to three drugs per month, per enrollee.[7]

Finally, one might consider whether prescription drugs are insurable at all. Many drug purchases—especially those for chronic illness—are predictable events. Unpredictable drug expenditures, such as antibiotics for an ear infection, for treating acute illness probably have higher demand elasticities, thereby increasing the welfare loss from coverage. Both considerations would suggest limited demand for drug coverage. Yet we already noted that virtually all health insurance plans offered by large employers cover outpatient pharmaceuticals. Part of this is surely attributable to the preferential tax treatment of employer-paid premiums, which allows beneficiaries to prepay expenses using tax-free dollars, offsetting much of the moral hazard loss caused by insurance. Such coverage also may be desirable if it covers many illnesses *ex ante*, although the absence of long-term contracts in the private employer market mitigates this as an explanation for widespread coverage in that market. Medicare does provide a long-term contract, making this a stronger motivating factor for coverage than in the private sector. In our analyses, we consider a plan that would solely provide financial protection against the possibility of catastrophic drug expenses and hence is almost certainly warranted from a societal perspective under the dual assumptions that demand is inelastic for large quantities and consumers are credit constrained[b].

The Plans

In our microsimulation model, we consider the status quo and three drug plans: (1) a catastrophic plan modeled on the Medicare Catastrophic Coverage Act, which was passed in 1988 but repealed one year later after higher-income elderly protested new premiums, (2) a zero-deductible plan that does not cap out-of-pocket expenses, and (3) a zero-deductible plan that caps out-of-pocket expenses at $4,000 per year. The zero-deductible plan with no cap on out-of-pocket spending was proposed by the Clinton

[b]Nyman (1999) notes that insurance may provide access to treatments that are otherwise unaffordable because of liquidity constraints.

Administration. The plan would pay half the cost of prescription drugs up to a specified annual cap of $2,000 in 2001, rising to $5,000 by 2008—corresponding to maximum plan payments of $1,000 and $2,500 respectively. Former Vice President Al Gore adopted and later amended this plan by adding a $4,000 limit on out-of-pocket spending. In contrast to these proposals, we estimate the cost of a catastrophic plan, which could serve as a relatively low-cost starting point for providing drug coverage to elderly Americans. All three plans would be included as a voluntary outpatient prescription drug benefit under Medicare, denoted as Medicare Part D (Table 1).

The two zero-deductible plans pay half the cost of prescription drugs up to $2,000. The "Gore" plan adds additional catastrophic protection by capping out-of-pocket expenses at $4,000. Both zero-deductible plans have a monthly premium of $25. Under the catastrophic plan, Medicare beneficiaries pay 100% of the cost of drugs up to a deductible that depends on the beneficiary's income, and beneficiaries are fully covered for drug expenditures above the deductible. The deductible is $1,000 for those with incomes less than 150% of the federal poverty line (FPL); otherwise it is 10% of income up to a maximum of $3,000. The plan has no premium for beneficiaries with household income up to 150% of the FPL; all other beneficiaries pay a $10 monthly premium reflecting 25% of the plan's actuarial value, similar to premiums charged for Part B of Medicare.

We make several other assumptions about the three drug plans. First, the plans are administered by a pharmaceutical benefits management (PBM) program to reduce expenditures. Second, the plans offer subsidies to low-income beneficiaries according to the schedule shown in Table 1. Under the two zero-deductible plans, the subsidies would cover *both* premiums and cost-sharing expenses for low-income beneficiaries (up to 135% of the FPL); under the catastrophic plan, the subsidies would cover premiums only. Premium subsidies are also available to the near-poor (135% to 150% of the FPL). Third, the plans provide subsidies to employers to encourage them to retain employer-sponsored drug coverage for working or retired beneficiaries (henceforth "retirees"). Fourth, to reduce adverse selection, all three plans would require one-time enrollment at age 65 to prevent people from enrolling after they get sick.

Economic Issues

The three drug plans differ along many dimensions. Ultimately, however, their costs depend on three factors: the number of people covered by the benefit, the amount of drugs they purchase, and the prices they pay. More detail is given in the Appendix, but we describe the basic issues below.

