

Trends in Out-of-Pocket Healthcare Costs Among Older Community-Dwelling Medicare Beneficiaries

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Objective: To describe trends in out-of-pocket healthcare costs, including insurance premiums, for older Medicare beneficiaries living in the community.

Study Design: Medicare Current Beneficiary Survey data were analyzed for community-dwelling beneficiaries 65 years or older between 1992 and 2004.

Methods: The primary focus of the analysis was out-of-pocket healthcare costs and out-of-pocket costs as a percentage of income. Descriptive statistics are presented for 1992, 1996, 2000, and 2004.

Results: Inflation-adjusted median out-of-pocket costs were stable between 1992 and 2000 and then rose by 21.7% between 2000 and 2004. Median costs as a percentage of income declined between 1992 and 1996 but increased from 12.6% in 2000 to 15.5% in 2004. Between 1992 and 2004, out-of-pocket costs increased fastest at the upper percentiles of the distribution. High out-of-pocket costs tended to persist from year to year, exacerbating the financial burden for some beneficiaries.

Conclusions: Following a period of declining burden between 1992 and 1996, out-of-pocket healthcare costs rose significantly between 2000 and 2004, increasing the financial burden for many older Medicare beneficiaries. These data provide a baseline for evaluating Medicare reform proposals that affect beneficiary spending.

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Medicare costs have risen rapidly in recent years and are projected to do so for the foreseeable future.¹ Cost increases potentially create a burden for beneficiaries, who must pay for a portion of their care through Part B premiums, deductibles, and coinsurance payments. Increases in the costs of noncovered services also have a significant effect. The introduction of the Medicare Part D prescription drug benefit in 2006 was expected to ease the financial burden on beneficiaries, but the effect seems to be modest.²

Given recent and projected increases in healthcare costs, it is useful to examine the current level of financial burden on Medicare beneficiaries, the distribution of that burden, and trends over time. Previous research has shown that out-of-pocket spending as a share of income has increased in recent years.³ Out-of-pocket costs tend to be highly skewed and are higher for beneficiaries in poor health and for those who have an individually purchased private insurance supplement (Medigap) or no supplement.⁴⁻⁶ Beneficiaries with higher incomes tend to spend more on healthcare, but such costs represent a substantially greater burden for low-income beneficiaries.^{4,7-9}

This article describes trends in out-of-pocket costs among older community-dwelling beneficiaries between 1992 and 2004 using data from the Medicare Current Beneficiary Survey (MCBS). All out-of-pocket healthcare costs are examined (vs just those associated with Medicare-covered services) to obtain a complete picture of the financial burden of healthcare on beneficiaries. The following questions are addressed: (1) How much have out-of-pocket costs increased absolutely and relative to income? (2) Has the distribution of out-of-pocket costs changed over time? (3) How do costs vary by beneficiary characteristics such as income and health status? (4) To what extent do high out-of-pocket costs persist from year to year?

DATA SOURCE

The MCBS is a longitudinal multipurpose survey of a nationally representative sample of the Medicare population.¹⁰ It has been conducted by the Centers for Medicare & Medicaid Services (formerly the Health Care Financing Administration) continuously since 1991. The survey uses a rotating panel design, with each panel consisting of about 4000 respondents who participate in

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12 interviews that produce data for 3 complete calendar years. Medicare administrative records are routinely linked to survey data.

Respondents are asked about their use of healthcare services, including Medicare-covered and non-Medicare-covered services. Costs and sources of payment are determined for each service received by the respondent. Survey-reported services are matched to Medicare claims records to improve the

accuracy of utilization and cost data.¹¹ Information on health and functional status, specific medical conditions, supplemental health insurance, and demographics is also collected.

The MCBS collects information about income of the respondent and spouse (if married). Respondents are asked to provide total income only, with prompts to include several specific types of income in the total. In cases of missing data, hot-deck procedures are used to generate responses.

