

RESEARCH LETTER

Underinsurance Before the Implementation of the Affordable Care Act: From the Research Involving Outpatient Settings Network (RIOS Net)

Gina Cardinali, MSW, Robert L. Rhyne, MD, Anthony Fleg, MD, MPH, Bernadette N. Corum, MD, Dechen Tsewang, MD, Angela Jo, MD, Josh Leiderman, MD, and Charles North, MD

Background: As the Affordable Care Act (ACA) is implemented and many uninsured become insured, rates of underinsurance may persist or increase. This study was designed to estimate the rate of underinsurance in primary care safety net clinics serving low income, multiethnic populations in New Mexico.

Methods: Data were collected from 2 primary care clinics in an urban setting during a 2-week period in 2011 and 2012. Voluntary, anonymous, self-administered surveys were distributed to adult patients waiting to be seen by their doctor. Surveys were available in English and Spanish.

Results: Of those insured, 44% were underinsured. The underinsured comprised higher proportions of patients who were Hispanic, young, and poor; 39% reported fair or poor health, 23% reported that their health suffered from an inability to seek care because of cost, and 53% had either Medicaid or state coverage insurance. Patients with an income of $\leq \$25,000$ were 8 times more likely to be underinsured.

Conclusion: A high level of underinsurance was found in these safety net clinics. Because millions of Americans gain health care insurance benefits, monitoring whether the current reform provides adequate health care coverage or whether those with new and existing health care insurance are underinsured is critical. (J Am Board Fam Med 2014;27:855–857.)

Keywords: Affordable Care Act, Health Insurance, Practice-based Research, Primary Health Care, Underinsured

A core goal of the Affordable Care Act (ACA) is to significantly increase the number of insured Americans. While much attention has focused on the uninsured, less attention has focused on the insured who cannot afford needed health care—the underinsured. Underinsurance (UI) exists when patients have to forego or delay needed health care or when out-of-pocket medical costs exceed 10% of house-

hold income (5% for low-income families).¹ The ACA aims to provide a continuum of affordable coverage options through Medicaid and new health insurance exchanges. Some reports suggest that UI may decrease under the ACA,^{2,3} whereas others suggest it will persist, particularly for those with the ACA Bronze and Silver (lower monthly premium/higher cost-sharing) plans.⁴ Evidence suggests that being underinsured has adverse health effects similar to those of being uninsured.²

UI affects an estimated 30 million insured adults nationwide.⁵ National rates of UI are 16%; however, rates in primary care clinics have been as high as 36%.¹ In anticipation of ACA implementation, the Research Involving Outpatient Settings Network (RIOS Net) conducted a pilot study in New Mexico to estimate the prevalence of UI in academic primary care clinics serving low-income, multiethnic populations.

In 2 primary care clinics in 2011 and 2012, we offered self-administered surveys to adult patients

This article was externally peer reviewed.

Submitted 17 January 2014; revised 6 June 2014; accepted 13 June 2014.

From the Department of Family and Community Medicine, University of New Mexico School of Medicine, Albuquerque (GC, RLR, AF, AJ, JL, CN); the Indian Health Service, Not-soo Gah-nee Indian Health Center, Fort Hall, ID (BNC); the Santa Fe Service Unit, Indian Health Service, Santa Fe, NM (DT); Ambulatory Services, University of New Mexico Hospital, Albuquerque (CN).

Funding: none.

Conflict of interest: none declared.

Corresponding author: Robert L. Rhyne, MD, Department of Family and Community Medicine, School of Medicine, MSC 09–5040, Albuquerque, NM 87131-0001 (E-mail: RLRhyne@salud.unm.edu).

over a 2-week period. The survey operationalized UI by adapting the experiential definition created by Voorhees et al,¹ with an answer of yes to any of

the following 3 questions: (1) In the past year did you delay seeking medical care and or delay/were unable to fill a prescription because you could not

Table 1. Demographic Characteristics, Insurance Status, and Results of Survey Respondents