Number covered. In making an enrollment decision, beneficiaries must weigh the relative attractiveness of the plan—which depends on the generosity of the proposed benefits and the individuals' anticipated level of drug spending—against the cost of the plan, including premiums and all expected copayments. Both the zero-deductible plans provide first-dollar coverage and subsidize costs for those at or near the poverty line. Thus virtually all low-income beneficiaries and those without existing coverage would enroll in either of these plans.

The decision to enroll in a drug plan depends on the availability and generosity of other coverage. Some individuals purchase supplemental drug coverage because they are in poor health, anticipate high drug expenses, or have a strong desire to avoid out-of-pocket expenses. This causes insurers to raise premiums of their Medigap drug plans, leading to low enrollment. We anticipate that most Medicare beneficiaries with Medigap drug coverage would drop their Medigap coverage and enroll in a Medicare Part D plan. Beneficiaries with employer-provided insurance, by contrast, might prefer to keep their current plans. To encourage employers to continue offering coverage, all three Medicare Part D plans provide subsidies to employers if retirees retain their prescription drug coverage.

Total drug expenditures. It is well established that people with insurance use more of all types of health care services,[9] and prescription drugs are no exception.[5,10,11,12] Economists characterize this response using a "demand elasticity," which gives the percentage change in expenditures associated with a percentage change in price. Evidence on this elasticity comes from the Health Insurance Experiment (HIE), which randomized people to various insurance plans that differed in their copayments and deductibles. The HIE yielded an elasticity of prescription drug expenditures of -0.27 (Table 5.13)[9], implying that a 10% reduction in the price of drugs would increase spending by 2.7%. Lillard et al.[13]

observed a similar response (-0.25) among the elderly.[c] Overall, the literature suggests elasticities range between -0.20 and -0.35.

To estimate a total change in expenditures, one needs the effective price to the plan enrollee. We define this price using the average coinsurance rate, *c*, which represents the proportion of expenses paid by the insured person. For example, if a person had $100 worth of prescription drugs (*E*), and she paid $10 out-of-pocket (*OOP*), then her average coinsurance rate would be 10% (*c=OOP/E*). Since most insurance plans include deductibles and maximum spending limits, the average coinsurance rate varies with the level of drug expenses.

Prices. The proposed drug plans would use pharmaceutical benefit managers (PBMs) to reduce the prices of prescription drug by obtaining discounts from pharmacies and manufacturers, making greater use of low-cost pharmacies such as mail-order outlets, and structuring drug copayments to encourage use of generic and other low-cost alternatives. Empirical estimates of the cost-savings attributable to PBMs vary considerably, but preliminary evidence suggests reduced expenditures of between 15% and 27%.[14,15]

Methods

Our estimates of the cost of prescription drug coverage come from the 1995 Medicare Current Beneficiary Survey (MCBS), a rotating panel survey of about 12,000 aged and disabled beneficiaries. Below we briefly describe our methods.

Number covered. The number covered shown in Table 2 is computed by multiplying the number of people for each type of plan by an assumed take-up rate that depends on their supplemental coverage, if any. Supplemental status is determined based on administrative records (for Medicaid) and self-reports

[c] The estimated elasticity is based on our own calculations, using the demand response shown in Table 4 of Lillard et al (1999) for elderly with Medicare only. Using information from the Medicare Current Beneficiary Survey (MCBS), we assumed the average coinsurance rate for these elderly is 100% without insurance and 45% with insurance. The 45% average coinsurance rate is based on our calculation of observed coinsurance rates (out-of-pocket expenditures divided by total expenditures) for people with private supplemental drug coverage in the 1995 MCBS.

