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Prescription drugs and the elderly: issues and options
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Prologue: As a population cohort, the elderly are more dependent upon prescription drugs than any other group. Yet Medicare, the federally operated Health insurance program for the elderly and disabled, stands alone among major carriers in omitting outpatient drugs born its covered benefits. In this paper Steve Long, a senior economist at RAND, examines the elderly's need for prescription drug insurance, the extent and depth of current coverage supplementary to Medicare, the characteristics of those who have such coverage and those who do not, and the problem of adverse selection in individual insurance for drugs. He also outlines options for providing broader drug coverage to the elderly. Long, who holds a doctorate in economics from the University of Wisconsin-Madison, worked previously at the Congressional Budget Office, where he supervised the agency's Health and income security-related work. Much of his current research focuses on health care for people with low incomes. Long's major, though brief, involvement in charting federal prescription drug policy occurred in 1989, when he served as executive director of the Prescription Drug Payment Review Commission. Congress created this commission when it enacted the Medicare Catastrophic Coverage Act of 1988. The commission never became fully operational because Congress, in response to the outcries of affluent elderly people who already enjoyed drug coverage through supplementary insurance policies, repealed the law before its implementation. There is no question that many elderly persons need prescription drugs, but the overriding issue is how to finance their purchase. The top 11 percent of elderly, whose spending on prescription drugs averaged in excess of $100 per month in 1991 dollars, account for nearly half of spending. Despite these risks, 45 percent of the elderly had no insurance for prescription drugs in 1991.
Abstract: This paper examines the elderly's need for prescription drug insurance, the extent and depth of current coverage supplementary to Medicare, the characteristics of those who have coverage and those who do not, and the problem of adverse selection in individual insurance for prescription drugs. It also discusses the issues that must be resolved in choosing the direction public policy should take if more of the elderly are to be covered and examines the advantages and disadvantages of four illustrative public policy options, ranging from small expansions of Medicaid benefits through "Medigap" regulation to Medicare coverage for all elderly.

Prescription drugs are an important part of health care spending by the elderly. About 85 percent of the elderly use at least one prescription medicine during the year. The per capita spending for prescription drugs by seniors was estimated to be nearly $500 in 1991, while spending by the cop 11 percent exceeded $1,200 per person, or $100 per month. Recently, prescription drug spending has increased at an annual rate of more than 11 percent—a rate of increase similar to that of other health spending but much higher than the rate of increase in most people's incomes.

Spending for prescription drugs is not always covered by the health insurance policies held by the elderly; in fact, estimates developed for this paper suggest that about 45 percent of the elderly have no insurance for prescription drugs. Medicare, the primary source of health insurance for the elderly, does not cover prescription drugs; therefore, any drug coverage must come through a source supplementary to Medicare.

Interest in covering prescription drugs for the elderly began with the debate over Medicare itself, but because of concern about the cost, the result was merely a commission to study the issue in the late 1960s. There was renewed interest at the time of the 1972 Social Security Act amendments, but again no legislation resulted. For the rest of the 1970s interest in prescription drug coverage shifted to the place of drugs in a possible national health insurance benefit package. The Medicare Catastrophic Coverage Act of 1988 included a limited prescription drug benefit, but the act was repealed before it could be implemented. Most recently, President Bill Clinton's plan for national health reform proposed a prescription drug benefit for the elderly enrolled in Medicare Part B.

With this brief history of recurrent interest in prescription drug benefits for the elderly as a backdrop, this study has several specific purposes: (1) to examine the data on prescription drug spending by the elderly—specifically, to evaluate whether or not there is sufficient risk of high out-of-pocket expenses that might cause the elderly to seek insurance for prescription drugs; (2) to review the elderly's current insurance coverage for prescription drugs—that is, to evaluate how well the combination of private insurance and public assistance meets the need for coverage; and (3) if there are gaps, to explore some options for public policy, ranging from incremental to comprehensive.
Prescription Drug Spending By The Elderly

According to the National Health Accounts compiled by the Health Care Financing Administration (HCFA), Americans spent $36 billion on prescription drugs in 1991. Of this total, 55 percent was direct “out-of-pocket” spending by patients, and 45 percent was paid by third parties (including twenty-five percentage points by private insurance and seventeen percentage points by Medicaid). This significant role of third-party payment for drugs is relatively recent. In 1960 third parties paid only 4 percent of drug costs.

Of the $36 billion spent in 1991, the elderly account for about $12.7 billion to $14.3 billion, or $425-$475 per person. The distribution of this spending, however, is very uneven. Earlier research placed the estimated spending distribution for all Medicare enrollees, about 90 percent of whom are elderly, around a mean of $483. Eighteen percent of enrollees reported no spending in the year. More than half of enrollees (54 percent) spent less than $300, accounting for only 9 percent of total spending, and the 73 percent with the lowest spending accounted for only 26 percent of the total. On the other hand, the top 11 percent who spent $1,200 or more accounted for nearly half (45 percent) of the total spending of the group.