Characteristics	Sample (N = 271)	Insurance Status			Underinsured vs. Adequately Insured (n = 220), Logistic Regression Odds Ratio (95% CI)
		Underinsured (n = 97; 35.8%)	Adequately Insured (n = 123; 45.4%)	Uninsured (n = 51; 18.8%)	
Age (years)					
18–29	63 (23.2)	20 (20.6)	23 (18.7)	20 (39.2)	3.02 (0.72–12.62)
30–49	97 (35.8)	41 (42.3)	38 (30.9)	18 (35.3)	2.73 (0.67–11.10)
50–64	80 (29.5)	23 (23.7)	48 (39.0)	9 (17.7)	1.82 (0.48–6.90)
≥65	19 (7.0)	8 (8.3)	10 (8.1)	1 (2.0)	1.00 (1.00–1.00)
Unknown	12 (4.4)	5 (5.2)	4 (3.3)	3 (5.9)	2.80 (0.43–18.44)
Race/ethnicity					
Hispanic	154 (56.8)	52 (53.6)	61 (49.6)	41 (80.4)	1.30 (0.64–2.67)
White	75 (27.7)	29 (29.9)	39 (31.7)	7 (13.7)	1.00 (1.00–1.00)
American Indian	7 (2.6)	3 (3.1)	4 (3.3)	0 (0)	1.10 (0.20–6.17)
Asian	8 (3.0)	1 (1.0)	5 (4.1)	2 (3.9)	0.033 (0.03–3.28)
African American	5 (1.9)	1 (1.0)	4 (3.3)	0 (0)	0.48 (0.04–5.21)
Other	15 (5.5)	6 (6.2)	8 (6.5)	1 (2.0)	0.39 (0.11–1.43)
Unknown	7 (2.6)	5 (5.2)	2 (1.6)	0 (0)	—
Annual income (USD)					
≤25,000	186 (68.6)	67 (69.1)	77 (62.6)	42 (82.4)	8.18 (1.46–45.89)*
25,000–50,000	29 (10.7)	12 (12.4)	15 (12.2)	2 (3.9)	6.34 (0.98–40.96)
≥50,001	15 (5.5)	4 (4.1)	10 (8.1)	1 (2.0)	1.00 (1.00–1.00)
Unknown	41 (15.1)	14 (14.4)	21 (17.1)	6 (11.8)	3.52 (0.53–23.34)
General health status					
Good, very good, or excellent	159 (58.7)	59 (55.3)	68 (60.8)	32 (62.8)	1.00 (1.00–1.00)
Fair or poor	94 (34.7)	31 (39.2)	48 (32)	15 (29.4)	1.46 (0.76–2.84)
Unknown	18 (6.6)	7 (5.7)	7 (7.2)	4 (7.8)	0.32 (0.06–1.77)
Insurance status					
Uninsured	51 (18.6)	—	—	—	—
Insured	—	—	—	—	—
Medicare only	24 (8.8)	12 (12.4)	12 (9.8)	—	0.97 (0.42–2.28)
Medicaid only	44 (16.1)	25 (25.8)	19 (15.4)	—	0.57 (0.26–1.26)
State coverage insurance (county indigent fund)	69 (25.2)	26 (26.8)	4 (35.0)	—	1.56 (0.73–3.32)
Medicare and Medicaid	14 (5.2)	5 (5.2)	9 (7.3)	—	—
Private only	15 (5.5)	5 (5.2)	10 (8.1)	—	—
Indian Health Services only	2 (0.7)	2 (2.1)	0 (0)	—	—
Combined (public and private)	31 (11.3)	13 (13.4)	18 (14.6)	—	—
Unknown	21 (7.7)	9 (9.3)	12 (9.8)	—	—
Health suffered from inability to get care because of cost					
Yes	—	22 (22.7)	22 (17.9)	20 (39.2)	—
No	—	62 (63.9)	86 (69.9)	22 (43.1)	—
Unknown	—	13 (13.4)	15 (12.2)	9 (17.7)	—

Data are n (%) unless otherwise indicated.

* $P = .039$.

CI, confidence interval.

get an appointment or due to inability to pay for it? (2) In the past year, due to related costs were you unable to see a specialist, unable to schedule an appointment with your doctor, or unable to have a recommended test? (3) In the past year did you did your health suffer because of not being able to afford the cost of needed care? The convenience sampling technique may introduce sampling bias but is reasonably representative of the clinics' populations. The sample likely underrepresented people with low literacy, those who were too sick to participate, and those who were undocumented.