(for private coverage).[d] In cases where beneficiaries report multiple sources of coverage, we assign them to the insurance category that is most likely the primary payer for prescription drugs. For example, if a respondent indicated she had both a privately purchased plan (labeled "Medigap") and a supplemental plan through an employer (labeled "Employer"), then we assign her to one or the other category based on which plan was reported to cover prescription drugs. For the 1.5% of the sample reporting both an employer plan and a Medigap plan covering prescription drugs, the employer-provided coverage is assumed to be primary. When a beneficiary reports both Medicaid and private drug coverage (0.7% of the sample), Medicaid is assumed to be primary.

We assume that all beneficiaries with Medicaid coverage are automatically enrolled in the zero-deductible plans but the catastrophic plan would not be made available to Medicaid patients. We assume everyone with Medigap insurance covering prescription drugs enrolls in any of the Part D plans. In part, this is because the new drug plan may be accompanied by legislation eliminating the Medigap options that include a prescription drug benefit. Even if these Medigap plans are not eliminated legislatively, they would not be subsidized and hence would be at a great disadvantage in the marketplace. The resulting adverse selection would probably lead to a spiral of ever-increasing premiums for these options that would result in their virtual disappearance. Already these plans are a small part of the Medigap market, as Table 2 shows.

We assume that all Medicare beneficiaries with Part B coverage are eligible for all three Part D plans, and 100% of eligibles without self-reported drug coverage enroll. In actuality, take-up rates might be lower, depending on the way plan enrollment is administered. Premiums for Medicare Part B are subsidized and automatically deducted from Social Security benefits, resulting in take-up rates of 96%. We assume the drug plan is administered the same way as Medicare Part B. As such, take-up rates should

[d]Overall, we find that 59% of Part B beneficiaries have drug coverage. This rate increases to 60% if we include all Part A only recipients, since many of these beneficiaries have employer coverage. Estimates adding information from source-of-payment data and excluding nursing home residents yield rates of about 65% [Davis M, Poisal J, Chulis G. Zabrabozo C, Cooper B. Prescription drug coverage, utilization, and spending among Medicare beneficiaries. *Health Aff* 1999;18(1):231-243].

approximate those of Part B. For convenience we assume a 100% take-up rate among those with Part A and B coverage only as well as those with Medigap or employer coverage that does not cover prescription drugs.

The zero-deductible plans offer subsidies to employers equal to 67% of the total premium cost of each plan. These encourage the employers to keep their existing benefits in place. We assume that those with "generous" employer coverage keep their plans, where generous is defined as having an average coinsurance rate less than the corresponding rate for the zero-deductible plan. Under the catastrophic plan, we assume all employers keep their existing plans and receive a smaller subsidy of 33%. This lower subsidy rate reflects our assumption that because this coverage only pays for catastrophic coverage, employers (reflecting employee preferences) are reluctant to drop their current retiree benefits, making a larger subsidy unnecessary. Since the catastrophic plan is less generous than virtually all existing employer plans, the take-up rate among beneficiaries with employer coverage is effectively zero.

Finally, all HMO beneficiaries with drug coverage are assumed to enroll in the Part D plan. Because Part D provides subsidized benefits, HMOs will have a strong incentive to eliminate their drug plans. Otherwise, adverse selection in this market will probably lead to excessive premiums for those HMOs that continue to offer drug coverage, thereby reducing demand for these HMOs even further. In fact, one unintended consequence of both proposals may be to *increase* the financial burden of drug expenses on those in Medicare HMOs, since the benefits for Part D may be less generous than existing HMO coverage in some instances.

Status quo drug expenditures. The MCBS data contain expenditures for prescription drugs in 1995. We have inflated these expenditures to 2001 based on National Health Expenditure projections from the Centers for Medicare and Medicaid Services (CMS) Office of the Actuary. There is some concern, however, about underreporting in the MCBS. The CMS Office of the Actuary compared self-reporting of expenses associated with physician office visits with Medicare claims records, and found underreporting of 33%. This result has led the Congressional Budget Office (CBO) and others to assume drug expenditures are underreported by a similar amount. Drugs are more salient (and regular) than physician office visits, however, and so are less likely to be underreported. Subsequent analyses by CMS staff suggest drug expenses are probably underreported by 10% to 15%. This estimate is based on an examination of records from people who were known to have accurate self-reported data—i.e., people who reported the same patterns of Part A and B utilization as indicated claims records. Using this subsample, CMS developed an imputation scheme for drug expenses. A comparison of imputed expenditures for the entire MCBS sample with actual reported expenditures yields the 10-15% estimate. As such, we assume that total drug expenses are underreported by 15% in all analyses.

