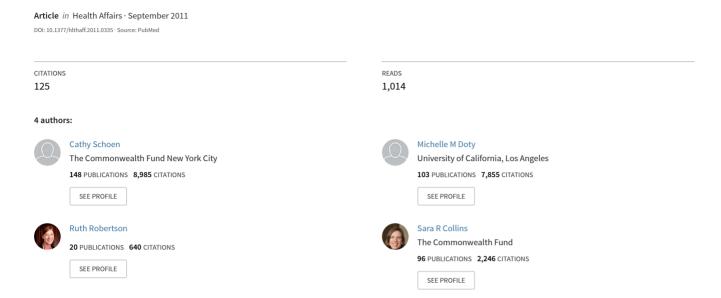
Affordable Care Act Reforms Could Reduce The Number Of Underinsured US Adults By 70 Percent



Health Affairs

At the Intersection of Health, Health Care and Policy

intersection of ricalti, ricalti oare and roll

Cite this article as:

Cathy Schoen, Michelle M. Doty, Ruth H. Robertson and Sara R. Collins Affordable Care Act Reforms Could Reduce The Number Of Underinsured US Adults By 70 Percent Health Affairs, 30, no.9 (2011):1762-1771

doi: 10.1377/hlthaff.2011.0335

The online version of this article, along with updated information and services, is available at:

http://content.healthaffairs.org/content/30/9/1762.full.html

For Reprints, Links & Permissions:

http://healthaffairs.org/1340 reprints.php

E-mail Alerts: http://content.healthaffairs.org/subscriptions/etoc.dtl

To Subscribe: http://content.healthaffairs.org/subscriptions/online.shtml

Health Affairs is published monthly by Project HOPE at 7500 Old Georgetown Road, Suite 600, Bethesda, MD 20814-6133. Copyright © 2011 by Project HOPE - The People-to-People Health Foundation. As provided by United States copyright law (Title 17, U.S. Code), no part of Health Affairs may be reproduced, displayed, or transmitted in any form or by any means, electronic or mechanical, including photocopying or by information storage or retrieval systems, without prior written permission from the Publisher. All rights reserved.

DOI: 10.1377/hlthaff.2011.0335 HEALTH AFFAIRS 30, NO. 9 (2011): 1762-1771 ©2011 Project HOPE— The People-to-People Health Foundation, Inc. By Cathy Schoen, Michelle M. Doty, Ruth H. Robertson, and Sara R. Collins

Affordable Care Act Reforms Could Reduce The Number Of Underinsured US Adults By 70 Percent

Cathy Schoen (cs@cmwf.org) is the senior vice president for policy, research, and evaluation at the Commonwealth Fund, in New York City.

Michelle M. Doty is vice president of research and evaluation at the Commonwealth Fund.

Ruth H. Robertson is the senior research associate, Program on Affordable Health Insurance, at the Commonwealth Fund.

Sara R. Collins is vice president for affordable health insurance at the Commonwealth Fund.

ABSTRACT To provide a baseline and assess the potential of changes brought about under the Affordable Care Act, this study estimates the number of US adults who were underinsured or uninsured in 2010. Using indicators of medical cost exposure relative to income, we find that 44 percent (81 million) of adults ages 19–64 were either uninsured or underinsured in 2010—up from 75 million in 2007 and 61 million in 2003. Adults with incomes below 250 percent of the federal poverty level account for sizable majorities of those at risk of becoming uninsured or underinsured. If reforms succeed in increasing the affordability of care for people in this income range, we could expect a 70 percent drop in the number of underinsured people and a steep drop in the number of uninsured people.

cross the country, health care costs have been rising faster than incomes, driving up premium costs for employers and individuals. To slow premium increases, employers have increased cost sharing and deductibles. Federal surveys tracking private employer trends indicate that deductibles doubled in a majority of states between 2003 and 2009.1 Such trends put low-income families particularly at risk of financial stress when sick or injured. The Census Bureau's alternative poverty measures that incorporate new questions about medical spending indicate that an additional 2 percent of the population would be counted as poor if their out-ofpocket medical expenses were deducted from their incomes.2

Beginning in 2014, the Affordable Care Act of 2010 will provide income-related premium assistance and cost-sharing provisions to increase health care access and provide financial protection for people with lower incomes. These provisions will reduce exposure to out-of-pocket expenses for covered benefits. The law will vary cost-sharing standards as well as premium credits by poverty level in order to limit a person's

risk of incurring high out-of-pocket expenses and to make care more affordable. The reforms thus seek to expand coverage and to reduce the number of insured people who are "underinsured" based on exposure to medical care costs that are high relative to their incomes.

