

Supplementary Online Content

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eAppendix. Supplementary Methods

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

Table 1. State Changes in Medicaid Eligibility for Working Adults (2001-2009)

	State	Date	Previous Percentage Relative to the Poverty Line	New Percentage Relative to the Poverty Line
Changes In Medicaid Eligibility				
Case	Arizona	2002	100%	200%
Control	California	2002	100%	Unchanged
Case	Illinois	2002	31%	49%
Control	Indiana	2002	24%	Unchanged
Control	Iowa	2002	35%	Unchanged
Case	Tennessee	2002	69%	100%
Control	South Car.	2002	50%	Unchanged
Control	North Car.	2002	45%	Unchanged
Case	Illinois ^a	2004	49%	133%
Control	Kentucky	2004	41%	Unchanged
Case	Connecticut	2005	100%	150%
Control	New York	2005	150%	Unchanged
Case	Illinois	2006	133%	185%
Control	Wisconsin	2006	185%	Unchanged
Case	Colorado	2006	31%	60%
Control	New Mexico	2006	29%	Unchanged

Control	Wyoming	2006	43%	Unchanged
Case	Maine	2006	150%	200%
Control	Vermont	2006	185%	Unchanged
Case	Maryland	2008	30%	116%
Control	Virginia	2008	24%	Unchanged
Control	West Virginia	2008	18%	Unchanged
Case	New Jersey	2008	133%	200%
Control	New York	2008	150%	Unchanged

- ^{a.} Fewer quarters of data were included from this expansion to avoid overlapping with the periods of previous or future state expansions. In a sensitivity analysis, excluding this expansion did not substantively change the results.

Table 2. Exact Phrasing of Access to Care Variable From the National Health Interview Survey Questionnaire

Survey	Years	Question
NHIS	1999 -2011	Have you delayed getting medical care because you could not get an appointment soon enough?

C. Choice of Controls for Difference-in-Differences Estimation

In this manuscript, we use a difference-in-differences (DID) strategy to estimate the effect of recent Medicaid expansions on perceived access to care and emergency department use. As noted in the manuscript, this approach is used to measure the change over time in a group of interest while using controls to account for other factors in the environment that might also impact the outcome. We adapt a previously employed strategy (Sommers et al., 2012) to identify adequate controls for our sample: Medicaid recipients in bordering states to the expansions states in our sample. Sommers and colleagues note that bordering states are most likely to share “similar underlying economic, mortality, and health insurance trends” (Sommers et al., 2012). This design is one of several which could have been used to identify controls. The remainder of this appendix highlights why we believe our approach was appropriate for this analysis.

Our primary goal in choosing a set of controls was to identify a group who accessed health care under circumstances most similar to our individuals in our expansion states, but were not exposed to a state Medicaid program eligibility expansion. To do this, we attempted to use the strategy most likely to match states on observed and unobserved trends. Theory and empirical data in political science and economics demonstrate that the design of state Medicaid programs are largely influenced by a state’s political environment and population demographics. Both of these factors are clustered geographically (Grogan, 1994; Barrilleaux and Miller, 1998). Moreover, studies have shown that innovation of new programs (Medicaid managed care) is largely influenced by the adoption of these programs in surrounding states (Satterthwaite, 2002). While all Medicaid programs are unique in design, evidence suggests they are most similar, in both observable and unobservable ways, in small geographic areas. To further illustrate the point, we have provided appendix figure 1 and 2 below. Collectively, these figures show significant geographic (regional) clustering in the scope and generosity of coverage provided by state Medicaid programs.

In addition to simply including contiguous states as a control, we further matched states on baseline Medicaid eligibility, hypothesized to be among the most important environmental influences on access to care for the Medicaid population. Table 2 in the manuscript shows that even beyond the matched variable, our sample is well balanced between expansion and control states on a host of observable factors.

There were several alternative strategies for choosing controls with this data source. These strategies include 1) identifying control states based on matched observable state factors irrespective of geographic proximity or 2) using all non-expansion states in a given year as controls. We rejected these alternative approaches because they have the potential to introduce greater bias, given the marked geographic heterogeneity the design of state Medicaid programs.

