

M E D I C A R E

Revisiting 'Skin in the Game' Among Medicare Beneficiaries
An Updated Analysis of the Increasing Financial Burden
of Health Care Spending From 1997 to 2005

DATA UPDATE

Prepared by:

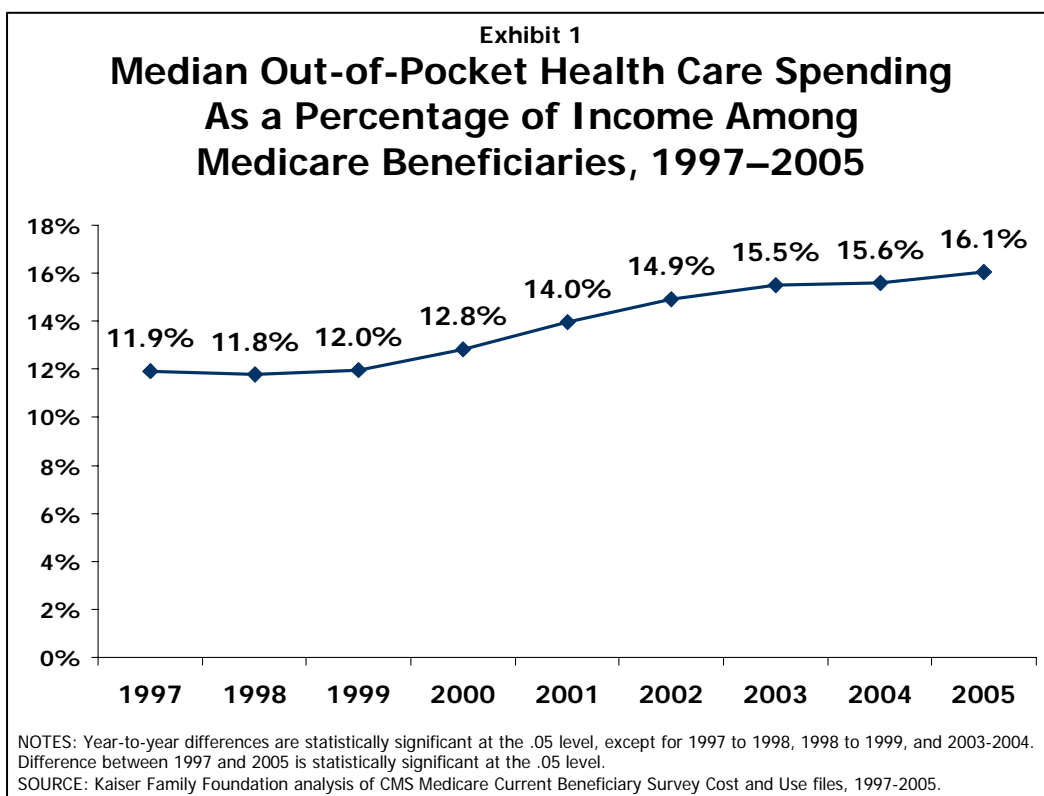
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Revisiting 'Skin in the Game' Among Medicare Beneficiaries

An Updated Analysis of the Increasing Financial Burden of Health Care Spending From 1997 to 2005

This update of an earlier analysis examines the increasing financial burden of out-of-pocket health spending among Medicare beneficiaries between 1997 and 2005. The analysis shows that median out-of-pocket spending as a share of income increased from 11.9 percent in 1997 to 16.1 percent in 2005, including a statistically significant increase from 15.6 percent in 2004 (Exhibit 1). In 2005, the 25 percent of beneficiaries with the largest burden spent nearly one-third or more (30.7 percent) of their income on health care. Results suggest that sustained increases in out-of-pocket spending could make health care less affordable for all but the highest-income beneficiaries.



More detailed tables and charts from the analysis of financial burden from 1997 to 2005 are provided below, along with key findings and a discussion of methodology. The earlier analysis, by Patricia Neuman, Juliette Cubanski, Katherine Desmond, and Thomas Rice, "How Much 'Skin in the Game' Do Medicare Beneficiaries Have? The Increasing Financial Burden of Health Care Spending, 1997-2003," examined out-of-pocket spending from 1997 to 2003 and was published in the November/December 2007 edition of *Health Affairs*. The article is available for download at <http://content.healthaffairs.org/index.dtl>.