This skewed distribution of spending toward a low probability of a large loss is certainly a necessary condition for making an insurance market. It allows people to pool their funds to face a low average outlay, with certainty, rather than risking a very high cost should they become ill. Their losses also must be unexpected, however, for a voluntary insurance market to work. Otherwise, those expecting high costs will “select against”—that is, enroll in the insurance pool, driving up its cost. But this will lead to instability in the pool, as lesser risks no longer find the pool a “good buy.” The condition that losses be unexpected may not be satisfied in the case of prescription drugs, because many elderly persons have chronic illnesses that require continuing medication. The greater the mix of costs from chronic, foreseen illness versus acute or unexpected illness, the greater will be the adverse selection against the insurance plan and the less likely that a market can continue to provide coverage.

Experience With Prescription Drug Insurance

Current coverage sources. Based on estimates from the 1991 Medicare Current Beneficiary Survey (CBS), only 11 percent of seniors depend on Medicare alone to cover them against health care expenses (Exhibit 1); 12 percent are enrolled in Medicaid. The rest have some form of private insurance coverage, about evenly divided between employer-sponsored and
### Exhibit 1

**Supplementary Insurance And Prescription Drug Coverage Of Medicare Elderly, 1991**

<table>
<thead>
<tr>
<th>Type of supplementary insurance</th>
<th>Elderly insured for prescription drugs</th>
<th>Elderly insured for prescription drugs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All elderly (Millions)</td>
<td>Percent</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>All Medicare elderly</td>
<td>29.9</td>
<td>100%</td>
</tr>
<tr>
<td>Medicate only</td>
<td>3.3</td>
<td>11%</td>
</tr>
<tr>
<td>Medicaid</td>
<td>3.5</td>
<td>12%</td>
</tr>
<tr>
<td>Employer-sponsored</td>
<td>12.0</td>
<td>40%</td>
</tr>
<tr>
<td>Individually purchased</td>
<td>11.1</td>
<td>37%</td>
</tr>
</tbody>
</table>

**Sources:** Author’s estimates based on G.S. Chulis et al., “Health Insurance and the Elderly,” Health Affairs (Spring 1993): 111-118, for percentage of elderly by type of supplementary insurance; tabulations from the 1987 National Medical Expenditure Survey for drug coverage rates by type of supplementary insurance; House Committee on Ways and Means, Overview of Entitlement Programs, 1992 Green Book (Washington; U.S. GPO, 15 May 1992), for total number of Medicare elderly Part B enrollees in 1991; and HCFA Form 2082 data for Medicaid.

**Notes:** Detail may not sum to totals because of rounding. Medicaid includes qualified Medicare beneficiaries (QMBs). Roughly 5 percent of the elderly who have both employer-sponsored and individual policies were classified in the former category. CHAMPUS and military retiree coverage is classified as employer-sponsored.

Individually purchased plans. Of this latter source, most were “Medigap” plans. Drawing on additional data, principally from the 1987 National Medical Expenditure Survey (NMES), we estimate that 54 percent of the Medicare elderly have some form of coverage for prescription drug expenses. The actual figure could be higher, since none of the available surveys inquires about state pharmaceutical assistance programs for the elderly as a source of supplementary coverage.\(^7\)

Unless they are covered by this special-purpose source, the 3.3 million elderly in the Medicare-only group are unlikely to be covered for drugs. In contrast, nearly all of the Medicaid elderly have first-dollar, generally unlimited coverage for prescription drugs, paying at most a nominal copayment for each prescription. The exception to this rule is a relatively new category of Medicaid recipients termed **qualified Medicare beneficiaries** (QMBs). Although states may offer a broader benefit package, the federal requirement is that by 1992 all elderly with incomes below the federal poverty line who are not already on Medicaid receive a “buy-in” to Medicare, and that their Medicare deductibles and coinsurance be paid by Medicaid.\(^8\) That is, QMBs are assured enrollment in Medicare and an equivalent to a Medigap policy—but for Medicare-covered services only, not prescription drugs. We estimate that perhaps 2.9 million of the 3.5 million Medicare/Medicaid elderly are covered for prescription drugs.\(^9\)

The two kinds of private insurance have very different likelihoods of covering any prescription drug spending. Tabulations of the Health Insurance Plans Survey (HIPS) of the 1987 NMES suggest that 92 percent of...
those holding employer-sponsored plans are covered for prescription drugs. Based on this proportion, we estimate that 11.1 million Medicare elderly are covered for drugs by this source.\textsuperscript{10} This high proportion is consistent with benefits data for plans covering active workers. In most cases, retiree benefits are the same as those for active workers, except that when the retiree is age sixty-five or older, Medicare is deemed the primary payer and the employer plan is the secondary payer. Because Medicare does not cover drugs, the employer plan is the \textit{de facto} primary payer for this service. Generally, these plans include drugs with hospital and physician services when determining whether or not deductibles have been met and out-of-pocket limits have been exceeded. Indemnity plans tend to use the same coinsurance rate for drugs as they do for physician services—generally 20 percent. After meeting a deductible for combined services, commonly $250, coinsurance is 20 percent up to an annual out-of-pocket maximum (also for combined services), after which coverage is essentially unlimited.

In contrast, individually purchased supplementary coverage generally does not cover prescription drugs. Tabulations of the NMES Medigap plans reveal that only 19 percent of policyholders were covered for any drug costs in 1987. Therefore, we estimate that only another 2.1 million Medicare elderly are covered for prescription drugs through this source.\textsuperscript{11} When they do cover prescription drugs, Medigap plans generally have deductibles, coinsurance rates, and benefit limits that are applied separately to drugs.

