

Is the length of time uninsured prior to gaining coverage associated with changes in relative utilization of ED and primary care?

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Introduction

- Utilization of hospital emergency departments (ED) as a safety net provider for routine and non-emergent care by the uninsured is an oft cited problem
- Expansion of health insurance coverage under the Affordable Care Act (ACA) to those previously uninsured allows for a potential reallocation of care away from more expensive settings (e.g., ED to office-based primary care)
- If familiarity with the health care system and connection with a primary care provider is important, those with longer spells of being uninsured prior to gaining coverage may be less likely to shift their utilization of services towards primary care
- This study seeks to assess whether length of time uninsured is associated with changes in relative utilization of ED and primary care

Methods

- This study uses the Medical Expenditure Panel Survey (MEPS), a comprehensive survey of health insurance, healthcare utilization, and medical expenditures in the United States
- Population
 - Adults (18 years or older) who were fully insured (covered for all 12 months) in 2014 [from longitudinal data file (HC-172) for those participating in both 2013 and 2014 (Panel 18)]
- Policy variable
 - Insurance status in 2013
 - Fully insured - covered for all 12 months
 - Transiently uninsured - covered for 1-11 months
 - Persistently uninsured - uninsured for all 12 months
- Outcomes
 - Change in relative utilization of primary care to ED visits from 2013 to 2014 (primary)
 - Relative utilization is defined as the proportion of the total number of office-based physician, office-based physician assistant, office-based nurse or nurse practitioner visits, and ED visits in a year that were not ED visits
 - If utilization was zero for both visit types in a given year, relative utilization was set to zero (i.e., no primary care used)
 - Change in utilization of primary care and ED visits (separately) from 2013 to 2014 (secondary)
- Model
 - Ordinary least squares controlling for insurance status, age, gender, race/ethnicity, education, employment, and family income (all in 2013)
 - Weighted using AHRQ-provided longitudinal survey weights