Exhibit 2
Income and Out-of-Pocket Health Care Spending by Medicare Beneficiaries, Overall and by Subgroup, 2005

	Beneficiaries		Income		Out-of-Pocket Health Care Spending	
	Number	%	Mean	Median	Mean	Median
TOTAL	43,400,577	100%	\$20,734	\$15,000	\$4,052	\$2,742
AGE GROUP						
0-64 (disabled)	6,810,195	16%	\$14,361 †	\$10,800 †	\$2,810 †	\$1,575 †
65-74 (Ref)	18,112,474	42%	\$23,470	\$17,400	\$3,381	\$2,602
75-84	13,285,303	31%	\$20,532 †	\$15,000 †	\$4,451 †	\$3,151 †
85+	5,192,606	12%	\$20,063 †	\$14,000 †	\$7,002 †	\$3,587 †
SEX						
Male (Ref)	19,212,558	44%	\$22,844	\$15,600	\$3,765	\$2,532
Female	24,188,019	56%	\$19,058 †	\$14,400 †	\$4,281 †	\$2,908 †
LIVING SITUATION						
1-person household (lives alone)	12,112,572	28%	\$24,184 †	\$15,600	\$3,439	\$2,693 †
2-person household (with spouse) (Ref)	21,383,224	49%	\$20,542	\$15,600	\$3,517	\$2,793
Other household type	7,525,332	17%	\$15,971 †	\$12,000 †	\$3,034 †	\$2,063 †
Facility resident	2,196,073	5%	\$19,443	\$11,000 †	\$16,129 †	\$9,776 †
RACE/ETHNICITY						
White non-Hispanic (Ref)	34,020,591	78%	\$22,324	\$16,000	\$4,367	\$3,024
Black non-Hispanic	4,089,191	9%	\$15,382 †	\$10,800 †	\$2,818 †	\$1,671 †
Hispanic	3,258,263	8%	\$12,983 †	\$9,606 †	\$3,092 †	\$1,534 †
Other non-Hispanic	2,032,532	5%	\$17,308 †	\$11,894 †	\$2,802 †	\$2,050 †
INSURANCE COVERAGE						
Medicare HMO	5,853,271	13%	\$19,663 †	\$14,556 †	\$3,601 †	\$2,258 †
Medicaid	6,537,450	15%	\$9,170 †	\$8,280 †	\$2,317 †	\$490 †
Employer-sponsored	14,282,285	33%	\$27,934 †	\$20,400 †	\$3,890 †	\$2,909 †
Self-purchased/Medigap	11,113,013	26%	\$21,617 †	\$16,620 †	\$4,640 †	\$3,819 †
Other public/private coverage	881,729	2%	\$17,526 †	\$12,948 †	\$14,289 †	\$3,383 †
No supplemental coverage (Ref)	4,732,829	11%	\$14,828	\$11,694	\$4,206	\$1,864
POVERTY						
Less than 100% of poverty (Ref)	8,016,203	19%	\$6,109	\$6,720	\$2,761	\$1,247
100-199% of poverty	14,497,303	34%	\$11,928 †	\$11,700 †	\$4,001 †	\$2,653 †
200-399% of poverty	14,369,451	33%	\$21,875 †	\$21,000 †	\$4,406 †	\$3,142 †
400% or more of poverty	6,334,244	15%	\$56,652 †	\$40,500 †	\$4,997 †	\$3,417 †
HEALTH STATUS						
Excellent/very good (Ref)	17,492,862	41%	\$25,173	\$18,000	\$3,433	\$2,699
Good	13,369,114	31%	\$19,860 †	\$14,500 †	\$4,096 †	\$2,793 †
Fair	8,432,945	20%	\$15,566 †	\$11,616 †	\$4,529 †	\$2,720
Poor	3,871,222	9%	\$14,809 †	\$11,694	\$5,521 †	\$2,905
METRO STATUS						
Urban (Ref)	32,916,675	76%	\$21,733	\$15,000	\$4,116	\$2,739
Rural	10,397,207	24%	\$17,557 †	\$13,440 †	\$3,872 †	\$2,779
REGION						
Northeast (Ref)	8,459,810	20%	\$19,101	\$14,500	\$3,863	\$2,561
Midwest	9,814,400	23%	\$23,023 †	\$15,600 †	\$4,272 †	\$2,990 †
South	15,622,625	37%	\$18,800	\$13,800	\$4,222 †	\$2,878 †
West	8,747,473	21%	\$24,069 †	\$17,500 †	\$3,849	\$2,492

