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On Medicare But At Risk: A State-Level Analysis of Beneficiaries Who Are Underinsured or Facing High Total Cost Burdens

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Abstract Medicare provides essential health coverage for older and disabled adults, yet it does not limit out-of-pocket costs for covered benefits and excludes dental, hearing, and longer-term care. The resulting out-of-pocket costs can add up to a substantial share of income. Based on U.S. Census surveys, nearly a quarter of Medicare beneficiaries (11.5 million) were underinsured in 2013–14, meaning they spent a high share of their income on health care. Adding premiums to medical care expenses, we find that 16 percent of beneficiaries (8 million) spent 20 percent or more of their income on insurance plus care. At the state level, the proportion of beneficiaries underinsured ranged from 16 percent to 32 percent, while the proportion with a high total cost burden ranged from 11 percent to 26 percent. Low-income beneficiaries were most at risk. The findings underscore the need to assess beneficiary impacts of any proposal to redesign Medicare.

INTRODUCTION

Before Medicare was signed into law more than 50 years ago, nearly half of U.S. adults age 65 and older lacked health insurance, and many went without necessary care. ^{1,2} Today, Medicare ensures that nearly all seniors have basic health coverage. In addition, Medicare insures 9 million disabled individuals under age 65. In surveys, the program's beneficiaries report greater satisfaction with their coverage and more positive experiences accessing care than do those covered by private plans. ^{3,4}

Yet while Medicare continues to be a lifeline for seniors and people with disabilities, it fails to provide full protection from the high cost of getting sick. There is substantial cost-sharing, as well as no limit on out-of-pocket expenses for Medicare-covered benefits. Moreover, Medicare does not cover dental, hearing, vision, or long-term care. For beneficiaries with multiple illnesses or serious functional limitations, out-of-pocket costs can easily add up to thousands of dollars per year.

Beneficiaries also pay substantial premiums. Medicare's monthly premiums for Part B physician and medical services, amount to \$1,249 a year. And those lacking employer-provided retiree coverage to supplement their Medicare benefits may also pay premiums for drugs covered under Part D and for Medigap policies that cover Medicare cost-sharing expenses.⁵

The out-of-pocket costs of premiums plus medical care can consume a substantial share of income for Medicare's aged and disabled beneficiaries, nearly half of whom live on less than \$25,000 a year.⁶

To assess the extent of this financial burden at the national and state level, we compare beneficiaries' out-of-pocket expenditures for health care services (including services not covered by Medicare) and total out-of-pocket expenses, including premiums, to beneficiaries' annual incomes. We also examine how this burden varies for beneficiaries living below 200 percent of the federal poverty level compared to beneficiaries with higher income. We use two indicators of affordability to assess the cost burden faced by beneficiaries:

- If beneficiaries are underinsured, meaning they spend 10 percent or more of their income on health care services, excluding premiums, or 5 percent or more of income if they are below 200 percent of poverty. This measure directly reflects health insurance design, including benefits not covered by Medicare or supplemental coverage.⁷
- If beneficiaries have a high total cost burden, meaning they spend 20 percent or more of household income on premiums and medical care combined.

To obtain sufficient samples of Medicare beneficiaries at the state level, we merged results from the most recent two years of the U.S. Census Bureau's Current Population Survey (CPS) to provide estimates of the two indicators for the combined years 2013 and 2014. For detailed methods, see About This Study.

The study results indicate that substantial shares of Medicare beneficiaries are at risk of high cost burdens in all states, especially beneficiaries who are poor or living on modest incomes. In total, 11.5 million Medicare beneficiaries (23%) were underinsured and 8 million (16%) spent 20 percent or more of their incomes on premiums plus medical care. Nationally and in all states, beneficiaries with low-incomes accounted for significant majorities of the millions with high cost burdens.

As baby boomers age into Medicare and enrollment grows, there may be proposals to reduce federal program costs by shifting more of the cost to beneficiaries. The evidence of already high financial burdens provided in this brief highlight the need for caution. Indeed, findings point to the need to instead consider reforms to redesign benefits and/or provide enhanced premium support to reduce financial burdens to ensure that beneficiaries are able to afford needed health care as well as other essential costs of living.

STUDY FINDINGS

One in Four Medicare Beneficiaries Are Underinsured

Nationally, 11.5 million beneficiaries (23%) were underinsured in 2013–14, based on their medical out-of-pocket spending (excluding premiums) as a share of annual income (Exhibit 1). Beneficiaries with low incomes, below 200 percent of poverty, were at greatest financial risk of not being able to afford needed health care: they accounted for three-quarters of Medicare's underinsured (Appendix Table 1). On average, 41 percent of low-income beneficiaries were underinsured—four times the share of higher-income beneficiaries who were underinsured (Exhibit 2).

