



Uninsurance is only half the problem: Underinsurance and healthcare-related financial burden in RI

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In both Rhode Island and the nation, political leaders are concerned with the public burden of health care costs. There has been less discussion among political and medical leadership about the financial burden of health care on individuals and families. The weight of medical expenses makes some people forego necessary care and contributes to over half of household bankruptcies (1).

Most of the national discussion on reducing financial barriers to health care has focused on uninsurance, but underinsurance is similarly associated with reduced access to care and financial duress (2-5): only 22% of people filing for medical bankruptcies were uninsured, and 60% of them had private coverage (1). Underinsurance is operationalized in different ways (2, 6, 7), but a typical definition is “having insurance that does not adequately meet an individual’s need”(3). Underinsurance is primarily a function of copays and deductibles, though other mechanisms may also play a role (2). Nationally, underinsurance rates have risen steadily as comprehensive coverages plans have declined (2).

The Affordable Care Act (ACA) has been framed largely in terms of reducing uninsurance, and expectations of its effects on underinsurance are mixed. Expanded coverage of behavioral health services addresses a critical gap in many pre-ACA plans. At the same time, copays and deductibles are a primary component of plans on the state and federal exchanges. Woolhandler points out that silver plans on the exchange cover about 70% of average medical expenses, compared to 80% of the average job-based policy (1). We analyzed data from the 2013 Rhode Island Behavioral Risk Factor Surveillance System (RI BRFSS) to assess the financial burden of health care on adults in RI on the eve of implementing the state health exchange, in order to encourage discussion of what further reforms need to follow the reduction in uninsurance.

METHODS

The Rhode Island Behavioral Risk Factor Surveillance System (RI BRFSS) is a telephone-based survey conducted annually by the RI Department of Health with funding and technical support from the Centers for Disease Control and Prevention (CDC). Additional information on RI BRFSS methodology is available at <http://www.health.ri.gov/data/behaviorriskfactorsurvey/index.php>.

We constructed several measures of insurance status

and healthcare-related financial burden. Respondents who answered “No” to “Do you have any kind of health care coverage?” or “None” to “Are you currently covered by any of the following types of health insurance or health coverage plans?” were identified as uninsured. Adults who identified one or more sources of health care coverage were identified as underinsured if they met one of the following criteria: they were unable to see a doctor due to cost in the past year; they were unable to take prescription medications due to cost in the past year; or they had been without insurance at some point in the past year. The latter is based on previous studies that used gaps in coverage as an estimate of underinsurance and findings that a recent spell of uninsurance increased risk of foregoing care or not filling prescriptions (8). We identified health care as constituting a financial burden if (regardless of insurance status) respondents met one of the following criteria: they were unable to see a doctor due to cost in the past year; they were unable to take prescription medications due to cost in the past year; or they currently had medical bills they were paying off over time.

We examined several demographic and economic factors to construct a profile of people who in some way did not have adequate coverage (either underinsured or carrying healthcare-related financial burden). Work status was categorized as working; out of work or unable to work; homemaker or student; and retired. People over 65 who said they were out of work were categorized as retired. Type of insurance coverage was categorized as uninsured, privately insured, Medicaid, Medicare, and military /any other source of coverage. If people reported two or more sources of coverage (most commonly a combination of Medicare and private insurance), their category was assigned according to the following order of priority: Medicaid, Medicare, private insurance, military/other. Race/ethnicity was categorized as Hispanic; non-Hispanic black; and non-Hispanic white. People who indicated any other racial/ethnic identity were included in analyses but are not reported separately, given the heterogeneity of this “other” category. Because only landline interviews included a question on the number of people in the household, we could not determine per-capita income; for the full sample, instead, household incomes were categorized as under \$25,000, \$25,000-49,999, \$50,000-74,999, and \$75,000 or above.

2013 was the first year the RI BRFSS contained the questions of interest. The survey is conducted over the course

of the full calendar year as part of its randomization. In order to avoid “contaminating” the sample with early effects of the ACA, we restricted the sample to interviews completed no later than October 1, 2013, the date HealthSource RI (RI’s health care exchange) became operational for a final n=4971. With the exception of income (15%), no single variable had more than 6.3% missing observations. We conducted bivariate analyses and multivariate logistic regressions in SAS 9.3, using survey weights and strata information provided by the CDC to account for complex sampling methodology.

