

Original Investigation | HEALTH CARE REFORM

Effect of Expansions in State Medicaid Eligibility on Access to Care and the Use of Emergency Department Services for Adult Medicaid Enrollees

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IMPORTANCE Medicaid enrollees typically report worse access to care than other insured populations. Expansions in Medicaid through less restrictive income eligibility requirements and the resulting influx of new enrollees may further erode access to care for those already enrolled in Medicaid.

OBJECTIVE To assess the effect of previous Medicaid expansions on self-reported access to care and the use of emergency department services by Medicaid enrollees.

DESIGN, SETTING, AND PARTICIPANTS Quasi-experimental difference-in-differences design among 1714 adult Medicaid enrollees in 10 states that expanded Medicaid between June 1, 2000, and October 1, 2009, and 5097 Medicaid enrollees in 14 bordering control states that did not expand Medicaid.

MAIN OUTCOMES AND MEASURES Self-reported access to care and annualized emergency department use.

RESULTS Among states expanding their Medicaid program for adults, the mean income eligibility level increased from 82.6% to 144.2% of the federal poverty level. Income eligibility in matched control states remained constant at 77.1% of the federal poverty level. The proportion of adults reporting being enrolled in Medicaid increased from 7.2% to 8.8% in expansion states and from 6.1% to 6.4% in matched control states. In Medicaid program expansion states, the proportion of Medicaid enrollees reporting poor access to care declined from 8.5% before the expansion to 7.3% after the expansion. In matched control states, the proportion of Medicaid enrollees reporting poor access to care remained constant at 5.3%. The proportion of enrollees reporting any emergency department use decreased from 41.2% to 40.1% in expansion states and from 37.3% to 36.1% in matched control states. In the period following expansions, newly eligible enrollees reported poorer access to care than previously enrolled beneficiaries, although the overall difference between groups did not reach statistical significance.

CONCLUSIONS AND RELEVANCE We found no evidence that expanding the number of individuals eligible for Medicaid coverage eroded perceived access to care or increased the use of emergency services among adult Medicaid enrollees.

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Beginning in 2014, the Patient Protection and Affordable Care Act loosened Medicaid income eligibility requirements and extended Medicaid insurance coverage to several million Americans.^{1,2} Medicaid expansions are hypothesized to improve access to care and reduce the likelihood of preventable adverse health outcomes among new enrollees. Indeed, prior studies³⁻⁶ have confirmed that new Medicaid enrollment is associated with increases in the use of preventive services, improvements in perceived health status, and reductions in rates of mortality. However, some policy observers have raised concerns that the increased demand for care generated by new enrollees, many of whom have limited previous interaction with health care providers, has the potential to erode access to care for individuals already enrolled in Medicaid before an expansion.

Improving access to care through a Medicaid expansion provides a unique set of challenges for local health systems. Low reimbursement rates for providers contribute to Medicaid enrollees' facing restricted access to care.^{7,8} The limited supply of providers accepting Medicaid payments may limit access to care in states with an increased volume of Medicaid enrollees.^{1,9-12} Inadequate access to primary care has consistently been shown to be a predictor of excessive emergency department (ED) use and poor health outcomes.^{13,14}

Despite these concerns and the prospect of Medicaid expansions, few empirical investigations have studied how changes in Medicaid eligibility affect access to primary care and the use of services. Recent assessments have primarily focused on the effects of acquiring Medicaid coverage on previously uninsured populations, but little is known regarding the effects of eligibility expansions on persons already covered by Medicaid. Our study used a quasi-experimental difference-in-differences (DID) design to examine the effect of state-level changes to Medicaid eligibility criteria for adults on self-reported access to care and the use of ED services.