Table 1. Median Out-of-Pocket Healthcare Costs and Median Costs as a Percentage of Income Among Community-Dwelling Medicare Beneficiaries Aged 65 Years or Older by Beneficiary Characteristics for Selected Years 1992-2004

Characteristic	Out-of-Pocket Healthcare Costs, Median							
	1992, \$ (n = 9671)	1992-1996 % Change	1996, \$ (n = 8849)	1996-2000 % Change	2000, \$ (n = 9816)	2000-2004 % Change	2004, \$ (n = 9103)	1992-2004 % Change
Total	2107	-6.5 ^a	1970	7.6 ^a	2120	21.7 ^a	2581	22.5 ^a
Age, y								
65-74	2019	-10.0 ^a	1818	5.9	1926	23.2 ^a	2373	17.5 ^a
75-84	2268	-4.2	2173	9.2 ^a	2374	18.3 ^a	2808	23.8 ^a
≥85	2233	-0.6	2220	11.0	2464	15.7 ^a	2850	27.6 ^a
Income quartile								
Lowest	1609	-14.3	1379	1.7	1402	13.4	1590	-1.2
Second	2083	0.4	2074	7.1	2221	19.8 ^a	2660	27.7 ^a
Third	2288	-7.2 ^a	2124	7.4	2281	25.4 ^a	2860	25.0 ^a
Highest	2390	-8.2 ^a	2194	15.1 ^a	2526	18.7 ^a	2999	25.5 ^a
Health status								
Excellent, very good, or good	2065	-7.2 ^a	1916	8.9 ^a	2086	22.4 ^a	2553	23.6 ^a
Fair or poor	2295	-3.9	2204	1.6	2239	20.1 ^a	2690	17.2 ^a
Characteristic	Out-of-Pocket Costs as a Percentage of Income, Median %							
	1992	1992-1996 Difference	1996	1996-2000 Difference	2000	2000-2004 Difference	2004	1992-2004 Difference
Total	14.8	-2.4 ^b	12.3	0.2	12.6	2.9 ^b	15.5	0.7
Age, y								
65-74	13.5	-2.5 ^b	11.0	0.2	11.2	2.6 ^b	13.8	0.3
75-84	16.4	-2.3 ^b	14.1	0.3	14.3	2.5 ^b	16.8	0.4
≥85	17.2	-1.6	15.6	0.0	15.5	2.8 ^b	18.3	1.1
Income quartile								
Lowest	27.4	-5.6 ^b	21.8	-0.8	21.0	3.6	24.6	-2.8
Second	19.8	-2.0 ^b	17.7	0.0	17.7	4.3 ^b	22.1	2.3 ^b
Third	14.4	-2.5 ^b	11.8	0.4	12.2	3.5 ^b	15.8	1.4 ^b
Highest	7.8	-1.2 ^b	6.5	0.2	6.7	1.9	8.6	0.8
Health status								
Excellent, very good, or good	13.8	-2.3 ^b	11.5	0.3	11.7	3.0 ^b	14.8	1.0 ^b
Fair or poor	19.2	-1.6	17.7	-1.3	16.3	3.5 ^b	19.9	0.7

^aP < .05 for percent change of 0.

^bP < .05 for difference of 0.

■ TRENDS FROM THE FIELD ■

The MCBS income data are subject to underreporting and misreporting,¹² with systematic underreporting primarily occurring among higher-income beneficiaries (D Waldo, MA, unpublished data, 2005). Despite the limitations of income as captured in the MCBS, the consistency of the data collection procedures over time should yield a reasonably accurate picture of trends. Because income is not collected separately for respondents and their spouses, reported income was divided by 2 for married respondents in the analyses reported herein.

METHODS

Four years of data were analyzed to establish trends, including 1992, 1996, 2000, and 2004. Analyses were limited to respondents who lived in the community for the entire year (or until death) to focus on out-of-pocket costs associated with acute care services. Institutionalized beneficiaries were excluded because they have high out-of-pocket expenses associated with nursing home care; their patterns of service utilization and attendant policy concerns tend to be different from those of beneficiaries in the community. The sample was also limited to beneficiaries 65 years or older because younger disabled beneficiaries differ significantly from the aged in terms of chronic conditions, utilization patterns, and supplemental coverage.¹³ The final sample sizes varied between 8849 and 9816, depending on the year.

Out-of-pocket costs included costs paid for services received, as well as premiums for Part B, health maintenance organization coverage, and private insurance. Costs and income were adjusted to 2004 US dollars based on the Consumer Price Index¹⁴ research series using current methods, which provides a methodologically consistent estimate of inflation over time. Beneficiaries with “buy-in” Medicaid coverage (as measured through the buy-in flags on Medicare administrative records) were assumed to have no Part B premium costs because these are paid by the Medicaid program.