To provide a baseline as of 2010 and to examine the potential of the reforms, we used findings from a recent survey to estimate the number of adults who were underinsured or uninsured in 2010. The analysis updates 2003 and 2007 surveys using the same methodology to identify those who are underinsured.³

We found a significant increase in the percentage who were underinsured from 2007 to 2010, although the change was less than that observed from 2003 to 2007. This probably reflects the slowdown in health spending as people cut back because of the recession. Including for the first time responses from people reached on their cell phones, the 2010 estimate provides a new baseline and target as the Affordable Care Act reforms unfold. To assess the reforms' potential, the study examined the risk of being underinsured or uninsured by poverty groups who will receive cost-sharing and premium assistance.

Study Data And Methods

DATA Study data come from the Commonwealth Fund 2010 Health Insurance Survey, a nationally representative telephone survey of 4,005 adults age nineteen and older living in the continental United States. Conducted by Princeton Survey Research Associates International, interviews took place from July 14 to November 30, 2010. The survey used an overlapping dual-frame survey of land-line and cell phones in recognition that cell-phone-only households now constitute nearly 30 percent of all households, compared to 10 percent in 2007 and less than 3 percent in 2003.4 Based on an analysis of federal surveys that have recently expanded to include cell phones in the sample frame, cell-phone-only households tend to be healthier across age groups as well as younger, compared to households surveyed using land-line phones.⁵

We also present trend data from our analyses of the 2003 and 2007 Biennial Health Insurance Surveys (also conducted by the Princeton group), which included only land-line phones. Although necessary to reflect the US population, the change in phone sample frame may influence cost and care experience trends.

The survey oversampled adults from telephone exchanges in geographic areas with a high density of low-income households—the same method used in 2003 and 2007. The final sample consisted of 2,550 interviews conducted by landline phone and 1,455 interviews by cell phone, including 637 in households with no land lines.

The survey consisted of twenty-five-minute telephone interviews administered in English or Spanish, according to the respondent's preference. To correct for the disproportionate sample design, data were weighted by age, sex, race or ethnicity, education, household size, geographic region, population density, and telephone use, using the Census Bureau's 2010 Annual Social and Economic Supplement.

In this study we restricted the analysis to the sample of 2,616 people ages 19–64 who participated in the survey. The resulting weighted sample represents 184 million adults in this age group. The land-line portion of the survey achieved a 29 percent response, and the cellphone component achieved a 25 percent response rate.⁶

VARIABLES AND METHODS The survey asked about care experiences, out-of-pocket medical care spending, insurance, income, health status, and other demographic characteristics. Insured respondents reported whether they had been uninsured earlier in the year. Adults were categorized as insured all year or uninsured during the year.

Following the methods used in the 2003 and

2007 studies, we then used three indicators of financial risk compared to family income to designate adults as "underinsured" despite the fact that they had been insured all year. Using reports of out-of-pocket medical care expenses and plan deductibles compared to annual total household income, we classified adults as underinsured if they reported at least one of three indicators of medical cost risk relative to income: family outof-pocket medical care expenses amounted to 10 percent or more of income; among lowincome adults (those below 200 percent of the federal poverty level), medical expenses amounted to at least 5 percent of income; or the per person deductible equaled or exceeded 5 percent of income.

We used the indicators to divide continuously insured adults into two groups: either underinsured or not. The 11 percent of adults insured all year about whom we had no income data were included in the "insured, not underinsured" category in the analyses.

As we did in the earlier studies, we selected the 10 percent threshold for costs because it is the level most commonly used in studies of financial stress and studies of the underinsured. ^{7,8} We included the 5 percent threshold for those with low incomes based on national policy in the Children's Health Insurance Program and on an earlier RAND experiment that used this lower threshold to reflect incomes that barely covered essentials and lack of assets or savings in the event of illness.

The deductible indicator measures potential risk, although it will miss risks that are attributable to benefit gaps or limits. We used a 5 percent threshold based on analysis of the survey data that found that most households meeting this threshold were families of two or more and thus could be exposed to 10 percent or more of their income. Adults added to the composite by this indicator were predominantly families (71 percent) with low or modest incomes (74 percent had incomes below \$60,000 a year).

ANALYSIS The analysis examines the distribution of the under- and uninsured by income and compares the experiences of underinsured adults both to the experiences of those having more adequate insurance and to the experiences of uninsured adults. By construction, the "underinsured" category includes only adults who were insured all year. This allowed us to associate out-of-pocket spending and access experiences during the year with the quality of insurance.