RESULTS

In addition to the 18.2% of adults who reported having no health insurance at the time of their interview, another 13.3% (representing about 79,400 people) reported having insurance but meeting one of our criteria for underinsurance. They included 15.5% of people who said they had private insurance and 26.6% of people on Medicaid (Table 1). Rates were not significantly better for people in the workforce, of whom 68.7% had adequate coverage.

Nearly a third (31.7%) of adults had some form of healthcare-related financial burden (Table 2). As expected, the rate of financial burden was highest (67.5%) among the uninsured, but even the lowest rate (among people with military/other coverage) was 20.8%. One in four (25.2%) people with private insurance also reported one or more criteria for medically-related financial burden. Bivariate analyses also revealed profound racial/ethnic disparities, with well over half (55%) of the state’s Hispanics and 43% of blacks experiencing financial burden.

After controlling for income, sex, age, and race/ethnicity, type of insurance (public or private) was not associated with being underinsured or carrying healthcare-related financial burden (Table 3). Controlling for income and other covariates also eliminated the associations with race/ethnicity seen in bivariate analyses (data available on request). Unsurprisingly, people who were uninsured had 3.61 (95% CI 2.52-5.18) the odds of bearing medical costs relative to people with private insurance, while people with military/other insurance were about half as likely (AOR 0.53 [0.32-0.87]).

Table 1. Uninsurance and underinsurance rates among RI adults, 2013

	n	Uninsured 18.2% (n=592)	Underinsured 13.3% (n=584)	Adequately insured 68.5% (n=3496)
		Weighted % (95% CI)		
Age group				
18-34	675	29.3 (24.9-33.7)	15.5 (12.2-18.8)	55.2 (50.4-60.0)
35-64	2683	18.4 (16.3-20.4)	13.5 (11.8-15.3)	65.7 (61.8-69.6)
65 or older	1562	1.7 (0.7-2.6)	9.3 (7.1-11.5)	89.0 (86.7-91.4)
Sex				
Female	3021	15.2 (13.2-17.2)	15.0 (13.1-16.9)	69.8 (67.3-72.2)
Male	1950	21.6 (18.8-24.4)	11.4 (9.4-13.5)	67.0 (63.9-70.0)
Race/ethnicity				
Hispanic	371	45.3 (38.6-52.1)	17.2 (11.9-22.5)	37.5 (31.1-43.9)
Black, non-Hispanic	181	32.6 (22.6-42.7)	10.4 (5.1-15.6)	57.0 (46.9-67.1)
White, non-Hispanic	4076	12.9 (11.2-14.6)	12.5 (11.0-13.9)	74.6 (72.6-76.6)
Income				
<\$25,000	1185	39.7 (35.6-43.9)	15.6 (12.7-18.4)	44.7 (40.7-48.7)
\$25,000-49,999	1070	19.0 (15.4-22.6)	17.7 (14.4-21.0)	63.3 (59.1-67.4)
\$50,000-74,999	665	7.5 (3.8-11.1)	14.0 (10.3-17.7)	78.6 (73.8-83.3)
≥\$75,000	1304	3.9 (2.0-5.8)	7.1 (5.0-9.2)	89.0 (86.3-91.7)
Employment status				
Working	2482	18.1 (15.8-20.5)	13.2 (11.2-15.1)	68.7 (66.0-71.3)
Out of work/unable to work	673	37.6 (32.3-43.0)	22.1 (17.9-26.4)	40.2 (35.2-45.3)
Homemaker/student	342	16.1 (10.8-21.5)	10.9 (6.5-15.3)	73.0 (66.5-79.5)
Retired	1436	3.0 (1.7-4.2)	8.1 (6.3-9.9)	89.0 (86.8-91.1)
Type of insurance				
Private	2134	—	15.5 (13.2-17.7)	84.5 (82.3-86.8)
Medicaid	388	—	26.6 (20.5-32.7)	73.4 (67.3-79.5)
Medicare	1600	—	13.9 (11.4-16.5)	86.1 (83.5-88.6)
Military/other	212	—	20.4 (12.0-28.9)	79.6 (71.1-88.0)

DISCUSSION

Measuring state progress is complicated in the changing coverage landscape. Rhode Island generally matches or surpasses US averages on health care access indicators such as uninsurance or failure to access medical care due to cost (9). Even so, RI results point to the serious problems with benefit design in both private and public plans under the ACA. Merely reducing uninsurance is not sufficient to either remove all financial barriers to health care or prevent health care from constituting a serious financial burden on individuals.