Status quo income. We adjust the level of household income in the MCBS to correct for two sources of underreporting. First, the MCBS does not ask about income from sources other than the spouse, and many Medicare beneficiaries live with non-spousal family members such as children who have substantial income. Second, the MCBS asks about all income sources in one question, which tends to lead to underreporting. After comparing income levels in the MCBS to the Current Population Survey (CPS), we inflated self-reported income in the MCBS by 40 percent. This adjustment yields rates of poverty similar to Census estimates. After adjustment, we find nearly 2.9 million older beneficiaries are below the FPL, comparable to Census estimates of 3.3 million.

Plan expenditures. To compute the average coinsurance rate under a Medicare prescription drug benefit, we estimate drug expenditures, Medicare payments, and out-of-pocket spending given the benefit structure of each plan and status quo levels of spending. We then use these estimates to compute the average coinsurance rate by type of supplemental coverage. As shown in Table 3, the average coinsurance

rate ranges from 0.17 for beneficiaries enrolled in Medicaid to 0.79 for enrollees who have Medigap insurance without drug coverage. Not surprisingly, average coinsurance rates exhibit a strong inverse relationship with prescription drug coverage. Medicaid enrollees and beneficiaries with employer-provided insurance covering prescription drugs have higher drug expenditures but lower out-of-pocket costs than those with little or no drug coverage.

Two points should be noted about the calculation of plan expenditures. First, we simplify the analysis of the three plans by assuming demand responds to the average coinsurance rate, rather than the marginal coinsurance rate which can vary from 0% to 100% for each plan depending on spending levels. Keeler, Newhouse, and Phelps provide a full discussion of the implications of this assumption.[16] Results from the Health Insurance Experiment suggest that this simplification has a minor impact on the cost estimates. Second, it is worth noting that average coinsurance rates for beneficiaries with Medicare Parts A & B only or Medigap without drug coverage are less than 100% due to enrollment in HMOs that provide some form of drug coverage.

Once we have estimated the average coinsurance rate under both the status quo (C_0) and the proposed Medicare benefit (C_m), we can compute expenses (E_m) and payments for each individual under the proposed Medicare plan using the following formula,

$$E_m = E_0 * [(1+k)/(1-k)],$$

where $k = \eta * [(C_m - C_o)/ (C_m+C_o)]$, E_0 represents total drug expenditures under the status quo, and η is the price elasticity of demand for prescription drugs. We assume a price elasticity of -0.27 based on prior studies and consider a plausible range of alternative elasticities in sensitivity analysis. Finally, we assume all plans implement a PBM program that reduces prescription drug prices by 15%, a conservative rate based on the literature.

Changes in Medicaid. A Medicare prescription drug program will change the cost-sharing burden between Medicaid and Medicare. Under the status quo, Medicaid pays the drug costs of Medicare beneficiaries jointly enrolled in Medicaid. Under a Medicare drug benefit, by contrast, a portion of the

state's responsibility for Medicaid costs would be shifted to the federal government because of Medicare Part D. This additional expense would be offset to some degree by the share of Part D premiums for dual-eligibles that would be paid by Medicaid at the usual federal/state matching rate. Buy-in by the states for this program would result in an additional $2 billion in federal costs.

