

## Supplementary Appendix

This appendix has been provided by the authors to give readers additional information about their work.

Supplement to: Clark CR, Ommerborn MJ, Coull BA, Pham DQ, Haas J. State Medicaid eligibility and care delayed because of cost. *N Engl J Med* 2013;368:1263-5. DOI: 10.1056/NEJMc1214874

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**Supplemental Table 1. Odds of Delayed Care Due to Cost among Non-Elderly Adults in the United States\*, 2010**

	<b>Odds Ratios<sup>†</sup> (95% CI)</b>
	<b>Delayed Care</b>
<b>Individual-level covariates</b>	
<b>Age</b>	
18-26	1.81 (1.66-1.97)
27-34	1.90 (1.79-2.03)
35-44	1.72 (1.63-1.82)
45-54	1.44 (1.37-1.51)
55-64	1.00
<b>Sex</b>	
Male	1.00
Female	1.46 (1.40-1.53)
<b>Race<sup>‡</sup></b>	
White	1.00
Black	1.04 (0.97-1.11)
Asian/Pacific Islander	0.91 (0.79-1.05)
Hispanic	1.19 (1.11-1.28)
Other	1.33 (1.02-1.74)
<b>Income</b>	
< \$25,000	1.00
\$25 – \$49,999	0.57 (0.54-0.61)
\$50 – \$74,999	0.28 (0.26-0.30)
≥ \$75,000	0.12 (0.11-0.13)
<b>Employment status<sup>§</sup></b>	
Employed	1.00
Unemployed ≥ 1 year	2.02 (1.85-2.21)
Unemployed < 1 year	1.71 (1.56-1.86)
Retired	0.51 (0.46-0.56)
Other	0.88 (0.83-0.93)
<b>Cardiovascular disease</b>	
No	1.00
Yes	1.17 (1.08-1.27)
<b>Diabetes</b>	
No	1.00
Prediabetic or gestational diabetic	1.10 (0.97-1.23)
Yes	0.91 (0.85-0.98)
<b>Self Rated Health</b>	
Excellent	1.00
Very good	1.38 (1.28-1.49)
Good	2.20 (2.04-2.37)
Fair	3.71 (3.41-4.04)
Poor	4.52 (4.06-5.02)
<b>Local-area covariates</b>	
<b>Concentration of primary care doctors<sup>  </sup></b>	
44-66 per 100,000	1.00
67-74 per 100,000	0.90 (0.85-0.95)
75-117 per 100,000	0.93 (0.87-1.00)
<b>County-level wage compensation index<sup>¶</sup></b>	
	1.12 (0.88-1.44)
<b>State-level covariates</b>	
<b>Unemployment rate<sup>**</sup></b>	
	1.05 (1.03-1.06)
<b>Medicaid eligibility<sup>††</sup></b>	
133-215%	1.00
67-127%	1.16 (1.09-1.24)
46-64%	1.39 (1.29-1.50)
17-44%	1.42 (1.31-1.54)

\* Data from Centers for Disease and Control 2010 Behavioral Risk Factor Surveillance Survey.

† Multivariable generalized linear models estimated with scaled weights to account for complex survey design and multilevel data structure using the rlogit function in SUDAAN® (RTI, North Carolina).

‡ Race/ethnicity includes Hispanics of any race in the Hispanic category.

§ Individual-level employed category includes both individuals employed with wages and self-employed individuals.

Other category includes students, homemakers and individuals who are unable to work.

|| Concentration of primary care doctors per 100,000 population by hospital referral region from 2006. Data from Dartmouth Atlas of Healthcare.

¶ County-level wage compensation index incorporates wage data from Bureau of Labor Statistics and the Census Bureau and data on benefits (such as health insurance and pensions) and mandatory payroll taxes from hospital, skilled nursing facility (SNF), and home health provider cost reports submitted to Centers for Medicare & Medicaid Services. Data from Medicare Payment Advisory Commission, 2007.