To estimate the independent effects of insurance status on health care experiences, we used logit multivariate models to predict access and care experiences as a function of insurance status, controlling for income, health status, age,

and race or ethnicity. We computed predicted probabilities for each insurance category, holding all else constant, and we display adjusted percentages to enable easy interpretation of the multivariate results.⁹

Exhibits contrast experiences by insurance groups and indicate where differences are significant at the 5 percent level or better, using "insured all year, not underinsured" as the referent group. All analyses were conducted using Stata, version 9.2, adjusting standard errors for clustering and the stratified sampling design with the weighted survey estimator.

LIMITATIONS The study defined the underinsured by estimates of out-of-pocket expenses relative to income. Except for the deductible indicator, this method will miss those who were healthy during the year but who had insurance policies with benefit limits or caps on covered expenses that would have exposed them to high costs relative to their incomes if they had been sick. Yet the financial indicator method offers a relatively simple way to track trends without resorting to a more detailed analysis of insurance benefits.

Similar to the recently expanded Census Bureau annual survey questions, the 2010 Commonwealth Fund survey asked adults to estimate their total out-of-pocket spending for medical care and premiums for a full year. It is thus limited by the extent to which adults' estimates approximate what they actually spent.

Federal surveys such as the Medical Expenditure Panel Survey would be expected to enable more accurate descriptions by tracking experiences and claims quarterly. However, a recent study that compared that survey's results to Current Population Survey question results indicates that the one-year recall does a reasonable job in capturing average trends.²

The 2010 Commonwealth Fund survey is also limited in that it asked a single question about annual income rather than the multiple questions about potential income sources used in federal surveys. The survey thus results in a larger percentage with low incomes than found by the Current Population Survey.

However, as discussed in this article's online Appendix, ¹⁰ the share of the population spending 10 percent or more of their income on out-of-pocket expenses and trends is consistent with Medical Expenditure Panel Survey annual findings. Thus, the comparative lack of precision of the one-year recall for medical care expenses and the simple question about annual income appear to capture and anticipate trends that are seen in the results of federal surveys.

Our study's results are also limited by the use of a phone survey with relatively low response rates. The bias of the response rate in terms of out-of-pocket medical care expenses or income distribution is unknown. To the extent that the survey missed populations that are vulnerable from poor health, lack of proficiency in English, and low income, the results may underestimate the percentage of low-income people who are at risk because of meager benefits, including "minimed" plans (indemnity plans with limited benefits).

Conversely, the 5 percent of income threshold for deductibles and the 10 percent threshold for out-of-pocket expenses could capture some high-income families with sufficient income and assets to absorb these medical care costs. Although this potential exists, as yet the indicators primarily capture low- and middle-income adults.

In the study, 83 percent of adults identified as underinsured had incomes below \$60,000 a year (92 percent reported earning less than \$100,000). The key strength of the survey questions and method is the ability to provide very timely estimates of leading health policy indicators related to coverage, access, and affordability.

Comparing trends since 2003, the Commonwealth Fund biennial surveys' underinsurance and uninsurance indicators appear to be moving in the same direction as indicators in the larger federal surveys. Although the expansion to cell phones in 2010 may have introduced a discontinuity compared to the 2007 survey, which included only land-lines phones, it should capture trends since 2003, when cell-phone-only households were rare. The new survey design thus provides full population baseline estimates going forward.

Study Results

TRENDS Based on cost experiences and deductibles reported in the survey, 16 percent of all adults ages 19–64 and 22 percent of those who were insured all year were underinsured in 2010 (Exhibit 1). This amounts to an estimated twenty-nine million adults who were underinsured, in addition to the fifty-two million who were uninsured when surveyed (thirty-seven million) or who had been uninsured earlier in the year (fifteen million). In total, 44 percent of adults ages 19–64—an estimated eighty-one million people—were either underinsured or uninsured, up from seventy-five million in 2007 and sixty-one million in 2003.

Exhibit 1 shows the marginal contribution of each of the three indicators to the underinsured group as a share of adults insured all year. Using just the out-of-pocket spending estimates, twenty-five million people were underinsured.