Methods

Data Sources

This study was exempted from review by the Brown University Institutional Review Board. The National Center for Health Statistics obtained written informed consent from each interview respondent. We used data from respondents to the National Health Interview Survey, a continuous (weekly) sample of the noninstitutionalized US population, that collects detailed information regarding behavior, health status, and the use of health services. Surveys are administered to between 25 000 and 35 000 adults annually and use a complex weighting system to provide national estimates. In addition to the publicly available file, we were granted access to restricted data on the state of residence of survey participants to match to our sampling design of states with and without Medicaid expansions. The National Health Interview Survey has previously been validated as a reliable source to study the effect of state policy changes.¹⁵

Using previously published data from the Kaiser Family Foundation¹⁶ verified by specific state data sources, we identified states that enacted significant (>25.0%) changes in their

income eligibility requirements between June 1, 2000, and October 1, 2009, for adult parents or guardians of Medicaid recipients relative to the prior fiscal year. Our study period was from January 1, 1999, through December 31, 2011. We identified 11 states that expanded their eligibility (hereafter referred to as case states) and matched each case state to 1 or more control states that made no changes to the eligibility criteria for their Medicaid programs. The first expansion (in Arizona) took place in October 2001, and the final expansion (in New Jersey) was implemented in September 2008. The eAppendix in the Supplement lists each case state, the eligibility change, the date of change, and the matched control state. Control states were matched based on geographic proximity (states were contiguous) and were required to have a baseline Medicaid eligibility within 50.0% of the case state. States serving as cases were not eligible to serve as controls during the study period. One case state could not be matched to a control state, leaving a final sample of 10 case states and 14 bordering control states. Our final analytic sample included 1714 adult Medicaid enrollees (representing 10 608 348 individuals with weighting) in case states (792 before the expansion and 922 after the expansion) and 5097 Medicaid enrollees (representing 24 609 410 individuals with weighting) in matched control states (2464 before the expansion and 2633 after the expansion).

Variables

Our primary dependent variable was a measure of perceived access to care as reported by adult Medicaid recipients. Access to care was operationalized as the proportion of individuals reporting a delay in medical care because of difficulty obtaining an appointment with a physician. A secondary dependent variable was self-reported use of the ED, which was categorized as 0, 1, or 2 or more and was measured annually. The primary independent variables were whether a Medicaid recipient resided in a case or matched control state, an indicator variable for time (before and after a significant change in the income criteria for Medicaid eligibility), and an interaction of these 2 variables.

To assess the comparability of case and control states at baseline, we used 6 state-level market-based indicators associated with access to care from the Area Resource File. Measures included the number of primary care physicians per 1000 residents, the number of federally qualified health centers per 1000 residents, the proportion of the state population enrolled in Medicaid, the rate of Medicaid managed care penetration, the annualized unemployment rate, and the annualized noninsurance rate. In addition, we abstracted the Medicaid fee index relative to Medicare for states from previously published literature.^{17,18} Because the fee index was available only in selected years (1998, 2003, 2008, and 2012), we used the time points nearest to the policy implementation to assess changes in provider reimbursement.^{17,18}

Individual-level covariates were abstracted. These included sex, age (18-30, 31-40, 41-50, or ≥51 years), race/ethnicity (white, black, Hispanic, or other), educational level (high school or less or some college or more), self-reported health status (excellent, very good, good, fair, or poor), region where respondents resided (Northeast, South, Midwest, or West), history of several chronic conditions (asthma, hyper-

Table 1. Characteristics of Medicaid Enrollees in Case and Control States in the Year Before and After Medicaid Expansions

Variable	Case, %		Control, %	
	Before	After	Before	After
Age, y				
18-30	30.2	29.4	28.2	30.7
31-40	17.8	20.5	17.3	16.4
41-50	35.1	34.1	36.6	33.2
≥51	16.9	16.0	17.9	19.7
Female sex	69.1	68.7	64.4	65.3
Race/ethnicity				
White	54.2	52.4	39.3	40.4
Black	30.1	27.4	25.4	21.4
Hispanic	13.6	18.6	28.9	30.8
Other	2.1	1.6	6.4	7.4
Educational level				
≤High school	73.2	71.1	75.7	71.3
≥Some college	25.0	27.7	21.3	25.6
Refused or missing	1.8	1.2	3.0	3.1
Site of primary care				
Community health center or clinic	28.4	29.4	25.1	28.7
Hospital outpatient clinic	4.2	3.4	5.3	4.4
Private physician office or HMO	59.4	56.4	60.4	56.4
ED	2.3	2.4	2.4	2.7
None designated	5.7	8.4	6.8	7.8
Self-reported health status				
Excellent or very good	33.1	35.7	30.9	36.7
Good	26.8	29.2	29.8	29.2
Fair or poor	40.1	35.1	39.3	34.1
Chronic condition	51.2	51.4	48.0	47.4

Abbreviations: ED, emergency department; HMO, health maintenance organization.

tension, hypercholesterolemia, and type 2 diabetes mellitus), and site of primary care (ED, hospital outpatient clinic, no designated site of care, community health center or clinic, or private physician office or health maintenance organization).

