



# The Impact of the Medicare Drug Benefit on Health Care Spending by Older Households

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# Contents

Introduction.....	1
Spending on Prescription Drugs and Insurance by Older Households .....	1
Conclusion .....	4
Appendix.....	4

## **About the Authors**

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## Introduction

One of the stated goals of the Medicare Prescription Drug, Improvement and Modernization Act of 2003 (MMA) was to reduce the burden that the cost of prescription drugs was placing on senior citizens. Prescription drugs were a large and rapidly growing share of expenditures for older households. Since most drugs were not covered under Medicare, seniors who were above the income thresholds for Medicaid were forced to bear most of the burden for prescription drugs themselves.

The centerpiece of the 2003 MMA was the creation of a Medicare prescription drug benefit that would partially cover the cost of prescription drugs for seniors above the income threshold for Medicaid. The benefit also provided far more substantial subsidies for moderate-income seniors whose income still placed them above the Medicaid thresholds.

This paper examines the extent to which the Medicare drug benefit reduced the burden of health care costs for seniors in 2006, the first year in which it was in effect. It uses data from the Bureau of Labor Statistics Consumer Expenditure Survey (CEX) to compare the change in health care spending by older households from 2004 to 2006.

## Spending on Prescription Drugs and Insurance by Older Households

While the goal of the Medicare prescription drug benefit was to reduce the burden that prescription drug spending placed on older households, there is no easy way to get a direct measure of this burden. Many seniors did pay directly for drug purchases out of pocket, however, most had at least partial coverage, either through insurance provided by former employers or supplemental insurance they purchased themselves. As a result, direct spending on prescription drugs would only be a portion of what these households actually paid for their drugs.

In order to get around this problem, our analysis combines spending on insurance with prescription drug spending. This has the advantage of making spending on prescription drugs effectively take the form of insurance premiums. However, it also makes the measure more imprecise.

The Congressional Budget Office estimated that average spending on prescription drugs not covered by Medicare was \$2,439 per Medicare beneficiary in 2003. Assuming an 8.4 percent increase for 2004, uncovered spending would have been about \$2,640.<sup>1</sup> This spending includes payments from all non-Medicare sources, including Medicaid and other state programs, employer-based insurance, and the Veterans Administration. Sources other than out-of-pocket spending or individually purchased policies accounted for 57 percent of non-Medicare purchases (CBO 2002, Figure 2), which implies that out-of-pocket spending or spending by individually purchased insurance policies would be equal to approximately \$1,140 in 2004.

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<sup>1</sup> Congressional Budget Office, 2002. "Issues in Designing a Medicare Drug Benefit," Washington, DC: Congressional Budget Office, available at <http://www.cbo.gov/ftpdocs/39xx/doc3960/10-30-PrescriptionDrug.pdf>, Table 1. The 8.4 percent figure is taken from the Centers for Medicare and Medicaid Services, National Health Expenditures by Source of Funds and Type of Expenditure, 2001-2006 (Table 4) available at <http://www.cms.hhs.gov/NationalHealthExpendData/downloads/tables.pdf>.

By comparison, the CEX shows average spending of \$2,884 for the combination of health insurance premiums and out-of-pocket drug spending for households in which all members were over age 65. Since the average household with an individual over age 65 had 1.7 members, this implies average expenditures of \$1,696 per household.<sup>2</sup> (These adjustments are shown in **Table 1**.)

**TABLE 1**  
**Per Capita Household Spending on Prescription Drugs for 2004, CBO Projections and CEX Estimates**

	CBO	CEX
Base Number/Year	\$2,439/2003	\$2,884/2004
Adjustment for Year (8.4%)	\$2,640	--
Payment by Beneficiary (43%)	\$1,140	--
Adjustment for Household Size (1.7)	--	\$1,696
Adjusted Spending	\$1,140	\$1,696

Source: CEX, CBO, see text.<sup>3</sup>

Clearly this measure from the CEX includes substantial health care related expenditures that are not attributable to prescription drug spending, but the bulk of the spending captured by the CEX is presumably due to prescription drugs. This reduces the accuracy of the CEX data as a measure of household drug expenditures, but since roughly two-thirds of the spending in this combined insurance and drug expenditure category is likely directly or indirectly attributable to prescription drug expenditures, it should capture any large changes in spending.