We collected 271 completed surveys (Table 1); 89% of participants were 18 to 64 years old, 57% were Hispanic, and 69% earned \leq \$25,000 annually. A higher proportion of Hispanics was uninsured (80%) and underinsured (54%) compared with other ethnicities. Overall 36% were underinsured. Uninsured patients (19%) were excluded from the UI analysis. Therefore, 44% (97/220) of all those who were insured were underinsured. Of the underinsured, 39% reported fair or poor health and 53% had incomes $<$ 250% of the federal poverty level (either Medicaid or state coverage insurance). Patients with an annual income \leq \$25,000 were 8 times more likely to be underinsured. Finally, the uninsured reported their health had suffered at a rate 1.7 times that of the underinsured (39.2% vs. 22.7%).

A high level of UI was found in this sample of safety net primary care clinic patients compared with the national average. The risk of being underinsured was greater for young, Hispanic, and low-income patients.

The ACA will change access to health insurance, making health benefits available for millions of previously uninsured Americans. The highest rates of UI in our study were found among the poorest patients, who had either Medicaid or the state indigent program. Primary care providers should be aware that newly covered patients may have to forego or delay needed health care because of cost. More work is needed to describe the experiences of these patients and characterize the health and psychosocial outcomes of UI. The poorest patients are likely to enroll in the Bronze plans, which carry the highest out-of-pocket expenses. In Massachusetts, where an ACA-like plan has been implemented, 72% of those below 300% of the federal poverty level chose the State Health Insurance Exchange Bronze plan, which is considered by many to be UI. The next phase of our

study is currently underway and includes patient and provider focus groups and interviews. It is important to track UI in clinical settings as the ACA unfolds, particularly in safety net clinics, where UI rates may be higher than those in the general population. These data may assist advocacy efforts and navigators in helping consumers avoid lower-level plans that may leave them underinsured and may help local and national policymakers better understand the issues of UI when designing insurance plans. States that have chosen not to expand Medicaid should be aware that there may be large regional gaps in available insurance coverage options for adults, which could potentially result in high rates of UI and lower rates of insurance coverage. Future studies that compare a broader set of clinics in different states that have chosen to expand, or not, their Medicaid under the ACA are needed.

The authors thank the clinic staff; residents Sherry Weitzen, MD, PhD, Kate McCalmont, MD, and Jeffery Norris, MD; students Maria Ward, Tenzin Tsewang, Darina Linnik, and Jenna MacPherson; statistician Cheryl Schmidt, MS; and the Colorado Research Network (CaReNet) for their support of this project and for their contribution toward making this study feasible.

References

1. Voorhees K, Fernald DH, Emsermann C, et al; State Networks of Colorado Ambulatory Practices and Partners (SNOCAP). Underinsurance in primary care: a report from the State Networks of Colorado Ambulatory Practices and Partners (SNOCAP). *J Am Board Fam Med* 2008;21:309–16.
2. Schoen C, Doty MM, Robertson RH, Collins SR. Affordable Care Act reforms could reduce the number of underinsured US adults by 70 percent. *Health Aff (Millwood)* 2011;30:1762–71.
3. Lavarreda SA, Brown ER, Bolduc CD. Underinsurance in the United States: an interaction of costs to consumers, benefit design, and access to care. *Annu Rev Public Health* 2011;32:471–82.
4. Pearson CF. Analysis: Despite subsidies, chronically ill individuals will be underinsured in exchanges. Washington, DC: Avalere Health; 2013. Available from: <http://avalere.com/expertise/managed-care/insights/analysis-despite-subsidies-chronically-ill-individuals-will-be-underinsured>. Accessed January 9, 2014.
5. Collins SR, Robertson R, Garber T, Doty MM. Insuring the future: current trends in health coverage and the effects of implementing the Affordable Care Act. New York: The Commonwealth Fund; 2013. Available from: <http://www.commonwealthfund.org/publications/fund-reports/2013/apr/insuring-the-future>. Accessed January 9, 2014.