References

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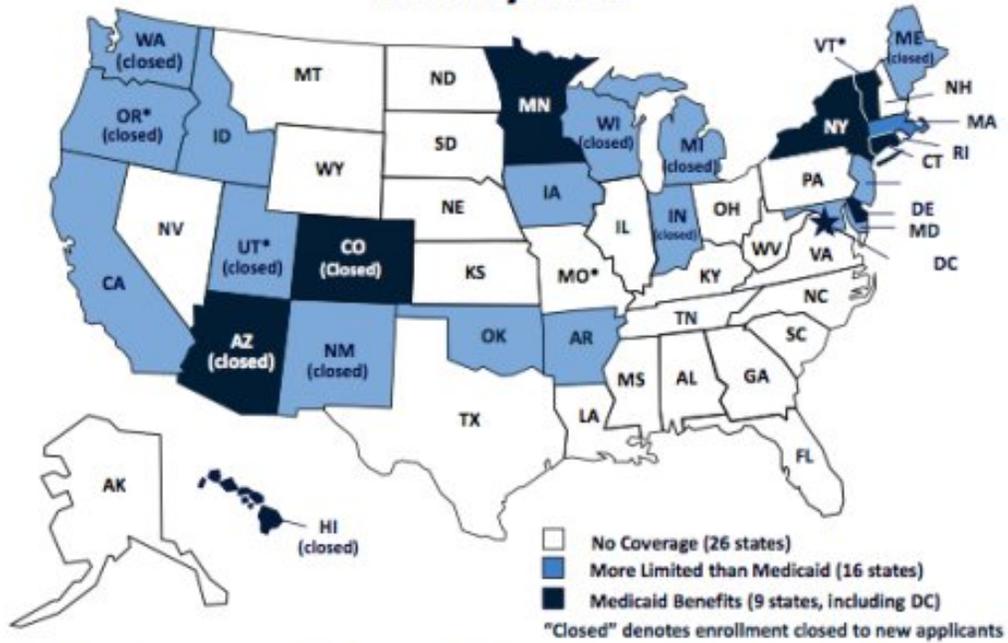
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Satterthwaite SB. Innovation and Diffusion of Medicaid Managed Care Programs. *State and Local Government Review*. 2002. 34(2) 116-26

Figure 1. State Variation in the Optional Coverage of Low-Income Adults, 2013

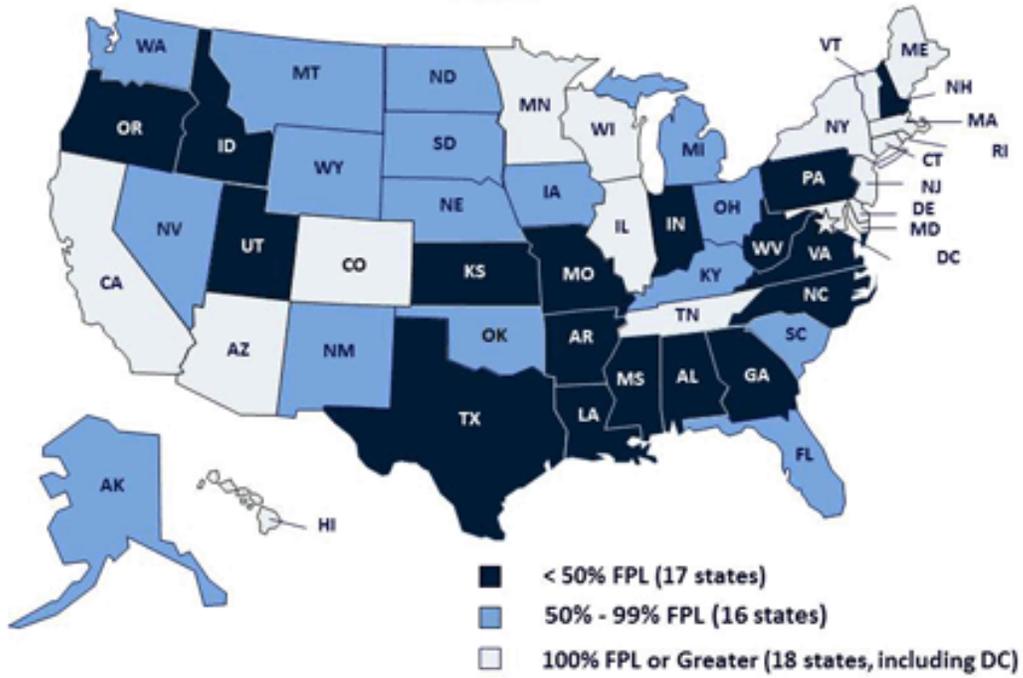
Coverage of Low-Income Adults by Scope of Coverage, January 2013



Source: Kaiser Family Foundation

Figure 2. State Variation in Medicaid Eligibility for Working Adults, 2012

Medicaid Eligibility for Working Parents by Income, January 2012



Source: Kaiser Family Foundation