NOTES: (Ref) indicates reference group. † indicates statistical difference between demographic group and the indicated reference group within the category at the .05 level.
SOURCE: Kaiser Family Foundation analysis of CMS Medicare Current Beneficiary Survey Cost and Use file, 2005.

- Income declines with age among beneficiaries age 65 and older; however, income is lower for those under age 65 with disabilities than those ages 65 and older (Exhibit 2). Income is lower for those in relatively poor health than those in better health; for women than men; for Black, Hispanic and other racial/ethnic minorities than white beneficiaries; and for those in rural areas than in non-rural areas.
- Mean out-of-pocket spending increases as health status declines, and also increases with age, such that those age 85 and older spend more out-of-pocket on health care (\$7,002 on average) than younger seniors, who spend more than beneficiaries under age 65 (\$2,810 on average). Out-of-pocket spending is higher for women than men (averaging \$4,281 and \$3,765, respectively).
- Beneficiaries with Medicaid to supplement Medicare coverage have lower out-of-pocket expenditures than those with other sources of supplemental coverage. Those with Medigap spent more out of pocket than beneficiaries with employer coverage, most likely reflecting the higher premiums and less generous coverage typically associated with Medigap policies.

Exhibit 3
Out-of-Pocket Health Care Spending as Percent of Income
Among Medicare Beneficiaries, Overall and by Subgroup, 1997 and 2005

	Median			90th percentile		
	1997	2005	Difference	1997	2005	Difference
TOTAL	11.9%	16.1%	4.1% *	47.5%	59.6%	12.1% *
AGE GROUP						
0-64 (disabled)	9.2% †	12.3% †	3.1% *	46.8% †	58.1% †	11.3% *
65-74 (Ref)	10.1%	14.4%	4.2% *	34.3%	44.2%	9.9% *
75-84	14.1% †	18.1% †	4.1% *	49.6% †	61.7% †	12.1% *
85+	21.0% †	23.6% †	2.6% *	129.3% †	131.4% †	2.1%
SEX						
Male (Ref)	11.1%	14.6%	3.5% *	39.6%	53.5%	13.8% *
Female	12.7% †	17.4% †	4.7% *	52.8% †	64.0% †	11.2% *
LIVING SITUATION						
1-person household (lives alone)	10.9% †	14.1% †	3.2% *	35.4% †	43.3% †	8.0% *
2-person household (with spouse) (Ref)	11.7%	16.2%	4.5% *	37.1%	49.1%	12.0% *
Other household type	10.5% †	15.5% †	4.9% *	37.8%	55.7% †	17.9% *
Facility resident	94.1% †	88.3% †	5.9%	334.3% †	303.3% †	31.0%
RACE/ETHNICITY						
White non-Hispanic (Ref)	12.5%	16.7%	4.2% *	48.4%	60.5%	12.1% *
Black non-Hispanic	9.6% †	12.8% †	3.1% *	44.4%	53.3% †	8.9% *
Hispanic	9.9% †	14.0% †	4.1% *	42.2% †	61.2%	19.0% *
Other non-Hispanic	6.5% †	12.7% †	6.2% *	36.8% †	45.3% †	8.5%
INSURANCE COVERAGE						
Medicare HMO	8.1% †	15.2% †	7.0% *	27.2% †	43.8% †	16.6% *
Medicaid	4.1% †	6.1% †	2.0% *	90.2% †	83.5%	6.7%
Employer-sponsored	10.4% †	14.1% †	3.7% *	29.7% †	40.0% †	10.3% *
Self-purchased/Medigap	18.6% †	23.1% †	4.5% *	47.9% †	63.2% †	15.3% *
Other public/private coverage	32.2% †	31.1% †	1.1%	253.0% †	258.3% †	5.3%
No supplemental coverage (Ref)	13.0%	17.5%	4.6% *	72.4%	91.6%	19.2% *
POVERTY						
Less than 100% of poverty (Ref)	16.0%	21.9%	5.9% *	121.1%	151.9%	30.8% *
100-199% of poverty	17.6% †	22.4%	4.8% *	49.2% †	63.1% †	13.9% *
200-399% of poverty	10.6% †	14.9% †	4.3% *	26.6% †	36.8% †	10.3% *
400% or more of poverty	5.4% †	7.8% †	2.4% *	15.2% †	20.5% †	5.2% *
HEALTH STATUS						
Excellent/very good (Ref)	9.6%	13.7%	4.1% *	31.1%	40.9%	9.9% *
Good	12.7% †	17.1% †	4.5% *	44.0% †	60.8% †	16.7% *
Fair	15.3% †	18.9% †	3.6% *	80.9% †	82.8% †	1.8%
Poor	16.9% †	20.2% †	3.3% *	85.9% †	102.2% †	16.3%
METRO STATUS						
Urban (Ref)	11.0%	15.6%	4.6% *	45.1%	57.4%	12.4% *
Rural	15.0% †	17.8% †	2.8% *	56.2% †	64.2% †	8.1% *
REGION						
Northeast (Ref)	10.8%	15.8%	5.0% *	45.9%	55.5%	9.6% *
Midwest	13.8% †	17.0% †	3.2% *	54.3%	61.4% †	7.2%
South	13.0% †	17.6% †	4.6% *	48.8%	64.6% †	15.8% *
West	8.9% †	12.9% †	4.0% *	36.1% †	46.0% †	9.9% *