Underinsurance Indicators And Distribution Of Insurance For Adults Ages 19-64, For 2003, 2007, And 2010

	Percent of adults			Estimated millions of adults		
Indicators and distribution		2007	2010	2003	2007	2010
INDICATORS OF UNDERINSURANCE AMONG ADULTS INSURED ALL YEAR						
Base: adults ages 19–64 insured all year Out-of-pocket medical expenses equal 10% or more of family annual income: percent/millions	100.0	100.0	100.0	127	128	132
indicator alone	7.1	13.5	15	9	17	20
Medical expenses equal 5% or more of income if low income: percent/millions indicator alone	7.8	9.2	12	10	12	16
Cumulative percent/millions, using two indicators above	10.9	17.1	19	14	22	25
Deductible equals 5% or more of income: percent/millions indicator alone	2.9	4.9	6	4	6	8
Cumulative percent/millions, using all three indicators	12.3	19.8	22	16	25	29
DISTRIBUTION OF INSURANCE						
Base: all adults ages 19–64 Insured all year, not underinsured Underinsured Uninsured when surveyed Uninsured at some time during year	100 65 9 17 9	100 58 14 18 10	100 56 16 20 8	172 111 16 30 16	177 102 25 31 18	184 102 29 37 15
3 /						

SOURCE Commonwealth Fund Biennial Health Insurance Survey, 2003, 2007, and 2010. NOTE "Low income" is less than 200 percent of the federal poverty level.

The percentage and estimated number by 2010 were up significantly since 2007 (p < 0.02) and were nearly double the rates observed in 2003. By 2010 the deductible indicator added a net of five million people to the total underinsured count.

The two-percentage-point increase in the percentage underinsured from 2007 to 2010 was statistically significant (p < 0.001), but the change was slower than observed from 2003 to 2007. The increase might reflect the impact of the severe recession because families might simply have cut back on or postponed medical care. Indeed, the National Health Expenditure Accounts kept by the federal government found flat out-of-pocket expenses from 2008 to 2009 and a sharp slowdown in total private spending. 11 Similarly, Medical Expenditure Panel Survey data for 2008 find little increase in the percentage of households spending more than 10 percent of their incomes out of pocket for medical care at the onset of the recession (see the online Appendix).10 Commercial insurers' annual financial reports for 2010 also document medical claims costs well below projected trends.

Tracking federal surveys, the 2010 biennial survey also found a relatively modest increase in the percentage of adults who were uninsured when surveyed, compared to 2007. However, although the percentage-point increase was similar to trends observed in the National Health Interview Survey from 2003 to 2010 and in the Current Population Survey results, the percentage uninsured was lower in all years than in the two federal surveys (see Appendix Table 1).¹⁰

GROUPS AT RISK An analysis by income found that the risk of being underinsured and uninsured was concentrated in populations with incomes below 133 percent and of 133–250 percent of poverty (Exhibit 2). These two groups account for seven in ten adults who were underinsured or uninsured.

The risk of being underinsured or uninsured increases markedly as income decreases. Three-quarters (77 percent) of those with incomes below 133 percent and more than half (58 percent) of those with incomes of 133–250 percent of the poverty level were either underinsured or uninsured. Looking at annual income without considering family size, nearly 80 percent of adults with incomes below \$20,000 and more than half of those with incomes of \$20,000–\$39,999 were underinsured or uninsured.

Although the risk is concentrated in these income ranges, it is rising up the income scale. As of 2010, 36 percent of adults with annual incomes of \$40,000-\$60,000 and 30 percent of adults with annual incomes of 250-399 percent of poverty were either underinsured or uninsured.

Examining age and race or ethnicity, we found young adults and Hispanics to be at the highest risk for being uninsured. The percentage underinsured was similar across age and racial or ethnic groups—with somewhat higher rates among the white, non-Hispanic population. White, non-Hispanic adults accounted for 69 percent of the underinsured and 48 percent of adults who were uninsured at some point during the year.

ACCESS AND CARE EXPERIENCES As we found in

EXHIBIT 2

Various Characteristics Of Uninsured And Underinsured US Adults Ages 19-64, 2010

	Percent insured,	underinsured, or uni	nsured	Percent distribution of insurance categories			
Characteristic All adults	Insured all year, not underinsured (n = 2,031)	Underinsured (n = 310)	Uninsured during year ^a (n = 952)	Insured all year, not underinsured 100	Underinsured 100	Uninsured during year ^a 100	
AGE (YEARS)							
19–29 30–49 50–64	41 56 66	15 16 16	44 28 17	17 44 39	23 44 34	37 43 20	
RACE OR ETHNICITY							
White, non-Hispanic Black, non-Hispanic Hispanic	62 48 35	17 15 14	21 37 51	71 11 10	69 12 14	48 16 29	
INCOME							
Less than \$20,000 \$20,000-\$39,999 \$40,000-\$59,999 \$60,000-\$99,999 \$100,000 or more	22 44 64 83 88	26 21 16 9	52 34 19 8 2	12 18 19 26 25	43 26 14 9 8	55 27 11 5 1	
POVERTY STATUS							
Below 133% of poverty 133%-249% 250%-399% 400% or more Below 200% poverty 200% poverty or more	23 42 70 85 26 75	26 22 15 8 26 12	51 36 15 7 48 13	11 14 24 38 18 69	45 24 18 13 63 37	49 23 10 6 65 23	

SOURCE Commonwealth Fund Biennial Health Insurance Survey, 2010. *Combines (1) currently uninsured and (2) insured but was uninsured at some time during the past year.