The primary focus of the analysis was out-of-pocket health-care costs and out-of-pocket costs as a percentage of income. Various percentiles are presented (rather than means) to describe the distribution of these measures and to minimize the effects of measurement error and outlier cases.⁸ All percentiles were weighted using MCBS cross-sectional weights, and tests for statistical significance of differences across years take into account the effects of the complex sample design of the survey.

RESULTS

The median out-of-pocket costs (after adjustment for inflation) rose from \$2107 in 1992 to \$2581 in 2004, an increase of 22.5% (Table 1). The increase was not uniform; the median out-of-pocket costs decreased by 6.5% between 1992 and 1996, followed by increases of 7.6% between 1996

■ **Table 2.** Percentage Distribution of Out-of-Pocket Healthcare Costs and Costs as a Percentage of Income Among Community-Dwelling Medicare Beneficiaries Aged 65 Years or Older for Selected Years 1992-2004

Percentile	Out-of-Pocket Healthcare Costs							
	1992, \$	1992-1996 % Change	1996, \$	1996-2000 % Change	2000, \$	2000-2004 % Change	2004, \$	1992-2004 % Change
25	1346	-19.5 ^a	1084	3.3	1120	24.4 ^a	1393	3.5
50	2107	-6.5 ^a	1970	7.6 ^a	2120	21.7 ^a	2581	22.5 ^a
75	2992	0.3	3000	15.4 ^a	3461	17.7 ^a	4072	36.1 ^a
90	4150	4.0	4316	19.2 ^a	5145	16.2 ^a	5981	44.1 ^a
95	5166	8.4 ^a	5600	20.0 ^a	6721	13.8 ^a	7646	48.0 ^a
Percentile	Out-of-Pocket Costs as a Percentage of Income, %							
	1992	1992-1996 Difference	1996	1996-2000 Difference	2000	2000-2004 Difference	2004	1992-2004 Difference
25	7.8	-1.5 ^b	6.3	0.0	6.3	1.7 ^b	7.9	0.2
50	14.8	-2.4 ^b	12.3	0.2	12.6	2.9 ^b	15.5	0.7
75	25.8	-2.9 ^b	23.0	1.0	24.0	4.2 ^b	28.1	2.3 ^b
90	42.4	-4.8 ^b	37.7	4.2 ^b	41.9	6.6 ^b	48.5	6.1 ^b
95	65.3	-9.3	56.0	3.5	59.5	12.7 ^b	72.2	6.9

^aP < .05 for percent change of 0.
^bP < .05 for difference of 0.

and 2000 and 21.7% between 2000 and 2004. Out-of-pocket costs were higher for older beneficiaries. The median out-of-pocket costs were lowest for low-income beneficiaries, for whom costs did not increase during 12 years of the study after adjustment for inflation.

The median out-of-pocket costs as a percentage of income declined between 1992 and 1996 and then rose from 12.6% in 2000 to 15.5% in 2004 (Table 1). Financial burden was higher for older beneficiaries and for those reporting fair or poor health. Low-income beneficiaries experienced a significantly greater financial burden than those with higher incomes, but this burden declined relative to higher-income beneficiaries. The largest increase in financial burden (2.3% of income) over the 12 years occurred for those in the second lowest-income quartile.

Costs in the upper percentiles of the distribution of out-of-pocket costs increased at a faster rate than those in the lower percentiles between 1992 and 2000, although this trend was reversed between 2000 and 2004 (Table 2). During 12 years of the study, costs at the 25th percentile did not increase significantly, but costs at the 90th percentile increased by 44.1%. This suggests that out-of-pocket costs became more concentrated within a small segment of the beneficiary population over time. Among the 10% of beneficiaries with the highest out-of-pocket costs in 2004, 27% of costs went to services of physicians and other medical providers, 27% went to health insurance premiums (excluding Part B), and 15% went to prescription drugs (data not shown).

In 1992, half of the beneficiaries reported spending 14.8% or more of their income on healthcare costs; 10% reported spending 42.4% or more (Table 2). Between 1996 and 2004, the burden at the upper percentiles of the distribution increased at a faster rate than the burden at the lower percentiles. By 2004, half of the beneficiaries reported spending 15.5% or more of income on healthcare costs, which was not significantly different from 1992. However, 10% reported spending 48.5% or more of income, which was significantly higher than in 1992.