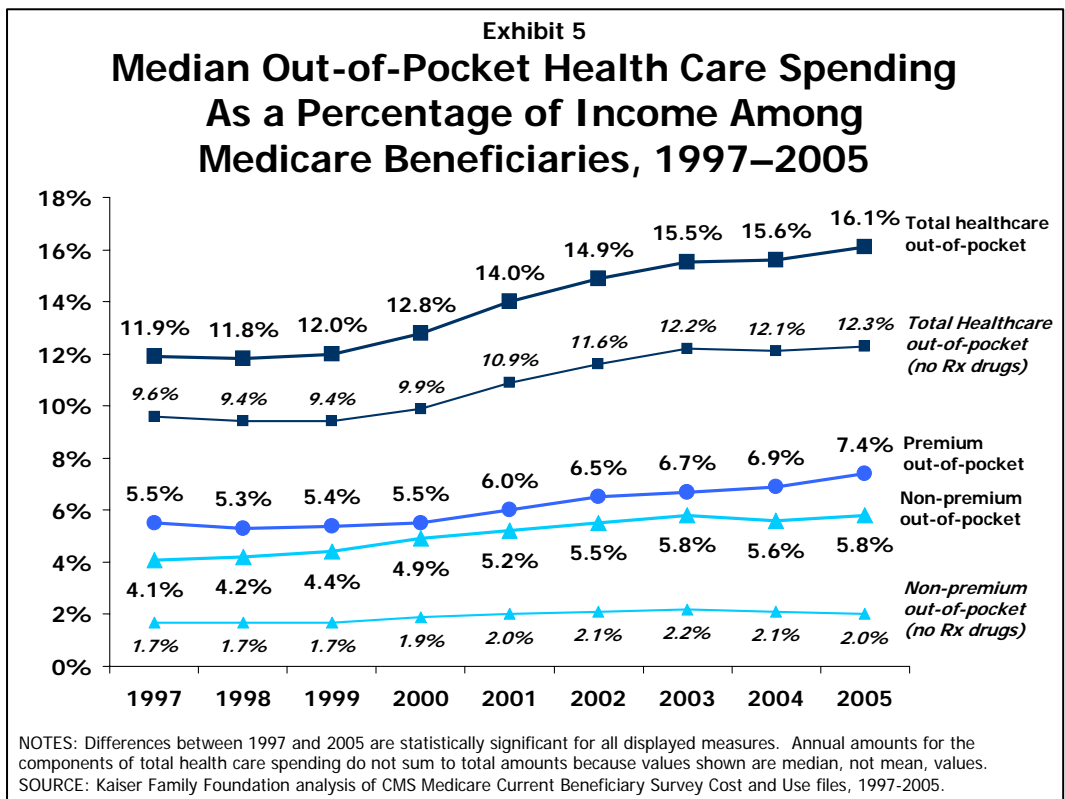
NOTES: (Ref) indicates reference group. † indicates statistical difference between demographic group and the indicated reference group within the category at the .05 level. * indicates difference between 2005 value and 1997 value for each estimate is statistically significant at .05 level.
SOURCE: Kaiser Family Foundation analysis of CMS Medicare Current Beneficiary Survey Cost and Use files, 1997 and 2005.