2007, underinsured as well as uninsured adults were at high risk of going without care because of costs, having difficulty paying medical bills, or accumulating medical debt. When income, health status, age, and race or ethnicity were controlled for, underinsured and uninsured adults were significantly more likely to go without care because of costs, compared to those who had more protective insurance and who had not been uninsured during the year (Exhibit 3).

Rates of forgone care (including not filling a prescription or not following up on recommended diagnostic tests or treatment) among the uninsured were up to three times as high—and among the underinsured, up to twice as high—as rates reported by adults with more adequate insurance. Including any access problem related to costs, 46 percent of the underinsured and 63 percent of the uninsured went without needed or recommended care because of costs during the year.

Among adults with at least one chronic health condition, nearly four in ten uninsured adults and one-quarter of underinsured adults reported skipping doses or not filling a prescription for their condition because of cost, compared to 15 percent of adults insured all year and not underinsured.

The uninsured were significantly less likely to receive recommended preventive care such as cancer screening than either group of adults insured all year. In bivariate analyses, underinsured adults had lower rates of preventive care than adults classified as insured, not underinsured. However, these differences were not statistically significant after income, health, and other characteristics were controlled for.

Both underinsured and uninsured adults reported high rates of financial stress related to medical bills. Despite having coverage all year, 52 percent of underinsured adults reported difficulty paying bills, being contacted by collection agencies for unpaid bills, changing their way of life to pay their medical bills, or paying off medical debt over time.

Suggesting that these financial difficulties related to medical bills had the potential to linger into the future, 32 percent of the uninsured or underinsured with bill problems stated that they had taken on a loan, a home mortgage, or credit

Access, Preventive Care, And Medical Bill Experiences Among US Adults Ages 19-64, By Insurance Status, 2010

		Insured all year,		
	All adults (unadjusted total, %)	Insured, not underinsured	Underinsured	Uninsured during year, adjusted percentage ^a
WENT WITHOUT CARE BECAUSE OF COSTS IN PAST YEAR				
Did not fill prescription Skipped test, treatment, or follow-up care recommended by	26	17	29**	41**
doctor	25	15	29**	44**
Had medical problem but did not visit doctor	26	15	25**	48**
Did not get needed specialist care	18	10	18**	34**
Had at least one access problem	41	28	46**	63**
RECEIVED RECOMMENDED PREVENTIVE OR CHRONIC CARE				
For adults with chronic disease, b skipped doses or did not				
fill a prescription for a chronic condition because of cost	24	15	24**	38**
Dental exam in past year	59	65	68	43**
Blood pressure checked within past 12 months	85	89	94**	79**
Cholesterol checked in past 5 years	70	78	78	62**
Mammogram in past 2 years (for women age 50 and older) Pap test in past 3 years (for women age 30 and older) or in	72	80	74	47**
past year (for women ages 19–29)	74	80	77	62**
Colon cancer screening in past 5 years (for people age 50 and older)	54	57	59	41**
MEDICAL BILL PROBLEMS				
Had problems paying medical bills Changed way of life to pay medical bills	29 17	17 10	37** 26**	45** 27**
Contacted by collection agency for unpaid bills	16	11	18**	24**
Have medical debt, paying off over time	24	17	36**	29**
Had any problems paying bills or medical debt	40	27	52**	58**
RATING OF QUALITY OF CARE IN PAST YEAR				
Excellent/very good	47	58	50**	34**
Fair/poor	17	13	17	29**

SOURCE Commonwealth Fund Biennial Health Insurance Survey, 2010. NOTES Percentages are adjusted for income, age, race or ethnicity, and chronic disease. Statistical significance denotes significant difference compared with "insured, not underinsured." Combines (1) currently uninsured and (2) insured but was uninsured at some point during the past year. $^{\text{b}}$ Includes hypertension or high blood pressure, heart disease, diabetes, asthma, emphysema or lung disease, or high cholesterol. $^{**}p < 0.05$

card debt in order to pay their bills (data not shown).