Exhibit 1

Medicare Beneficiaries Are at Risk for High Costs

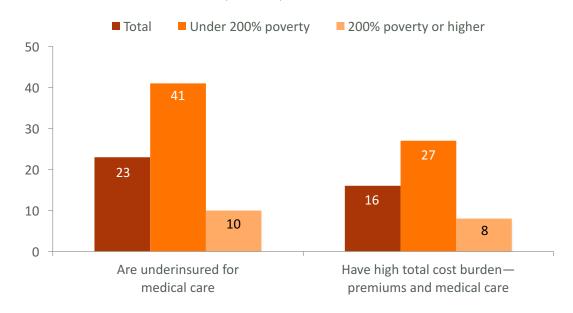
Nearly one in four is underinsured (average 2013–14)

	Beneficiaries	Percent of Medicare population		
	Millions 2013–14	National	Lowest state	Highest state
Underinsured: High share of income spent on out-of-pocket expenditures for medical care	11.5 million	23%	16%	32%
High total cost burden: Spent 20% or more of income on premiums and medical care	8.0 million	16%	11%	26%

Exhibit 2

Medicare's Low-Income Beneficiaries Are at Highest Risk

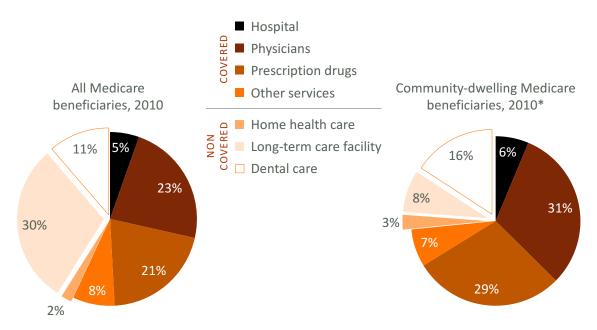
Percent of Medicare beneficiaries (2013–14) who . . .



Notes: Underinsured is defined as Medicare beneficiary in household that spent 10% or more of income on medical care (excluding premiums) or 5% or more if low-income (<200% poverty). High total cost burden is defined as 20% or more of income spent on premiums and medical care. Source: Authors' analysis of combined March 2014 and 2015 Current Population Survey Medicare population using redesigned income samples.

The Census Bureau survey includes reported out-of-pocket costs for spending on deductibles and cost-sharing for services covered by Medicare, such as hospital and physician services, outpatient care, and prescription medicines, as well as services not covered by Medicare, including dental and long-term care. Thus, our underinsured measure reflects Medicare benefit cost-sharing as well as coverage gaps. Analysis of the Medicare Current Beneficiary Survey indicates that, on average, 27 percent of out-of-pocket spending by beneficiaries living in the community was for services not covered by Medicare (Exhibit 3). Including beneficiaries who have had extended stays in nursing homes, 43 percent of average out-of-pocket spending was for noncovered services.⁸

Distribution of Average Out-of-Pocket Spending by Medicare Beneficiaries on Covered and Noncovered Services



^{*} Community-dwelling = those beneficiaries not living in nursing homes. Source: Authors' analysis of 2010 Medicare Current Beneficiary Survey.

One in Six Medicare Beneficiaries Has High Total Cost Burdens

In 2013–14, an estimated 8 million Medicare beneficiaries (16%) lived in households that spent 20 percent or more of their annual income on the combination of health insurance premiums and medical care. Again, low-income beneficiaries are most at risk. Those with low income accounted for 73 percent of all beneficiaries with high total cost burdens (Appendix Table 2). As illustrated in Exhibit 2, more than one-fourth (27%) of low-income Medicare beneficiaries spent 20 percent or more of their incomes on premiums plus medical care, three times the proportion of those with higher income.

Our analysis indicates that the prevalence of high cost burdens relative to incomes within the Medicare population has changed little over the period 2011 to 2014 (Appendix Table 3). Although changes in CPS questions undermine time trends (see About This Study), both affordability

indicators have been relatively stable over time. In large part, this reflects the income distribution of Medicare beneficiaries and the limited help available to those with incomes above the poverty level for paying premiums or health care costs. Forty percent of all beneficiaries have annual household incomes below 200 percent of poverty—less than \$14,300 for a single person and \$21,500 for a couple.

Although Medicaid supplements coverage for the poorest Medicare beneficiaries who meet asset tests, the majority who live below 200 percent of poverty do not qualify for this assistance. People on Medicare are not eligible for the Affordable Care Act's premium or cost-sharing subsidies, and beneficiaries are not eligible for the law's Medicaid expansion.⁹

In Most States, the Proportion of Medicare Beneficiaries Who Are Underinsured or Have High Total Costs Burdens Is Close to the National Average

Nationally, the share of Medicare beneficiaries who were underinsured for medical care ranged from 16 percent in Washington, D.C., to 32 percent in West Virginia (Exhibit 4). In all but nine states, however, the percentage of underinsured was not significantly lower or higher than the national average of 23 percent (Exhibit 4, Appendix Table 1).