**Characteristics of the covered and the uncovered.** The characteristics of the elderly who have some insurance coverage for prescription drugs differ from those who do not. Exhibit 2 summarizes these differences between the “haves” and the “have-nots.”\textsuperscript{12} Comparing the percentage covered in each subgroup with the overall average of 54 percent, the haves are the younger elderly, those with more education, and those whose family incomes are above 200 percent of poverty.\textsuperscript{13} These findings reflect the fact that two-thirds of the elderly who are covered for drugs receive their coverage through employer-sponsored plans. The relatively higher coverage rate for those with family incomes below poverty, compared with those with incomes between poverty and twice poverty, reflects the impact of Medicaid coverage in the lowest-income group. The absence of a large difference by race results from the offsetting influences of Medicaid, which is the primary source of coverage for blacks, and employer-sponsored coverage, which accounts for most of the coverage for whites.

**Depth of coverage.** We investigated the depth of prescription drug coverage offered by Medigap products sold prior to standardization and by the new policy options under the national Medigap reforms legislated in 1990. Thomas Rice and Kathleen Thomas surveyed the largest commercial Medigap insurers and ten major Blue Cross/Blue Shield plans to ascertain
Exhibit 2
Characteristics Of The Medicare Elderly With And Without Prescription Drug Coverage, 1991

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>All Medicare elderly (millions)</th>
<th>Prescription drug coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All</td>
<td>Yes</td>
</tr>
<tr>
<td>Age</td>
<td>29.9</td>
<td>54%</td>
</tr>
<tr>
<td>65–69</td>
<td>10.2</td>
<td>59</td>
</tr>
<tr>
<td>70–74</td>
<td>8.1</td>
<td>54</td>
</tr>
<tr>
<td>75–80</td>
<td>6.9</td>
<td>51</td>
</tr>
<tr>
<td>81 and older</td>
<td>4.8</td>
<td>46</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>12.3</td>
<td>60</td>
</tr>
<tr>
<td>Female</td>
<td>17.6</td>
<td>48</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>2.4</td>
<td>58</td>
</tr>
<tr>
<td>White</td>
<td>26.6</td>
<td>53</td>
</tr>
<tr>
<td>Other</td>
<td>0.9</td>
<td>57</td>
</tr>
<tr>
<td>Years of education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 or fewer</td>
<td>9.6</td>
<td>48</td>
</tr>
<tr>
<td>9–12</td>
<td>14.4</td>
<td>55</td>
</tr>
<tr>
<td>13 or more</td>
<td>6.0</td>
<td>60</td>
</tr>
<tr>
<td>Family income relative to poverty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100 percent or less</td>
<td>3.6</td>
<td>51</td>
</tr>
<tr>
<td>100–125 percent</td>
<td>2.4</td>
<td>36</td>
</tr>
<tr>
<td>125–200 percent</td>
<td>6.0</td>
<td>41</td>
</tr>
<tr>
<td>200–400 percent</td>
<td>10.5</td>
<td>56</td>
</tr>
<tr>
<td>400 percent or more</td>
<td>7.5</td>
<td>67</td>
</tr>
</tbody>
</table>

Source: Author’s estimates based on Exhibit 1 and on tabulations from the 1987 National Medical Expenditure Survey. Estimates from this latter source are based primarily on the subset of the sample who owned policies that were identified and coded in the Health Insurance Plans Survey. For employer-sponsored insurance this was about 700 of the 1,800 respondents covered by this source. For individually purchased plans this was about 1,400 of the 2,400 respondents covered by this source. The full sample of elderly included about 5,300 respondents.

Note: Detail may not sum to totals because of rounding.

After the authors' raw data were acquired, the detailed provisions of the prescription drug coverage for the eight policies that included drug benefits were coded. The two other plans reflect the provisions of the National Association of Insurance Commissioners (NAIC) model plans under the 1990 reforms that cover drugs.

Drug coverage combines three essential variables: (1) the deductible (the amount of out-of-pocket expense that the insured person must incur before the plan begins paying benefits); (2) the coinsurance rate (the percentage of each dollar spent on covered services above the deductible that the insured person must pay); and (3) the maximum covered benefit (the maximum total outlay the insurer will make on the drug benefit per year). In all but one of the Medigap plans examined, these provisions were applied...
to prescription drug spending separately from any other covered services. Thus, for the same nominal deductible, the Medigap policy is less likely to pay any benefits than an employer-sponsored plan with a combined deductible for all covered services.

To better understand the depth of drug coverage, we simulated the experience of the elderly responding to the 1987 NMES for each of the ten policies in 1990 dollars. If all elderly are included, many aspects of actual insurance markets are ignored, including individuals' decisions about whether or not to enroll and insurers' underwriting practices such as limitations on preexisting conditions. This assumption has the analytic purpose of enabling the effects of plan provisions on covered benefits to be compared, holding the characteristics of the insured group constant. However, the resulting estimates should not be taken as predictions of spending when such plans are offered in actual markets.