- Median out-of-pocket spending as a share of income increases with age, and is highest among beneficiaries ages 85 and older (Exhibit 3). The financial burden of health care is higher for women than men, and higher for white beneficiaries than black or Hispanic beneficiaries.
- The financial burden of health care spending is greater for poor and near-poor beneficiaries than those at higher income levels. In 2005, the median beneficiary living on an income below 200 percent of poverty spent about 22 percent of income on health care, while beneficiaries at 400 percent of poverty or more spent less than 8 percent of their income on health care.
- Beneficiaries living in long-term care facilities have relatively high spending as a share of income. At the median, beneficiaries living in long-term care setting spent virtually of all their income on health care – 88.3 percent in 2005.

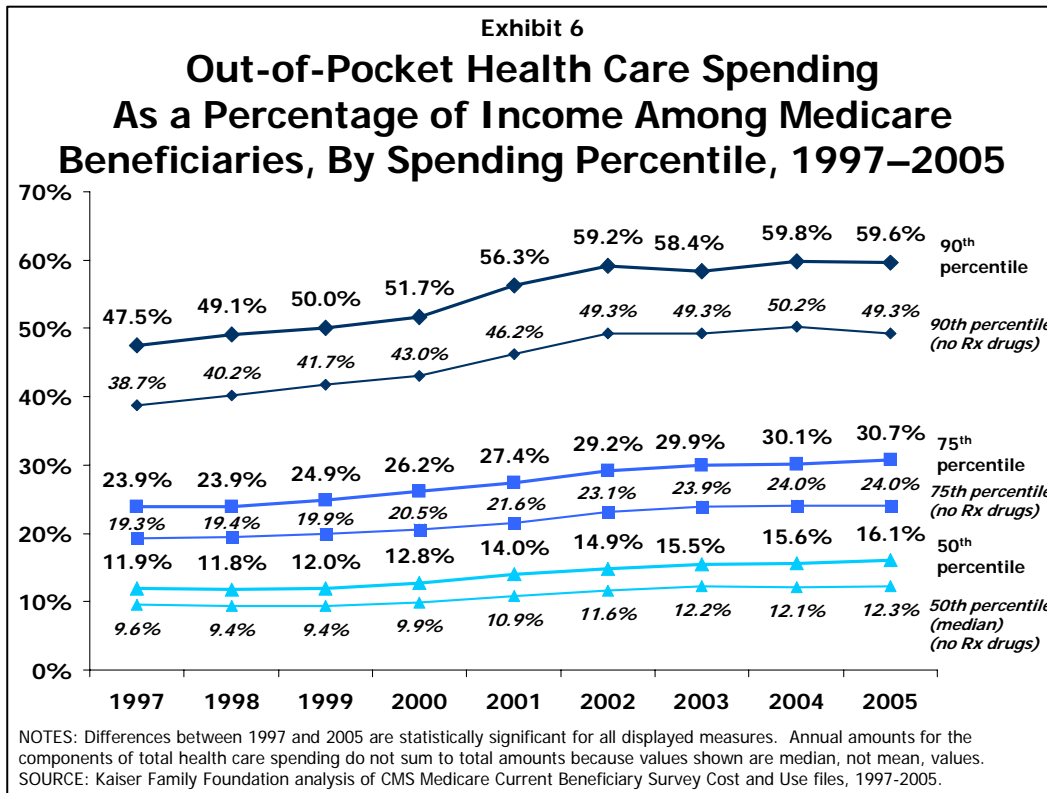
Exhibit 4				
Income and Out-of-Pocket Health Care Spending Among Medicare Beneficiaries, 1997-2005				
Year	Mean		Median	
	Income	Out-of-Pocket Spending	Income	Out-of-Pocket Spending
1997	\$17,758	\$2,648	\$12,000	\$1,668
1998	\$16,772	\$2,781	\$12,000	\$1,712
1999	\$17,927	\$2,850	\$12,500	\$1,779
2000	\$18,019	\$3,079	\$12,600	\$1,914
2001	\$18,407	\$3,405	\$13,200	\$2,166
2002	\$19,037	\$3,544	\$13,500	\$2,363
2003	\$18,275	\$3,765	\$13,856	\$2,501
2004	\$19,400	\$3,934	\$14,184	\$2,531
2005	\$20,734	\$4,052	\$15,000	\$2,742
% change, 1997-2005	17%	53%	25%	64%