Results

Figure 1 shows how the average coinsurance rate varies across plans for a typical Medicare beneficiary with a family income of $20,000 (approximately the median). The average coinsurance rate—calculated as the ratio of out-of-pocket costs to total drug costs—provides a measure of the burden on beneficiaries for financing drug expenses. For the zero-deductible plans, the average coinsurance rate is 50% until the cap on contributions is reached with $2,000 in total expenses (Point A); thereafter, beneficiaries pay 100% of the additional cost up to $5,000 (Point B). At that point, the zero-deductible plan with the $4,000 cap on out-of-pocket expenses covers 100% of the beneficiary's expenses. Thus, the average coinsurance rate starts to decline again for this plan, and it diverges from the zero-deductible plan that does not include a cap on out-of-pocket expenses. It is worth noting that the catastrophic plan provides the most generous coverage for beneficiaries with expenses above $3,000 (Point C).

How many beneficiaries have expenses above these thresholds? The bottom panel of Figure 1 shows how expenditures are distributed under the status quo. Most beneficiaries (76%) spend less than $2,000 annually and hence fall into the range where the zero-deductible plans provide more coverage. This leaves 24% of the population with benefits that decline after this point under these plans. In addition, another 14% have expenses of $3,000 or more where the catastrophic plan is the most generous option. About 5.0% of Medicare beneficiaries have annual drug costs greater than $5,000 and would find the zero-deductible plan without a cap on out-of-pocket expenses more generous than the zero-deductible plan with a cap on out-of-pocket expenses.

Table 4 summarizes overall costs, costs per beneficiary and catastrophic coverage—defined as out-of-pocket expenses above $2,000—for each of the three plans. The catastrophic plan is the least

expensive. It would cost $5.0 billion in 2001, compared with $11-$14 billion for the zero-deductible plans. It provides substantial protection above $3,000 but has higher average out-of-pocket expenses than the zero-deductible plans.

As noted above, our analyses are based on a price elasticity of -0.27. Table 5 shows how the cost estimates would change under elasticity assumptions between -0.20 and -0.35, the range suggested by the literature.

Discussion

The two zero-deductible Medicare drug plans considered in our microsimulation model would cost between $11.6 billion and $13.6 billion in 2001. Under the zero-deductible plan with no cap on out-of-pocket expenses, some beneficiaries would still face potentially catastrophic costs. This is because payments by the plan are limited to $1,000. Increasing this limit to $2,500 as proposed in later years would increase protection against catastrophic costs, but would increase the cost of the plan to $15.4 billion in 2001.

The zero-deductible plan that limits out-of-pocket expenses to $4,000 has the lowest per beneficiary out-of-pocket costs, and provides substantial insurance against expenses above $5,000. However, this plan has the undesirable feature that the burden on beneficiaries increases between $2,000 and $5,000 in expenses. Eliminating this additional burden by allowing 50% coinsurance up to $5,000 would raise the cost of this plan to $16.9 billion in 2001.

The catastrophic drug plan would cost approximately $5.0 billion in 2001. Removing the $10 monthly premium from the catastrophic plan—making it free to everyone—would raise the cost to $7.0 billion. The catastrophic plan would provide substantial protection against very high expenditures as shown in Figure 1, but a substantial fraction of the population would face significant expenses up to $3,000. Low-income beneficiaries are protected under all three plans (maximum $1,000 out-of-pocket expenditures).

Our cost estimates for the zero-deductible plan with no cap on out-of-pocket expenses are slightly lower than those produced by CBO.[17] Most of this difference can be explained by our lower estimate of premium revenue. Using the higher estimates of premium revenue that others have used would lower the total cost of both zero-deductible plans by $2 billion. Simulated expenses for the catastrophic plan assume that beneficiaries with employer-sponsored coverage do not change their coverage. However, enactment of a catastrophic plan could prompt employers to offer wrap-around coverage. If so, many individuals with employer coverage would enroll in the catastrophic plan, raising its cost.

Our findings are based on a static analysis of pharmaceutical prices. If pharmaceutical companies respond to enactment of a Part D plan by increasing the prices of their products, then the cost of the Part D plan would exceed the estimates presented here. We also assume that all HMOs drop their prescription drug coverage in response to Part D. As a consequence, some HMO enrollees might be faced with higher out-of-pocket expenses. A better strategy might be to require HMOs to offer coverage at least as generous as Part D, and then offer them premium subsidies as proposed for employers. More generally, the addition of a Part D benefit will crowd-out some private plans, resulting in less comprehensive coverage for some beneficiaries.