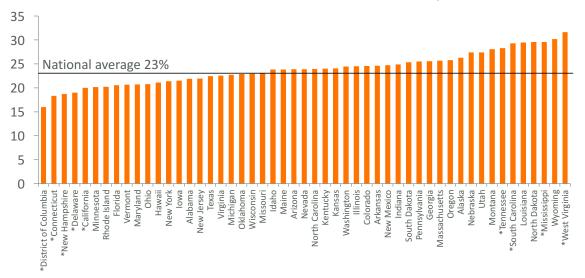
In Louisiana, Mississippi, South Carolina, Tennessee, and West Virginia, the share of beneficiaries who were underinsured was highest, exceeding 28 percent (Exhibit 4). States with the highest proportions of underinsured beneficiaries tend to be those with higher proportions of low-income beneficiaries—a reflection of our lower underinsurance threshold for people below 200 percent of poverty.

Exhibit 4

Underinsured Medicare Beneficiaries by State

Ranges from 16 percent to 32 percent of state Medicare population

Percent of Medicare beneficiaries who are underinsured for medical care, 2013-14



Notes: Asterisk indicates the state's underinsured percentage is significantly different from the national average at p<.05. Underinsured is defined as Medicare beneficiary in household that spent 10% or more of income on medical care (excluding premiums) or 5% or more if low-income (<200% poverty).

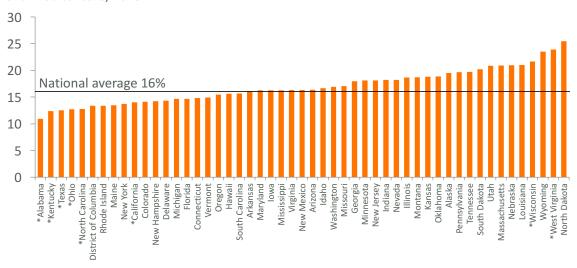
Source: Authors' analysis of combined March 2014 and 2015 Current Population Survey Medicare population using redesigned income samples.

Similarly, with the exception of eight states, the share of beneficiaries spending 20 percent or more of their income on the combination of premiums and medical care did not significantly diverge from the national average (Exhibit 5, Appendix Table 2). In the majority of states, at least 16 percent of beneficiaries faced total out-of-pocket costs that equaled or exceeded 20 percent of their annual income. The percentage of Medicare beneficiaries with high total burdens ranged from a low of 11 percent in Alabama to a high of 26 percent in North Dakota.

Exhibit 5

Medicare Beneficiaries with High Total Cost Burden by State Ranges from 11 percent to 26 percent of state Medicare population

Percent of Medicare beneficiaries who spent 20 percent or more of income on premiums and medical care, 2013–14



Notes: Asterisk indicates the state's percentage with a high total cost burden is significantly different from the national average at p<.05. High total cost burden is defined as Medicare beneficiary in household that spent 20% or more of income on premiums and medical care. Source: Authors' analysis of combined March 2014 and 2015 Current Population Survey Medicare population using redesigned income samples.

There were no apparent geographic patterns. All major regions of the country contained states with higher or lower shares of beneficiaries at risk for high cost burdens relative to income. The lack of clear patterns likely reflects the fact that Medicare is a national program whose benefits and subsidies are the same in all states.

Low-Income Medicare Beneficiaries Are More Likely to Be Unable to Afford to Get Sick

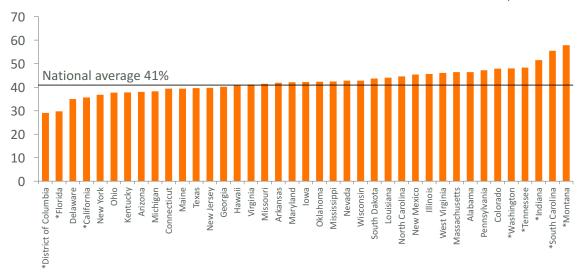
In all states, low-income beneficiaries were at greater risk than higher-income beneficiaries for being unable to afford needed care and for facing total cost burdens that consumed a high share of their income. Within states, the percentage of low-income beneficiaries who were underinsured or had high total cost burdens (spent 20% or more of their income) was often as much as six times greater than the percentage of their higher-income counterparts (Appendix Table 1 and Appendix Table 2).

As illustrated in Exhibit 6, the proportion of low-income beneficiaries (below 200% of poverty) who were underinsured—spending 5 percent or more of their income on medical care, excluding premiums—was high in all states. Underinsured rates for those with low incomes ranged from about 30 percent in Florida and the District of Columbia to more than 50 percent in Indiana, South Carolina, and Montana, with the majority of states near the national average of 41 percent.

Exhibit 6

Low-Income Underinsured Medicare Beneficiaries by State Ranges from 29 percent to 58 percent of state Medicare population

Percent of low-income Medicare beneficiaries who are underinsured for medical care, 2013-14



Notes: Asterisk indicates the state's percentage of low-income underinsured Medicare beneficiaries is significantly different from the national average at p<.05. Underinsured is defined as Medicare beneficiary in household that spent 10% or more of income on medical care (excluding premiums) or 5% or more if low-income (<200% poverty). Twelve states with small sample sizes are excluded from the analysis.