**Table 2** shows average drug and insurance expenditures for households with all adults over age 65 for the years 2004-2006, as well as spending by income quintile.

**TABLE 2**  
**Insurance and Drug Expenditures for Households with All Adults Over Age 65, 2004-2006**

	Mean	1st	2nd	3rd	4th	5th
2004						
Income	\$29,181	\$7,710	\$13,631	\$20,591	\$32,303	\$75,461
Drug & Ins. Exp.	\$2,884	\$1,795	\$2,347	\$2,910	\$3,550	\$3,945
Percent of Income	9.9%	23.3%	17.2%	14.1%	11.0%	5.2%
	(0.0027)	(0.0068)	(0.0032)	(0.0028)	(0.0023)	(0.0023)
2005						
Income	\$30,857	\$7,735	\$14,713	\$21,881	\$33,292	\$80,669
Drug & Ins. Exp.	\$3,084	\$1,719	\$2,439	\$3,100	\$3,835	\$4,470
Increase 2004-05	6.9%	-4.2%	3.8%	6.5%	8.0%	13.3%
Percent of Income	10.0%	22.2%	16.6%	14.2%	11.5%	5.5%
	(0.0018)	(0.0085)	(0.0031)	(0.0029)	(0.0022)	(0.0018)
2006						
Income	\$32,272	\$7,718	\$14,836	\$22,042	\$34,055	\$84,365
Drug & Ins. Exp.	\$3,331	\$1,550	\$2,504	\$3,583	\$4,357	\$4,738
Increase 2005-06	8.0%	-9.8%	2.7%	15.6%	13.6%	6.0%
Percent of Income	10.3%	20.1%	16.9%	16.3%	12.8%	5.6%
	(0.0028)	(0.0070)	(0.0029)	(0.0038)	(0.0026)	(0.0022)

Source: Authors' calculations, see appendix. (Standard errors in parentheses.)

The data provide some evidence of a reduction in the burden of drug expenditures in the bottom two quintiles, but no apparent effect for higher income households. Households in the two lowest

<sup>2</sup> Data on the number of people per consuming unit in the CEX is available at the Bureau of Labor Statistics' summary tables for the CEX, available at <ftp://ftp.bls.gov/pub/special.requests/ce/standard/2006/sage.txt>.

<sup>3</sup> The CBO projections and the CEX estimates also differ due to the fact that roughly 20 percent of Medicare beneficiaries are disabled and not over age 65. Also, many people over age 65 live in households with adults under age 65.

quintiles would most likely qualify for the supplemental drug benefit, which would give them substantial savings on prescription drugs, if they had not previously been eligible for Medicaid. It is therefore reasonable to expect that drug-related expenditures would decline or at least increase at a less rapid pace.

Between 2005 and 2006, drug and insurance expenditures fell by 9.8 percent for the lowest quintile of elderly households. Expenditures rose by 2.7 percent for the households in the second quintile. This was lower than the 3.8 percent increase in spending in 2005, and far below the 8.0 percent average increase in spending for senior households between 2005 and 2006. This slower rate of growth may be seen as providing limited evidence of the benefits of the prescription drug benefit.

However, it is striking that households in the third and fourth quintiles actually experienced a more rapid increase in drug and insurance expenditures between 2005 and 2006 than in the prior year, or for the population as a whole. (Nationwide spending on prescription drugs rose by 8.5 percent from 2005 to 2006.<sup>4</sup>)

There are several factors that could explain this pattern. First, many seniors were slow to get into the new program. The enrollment deadline was not until May and many seniors did not enroll until well into this enrollment period. As a result, they would not have received the benefit of the Medicare subsidy for much of the year. Also, given the structure of the benefit, under which many plans had a substantial deductible, beneficiaries are likely to have a smaller share of their expenses fall above an annual deductible for a plan held less than a year.