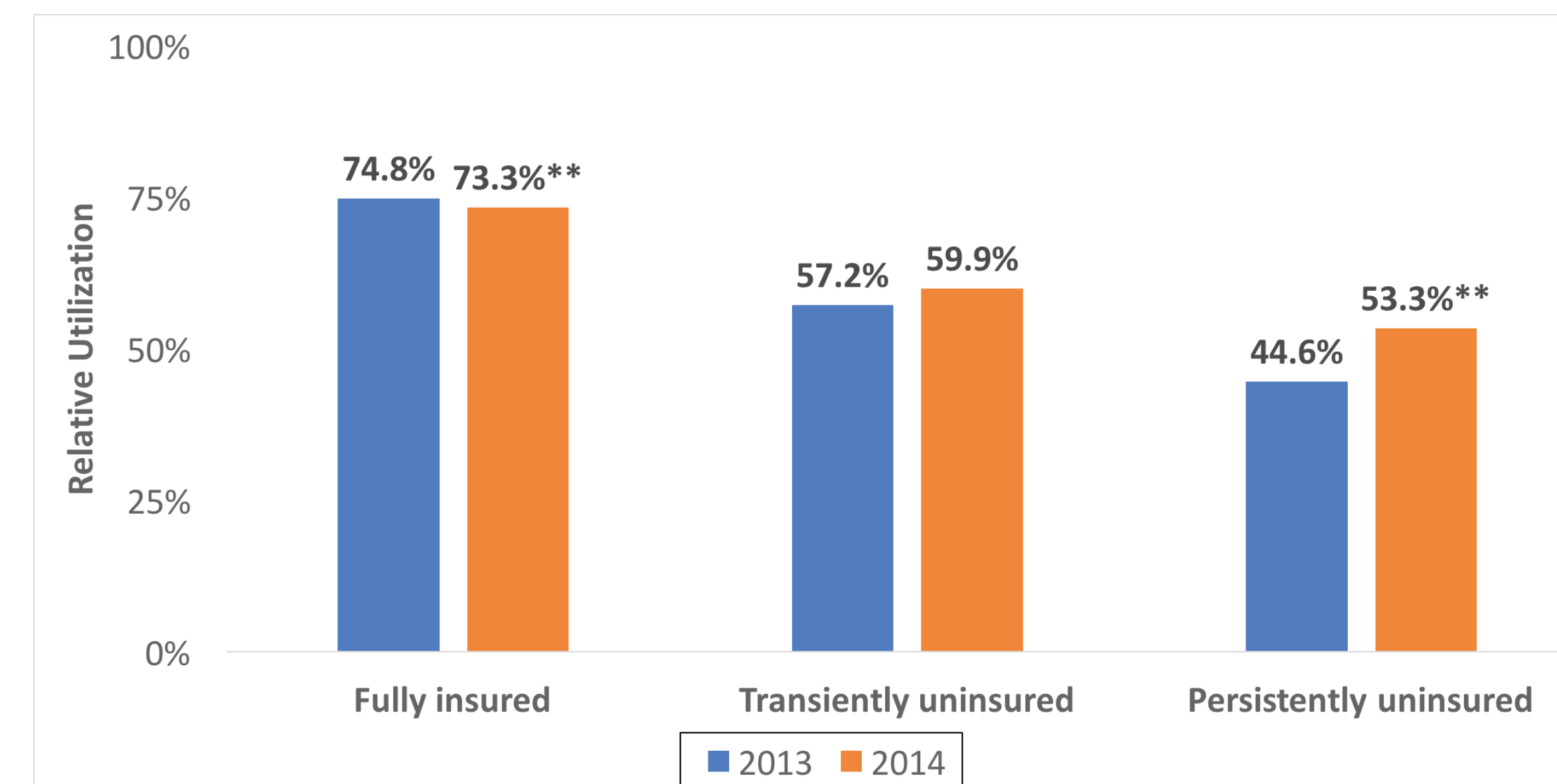
Results

Table 1. Sample characteristics, MEPS, 2013–2014

Characteristic	2013 insurance status			
	Overall	Fully insured	Transiently uninsured	Persistently uninsured
Age	38.9 (0.3)	39.9 (0.3)	31.1 (0.6)	37.1 (0.7)
Gender				
Male	47.8% (0.6%)	47.8% (0.6%)	46.5% (1.7%)	51.8% (2.4%)
Female	52.2% (0.6%)	52.2% (0.6%)	53.5% (1.7%)	48.2% (2.4%)
Race/ethnicity				
White, non-Hispanic	64.0% (0.5%)	66.0% (0.5%)	53.0% (1.7%)	50.8% (2.4%)
African American, non-Hispanic	11.8% (0.3%)	11.3% (0.3%)	16.0% (1.0%)	13.6% (1.2%)
Hispanic	14.9% (0.3%)	13.4% (0.3%)	22.2% (1.2%)	27.7% (1.8%)
Other race, non-Hispanic	9.2% (0.3%)	9.3% (0.3%)	8.9% (0.8%)	8.0% (1.2%)
Education				
High school or less	48.4% (0.6%)	47.7% (0.7%)	52.4% (1.8%)	54.0% (2.5%)
Some college or more	51.6% (0.6%)	52.4% (0.7%)	47.6% (1.8%)	46.0% (2.5%)
Employed	63.6% (0.6%)	62.8% (0.7%)	69.4% (1.8%)	66.3% (2.4%)
Family income	\$75,220 (\$799)	\$79,587 (\$893)	\$52,947 (\$1,702)	\$42,786 (\$1,845)
N	13,321	10,976	1,540	805

Estimates weighted using longitudinal survey weights. Standard errors in parentheses. Percentages may not sum to exact 100% due to rounding.

Figure 1. Changes in relative utilization of primary care by 2013 insurance status, MEPS, 2013-2014



* p<0.05, ** p<0.01

Results (continued)

Table 2. Ordinary least squares model of change in relative utilization of primary care on 2013 insurance status and demographic characteristics, MEPS, 2013–2014

Covariate	Full model	Restricted model
<i>2013 insurance status</i>		
Fully insured	–	–
Transiently uninsured	0.06** (0.02)	0.04* (0.02)
Persistently uninsured	0.09** (0.03)	0.10** (0.02)
N	9,470	13,321

* p<0.05, ** p<0.01
Estimates weighted using longitudinal survey weights. Standard errors in parentheses. Full model controls for age, gender, race/ethnicity, education, employment, and family income. Restricted model excludes education and employment due to missing values.

- Being transiently uninsured in 2013 is associated with a 6.3 percentage point increase (p<0.01) in relative utilization of primary care in 2014 (compared with those who were fully insured)
- Being persistently uninsured in 2013 was associated with a 9.0 percentage point increase (p<0.01) in relative utilization of primary care in 2014 (compared with those who were fully insured)
- The restricted model, which excludes education and employment due to missing values, yields similar findings

Conclusions

- Longer spells of being uninsured were associated with larger shifts in relative utilization of primary versus ED care after gaining coverage

Implications

- The potential for substitution away from ED utilization towards primary care by the persistently uninsured could help ease ED overcrowding and encourage earlier detection and treatment of disease
- Further research is needed to determine whether selection bias may play a role in these findings (e.g., are persistently uninsured more likely to have a pre-existing condition that would encourage utilization of primary care when insured?)



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