A final point relates to the politics of catastrophic drug coverage. The Medicare Catastrophic Coverage Act of 1988 met intense opposition from upper-income beneficiaries who already had supplemental coverage. These beneficiaries opposed the law because it imposed a surtax on them while providing them little or no benefit. There are two respects in which the catastrophic plan considered here differs from the 1988 Act. First, the 1988 Act covered prescription drugs but was primarily designed to reduce personal expenses resulting from extended hospital stays.[18] The catastrophic plan analyzed here, by contrast, would limit coverage to prescription drugs, so it would cost less than the 1988 Act. Second, the 1988 Act was financed solely by Medicare beneficiaries,[18] whereas the plans considered here could be

financed in large part through general revenues. Presumably, broader dispersion of costs would be more politically palatable.

Conclusion

A Medicare prescription drug plan with no deductible would cost $11-$14 billion per year. However, if the plan does not cap beneficiaries' out-of-pocket expenses, beneficiaries would receive little protection against catastrophic drug expenditures. A catastrophic plan would be relatively inexpensive and could provide this protection. The estimates presented here are for 2001. What is uncertain is how these cost estimates will change over time. Prescription drug expenses have been growing rapidly; the size of the Medicare population is increasing; and enactment of a prescription drug benefit could cause prices to rise. Thus, any prescription drug benefit could become quite costly. A catastrophic plan would be valuable to Medicare beneficiaries who do not now have prescription drug coverage and would be less costly than a zero-deductible plan. From a policy perspective, implementing a catastrophic prescription drug benefit would allow policymakers to gauge future program costs before committing to more comprehensive coverage.

Table 1. Comparison of Features of the Plans

	Zero-deductible with no cap on out-of-pocket expenses	Zero-deductible with $4,000 cap on out-of-pocket expenses	Catastrophic
Premiums	$25/month	$25/month	$10/month
Benefits			
Deductible	$0	$0	$1,000 to $3,000[a]
Coinsurance rate[b]	50%	50%	0%
Max. annual benefit	$1,000	No maximum	No maximum
Subsidies			
Medicaid-eligible	Premiums and copayments paid by Medicaid[c]	Premiums and copayments paid by Medicaid[c]	Status quo
Non-Medicaid eligible with income:			
Below 135% FPL	Medicare pays Part D premium and copayments	Medicare pays Part D premium and copayments	Medicare pays Part D premium
Between 135% and 150% of FPL	Medicare pays part of Part D premium[d]	Medicare pays part of Part D premium[d]	Medicare pays Part D premium
Above 150% of FPL	No subsidies	No subsidies	No subsidies

[a]Deductible is $1,000 for those with incomes less than 150% of the FPL; otherwise it is 10% of income up to a maximum of $3,000.
[b]Percentage paid by beneficiary after deductible has been met.
[c]Medicare shares part of these costs based on federal/state matching rates.
[d]Medicare pays 100% of the premium at 135% of the FPL, phasing-out to zero at 150% FPL.

Table 2. Expected Number of Medicare Beneficiaries Covered by Alternative Plans (thousands of beneficiaries)

Status[¶]	Status Quo (percent)	Zero-deductible with no cap on out-of-pocket expenses	Zero-deductible with $4,000 cap on out-of-pocket expenses	Catastrophic
Without R_x Coverage				
Parts A & B only[*]	4,921 (13)	4,921	4,921	4,921
Medigap	8,238 (22)	8,238	8,238	8,238
Employer-sponsored	2,085 (6)	2,085	2,085	2,085
	15,244 (41)	15,244	15,244	15,244
With R_x Coverage				
Medicaid	5,724 (15)	5,724	5,724	0
Medigap	4,237 (11)	4,237	4,237	4,237
Employer-sponsored[**]	9,555 (26)	1,878	2,375	0
Medicare HMO	2,648 (7)	2,648	2,648	2,648
	22,164 (59)	14,487	14,984	6,885
All beneficiaries	37,408 (100)	29,731	30,228	22,129
Plan coverage rate (%)	n/a	79.5	80.8	59.2

[*]Includes 368,000 HMO beneficiaries enrolled in Medicare HMOs without prescription drug coverage (except those with other sources of drug coverage).