\*\* State-level measure of total unemployed, as a percent of the civilian labor force, 2010. Data from Bureau of Labor Statistics.

†† Medicaid eligibility refers to state-level income thresholds for Medicaid or Medicaid look-alike programs for working parents as a percent of the Federal Poverty Level as of January 2011. Data from Kaiser Commission on Medicaid and the Uninsured.

**Supplemental Table 2.** Comparison of Counties with High and Low Delayed Care Due to Cost \*

	Low Delayed Care Due to Cost			High Delayed Care Due to Cost		
	Norfolk, MA N=541	Davis, UT N=662	Johnson, KS N=1010	Levy, FL N=363	Hidalgo, TX N=396	El Paso, TX N=565
<b>Prevalence of Delayed Care</b>	6.5	11.0	7.6	26.3	40.6	28.3
<b>Demographics</b>						
<b>Median age (SE) †</b>	42.5 (0.47)	35.5 (1.07)	40.8 (0.84)	38.9 (2.16)	37.4 (0.78)	39.6 (1.06)
<b>Age<sup>b</sup></b>						
18 – 26	3.9	21.2	16.0	22.7	21.7	15.3
27 – 34	17.8	24.8	18.4	12.7	11.7	16.4
35 – 44	35.5	20.2	23.2	20.5	36.4	30.1
45 – 54	24.7	19.2	24.0	22.9	16.2	22.1
55 – 64	18.1	14.6	18.4	21.2	13.9	16.2
<b>Race †</b>						
White	82.7	91.7	90.6	78.2	6.9	14.0
Black	4.3	0.5	3.0	12.6	0.8	4.3
Asian/Pacific Islander	5.9	1.8	2.8	0.7	1.3	1.4
Hispanic	4.4	4.9	3.1	8.6	91.0	80.3
Other	2.7	1.1	0.4	-----	0.1	-----
<b>Income category †</b>						
< \$25,000	8.1	14.4	5.9	41.7	51.7	41.2
\$25 – \$49,999	12.2	18.4	13.0	32.9	22.1	29.0
\$50 – \$74,999	15.4	19.8	15.1	10.3	6.5	13.2
≥ \$75,000	64.3	47.5	66.0	15.2	19.8	16.6
<b>Health Status</b>						
<b>Cardiovascular disease †</b>						
No	97.3	96.7	98.0	90.3	93.4	94.7
Yes	2.7	3.3	2.0	9.7	6.6	5.3
<b>Diabetes †</b>						
No	93.5	93.4	93.2	86.5	84.8	89.5
Prediabetic or gestational diabetic	1.8	1.6	1.6	3.5	2.8	1.5
Yes	4.7	5.0	5.1	10.0	12.4	9.0
<b>Economic Climate</b>						
<b>Unemployment rate ‡</b>						
By county	7.3	7.3	6.5	12.0	12.1	9.8
By state	8.3	8.0	7.2	11.3	8.2	8.2
<b>Local Health Infrastructure</b>						
<b>Largest hospital referral region (HRR) §</b>	Boston (MA)	Salt Lake City (UT)	Kansas City (MO)	Gainesville (FL)	McAllen (TX)	El Paso (TX)
Primary care doctors per 100,000 by HRR	98.5	62.3	67.3	74.0	45.1	47.2
<b>Health Care Access</b>						
<b>Year of state Medicaid expansion ¶</b>	1997	2002	Approved August 20, 2012	2006	2011	2011

\* Data presented as percent (%) unless otherwise noted in category description. County sample sizes (Ns) are unweighted and total population estimates are weighted data accounting for complex survey design. Percentages may not add completely to 100 percent.

† Data from 2010 Behavioral Risk Factor Surveillance Survey.

‡ Data from Bureau of Labor Statistics 2010.

§ Data from Dartmouth Atlas 2006.

|| Year refers to effective, implementation or approval date of Section 1115 demonstration waivers to expand insurance coverage of low income populations. Data from Centers for Medicaid & Medicare Services.