INSURANCE BENEFITS When asked about insurance design, adults classified as underinsured were more likely to report benefit gaps or limits than those without any of the underinsured financial risk indicators (see Appendix Table 2).¹⁰ The underinsured were more likely than the insured with more protective coverage to have limits on visits or caps on the dollar amount that their plan would cover for care each year and less likely to have dental benefits.

The underinsured were also significantly more likely to report per person deductibles of \$1,000 or more despite lower incomes: 33 percent of the underinsured, compared to 12 percent of the insured with more protective coverage, reported a deductible of \$1,000 or more. Looking at sources of coverage, the underinsured were less likely to have employer coverage and more likely to have

individual or public coverage than were adults classified as insured, not underinsured.

In addition to exposure to out-of-pocket expenses, the survey found that the underinsured often incur premium expenses that are high relative to their incomes. Based on survey reports, 31 percent of underinsured adults spent 5 percent or more of their annual income on their share of premiums, and 19 percent of them spent 10 percent or more of their annual income (see Appendix Table 2).10

These premium costs, in addition to out-ofpocket expenses, put the underinsured at great financial risk. Indeed, two key aspects of the insurance reforms in the Affordable Care Act were motivated by a concern that rising shares of insured middle- and lower-income families were facing premium costs that were high relative to their incomes, as well as high out-ofpocket medical expenses.

EXHIBIT 4

Adults At Risk: Assessing The Potential Of Insurance Reforms Under The Affordable Care Act

		Percent of federal poverty level				
	All adults	Below 133%	133-249%	250-399%	400% or more	
All adults ages 19–64	100%	100%	100%	100%	100%	
Uninsured during the year	28	51	36	15	7	
Underinsured, insured all year	16	26	22	15	8	
Premium 5% or more of income ^a Premium 10% or more of income ^a	17	11	27	26	15	
	8	9	14	8	4	
Premium 5% or more of income and/or uninsured or underinsured ^a Premium 10% or more of income and/or uninsured or underinsured ^a	54	79	73	48	28	
	48	79	65	35	19	

SOURCE Commonwealth Fund Biennial Health Insurance Survey, 2010. Respondents who did not report their income or did not know their premium amount, or who have Medicare or Medicaid, are included in the distribution.

AFFORDABLE CARE ACT Starting in 2014, the Affordable Care Act will expand Medicaid to adults with incomes below 133 percent of poverty. It also will provide assistance to limit premiums as a share of income for those with incomes up to 400 percent of the poverty level. The health reform law also provides for higher actuarial value and lower out-of-pocket limits for people with incomes up to 250 percent of poverty. ¹²

The targeted premium credits and enhanced out-of-pocket spending protections will phase out for people with incomes approaching 400 percent of the poverty level. Those with incomes above 250 percent of the poverty level could pay 30 percent of medical care costs (yielding an actuarial value of 70 percent) and up to 9.5 percent of their incomes on premiums. (Appendix Table 3 summarizes the income-related provisions by poverty threshold.)¹⁰

To assess the potential of national health care reforms to reach those at risk, we used the 2010 survey to estimate the percentage of adults who were paying a high share of their income on premiums or who were uninsured or underinsured in poverty groups that are relevant to the Affordable Care Act and its provisions (Exhibit 4). The analysis found that a substantial majority (79 percent) of adults with incomes below 133 percent of poverty spent 5 percent of their income or more on premiums or were underinsured or uninsured, or both, in 2010.

All of these people would probably benefit from relief for premiums and from enhanced benefits if eligibility for Affordable Care Act reforms were based only on income. However, they will also need to meet standards for citizenship. If enhanced benefits and premium subsidies reach all underinsured people, uninsured people, or people spending 10 percent or more of their incomes on premiums, reforms would benefit two-thirds to three-quarters of adults with

incomes between 133 percent and 249 percent of poverty by holding premiums to 3–8 percent of incomes and limiting out-of-pocket spending exposure.

In the case of individuals with incomes that range from 250 percent to 399 percent of the poverty level, one-third of adults were uninsured, were underinsured, or spent 10 percent of more of their income on premiums, based on the survey. Premium subsidies limiting premium shares to 8–9.5 percent of income would benefit 8 percent of this group. The subsidies in this income range will be linked to plans at the "silver" level: those with an actuarial value of 70 percent and out-of-pocket maximums of \$2,975–\$3,967 for a single person, and \$5,950–\$7,933 for a family.