[**]Take-up rate is 0% for plans considered generous—i.e., the average coinsurance rate is below above the average coinsurance rate for the corresponding zero-deductible plan—and 100% for plans not considered generous. Because the average coinsurance rates differ across the zero-deductible plans, the take-up rates also differ.

[¶]Based on self-reported data.

Table 3. Type of Insurance Coverage and Drug Expenditures for Medicare Part B Enrollees

Type of Insurance	Percent with No Annual Drug Expenses	Mean Expenses, Prescription Drugs (2001$)	Mean Out-of-Pocket Expenses, Prescription Drugs (2001$)	Average Coinsurance Rate
Without R_x coverage				
Parts A & B only*	19	1,187	$750	0.67
Medigap	13	1,229	974	0.79
Employer-sponsored	9	1,126	736	0.65
With R_x coverage				
Medicaid	11	1,851	312	0.17
Medigap	14	1,430	761	0.53
Employer-sponsored	11	1,756	499	0.28
Medicare HMO	13	1,070	397	0.38
All types	13	1,459	646	0.44

*Includes approximately 368,000 Medicare HMO recipients without prescription drug coverage.

Table 4. Costs and Benefits Under Alternative Medicare Prescription Drug Plans

	Status Quo	Zero-deductible with no cap on out-of-pocket expenses	Zero-deductible with $4,000 cap on out-of-pocket expenses	Catastrophic
R_x Coverage among Part B recipients				
% with private	45.2	21.5	19.2	25.5
% with public	15.3	79.5	80.8	74.5
% with any	60.5	100.0	100.0	100.0
Total Plan Costs (in millions; 2001 $)				
Medicare payments	n/a	13,542	15,333	6,084
Employer premium subsidies	n/a	891	1,163	956
Medicaid adjustment*	n/a	2,791	2,908	0
Total Federal Outlays		17,224	19,404	7,040
Less: Premium Revenues	n/a	-5,638	-5,772	-2,003
Net Federal Cost		11,586	13,633	5,037
Per Beneficiary Costs (2001 $)				
Total R_x Expenses	$1,459	$1,395	$1,414	$1,344
Out-of-Pocket R_x Expenses	646	459	442	645
Out-of-Pocket Premiums	n/a	164	168	56
Distribution of Out-of-Pocket Drug Expenses				
% Greater than $1,000	20.6	11.8	12.1	21.7
% Greater than $2,000†	8.2	5.3	5.5	6.8
% Greater than $3,000†	3.6	2.5	2.7	0.6
% Greater than $5,000†	0.8	0.7	0.0	0.2

*Increase in the Federal costs for providing Medicaid Rx coverage for existing Medicaid beneficiaries.
†Includes expenses incurred by beneficiaries with supplemental drug coverage from employers rather than the catastrophic plan. More beneficiaries have catastrophic expenses between $1,000 and $5,000 under the zero-deductible plan with a cap on out-of-pocket expenses because of a slightly larger overall demand response (cf. Figure 1).

Table 5. Cost of Medicare Part D Benefit in 2001 Under Varying Assumptions Regarding the Elasticity of Demand for Drugs ($ Billion)

	Elasticity		
	-0.20	-0.27	-0.35
Catastrophic	5.2	5.0	4.8
Zero-deductible with no cap on out-of-pocket expenses	11.4	11.6	11.9
Zero-deductible with $4,000 cap on out-of-pocket expenses	13.2	13.6	14.2

Note: Unlike the other plans, costs for the catastrophic plan decrease as demand becomes more elastic because the proposal would move many people to *less* generous plans. With a higher elasticity, their costs then become even lower.