Source: Authors' analysis of combined March 2014 and 2015 Current Population Survey Medicare population using redesigned income samples.

DISCUSSION

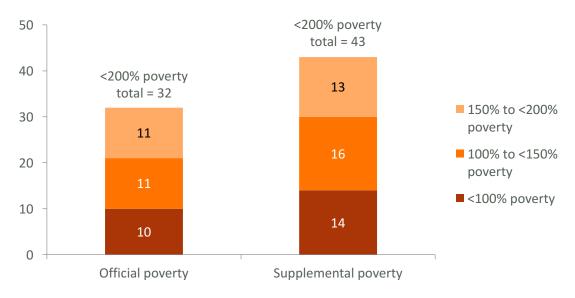
Our analysis reveals that in all regions of the country, significant shares of Medicare beneficiaries, despite being insured all year, are at risk for having high medical cost burdens and being unable to afford needed care. Including premiums, total out-of-pocket costs can represent a substantial portion of annual income, especially for beneficiaries living on low or modest incomes. Expenditures for medical services reflect Medicare's relatively high cost-sharing, lack out-of-pocket caps for covered benefits, and absence of coverage for dental, hearing, and long-term services and supports.

Medical care spending and premiums can push low-income beneficiaries into poverty. Recognition that such health care expenditures can erode families' ability to afford other essential living costs, such as housing and food, led the U.S. Census Bureau to add questions to its Current Population Survey (CPS) about out-of-pocket spending (thus enabling this study).

The Census Bureau now incorporates the CPS medical expenditure data with other adjustments to derive a supplemental poverty measure, which is published each year and compared with the official poverty measure (which does not take medical out-of-pocket spending into account). As Exhibit 7 illustrates, when the supplemental poverty measure is used, the percentage of adults age 65 or older who are poor is 50 percent higher than the official rate, an increase of 2 million people. And the percentage of seniors below 200 percent of poverty increases from 32 percent to 43 percent.

More Adults Age 65 or Older Would Be Poor or Near-Poor if Medical Out-of-Pocket Expenses Were Counted





Note: Supplemental poverty includes out-of-pocket spending on medical care; official poverty does not. Source: K. Short, "The Supplemental Poverty Measure: 2014," Current Population Reports, P60-254 (U.S. Census Bureau, Sept. 2015).

Our findings indicate that policymakers should not assume all Medicare beneficiaries are well protected or assured affordable access to care. The Affordable Care Act (ACA) provides substantial help to adults earning up to 200 percent of poverty, but these protections are not available to people on Medicare. As illustrated in Exhibit 8, ACA subsidies hold premium payments to no more than 2 percent of income for marketplace enrollees who are between 100 percent and 133 percent of poverty and no more than 3 percent for those between 133 percent and 150 percent of poverty (\$240 to \$480 in annual premium payments). With the addition of ACA cost-sharing subsidies, marketplace coverage has an effective actuarial value of 94 percent. Based on studies of plans offered in various states, this standard has resulted in average deductibles in the \$200 range and out-of-pocket maximums for covered benefits under \$900 a year. 11

In contrast, the Medicare premium for Part B amounts to \$1,462 a year for those newly eligible for Medicare, with no help for beneficiaries with incomes above 135 percent of poverty. Moreover,

Medicare's core hospital and physician benefits have no out-of-pocket maximum, and there is a high hospital deductible per episode of care and 20 percent cost-sharing for physician services, including those for hospitalized patients (Exhibit 8). As a result, when low-income adults become eligible for Medicare, they can experience sharp cost increases for premiums as well as basic hospital and medical care. These increases will have an especially pronounced impact on those who benefited from the Medicaid expansion or those who received substantial premium and cost-sharing subsidies with incomes near poverty. ¹²

Exhibit 8. Comparison of Beneficiary Costs:
Affordable Care Act Low-Income Provisions vs. Current Medicare Policy