A second reason that higher-income beneficiaries may not have reduced their drug related expenditures is that many of them would have only received a subsidy through the program indirectly. The households in the 3<sup>rd</sup> and 4<sup>th</sup> quintiles are far more likely to have either employer-provided insurance in retirement or have purchased supplemental Medicare insurance than the households in the lowest two quintiles. While both employer-provided plans and insurance plans that supplement Medicare are entitled to the subsidy provided under the MMA, households may not see much benefit.

In the case of employer-provided insurance, the subsidies will lessen the burden on the former employer. The prospect of paying less for retiree coverage may give current workers some opportunity to get higher wages, but it is unlikely to be passed on to current retirees.

In the case of supplemental Medicare plans, the extent to which they pass on the subsidy provided through the MMA will depend on the conditions of competition in the market. It is reasonable to believe that over time, competition is likely to push down the prices of these plans (more likely, slow the rate of increase) so that most of the subsidy will be passed on to beneficiaries. However, in the first year of the program's operation, it would be reasonable to expect that most of the subsidy would go to higher profits for these insurers. If that is the case, then the increase in expenditures for beneficiaries with supplemental insurance plans is likely to be lower than for other beneficiaries in the near future.

The third reason why expenditures might have increased more for households in the 3<sup>rd</sup> and 4<sup>th</sup> quintiles than for other beneficiaries is simply that they may now be taking more drugs. It is likely that many beneficiaries in these income groups restrained their drug consumption in prior years as a

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<sup>4</sup> Centers for Medicare and Medicaid Services, National Health Expenditures by Source of Funds and Type of Expenditure, 2001-2006 (Table 4) available at <http://www.cms.hhs.gov/NationalHealthExpendData/downloads/tables.pdf>.

result of being unable to afford high-priced medicines. The subsidies provided under the MMA suddenly made some drugs affordable that previously had not been. In this case, the increased expenditure for drugs and related health care expenses could be a positive development since it means that these households are now getting better health care and will presumably enjoy better health. Nonetheless, this does mean that the burden of health care expenses has increased for this group of elderly households.

## Conclusion

A stated goal of the MMA was to reduce the financial burden that prescription drugs presented to seniors. While there is some evidence that it accomplished this goal for the least well-off seniors, this does not appear to be the case with seniors in the middle and upper income quintiles. In fact, the data suggest that drug related expenditures actually posed a larger burden to seniors in 2006, the first year the benefit was in place, than they had in prior years.

As more years of data become available, it will be easier to determine the extent to which various groups of seniors may have benefited as a result of the MMA. However, this examination of data from the CEX indicates that only lower income seniors were able to reduce their health care spending as a result of the bill, even if higher income seniors may have enjoyed the benefit of increased access to drugs.

## Appendix

Elderly expenditures on insurance and drugs are the authors' analysis of the 2004-2006 Bureau of Labor Statistics Consumer Expenditure Survey (CEX). Our calculations use the Interview Panel of the CEX, a quarterly survey which re-interviews households to obtain one year of household expenditure data.

We include all observations, using the BLS-imputed total before-tax income variable. Expenditures are prescription drug expenditures plus health insurance payments and fees. Our definition of an elderly household in the CEX is a consumer unit all of whose members are age 65 or older.

To construct calendar year estimates from the rotating panel of the Interview Survey, we weight incomes and expenditures as described in the Bureau of Labor Statistics (BLS) 2006 Consumer Expenditure Interview Survey Public Use Microdata Documentation.<sup>5</sup> We do not incorporate these weights when delineating income quintiles (although we use weights for estimates within each quintile).

We calculate expenditure variance with the BLS-provided balanced repeated replication weights.<sup>6</sup> Since income means are based on multiply imputed data, the income variance accounts for both within- and between-imputation variance using the procedures outlined in the 2006 BLS User's Guide to Income Imputation in the CE.<sup>7</sup>

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<sup>5</sup> <http://www.bls.gov/cex/2006/csxintvw.pdf>

<sup>6</sup> *ibid.*

<sup>7</sup> <http://www.bls.gov/cex/csxguide.pdf>