Fig 1a—Average coinsurance rate across Part D plans (for a beneficiary with a family income of $20,000)

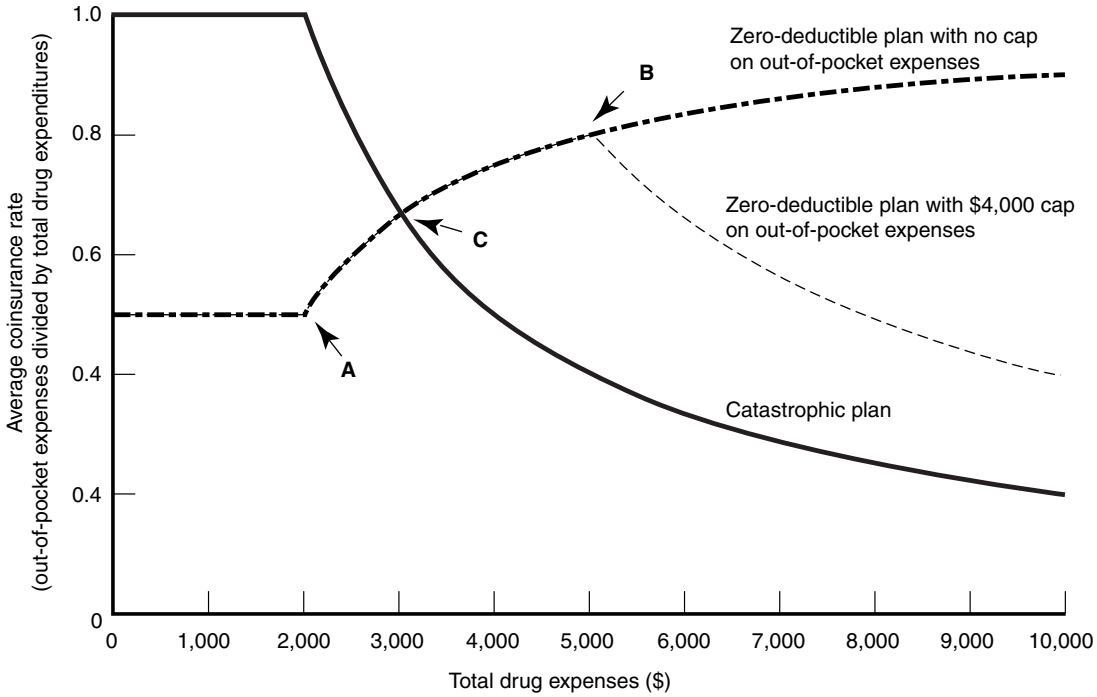
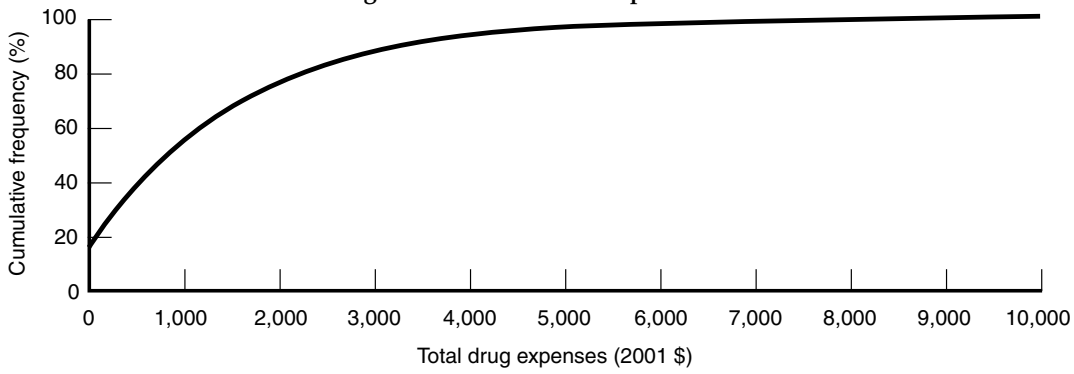


Fig 1b—Distribution of expenses



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