	Illustrative income examples: beneficiary costs, single person (poverty group)				
	\$12,000 (100% to <133% poverty)	\$16,000 (133% to <150% poverty)	\$18,000 (150% to <200% poverty)	\$20,000 (200%+ poverty)	
ACA low-income provisions, 2016					
If state with Medicaid expansion	Medicaid eligible				
Marketplaces					
Annual premium	\$240	\$480	\$720	\$1,000	
Percent of income max	2%	3%	4%	5%	
Cost-sharing*					
Actuarial value	94%	94%	87%	87%	
Average deductible	\$221	\$221	\$709	\$709	
Average copayment, primary care visit	\$12	\$12	\$16	\$16	
Average copayment, specialist visit	\$25	\$25	\$37	\$37	
Average copayment per hospital stay	\$291	\$291	\$414	\$414	
Prescription drugs: included					
Average out-of-pocket limit	\$877	\$877	\$1,795	\$1,795	
Current Medicare policy, 2016**					
Part B premium: \$121.80 month if new to Medicare in 2016	\$0 if asset test met	\$1,462	\$1,462	\$1,462	
Part B premium if on Medicare in 2015: \$104.90	\$0 if asset test met	\$1,259	\$1,259	\$1,259	
Cost-sharing					
Part B: doctors, outpatient, durable medical equipment					
Part B deductible	\$166	\$166	\$166	\$166	
Part B coinsurance	20%	20%	20%	20%	
Part A: Hospital, nursing home					
Hospital: deductible per episode	\$1,288	\$1,288	\$1,288	\$1,288	
Skilled nursing facility after hospital: Up to 100 days-cost-sharing days 21 to 100	\$161	\$161	\$161	\$161	
Out-of-pocket limit	None	None	None	None	

^{*} ACA estimates of average cost-sharing from M. Rae, G. Claxton, C. Cox et al., Cost-Sharing Subsidies in Federal Marketplace Plans, 2016 (Henry J. Kaiser Family Foundation, Nov.13, 2015).

^{**} Medicare 2016 Costs at a Glance (U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services).

Our findings on beneficiary out-of-pocket costs highlight the need for targeted reforms that would ease these burdens, especially in light of the increased need for medical care as the Medicare population ages. Aligning the ACA's premium subsidies and cost-sharing reductions with Medicare policy would smooth people's transition to Medicare. This harmonization also would make it easier to administer low-income subsidies across a person's lifetime.¹³

The findings highlight the need for caution as baby boomers age into Medicare and the enrollment grows. When considering possible modifications to Medicare's benefits or premiums, it will be important for policymakers to recognize that even small changes to cost-sharing or premiums make a difference. Given beneficiaries' already high cost burdens and Medicare's central purpose to ensure access to care, there will be a need for alternatives to simply shifting more costs onto beneficiaries. Creative policies could be crafted to ensure the affordability of care and to meet the needs of the nation's population into the future, by building on Medicare's strengths while addressing gaps that put beneficiaries at high financial risk.

ABOUT THIS STUDY

Starting in March 2010, the U.S. Census Bureau's Current Population Survey (CPS) included questions about out-of-pocket spending on medical care and health insurance premiums. These questions were added to enable creation of a supplemental poverty measure that accounts for essential medical care spending not included in the official poverty measure. The March CPS also includes annual questions on insurance coverage and household income. Our analysis uses the most recent annual data available—for 2013 and 2014 (from the March 2014 and March 2015 CPS) to produce national and state estimates of the number and share of Medicare beneficiaries at risk for incurring health care expenditures that are high compared with their incomes.

We used two indicators of financial risk for Medicare beneficiaries: high total cost burden and high medical care expenditures relative to income (underinsured). We define high total cost burden as spending 20 percent or more of annual income on medical care and premiums. This measure underreports total premiums, because CPS respondents are not asked to report their Medicare Part B premiums—likely because not many beneficiaries would know their premium amounts, since these are subtracted from Social Security payments.

To estimate the number of underinsured beneficiaries, we excluded premiums and divided out-of-pocket spending on medical care services by household income. We used thresholds developed for earlier studies of the under-65 population, ¹⁴ categorizing Medicare beneficiaries as underinsured if they were in households that spent 10 percent or more of income on medical care alone, or 5 percent or more if income was less than 200 percent of the federal poverty level. This lower threshold, which reflects low-income beneficiaries' limited ability to pay for care, follows the maximum threshold established for the original Children's Health Insurance Program for children in families with incomes below 200 percent of poverty.

We provide national and state estimates of the share of Medicare beneficiaries at risk of high total cost burden or being underinsured and show how these vary by whether income is below 200 percent of poverty (less than \$14,300 for single adults and less than \$21,500 for couples) or 200 percent or higher. To produce sufficient samples for state-level estimates, we combined the most recent two years of the CPS (March 2014 and 2015), asking about 2013 and 2014. The Census Bureau redesigned income questions to more adequately capture potential income sources. The March

2014 survey asked roughly 40 percent of the sample the redesigned questions. In March 2015, the redesigned income questions were standard. As instructed by the Census Bureau, we used a partial sample for CPS 2014 of beneficiaries who were asked the redesigned income questions to merge the two years. The resulting unweighted sample includes 35,898 Medicare beneficiaries, with at least 200 records per state. In instances where the unweighted sample was too small—less than 200 for an income group—we suppressed the results for that income group in the exhibits included in this issue brief. (The state unweighted samples are available from the authors.) We include one table depicting time trends (see Appendix Table 3). But note that the redesigned income questions resulted in higher reported income and thus disrupt trends for the indicators.¹⁵

The exhibits provide population estimates using population weights provided by the U.S. Census Bureau. The CPS is designed to be representative of the community-dwelling population, excluding those living in long-term nursing homes or other institutions. In the merged two years, the weighted sample represents 50 million Medicare beneficiaries, including disabled beneficiaries under age 65.