The simulations also assume that there would be no change in the distribution of spending for drugs as a result of the change in drug insurance coverage. There is little literature on which to base an appropriate assumption about the effect of insurance on prescription drug spending by the elderly. What is known often is based on cases in which insurance coverage varies for prescription drugs, physician services, and inpatient hospital services simultaneously. Because the elderly already have considerable insurance coverage for inpatient hospital and physician services, the “insurance effect” of drug coverage for them is likely to be less than the effect of expanding coverage for all services. Thus, in the absence of good parameters for it, the simulations ignore any insurance effect.

Exhibit 3 shows the average amount covered and out-of-pocket spending in 1990 dollars under each plan for all elderly. The labels on the vertical axis show the provisions of the policies that were simulated. (Two of the ten plans had identical provisions, so nine combinations are shown.) For example, the first plan has no deductible, a 20 percent coinsurance rate, and no maximum covered benefit. The mean spending was $410. The most generous plan would have covered exactly 80 percent of each senior’s spending, or $328 on average. In contrast, the least generous plans, including the two NAIC models (the bottom two bars), would have covered $125 to $127, or about 30 percent of the average senior’s drug spending. Although these calculations show the average effect under the plans, the insurance payment for any person depends on the particular spending level.

Exhibit 4 shows the variation in coverage at ascending levels of spending. The average amount covered and average out-of-pocket amount are listed for each subset of the elderly by spending level. At low levels of spending, the plans with low or no deductibles are the only ones to pay benefits. At spending levels around the mean, the relative generosity of the
plans looks similar to the overall results in Exhibit 3. At high spending levels, the plans offering the most coverage are those with low coinsurance rates and no limits. Only at the very highest levels of spending do the postreform NAIC model products offer more coverage than even the most limited of the Medigap products they are to have replaced. Even for this group they would cover only about $750 to $775, or about 43 percent of the $1,800 spent by the average member of this group. More than $1,000 would be paid out of pocket.

Of course, the above discussion is limited to a comparison of covered benefits. Full consideration of which product is best for an individual purchaser depends on weighing the benefits against the premium cost, as well as deciding how much risk of unexpected spending to avoid. If purchased by all (or a representative cross-section) of the elderly, the actuarially fair premium exclusive of administrative costs for each plan is equivalent to the mean amount covered for the group, which is shown in Exhibit 3. The NAIC options would each entail an annual premium of about $125. In contrast, the premiums for the former Medigap options would average about $200, ranging from $112 for the “$100/50%/$300” option to $328 for the “$0/20%/none” option. Premiums for six of these seven Medigap options would be about $125.
Exhibit 4
Prescription Drug Coverage Under Alternative Medigap Plans, 1990

<table>
<thead>
<tr>
<th>Medigap drug coverage provisions*</th>
<th>$1–$99</th>
<th>$100–$199</th>
<th>$200–$399</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Amount covered</td>
<td>Out of pocket</td>
<td>Amount covered</td>
</tr>
<tr>
<td>$0/20% / none</td>
<td>$38</td>
<td>$10</td>
<td>$117</td>
</tr>
<tr>
<td>$100/20% / none</td>
<td>0</td>
<td>48</td>
<td>37</td>
</tr>
<tr>
<td>$200/20% / none</td>
<td>0</td>
<td>48</td>
<td>0</td>
</tr>
<tr>
<td>$0/50% / $500</td>
<td>24</td>
<td>24</td>
<td>73</td>
</tr>
<tr>
<td>$0/50% / $300</td>
<td>24</td>
<td>42</td>
<td>73</td>
</tr>
<tr>
<td>$50/50% / $500</td>
<td>6</td>
<td>42</td>
<td>48</td>
</tr>
<tr>
<td>$100/50% / $300</td>
<td>0</td>
<td>48</td>
<td>23</td>
</tr>
<tr>
<td>$250/50% / $3,000</td>
<td>0</td>
<td>48</td>
<td>0</td>
</tr>
<tr>
<td>$250/50% / $1,250</td>
<td>0</td>
<td>48</td>
<td>0</td>
</tr>
<tr>
<td>$400–$799</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Amount covered</td>
<td>Out of pocket</td>
<td>Amount covered</td>
</tr>
<tr>
<td>$0/20% / none</td>
<td>$459</td>
<td>$115</td>
<td>$786</td>
</tr>
<tr>
<td>$100/20% / none</td>
<td>379</td>
<td>195</td>
<td>701</td>
</tr>
<tr>
<td>$200/20% / none</td>
<td>299</td>
<td>275</td>
<td>621</td>
</tr>
<tr>
<td>$0/50% / $500</td>
<td>287</td>
<td>287</td>
<td>469</td>
</tr>
<tr>
<td>$0/50% / $300</td>
<td>268</td>
<td>306</td>
<td>300</td>
</tr>
<tr>
<td>$50/50% / $500</td>
<td>262</td>
<td>312</td>
<td>452</td>
</tr>
<tr>
<td>$100/50% / $300</td>
<td>233</td>
<td>342</td>
<td>300</td>
</tr>
<tr>
<td>$250/50% / $3,000</td>
<td>162</td>
<td>412</td>
<td>363</td>
</tr>
<tr>
<td>$250/50% / $1,250</td>
<td>162</td>
<td>412</td>
<td>363</td>
</tr>
</tbody>
</table>

Source: Author’s simulations using 1987 National Medical Expenditure Survey and based on policy provisions from T. Rice and K. Thomas, “Evaluating the New Medigap Standardization Regulations,” Health Affairs (Spring 1992): 194-207; and the National Association of Insurance Commissioners.