SOURCE: Kaiser Family Foundation analysis of CMS Medicare Current Beneficiary Survey Cost and Use files, 1997-2005.

- Between 1997 and 2005, the growth in out-of-pocket spending far outpaced the growth in income for Medicare beneficiaries (Exhibit 4).



- Median out-of-pocket spending as a share of income increased from 11.9 percent in 1997 to 16.1 percent in 2005 (Exhibit 5). Median out-of-pocket spending on premiums increased from 5.5 percent of income to 7.4 percent, while all other health care expenses as a share of income rose from 4.1 percent to 5.8 percent.
- Factoring out prescription drug spending from the analysis of spending relative to income between 1997 and 2005, we find a statistically significant increase in out-of-pocket burden at the median (9.6 percent in 1997 to 12.3 percent in 2005).



- Beneficiaries with the greatest financial burden at the 75th and 90th percentiles experienced a larger increase in the ratio of out-of-pocket spending to income (12.1 percentage points and 6.8 percentage points, respectively) than the median beneficiary (4.2 percentage points) between 1997 and 2005 (Exhibit 6).
- Factoring out prescription drug spending from the analysis of spending relative to income between 1997 and 2005, we find a statistically significant increase in out-of-pocket burden at the 75th percentile (19.3 percent in 1997 to 24.0 percent in 2005) and at the 90th percentile (38.7 percent in 1997 to 49.3 percent in 2005).

Exhibit 7
Per Capita Out-of-Pocket Spending by Medicare Beneficiaries on Health Care Services and Premiums, 1997 and 2005

	1997		2005		Difference, 1997-2005		Percent increase, 1997- 2005	Share of growth, 1997- 2005
Number of beneficiaries	39.7 million		43.4 million					
	Spending amount	Share of total	Spending amount	Share of total	\$	%		
Total (health services and premiums)	\$9,943	100.0%	\$15,237	100.0%	\$5,294*	--	53.2%	100.0%
Medicare spending	\$4,452	44.8%	\$6,255	41.1%	\$1,803*	-3.7%*	40.5%	34.1%
Third-party payer/other spending	\$2,843	28.6%	\$4,930	32.4%	\$2,087*	3.8%*	73.4%	39.4%
Out-of-pocket spending (premium plus nonpremium spending)	\$2,648	26.6%	\$4,052	26.6%	\$1,404*	0.0%	53.0%	26.5%
Breakdown of out-of-pocket spending								
Premium spending	\$968	36.5%	\$1,576	38.9%	\$609*	2.4%*	62.9%	43.4%
Non-premium spending	\$1,681	63.5%	\$2,476	61.1%	\$795*	-2.4%	47.3%	56.6%
Facility (LTC and SNF)	\$740	27.9%	\$804	19.8%	\$64	-8.1%*	8.6%	4.5%
Prescription drugs	\$314	11.9%	\$612	15.1%	\$298*	3.2%*	94.8%	21.2%
Medical providers and supplies	\$310	11.7%	\$581	14.3%	\$271*	2.6%*	87.2%	19.3%
Dental	\$153	5.8%	\$225	5.6%	\$72*	-0.2%	47.1%	5.1%
Outpatient hospital services	\$74	2.8%	\$145	3.6%	\$71*	0.8%*	95.5%	5.0%
Inpatient hospital services	\$69	2.6%	\$90	2.2%	\$20*	-0.4%	29.3%	1.4%
Home health	\$20	0.7%	\$19	0.5%	-\$1	-0.3%	-2.7%	0.0%

NOTES: LTC is long-term care. SNF is skilled nursing facility. * indicates difference between 2005 value and 1997 value for each estimate is statistically significant at .05 level.