For state-level analyses, we compared state rates to the national average excluding that state. This was a means to judge whether a state's outcome (rate paying above given medical spending thresholds) was statistically significantly different from that of other states at p <.05 percent. We use the STATA "svyset" test procedure on the replicate weight estimates released by the Annual Social and Economic Supplement (ASEC) to calculate variances. This provides population weighting and adjustments to standard errors that account for ASEC sampling design.

NOTES

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- J. Lubitz, L. G. Greenberg, Y. Gorina et al., "Three Decades of Health Care Use by the Elderly, 1965–1998," *Health Affairs*, March–April 2001 20(2):19–32.
- ³ Harris Interactive, "Medicare, Crime-Fighting, Social Security, Defense—The Most Popular Federal Government Services," News Release (Harris Interactive, Jan. 14, 2010.
- ⁴ K. Davis, K. Stremikis, M. M. Doty, and M. A. Zezza, "Medicare Beneficiaries Less Likely to Experience Cost- and Access-Related Problems Than Adults with Private Coverage," *Health Affairs*, published online July 18, 2012.
- C. Schoen, C. Buttorff, M. Andersen et al., "Policy Options to Expand Medicare's Low-Income Provisions to Improve Access and Affordability," *Health Affairs*, Dec. 2015 34(12):2086–94.
- ⁶ Authors' tabular data from CPS table creator using household income and family size for Medicare beneficiaries, March 2015 for year 2014, http://www.census.gov/cps/data/cpstablecreator.html.
- Note that the underinsured measure used in this study differs from the one used in previous Commonwealth Fund research. We did not have information on deductibles and thus could not assess potential risk—deductibles equaling or exceeding 5 percent of income. The CPS measure assesses incurred expenses only.
- The Medicare Current Beneficiary Survey is a continuous longitudinal survey of approximately 15,000 Medicare beneficiaries. The data are from 2010. For further details see Table 3 technical appendix of C. Schoen, C. Buttorff, M. Andersen et al., "Policy Options to Expand Medicare's Low-Income Provisions to Improve Access and Affordability," *Health Affairs*, Dec. 2015 34(12):2086–94.
- Oc. Schoen, C. Buttorff, M. Andersen et al., "Policy Options to Expand Medicare's Low-Income Provisions to Improve Access and Affordability," *Health Affairs*, Dec. 2015 34(12):2086–94.
- K. Short, *The Supplemental Poverty Measure: 2014*, Current Population Reports, P60-254 (U.S. Census Bureau, Sept. 2015).
- ACA data for average cost-sharing in federal marketplaces from M. Rae, G. Claxton, C. Cox et al., Cost-Sharing Subsidies in Federal Marketplace Plans, 2016 (Henry J. Kaiser Family Foundation, Nov.13, 2015).
- For ACA provisions for premium and cost-sharing subsidies for the under-65, non-Medicare population, see S. R. Collins, M. Gunja, and S. Beutel, *How Will the Affordable Care Act's Cost-Sharing Reductions Affect Consumers' Out-of-Pocket Costs in 2016?* (The Commonwealth Fund, March 2016); or C. Schoen, S. Hayes, and P. Riley, *The Affordable Care Act's New Tools and Resources to Improve Health and Care for Low-Income Families Across the Country* (The Commonwealth Fund, Oct. 2013).
- C. Schoen, C. Buttorff, M. Andersen et al., "Policy Options to Expand Medicare's Low-Income Provisions to Improve Access and Affordability," *Health Affairs*, Dec. 2015 34(12):2086–94.
- C. Schoen, M. M. Doty, R. H. Robertson, and S. R. Collins, "Affordable Care Act Reforms Could Reduce the Number Underinsured U.S. Adults by 70 Percent," Health Affairs, Sept. 2011 30(9):1762–71. For an under-65 state study, see C. Schoen, S. L. Hayes, S. R. Collins, J. A. Lippa, and D. C. Radley, America's Underinsured: A State-by-State Look at Health Insurance Affordability Prior to the New Coverage Expansions (The Commonwealth Fund, March 2014).
- J. L. Semega and E. Welniak, "The Effects of Changes to the Current Population Survey, Annual Social and Economic Supplement on Estimates of Income," Proceedings of the 2015 Allied Social Science Association (ASSA) Research Conference (U.S. Census Bureau, Sept. 2015).