* A policy is described by its deductible, its coinsurance rate, and its maximum covered expense, respectively. The policies are ordered from most generous to least generous coverage, first by coinsurance rate, next by deductible, and finally by maximum covered expense.

tions would exceed the NAIC premium. Therefore, although the NAIC options provide less-generous coverage than those they replace, they should also be less expensive. The NAIC options would be preferred by seniors who are willing to “self-insure” for all but the risk of very high spending. For example, the NAIC options pay covered benefits at or above those of the lower-price Medigap products when spending levels reach above $800, or for the highest-spending 17 percent of the elderly.

Adverse selection in the Medigap market? To test the hypothesis that there is adverse selection against the prescription drug benefit in Medigap plans, the 1987 NMES data were used to estimate an econometric model of insurance coverage and drug spending. The behavior of four groups of elderly Medicare enrollees was compared: those having Medigap supple-
ments, with and without drug coverage, and those having employer-sponsored coverage, with and without drug coverage.

Prescription drug spending by the Medigap group with drug coverage might be expected to exceed that of the Medigap group without drug coverage for two reasons. First, the adverse selection hypothesis suggests that Medigap purchasers who expect high drug expenses will be more likely to purchase policies with drug coverage than purchasers who do not expect high drug expenses. But second, many would expect that even similarly situated people would spend more on drugs once they had drug coverage (the “insurance effect” hypothesis). To distinguish between these hypotheses, we also examined the behavior of those with employer-sponsored coverage. In this instance, the likelihood of selection into a particular retiree group based on prior employment because of anticipated drug spending during the retirement years seems remote. Therefore, the comparison of drug spending between the two employer-sponsored groups—those with and without drug coverage—should largely reflect the insurance effect.

The results of the analysis in Exhibit 5 confirm the expected finding of annual drug spending being higher for those who have Medigap drug coverage ($353) than for those who do not ($273) (29 percent higher). However, the raw data for the employer-sponsored groups are not consis-

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### Exhibit 5
Spending By The Elderly For Prescription Drugs Under Various Supplementary Insurance Arrangements, 1987

<table>
<thead>
<tr>
<th></th>
<th>Medigap</th>
<th></th>
<th>Employer-sponsored</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No drug coverage</td>
<td>Drug coverage</td>
<td>No drug coverage</td>
<td>Drug coverage</td>
</tr>
<tr>
<td>Probability of any spending</td>
<td>0.86</td>
<td>0.87</td>
<td>0.86</td>
<td>0.81</td>
</tr>
<tr>
<td>Amount of spending for spenders</td>
<td>$317</td>
<td>$406</td>
<td>$413</td>
<td>$336</td>
</tr>
<tr>
<td>Average spending per person</td>
<td>$273</td>
<td>$353</td>
<td>$355</td>
<td>$272</td>
</tr>
<tr>
<td>Percent of Medigap/no drug coverage average spending</td>
<td>100%</td>
<td>129%</td>
<td>130%</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Medigap</th>
<th></th>
<th>Employer-sponsored</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No drug coverage</td>
<td>Drug coverage</td>
<td>No drug coverage</td>
<td>Drug coverage</td>
</tr>
<tr>
<td>Probability of any spending</td>
<td>0.85</td>
<td>0.85</td>
<td>0.85</td>
<td>0.84</td>
</tr>
<tr>
<td>Amount of spending for spenders</td>
<td>$327</td>
<td>$412</td>
<td>$383</td>
<td>$376</td>
</tr>
<tr>
<td>Average spending per person</td>
<td>$278</td>
<td>$351</td>
<td>$326</td>
<td>$316</td>
</tr>
<tr>
<td>Percent of Medigap/no drug coverage average spending</td>
<td>100%</td>
<td>126%</td>
<td>117%</td>
<td>114%</td>
</tr>
</tbody>
</table>

Source: Author’s estimates based on 1987 National Medical Expenditure Survey.
Note: Adjusted means are predicted values for each insurance group, holding age, sex, race, family income, education, region, and metropolitan residence constant at the sample means (see text for details). Differences in probability of any spending between other three coverage groups and “Medigap/no drug coverage” group are not statistically significant. Differences between amount of spending by spenders for Medigap/drug coverage group and the employer-sponsored/drug coverage group, and that of the Medigap/no drug coverage group are statistically significant at the 99 percent and 95 percent levels of confidence, for a one-tailed test, respectively.
tent with expectations. The spending of those with drug coverage ($272) is 23 percent below that of those with no drug coverage ($355). In fact, the employer-sponsored group with drug coverage spends almost exactly the amount spent by the Medigap group without drug coverage! These raw means must be affected by differences in the underlying demographic characteristics of the respective groups. For example, the employer-sponsored group is considerably younger than the Medigap group, which is consistent with a lower spending level.\textsuperscript{18}

We then adjust the raw means for demographic characteristics, income, education, and residence by presenting predicted values from multivariate regression analyses of spending, holding these characteristics at their mean values for the pooled sample of Medicare elderly who have supplementary coverage through either Medigap or employer-sponsored plans. Here the spending results for the two Medigap groups again are consistent with both the adverse selection and the insurance effect hypotheses, showing a total increase in spending of 26 percent ($351 versus $278) for those covered for prescription drugs. Comparing the drug spending of the two employer-sponsored groups suggests that there is no insurance effect from the drug coverage—in fact, the predicted spending for the covered group is slightly lower, although it is not significantly different from that of the uncovered group. By this reasoning, the 26 percent higher drug spending for the Medigap group with drug coverage is entirely due to adverse selection.\textsuperscript{19}

This evidence supporting the presence of adverse selection in the Medigap market for prescription drug coverage calls into question the ability of insurers to set a stable price in the market without also using restrictive underwriting practices. It also implies a lower likelihood that affordable insurance can be provided to those with smaller expected claims costs.