For beneficiaries with chronic conditions, high out-of-pocket costs may persist over multiple years, exacerbating the total financial burden of illness. For example, combining data from 2003 and 2004 for respondents who were in the survey both years, the 90th percentile of out-of-pocket costs as a percentage of income was 43.8%, indicating a high 2-year burden. Among respondents who had high out-of-pocket costs as a percentage of income in 2003 (defined as those at

Take-away Points

- Following a period of relative stability between 1992 and 2000, the median out-of-pocket healthcare costs grew by 21.7% between 2000 and 2004 after adjustment for inflation.
- The relative burden of out-of-pocket costs, measured as a percentage of income, declined between 1992 and 1996 and then rose between 2000 and 2004.
- Between 1992 and 2004, increases in financial burden tended to be greatest at the upper end of the distribution.
- High costs tended to persist over multiple years, significantly exacerbating the long-term financial effect of chronic illness on many beneficiaries.

the 90th percentile or above), 33.8% also had high out-of-pocket costs in 2004 (data not shown).

DISCUSSION

Some recent trends in out-of-pocket healthcare costs for older Medicare beneficiaries may be of concern to policy makers. Following a period of relative stability between 1992 and 2000, the median costs grew by 21.7% between 2000 and 2004 after adjustment for inflation. Although the relative burden of out-of-pocket costs, measured as a percentage of income, declined significantly between 1992 and 1996, it rose by almost 3 percentage points between 2000 and 2004. Increases in financial burden tended to be greatest at the upper end of the distribution. High costs also tended to persist over multiple years, significantly exacerbating the long-term financial effect of chronic illness on many beneficiaries. A key question for policy makers is whether the increase in burden of out-of-pocket costs since 2000 will continue, especially for the segment of the beneficiary population with the highest out-of-pocket costs.

A more favorable trend was that the median out-of-pocket costs did not change between 1992 and 2004 for low-income beneficiaries. This finding is attributable to increases in Medicaid coverage during the study period. Among respondents in the lowest-income quartiles, Medicaid coverage increased from 28% in 1992 to 39% in 2004. Out-of-pocket costs were much lower for Medicaid recipients than for low-income respondents without Medicaid (data not shown). On the other hand, the largest increase in financial burden over 12 years of the study occurred among beneficiaries in the second lowest-income quartile, for whom Medicaid coverage was much less common.

Medicare's long-term financial health continues to be of great concern.¹ Policy makers have considered several proposals aimed at containing costs such as raising the age of eligibility, increasing taxes, restructuring Medicare benefits, implementing a defined contribution or premium support model, and encouraging private savings.¹⁵⁻¹⁸ Underlying any proposals for program reform are the fundamental questions of how much additional cost burden should be borne by ben-

eficiaries and how such burdens should be distributed. Some proposals call for increased beneficiary contributions in the form of increased premiums or greater cost sharing.¹⁵ Future increases in beneficiary financial burden could also be tied to wealth or income,^{15,19} and means testing of the Part B premium and Part D benefits has already been introduced through the Medicare Modernization Act of 2003. The findings reported herein provide baseline information for evaluating the beneficiary effect of reform proposals, especially among vulnerable subgroups of beneficiaries.

Although the Part D prescription drug benefit is expected to significantly reduce beneficiary out-of-pocket costs, it may be of limited help for beneficiaries with the highest out-of-pocket costs. Among such beneficiaries in 2004, prescription drugs accounted for only 15% of their out-of-pocket costs. It should be noted that the full effect of Part D will not be limited to direct out-of-pocket costs for prescription drugs; many beneficiaries may also experience lower health insurance premiums under Part D because these premiums should cover fewer prescription drug benefits.

This study was limited to the community-dwelling population. Institutionalization is often associated with high out-of-pocket costs, sometimes resulting in spend-down to eligibility for Medicaid coverage. The rate of nursing home use has declined substantially among older persons in recent years.⁹ This decline has reduced the beneficiary financial burden associated with institutionalization.

The Medicare program will continue to attract proposals for reform. The amount that beneficiaries contribute to the costs of their healthcare and the way that burden is distributed will be central to the debate. Current trends in the level and distribution of out-of-pocket costs will be important factors in planning for the future of Medicare.

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