Appendix Table 1. Underinsured Medicare Beneficiaries, by State and Poverty Status, 2013–14 Number and percent of beneficiaries living in household spending 10% or more of income on medical care alone, or 5% or more of income if below 200% of the federal poverty level (FPL)

	All bene	eficiaries	Under 2	00% FPL	200% or	more FPL
State	People	Percent	People	Percent	People	Percent
United States (2013-14 merged)	11,538,279	23.1	8,784,905	41.1	2,753,374	9.7
Alabama	199,669	21.9	177,265	46.4	22,404	4.2
Alaska	17,320	26.3	10,320	42.5	7,000	16.8
Arizona	226,841	23.9	157,735	38.0	69,106	12.9
Arkansas	142,349	24.6	118,486	41.8	23,863	8.1
California	1,029,230	20.0 *	840,441	35.6 *	188,789	6.8
Colorado	175,280	24.5	127,599	47.9	47,681	10.7
Connecticut	99,413	18.3 *	83,264	39.4	16,149	4.9
Delaware	32,561	19.0 *	19,457	34.9	13,104	11.3
District of Columbia	12,720	16.0 *	10,947	29.0 *	1,773	4.2
Florida	782,282	20.6	510,042	29.7 *	272,240	13.0
Georgia	379,968	25.6	287,137	40.2	92,831	12.0
Hawaii	46,591	21.1	37,316	40.8	9,275	7.2
daho	55,896	23.8	39,706	41.4	16,190	11.7
llinois	498,387	24.5	376,757	45.6	121,630	10.1
ndiana	268,761	24.9	211,915	45.6 51.6 *	56,846	8.5
owa	110,291	21.5	75,543	42.2	34,748	10.4
owa Kansas	98.301	21.5 24.1	75,543 78,705	42.2 45.2	34,748 19,596	8.4
	-,					
Kentucky	193,944	24.0	134,098	37.8	59,846	13.2
Louisiana	208,070	29.5	156,421	44.0	51,649	14.7
Maine	64,101	23.9	41,010	39.4	23,091	14.0
Maryland	184,995	20.7	143,592	42.1	41,403	7.5
Massachusetts	299,902	25.7	255,245	46.4	44,657	7.2
Michigan	405,310	22.8	249,596	38.3	155,714	13.8
Minnesota	163,103	20.2	108,119	39.7	54,984	10.3
Mississippi	146,624	29.6 *	126,467	42.5	20,157	10.2
Missouri	264,016	23.1	185,598	41.4	78,418	11.3
Montana	52,724	28.1	48,658	57.9 *	4,066	3.9
Nebraska	79,311	27.4	63,641	54.5 *	15,670	9.1
Nevada	103,137	23.9	83,445	42.8	19,692	8.3
New Hampshire	40,139	18.7 *	27,666	40.6	12,473	8.5
New Jersey	300,565	22.0	205,033	39.7	95,532	11.2
New Mexico	84,153	24.7	70,059	45.4	14,094	7.6
New York	657,198	21.4	533,711	36.8	123,487	7.6
North Carolina	397,759	24.0	316,923	44.6	80,836	8.5
North Dakota	27,651	29.6	22,892	58.5 *	4,759	8.8
Ohio	425,220	20.8	311,382	37.7	113,838	9.4
Oklahoma	140,460	22.9	110,749	42.4	29,711	8.4
Oregon	194,223	25.8	143,264	60.4 *	50,959	9.9
Pennsylvania	608,101	25.5	473,880	47.2	134,221	9.7
Rhode Island	36,645	20.2	28,897	35.2	7,748	7.8
South Carolina	244,557	29.3 *	198,491	55.5 *	46,066	9.7
South Dakota	36,415	25.3	25,847	43.7	10,568	12.5
Tennessee	315,175	28.3 *	268,727	48.3 *	46,448	8.3
Гехаѕ	711,984	22.4	613,120	39.6	98,864	6.1
Jtah	82,135	27.4	62,130	54.3	20,005	10.8
/ermont	23,173	20.6	14,885	40.3	8,288	11.0
	265,662	20.6		41.1	93,863	12.3
/irginia Mashington			171,799			
Washington	247,849	24.5	172,760	48.0 *	75,089	11.5
West Virginia	120,646	31.7 *	85,007	46.1	35,639	18.1
Visconsin	213,874	22.9	154,038	42.8	59,836	10.5
Nyoming	23,598	30.2	15,120	48.2	8,478	18.2
Minimum		16.0		29.0		3.9
Maximum		31.7		60.4		18.2

Notes: Shading indicates sample size was smaller than 200 unweighted records. * Indicates the state is different from the national average at p<.05 (excluding that state).

Source: Authors' analysis of combined March 2014 and 2015 Current Population Survey Medicare population using redesigned income samples.