### Public Policy Options

**Issues.** If prescription drug coverage for the elderly were to be extended, several issues would need to be resolved. First, who should be covered? Some people feel that the current mix of Medicaid and other public assistance programs for low-income elderly and private employer-sponsored and individually purchased products for the rest is sufficient. Other people feel that the high cost of prescription drug coverage is beyond the reach of many elderly with incomes well above Medicaid levels. They would find ways to extend eligibility for free or subsidized insurance through Medicaid or other government programs. Still other people feel that the only way to assure that all of the elderly have the insurance they need is to provide for universal coverage through Medicare.

There is also disagreement over what should be covered. Although it is
generally agreed that coverage for the low-income elderly must be comprehensive, coverage for others could be either comprehensive or limited to catastrophic expenses. Those who favor comprehensive coverage want to assure financial access to all medicines. Those who favor catastrophic coverage argue that limiting coverage would encourage cost-conscious consumption while providing the benefits of insuring against the largest losses.

Yet another issue to be resolved is whose responsibility it is to provide coverage. Some people favor placing responsibility on individuals operating in the private market. They point out that recent Medigap reforms should be given a chance to be implemented and their effects evaluated. Other people argue that the Medigap market has failed and that retiree health insurance has an uncertain future in the face of recent changes in accounting practices. This reasoning suggests that it is government's responsibility to assure access to prescription drug insurance for the elderly.

Who then should pay for prescription drug coverage? Many a meeting on health policy is yet brought to a pause by the call to “remember the lesson of the Medicare Catastrophic Coverage Act.” One lesson clearly pertains to the difficulty of financing coverage expansions that will benefit only some people, while using taxes that would be paid by all Medicare enrollees. Many people who now have coverage for prescription drugs are reluctant to depart from premium-financed approaches that would closely match incremental contributions to incremental benefits. On the other hand, many of those without coverage do not have the means to pay for its full cost. This argues for broad-based taxes levied on those who are able to pay, regardless of their current benefits.

The final issue concerns how to control costs. Those who favor no or limited expansion in coverage would rely on market forces to constrain the growth in prescription prices and use. Under this view, individual consumers—whether paying out of pocket or covered by Medigap plans with high cost sharing—have strong economic incentives to be cost-conscious. On the other hand, those who favor an expanded role for government see it as an opportunity either to regulate or at least to negotiate drug prices. Under this perspective, the problem with decentralized market mechanisms is that individual consumers lack the information to evaluate cost/quality trade-offs, and their health plans acting independently lack the market power to bargain effectively with drug companies.

Options. Here I suggest four illustrative public policy options for extending prescription drug coverage to more of the elderly and analyze their advantages and disadvantages in the context of the above issues.

Require prescription drug coverage for qualified Medicare beneficiaries. One incremental change to extend drug coverage to more of the elderly would be to amend the required benefits under the QMB provisions to
include prescription drugs. The data on QMBs enrolled so far are weak. Medicaid program data for 1991 suggest that about 600,000 were enrolled. As of October 1992 Medicare reported that 1.3 million QMBs participated in Medicare Part B.\textsuperscript{20} If the latter figure is correct and assuming average costs for noninstitutionalized Medicare enrollees with Medicaid coverage, this option would cost roughly $600 million (1991 dollars). However, its cost could rise quickly over time, both as a greater proportion of the eligible QMBs is enrolled and as drug spending per person rises.

Among the advantages of this option is that it could provide protection against drug costs that would be carefully targeted toward some of the neediest elderly, about half of whom are not currently covered for prescription costs (Exhibit 2). This option would be financed under the existing federal/state matching formula for Medicaid. It would be easy to administer because there is already an eligibility process in place for enrolling QMBs. In addition, the states already operate Medicaid prescription drug programs, so the infrastructure of enrolling qualified providers, paying claims, and performing utilization reviews is also established.

There are disadvantages, however. Many elderly with incomes above the poverty line are also at risk for high drug spending. The additional financing burdens for the federal and state governments would come at a time when general revenues are hard to come by and entitlement programs are already under fire. Moreover, considerable bitterness remains between Congress and the states over federally mandated Medicaid expansions. In fact, some observers are concerned that the states have been slow to enroll QMBs. Finally, this option would not contribute to systemwide prescription drug cost containment in any fashion, although it would enable drug spending on behalf of the QMBs to enjoy the benefit of any savings provided under the recently legislated Medicaid rebate program.