SOURCE: Kaiser Family Foundation analysis of CMS Medicare Current Beneficiary Survey Cost and Use files, 1997 and 2005

- Between 1997 and 2005, total per capita health care spending for Medicare beneficiaries by all payors (Medicare, beneficiaries, and third-party payors) increased 53.2 percent (Exhibit 7).
- Medicare spending per capita (in dollars) was substantially higher than third-party and beneficiary per capita out-of-pocket spending levels in both 1997 and 2005. However, between 1997 and 2005, beneficiaries' out-of-pocket spending increased at a faster rate (53 percent) than Medicare per capita spending (40.5 percent), while third-party spending increased at a higher rate (73.4 percent) than either Medicare or out-of-pocket spending.
- Although there were statistically significant differences in the share of total spending paid by Medicare and third parties, the distribution remained fairly constant during this time period, and the share paid by beneficiaries themselves did not change at all.
- Out-of-pocket spending per beneficiary increased by 53 percent between 1997 and 2005. Higher spending on premiums accounts for the largest single component of this increase, followed by increased spending on prescription drugs and medical providers and supplies.
- Out-of-pocket spending on facility care was, by far, the largest component of non-premium spending in both 1997 and 2005, yet the per-capita dollar increase over this period was nominal.
- The share of beneficiary out-of-pocket spending for non-premium expenditures as a whole did not change over time, but there was a shift in the distribution of spending by type of service. Between 1997 and 2005, beneficiaries spent a greater share out of pocket on prescription drugs and medical providers, and a smaller share on nursing home and other institutional care, perhaps attributable to greater use of home and community-based services.

METHODOLOGY

About the Data

We analyzed data from the Medicare Current Beneficiary Survey (MCBS) Cost and Use file for the years 1997 through 2005. The MCBS is a nationally representative survey of approximately 12,000 Medicare beneficiaries, including those living in long-term care facilities. The survey merges information reported by beneficiaries with Medicare administrative data, providing information on health service spending and utilization and beneficiary demographics. Our analysis includes Medicare beneficiaries of all ages (including the under-65 disabled) and those residing in long-term care settings. Other studies of financial burden typically focus on community-dwelling seniors, primarily at a single point in time.

Out-of-pocket health spending is defined to include all personal expenditures for medical and long-term care services, including premiums for Medicare and supplemental insurance. The survey captures out-of-pocket spending for individual respondents rather than all household members, which precludes analysis of spending at the household level or by married couples. Income includes all sources, such as pension, Social Security, and retirement benefits, reported on a pre-tax basis, for the individual and spouse, where applicable. Because out-of-pocket spending is reported at the individual level, while income is reported for the individual and spouse, we divided income for married respondents in half to analyze the ratio of spending to income at the individual level.

Computing Out-of-Pocket Spending as a Percent of Income

To measure the financial burden of health spending, we computed for each individual a ratio of out-of-pocket spending to income, and computed both the mean and median for the entire group. The analysis focuses on median values, as well as 75th and 90th percentile values to present unbiased estimates of the spending burden among beneficiaries who have high out-of-pocket spending relative to income.

Significance testing was performed to assess if the financial burden of health care (out-of-pocket health expenses as a share of income) changed over time, and differed across subgroups of beneficiaries. We conducted bivariate t-tests to determine differences between estimates in each year at the 95 percent confidence level. Because of the complex survey design of the MCBS, we used the balanced repeated replication (BRR) method to derive standard errors used in computing the confidence intervals. Standard errors for the 1997-2005 share differences between out-of-pocket spending in Exhibit 6 were calculated using the ratio of variable means procedure. All differences between groups discussed in the text are statistically significant at the .05 level.



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