Appendix Table 2. Medicare Beneficiaries with High Total Cost Burden, by State and Poverty Status, Two-Year Average, 2013-14

Beneficiaries living in household spending 20% or more of income on premiums and medical care

	All ben	eficiaries	Under 2	00% FPL	200% or	more FPL
State	People	Percent	People	Percent	People	Percent
United States	7,973,689	16.0	5,768,175	27.0	2,205,514	7.7
Alabama	99,612	10.9 *	72,429	19.0	27,183	5.1 *
Alaska	12,874	19.5	7,732	31.8	5,142	12.4
Arizona	155,663	16.4	95,126	22.9	60,537	11.3
Arkansas	92,883	16.1	65,031	23.0	27,852	9.4
California	720,871	14.0 *	541,441	22.9 *	179,430	6.4
Colorado	100,877	14.1	72,892	27.4	27,985	6.3
Connecticut	80,648	14.8	65,049	30.7	15,599	4.7 *
Delaware	24,520	14.3	13,139	23.6	11,381	9.8
District of Columbia	10,657	13.4	9,035	24.0	1,622	3.9 *
Florida	559,122	14.7	365,414	21.3 *	193,708	9.3
Georgia	266,939	18.0	221,802	31.0	45,137	5.9
Hawaii	34,500	15.6	25,962	28.4	8,538	6.6
Idaho	39,039	16.7	33,713	35.2	5,326	3.8
Illinois	379,516	18.6	281,391	34.1	98,125	8.1
Indiana	196,763	18.2	143,499	34.9	53,264	8.0
lowa	83,512	16.3	58,565	32.8	24,947	7.5
Kansas	76,851	18.8	44,737	25.7	32,114	13.7
Kentucky	99,717	12.4 *	77,592	21.9	22,125	4.9 *
Louisiana	148,180	21.0	82,155	23.1	66,025	18.8
Maine	36,137	13.5	19,833	19.1 *	16,304	9.9
Maryland	145,163	16.3	102,608	30.1	42,555	7.7
Massachusetts	244,177	20.9	186,818	34.0	57,359	9.3
Michigan	261,362	14.7	153,446	23.5	107,916	9.6
Minnesota	146,305	18.1	93,004	34.1	53,301	9.9
Mississippi	80,694	16.3	67,525	22.7	13,169	6.7
Missouri	195,245	17.1	140,692	31.4	54,553	7.9
Montana	25,983	18.7	20,560	35.4	5,423	5.2
Nebraska	54,174	20.9	43,869	43.0 *	10,305	6.0
Nevada	69,158	18.2	61,436	36.4 *	7,722	3.3 *
New Hampshire	32,062	14.2	21,984	29.9	10,078	6.9
New Jersey	240,576	18.1	151,930	30.8	88,646	10.4
New Mexico	52,439	16.3	40,354	28.2	12,085	6.5
New York	394,953	13.7	307,830	23.1	87,123	5.4 *
North Carolina	240,177	12.8 *	183,946	21.9	56,231	5.9
North Dakota	21,949	25.5	17,953	50.7 *	3,996	7.4
Ohio	268,748	12.7 *	193,785	22.4 *	74,963	6.2
Oklahoma	96,910	18.9	70,402	34.1	26,508	7.5
Oregon	110,381	15.5	75,534	34.5 *	34,847	6.7
Pennsylvania	436,051	19.7	316,956	34.9 *	119,095	8.6
Rhode Island	26,325	13.4	21,530	23.7	4,795	4.8
South Carolina	134,770	15.7	105,696	28.4	29,074	6.1
South Dakota	25,141	20.2	16,190	33.9	8,951	10.6
Tennessee	207,284	19.7	152,133	29.5	55,151	9.9
Texas	409,887	12.5 *	354,220	22.1 *	55,667	3.4 *
Utah	62,615	20.9	42,999	37.5	19,616	10.6
Vermont	16,842	14.9	9,838	26.4	7,004	9.3
Virginia	186,557	16.3	127,148	31.8	59,409	7.8
Washington	190,538	16.9	136,394	32.6	54,144	8.3
West Virginia	88,190	23.9 *	57,121	32.5	31,069	15.8 *
Wisconsin	200,653	23.9	114,632	32.3	86,021	15.0 *
Wyoming	18,751	23.5	12,357	38.1	6,394	13.7
Minimum	10,731	10.9	12,337	19.0	0,374	3.3
				50.7		
Maximum		25.5		50./		18.8

Notes: FPL = federal poverty level. Shading indicates sample size was smaller than 200 unweighted records. * Indicates the state is different from the national average at p<.05 (excluding that state).

Source: Authors' analysis of combined March 2014 and 2015 Current Population Survey Medicare population using redesigned income samples.

Appendix Table 3. For Two Medicare Financial Risk Indicators, National Trends Are Stable over
the Past Four Years (2011–2014)

Year (Current Population Survey)	Underinsured for medical costs (excluding premiums): spent 10% or more of income, 5% or more if <200% poverty	High total cost burden for premiums and medical care: spent 20% or more of income
2011 (March 2012 CPS)	24.1%	16.7%
2012 (March 2013 CPS)	23.1%	15.9%
2013 (March 2014 CPS)	23.8%	16.5%
2014 (March 2015 CPS)	22.3%	15.6%
Merged 2013/2014 using redesigned income samples	23.0%	16.0%

Source: Authors' analysis of March 2012, 2013, 2014, and 2015 Current Population Survey Medicare population.

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