**Encourage state pharmaceutical assistance programs.** An alternative approach to extending drug coverage to more of the elderly would be to offer federal matching grants to encourage more states to develop pharmaceutical assistance programs for low-income elderly not qualifying for Medicaid. Nine states operated such programs in 1988, serving as much as 25 percent of their elderly population, for a nationwide total of nearly one million people covered.\textsuperscript{21} Taken together, these states accounted for about one-quarter of the nation’s elderly population. Although there may have been expansions to other states since that date, there remains plenty of room for further expansion of the concept. The majority of these programs were financed by state general revenues, with others using state lottery or casino gambling taxes as earmarked financing sources. Almost all of the current programs are in higher-income New England or mid-Atlantic states, but other states are considering such programs. An important issue would be
how to design the sharing formula to stimulate new entrants, while subsidizing the existing programs as little as possible.

The advantages of this option are that, like the drug coverage for QMBs, it could be targeted toward the lowest-income elderly. In contrast to the QMB option, this one could be designed with greater state discretion over eligibility rules and could be taken up voluntarily by those states that wish to do so. Also, like the QMB option, this would be relatively easy to administer because the states already have experience in provider enrollment and prescription drug claims processing through Medicaid. On the other hand, both the federal government and any additional states would have to find the revenue sources to support this new program. There is certainly the potential to cover several million additional elderly through this mechanism. But if much of the federal money went to support those states that already do this willingly on their own, national taxpayers would get little payoff. Moreover, even in new state programs, there will be issues related to target effectiveness, because some of those who enroll would have had private coverage otherwise.

Require all Medigap policies to cover prescription drugs. If Congress required all individual Medigap policies to include a prescription drug benefit up to a minimum standard, it could affect nearly nine million elderly who have individually purchased policies subject to Medigap regulations but not now covering drugs (see Exhibit 1). There are several salient advantages to this approach. Foremost is that it eliminates the possibility of adverse selection in the individual insurance market, thereby assuring access to a stable, fairly priced drug benefit. Second, government can implement this option without additional spending. Finally, this approach places the costs of expansion on those who benefit—politically expedient feature.

A significant disadvantage of this option, taken alone, is that it does not cover the 11 percent of the elderly with no supplementary coverage. Moreover, the higher premiums for drug coverage could be beyond the means of many low-income seniors who purchase Medigap protection. In addition, many other seniors, especially those with low expected drug spending, could object to seeing their Medigap premiums go up a few hundred dollars because of government regulation. Because it would use decentralized purchasing, there would be no particular contribution to systemwide cost containment. In fact, the near-universality of prescription drug coverage could change physician behavior toward a more drug-intensive style of practice, whether through more prescriptions, costlier ones, or both. This form of insurance effect cannot be measured by cross-section analyses or the test of induced demand versus the insurance effect on individual demanders that was discussed earlier. No one knows the size of the potential supply effects of widespread additions to coverage.
Extend Medicare benefits to cover prescription drugs. After the attention drawn by the Medicare Catastrophic Coverage Act, this option needs little introduction. When fully implemented, that particular Medicare prescription drug option would have entitled all elderly to a high-deductible catastrophic benefit for prescription drugs, from which 16.8 percent of the elderly were expected to collect benefits each year. The program was to be financed through an addition to the Part B premium and an income-related premium collected through the personal income tax system.

There is no particular reason why any of the decisions made in crafting the catastrophic drug benefit should constrain the development of a future one. For example, an alternative version of this option would involve reducing the deductible to an amount that would allow a much greater proportion of the elderly to receive covered benefits, but of course at a higher cost in transferring resources through the Medicare Trust Funds. This option would assure that all 13.8 million Medicare elderly who are now uninsured for the risk of high drug costs would be covered. The cost of the option would depend on its provisions—particularly the deductible and the coinsurance rate. It was estimated above that the elderly spent $12.7 billion to $14.3 billion on prescription drugs in 1991 (assume the midpoint of $13.5 billion for the remainder of this discussion). If the deductible were set at $300, then 60 percent of this amount ($8.2 billion) would potentially become a Medicare liability. A 20 percent coinsurance rate would further reduce the amount for Medicare to finance to $6.5 billion, or $220 per enrollee. In addition to projections for the higher costs of some future year of implementation, a refined estimate would adjust this figure for insurance effects, savings from cost containment features, and administrative costs.

There are several advantages to this. First, enrollment could be made universal, bringing prescription drug benefits to all elderly. Second, the concentrated market power of Medicare could be used to contain costs. Third, when government pays for something, other things begin to happen—such as more research and emphasis on minimum standards of care. On the other hand, such a plan probably would lead to redistribution of income from those who now have drug coverage to those who now lack it. Many would object to this option on philosophical grounds alone: It would substitute public financing, and hence control over decisions, for private.

Conclusion

There is little question that prescription drugs are an essential part of current medical treatment technology, which is why nearly all private insurance plans, managed care organizations, and even state Medicaid programs cover their enrollees for prescription drugs. Medicare stands alone...
among the major insurers in not covering prescribed medicines.

The risk of large out-of-pocket drug costs is considerable—the top 11 percent of the elderly, whose spending averaged in excess of $100 per month in 1991 dollars, account for nearly half of total spending. Despite these risks, 46 percent of the elderly had no insurance for prescription drugs in 1991. Increased uncertainty over the future of retiree health benefits and the limited nature of Medigap drug benefits do not suggest that private coverage is likely to expand or to deepen. Moreover, evidence presented here shows adverse selection against drug benefits in individual insurance markets, making drug coverage less affordable for those with lower risks and less accessible to those with higher risks as insurers seek to avoid them through underwriting practices.