The income range for 250–400 percent of poverty is \$27,225–\$43,560 for a single person and \$55,875–\$89,400 for a family of four (\$46,325–\$74,120 for a family of three) at 2011 poverty levels. Thus, sicker adults in the 250–400 percent range could remain at risk for spending nearly 10 percent of their incomes on medical care cost sharing for covered benefits, and up to 9.5 percent of income for premiums.

As illustrated in Exhibit 2, the vast majority of the underinsured as well as the uninsured have incomes below 250 percent of poverty, based on incomes reported in the survey. If reforms extend more affordable and more protective insurance to all or most low- and modest-income families, we could expect to see at least a 70 percent drop in the number of underinsured people, in addition to the 60 percent drop in the number of uninsured people that the Congressional Budget Office forecasts will occur with full implementation of the Affordable Care Act. ¹³

Our survey indicates that if the reforms were fully implemented now, this would translate into twenty million fewer underinsured adults and a

steep drop in the number of people who were uninsured at some point during the year.

Discussion

Overall, we found a significant increase in the percentage of adults who are underinsured: One out of six adults was at financial risk in 2010. The pace of increase from 2007 to 2010 was slower than that observed from 2003 to 2007, possibly reflecting the impact of the severe recession, if families simply cut back on and postponed medical care. Looking forward, the 2010 Commonwealth Fund biennial survey provides a new baseline and target as reforms seek to expand and improve coverage to limit financial risk and increase affordability.

HEALTH REFORM With 44 percent of US adults underinsured or uninsured during the year in 2010, the study highlights the urgency and the challenges ahead as insurance reforms unfold with the implementation of the Affordable Care Act. The erosion of health insurance for the working-age population, combined with stagnation in real family incomes over the past decade, has put uninsured and insured adults alike at risk of spending substantial shares of their income on medical care, with negative consequences for access and medical debt.

The Affordable Care Act's income-related provisions for premiums and benefits aim to address the public's concerns about the adequacy of coverage as well to expand coverage. The analysis indicates that reforms are well targeted for those most at risk of being uninsured or underinsured. Adults with incomes below 250 percent of the poverty level account for substantial majorities of the underinsured as well as the uninsured. Including premiums, nearly eight in ten adults with incomes below 133 percent of poverty and three-quarters of those with incomes of 133–249 percent of poverty could gain from reduced premiums, enhanced benefits, and expanded coverage.

At the same time, adults with incomes of 250–400 percent of poverty could remain at risk for combined out-of-pocket expenses and premiums that are high relative to their incomes. The extent to which reforms attenuate the risk in this income range will depend on benefit design, the choice of plans offered through the health insurance exchanges, and growth in health care costs and premiums relative to family incomes over time.

The Affordable Care Act includes provisions to specify essential benefits and establish guide-

lines addressing the range of variation among plans that meet general standards for actuarial value. If plan designs permit high front-end deductibles that apply to medications and primary care, or if they permit high cost sharing for essential care, a larger share of families will be exposed to financial risk. This raises concerns about both access and medical debt. To minimize the risk that the newly insured could become underinsured, designs will need to take a value-based approach that ensures access and financial protection for essential care.

TRACKING AFFORDABILITY Tracking access and financial risk for medical care costs will be important to provide a baseline and targets to inform policy over time. Assessing employer-based coverage trends will be particularly important because such plans currently provide a high degree of financial protection. It is likely that the implementation of health reform will be uneven across states. Thus, state or regional data as well as national data will be necessary to identify patterns in insurance adequacy and uninsurance rates before reform. Knowing the starting point will enable assessment of changes in out-ofpocket medical care spending relative to income following Medicaid expansions, premium assistance, and new plan choices through the insurance exchanges.

The Medical Expenditure Panel Survey enables such tracking nationally and in some states. ¹⁴ Expanding state samples could provide all states with key information to use in assessing trends in under- and uninsurance. The Current Population Survey now includes questions on out-of-pocket spending for medical care and premiums; this information enables tracking of states' financial risk trends by poverty level. In addition to the planned use of the information for alternative poverty estimates, the Census Bureau could publish these indicators to inform national and state policies.

To the extent that the severe recession led people to cut back on care temporarily in response to economic stress, it is difficult to predict trends into 2014. Whether or not reforms succeed in achieving important future gains in access, health, and financial security will depend on the implementation of creative, value-based designs with attention to the experiences of low-and middle-income families and individuals.¹⁵ To ensure that premiums and care remain affordable, efforts to slow rising costs of care and reduce waste, duplication, and care of little value must intensify. True health security for Americans cannot be achieved otherwise. ■

The views presented are those of the authors and should not be attributed to the Commonwealth Fund, its directors, or its officers.