Ongoing reform of the health care system will need the cooperation of health care users, as well as systems and the government. However, the argument that cost-sharing in the form of copays and deductibles will increase cost-consciousness and responsibility in decision-making among clients (7)

Table 2. Prevalence of healthcare-related financial burden among RI adults, 2013

	Financial burden 31.7% (n=1236)
	Weighted % (95% CI)
Age group	
18-34	41.2 (36.4-45.9)
35-64	32.8 (30.4-35.2)
65 or older	15.4 (12.8-18.0)
Sex	
Female	31.3 (28.9-33.8)
Male	32.3 (29.1-35.3)
Race/ethnicity	
Hispanic	55.0 (48.3-61.8)
Black, non-Hispanic	43.0 (33.3-52.7)
White, non-Hispanic	27.2 (25.1-29.2)
Income	
<\$25,000	47.1 (43.0-51.3)
\$25,000-49,999	37.7 (33.6-41.8)
\$50,000-74,999	29.9 (24.3-35.4)
≥\$75,000	16.0 (12.9-19.2)
Employment status	
Working	32.3 (29.6-35.0)
Out of work/unable to work	53.9 (48.7-59.1)
Homemaker/student	25.9 (19.2-32.6)
Retired	15.1 (12.6-17.5)
Type of insurance	
Private	25.2 (22.5-27.9)
Medicaid	29.7 (23.2-36.2)
Medicare	21.3 (18.3-24.4)
Military/other	20.8 (12.7-29.0)
None	67.5 (62.5-72.6)

Table 3. Adjusted odds ratios of underinsurance and healthcare-related financial burden by type of insurance coverage

Type of insurance	Underinsured	Financial burden
Private	1.00 (Ref)	1.00 (Ref)
Medicaid	0.97 (0.61-1.54)	0.73 (0.47-1.13)
Medicare	0.75 (0.47-1.20)	1.39 (0.85-2.26)
Military/other	1.25 (0.66-2.35)	0.53 (0.32-0.87)
None	—	3.61 (2.52-5.18)

Adjusted for income, sex, age, and race/ethnicity.
 Boldface indicates statistical significance.

may be putting excessive financial burden on people who do need ongoing health care. The problem may be especially acute for the newly-insured who forwent care while uninsured; 80% of respondents who had no insurance in 2013 had been uninsured for a year or longer (data available on request). Low-income families in particular may feel the need to simply choose the plan with the lowest premium and hope they will not need medical care, but our data support previous studies indicating that middle-income families too are highly vulnerable to underinsurance (5, 7, 10).

In revisiting Woolhandler's warning that the ACA may unintentionally increase underinsurance and thus the financial burden of health care (1), we draw attention in particular to its application to both private and public coverage. Over one-quarter of Medicaid recipients already experience financial hardship associated with health care, so efforts to reduce state Medicaid expenses by increasing cost-sharing might backfire by making recipients delay care until the condition has progressed and become more expensive to treat (3, 11).

There are several limitations to our analysis. The utilization of interviews only prior to the opening of the state health exchange may have introduced some sort of seasonal bias in the data, though there is no evidence that respondents differ over the course of the calendar year. The questions in the BRFSS Health Care Access Module may capture only a limited portion of actual financial burden, and in particular provide no data on the age and scale of medical debt. Results on some questions in the module also suggest confusion on the part of respondents. Despite these limitations, even conservative interpretations of the data reflect a real need for medical, public health, and policy professionals to ensure that health care reform continues beyond the mere reduction of uninsurance.

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