A range of policy options is available to address these problems. The choice among them, including the choice to do nothing, depends both on one’s values and on one’s understanding of the present system and the implications of change. Additional research can contribute on this latter front. Although this paper’s estimates of how many elderly are covered for prescription drugs use the best available data, they could be improved upon. More needs to be known about the process of implementing the Medicaid QMB provisions: How many people are potentially eligible, how many are being enrolled, and how many are covered by states that voluntarily extend drug coverage to them? We also need to know more about the extent of enrollment in state pharmaceutical assistance programs, and to what extent such programs complement or substitute for other sources of drug coverage. Data on trends in retiree coverage are hard to come by, despite widespread belief that this is a dynamic area. Finally, the effects of the change in Medigap drug provisions on enrollments deserve study.

In addition, more research on behavior under prescription drug insurance would be helpful to predicting the effects of policy change. A better understanding of the extent to which drug spending variation among the elderly is explained by chronic versus acute illness would help in assessing prospects for private insurance. If most spending arises from chronic illnesses, then future spending is more predictable for the individual. This encourages the cycle of adverse selection and insurers’ efforts to underwrite against it. Under these conditions private insurance markets do not work well; hence, compulsory insurance may be called for. A second area for more study is the insurance effect, often termed “induced demand.” More needs to be known about individual and provider behavior under different insurance provisions. Because of the considerable protection the elderly now have for inpatient hospital and physician services, and because the conditions giving rise to their demand for drugs may be quite different than those of other age cohorts, studies specific to the elderly are required.
Perhaps with a more informed debate—based on clearer articulation of our values and the implications of the policy options—we can “learn the lessons from the demise of Medicare catastrophic” and proceed to address the problem of prescription drug coverage and the elderly.

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NOTES

5. This range is reached by two largely independent methods. First, a tabulation of the Prescribed Medicines file of the 1987 National Medical Expenditure Survey (NMES) suggests that 32 percent of the spending of the noninstitutionalized population is for the elderly ($36.4 billion times 32 percent equals $11.6 billion). An added $1.1 billion for spending of the institutionalized gives a total for the elderly of $12.7 billion. This added amount is based on an estimate of drug spending by the institutionalized relative to that of the noninstitutionalized from Long and Gordon—1.2 million institutionalized people at 2.3 times the per capita cost of the noninstitutionalized ($11.6 billion divided by 28.7 million people equals $404). The other method adjusts the Congressional Budget Office (CBO) figure for all Medicare enrollees for 1991 to exclude the disabled ($16.2 billion times 0.88 equals $14.3 billion). Long and Gordon, Updated Estimates of Medicare’s Catastrophic Drug Insurance Program.
6. Reported spending was adjusted upward by 10 percent to account for underreporting. The projections from 1987 to 1991 were based on an assumed average annual rate of increase in spending per enrollee of 12 percent. See Long and Gordon, Updated Estimates of Medicare’s Catastrophic Drug Insurance Program, for details.
9. The data on QMB enrollments are very soft. The estimate in Exhibit 1 is based in large part on the author’s tabulations of the Medicaid 2082 data for 1991, which show about 3.4 million aged Medicaid recipients, of whom about 0.6 million qualify under the new QMB category. This total was rounded upward to reconcile with the Current Benefi-
ciary Survey's (CBS's) percentage for Medicaid in 1991.

10. The NMES HIPS provides benefit data on policies that can easily be linked to characteristics of the policyholder. At the time these tabulations were made, however, it was not possible to link NMES policyholders to the dependents covered under particular insurance policies. Hence, there are two potential sources of error in this estimate. First, there are missing data on plan characteristics for some respondents. Second, the proportion of plans having drug benefits may not match the proportion of people having drug benefits. This would occur if the average number of covered spouses differed between policies covering prescription drugs and those that did not.

11. The same potential sources of error identified above also apply to this estimate. Medigap policies generally are sold on an individual basis, however, so any error due to unequal rates of covered spouses is likely to be less.


13. There also appears to be a substantially higher coverage rate for males. Because the underlying data were limited to policyholders, however, this may be an artifact of the gender distribution of those holding retiree plans.


17. That is, the potential experience of each elderly person in the sample was calculated for each set of plan provisions based on the actual spending level for that observation. Then the means of the amount covered and of out-of-pocket spending for the entire sample were calculated for each plan.


19. The predicted spending of the employer-sponsored retirees with prescription drug coverage is 14 percent higher than that of the Medigap holders without drug coverage. This might be interpreted as evidence that some of the 26 percent difference is due to the insurance effect. However, employer-sponsored plans differ enough from Medigap plans—not just in cost sharing for drugs but for physician services, too—that the 14 percent difference cannot be attributed solely to drug insurance. Moreover, the controls for individual characteristics in the regressions are more likely to standardize for differences within the Medigap group and within the employer-sponsored group than between these groups.


21. Lago et al., “State Pharmaceutical Assistance Programs for the Elderly and Disabled.”


23. Ibid.

24. The deductible exempts the 9 percent of spending by people spending less than $300, plus $300 per person for the spending of the 46 percent of elderly exceeding the deductible, or $5.3 billion in total.