NOTES

- 1 Schoen C, Stremikis K, How S, Collins SR. State trends in premiums and deductibles 2003–2009. New York (NY): Commonwealth Fund; 2010.
- 2 Caswell K, O'Hara B. Medical out of pocket expenses, poverty, and the uninsured. Washington (DC):
 Census Bureau; 2010. (Social, Economic, and Housing Statistics Division Working Paper No. 2010-17).
- **3** Schoen C, Collins SR, Kriss JL, Doty MM. How many are underinsured? Trends among US adults, 2003 and 2007. Health Aff (Millwood). 2008;27(4):w298–309. DOI: 10.1377/hlthaff.27.4.w298.
- 4 Blumberg SJ, Luke JV. Wireless substitution: early release of estimates from the National Health Interview Survey, July–December 2010 [Internet]. Hyattsville (MD): National Center for Health Statistics; 2011 Jun [cited 2011 Jul 19]. Available from: http://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201106.pdf
- 5 Hu SS, Balluz L, Battaglia MP,

- Frankel MR. Improving public health surveillance using a dual-frame survey of landline and cell phone numbers. Am J Epidemiol. 2011;173:703–11.
- **6** The response rate estimates the fraction of eligible respondents in the sample who were interviewed using a product of contact, cooperation, and completion rates.
- **7** Short PF, Banthin JS. New estimates of the underinsured younger than 65 years. JAMA. 1995;274(16):1302-6.
- 8 Banthin J, Cunningham P, Bernard D. Financial burden of health care, 2001–2004. Health Aff (Millwood). 2008;27(1):188–95.
- **9** Regression results are available from the authors.
- **10** To access the Appendix, click on the Appendix link in the box to the right of the article online.
- 11 Martin A, Lassman D, Whittle L, Catlin A, National Health Expenditure Accounts Team. Recession contributes to slowest annual rate of increase in health spending in five decades. Health Aff (Millwood).

- 2011;30(1):11-22.
- 12 Commonwealth Fund. Health reform resource center [Internet]. New York (NY): Commonwealth Fund; [last updated 2011 Jan 9; cited 2011 Mar 8]. Available from: http:// www.commonwealthfund.org/ Health-Reform/Health-Reform-Resource.aspx
- 13 Congressional Budget Office. CBO's analysis of the major health care legislation enacted in March 2010: statement of Douglas W. Elmendorf, director, before the Subcommittee on Health, Committee on Energy and Commerce, US House of Representatives, March 30, 2011. Washington (DC): CBO; 2011.
- 14 Cunningham PJ. The growing financial burden of health care: national and state trends, 2001–2006. Health Aff (Millwood). 2010;29(5): 1037–44.
- 15 Chernew ME, Juster IA, Shah M, Wegh A, Rosenberg S, Rosen AB, et al. Evidence that value-based insurance can be effective. Health Aff (Millwood). 2010;29(3):530-6.

ABOUT THE AUTHORS: CATHY SCHOEN, MICHELLE M. DOTY, RUTH H. ROBERTSON & SARA R. COLLINS



Cathy Schoen is the senior vice president for policy, research, and evaluation at the Commonwealth Fund.

In this month's Health Affairs, Schoen and coauthors report that the number of uninsured and underinsured Americans rose significantly since 2007, but at a rate that was not as fast as in previous years. They conclude that provisions of the Affordable Care Act of 2010 intended to make health coverage more affordable should drastically change this situation, cutting the number of underinsured people by up to 70 percent.

The paper follows the authors' earlier studies in 2003 and 2007, launched in the belief that the underinsured in this country had not received enough attention.

Schoen is the senior vice president for policy, research, and evaluation at the Commonwealth Fund. She also serves on the National Academy of Sciences advisory panel on Measuring Medical Care Risk in Conjunction with the New Supplemental Income Poverty Measure. Schoen received an all-but-doctorate in economics from Boston College.



Michelle M. Doty is vice president of research and evaluation at the Commonwealth Fund

Michelle Doty is director of survey research and an assistant vice president at the Commonwealth Fund. She received a doctorate in public health from the University of California, Los Angeles.



Ruth H. Robertson is the senior research associate, Program on Affordable Health Insurance, at the Commonwealth Fund.

Ruth Robertson is the senior research associate at the Commonwealth Fund's Program on Affordable Health Insurance. She received a master's degree in social policy and planning from the London School of Economics.



Sara R. Collins is vice president for affordable health insurance at the Commonwealth Fund.

Sara Collins is vice president for affordable health insurance at the Commonwealth Fund. She received a doctorate in economics from the George Washington University.