Statistical Analysis

We used a DID approach to examine the effects of changes in the criteria for Medicaid eligibility on access to care and ED use by Medicaid enrollees. This quasi-experimental design estimates the change over time in outcomes among individuals residing in case states relative to enrollees in control states. An advantage of this approach over a standard pre-post design is the ability to account for secular trends that might be independent of the assessed policy change. The parameter of interest in statistical models is an interaction of 2 terms, namely, whether an individual resided in a case or control state and whether he or she was surveyed before or after the policy change. Negative DID estimates indicate a decrease in the proportion of enrollees reporting poor access to care or ED use. We constructed generalized linear models that included the independent and dependent variables, as well as the indi-

vidual-level covariates as described earlier. Models assessing changes in ED use were dichotomized comparing ED use (any vs none) and the number of ED visits (≥ 2 vs < 2) in a given year. Regression models used state fixed effects to account for non-time varying state characteristics. Results presented are the pooled estimates of up to 2 years before the assessed policy change and up to 2 years after the assessed policy change across states. Data restrictions prohibited us from displaying the results from individual state case-control pairs. In addition, the estimates after each policy change were lagged, so they did not include the quarter of the policy change.

To assess whether the effects of Medicaid expansions differed for newly eligible compared with continuously enrolled beneficiaries, we used data from the supplemental income file provided by the National Health Interview Survey. From these data, we obtained each family's income relative to the federal poverty level. To classify individuals who were likely newly eligible as a function of the expansion, we identified Medicaid recipients with family incomes between the previous income threshold and the expanded threshold. When data on family income were missing, point estimates of family income were estimated via multiple imputation techniques. The National Health Interview Survey has provided details on the models for multiple imputation models, which can be found elsewhere.¹⁹

In addition to separate regression models for newly eligible and continuously enrolled beneficiaries, we constructed stratified models by sex, race/ethnicity, self-reported health status, self-reported use of the ED, and the presence of 3 common chronic conditions (asthma, hypertension, and type 2 diabetes mellitus). Finally, we examined results among enrollees residing in states with a larger magnitude of change in their Medicaid eligibility relative to other states (25.0%-50.0% vs >50.0% expansion) and among enrollees residing in states with lower baseline eligibility criteria ($\leq 100.0\%$ vs $> 100.0\%$ of the federal poverty level). We hypothesized that states initiating larger expansions or having lower baseline eligibility may have difficulty securing the providers and infrastructure necessary to accommodate a substantial Medicaid expansion. All data are reported with 2-tailed *P* values or 95% CIs as appropriate.

Results

Comparison of Demographic and State Characteristics

Relative to control states, enrollees in states expanding their Medicaid programs were more likely to be non-Hispanic white and female and have a history of at least 1 chronic medical condition before the Medicaid program change. Few additional differences were found in the demographic or clinical characteristics of enrollees in expansion and control states. We also observed little change in these characteristics over time in expansion and control states (Table 1). Among states expanding their Medicaid program for adults, the mean income eligibility level increased from 82.6% to 144.2% of the federal poverty level. Income eligibility in control states remained constant at 77.1% of the federal poverty level (Table 2).

The proportion of adults reporting being enrolled in Medicaid increased from 7.2% to 8.8% (a 22.2% relative increase) in expansion states and increased from 6.1% to 6.4% (a 4.9% relative increase) in matched control states. As summarized in Table 2, control states on average enrolled a slightly higher proportion of their total population into Medicaid and reimbursed primary care physicians at a slightly greater rate relative to Medicare reimbursement rates (73.8% to 70.3%). Otherwise, few notable market-level differences were found between case and control states. Little overall change was observed in the Medicaid fee index relative to Medicare for case states before and after expansion (from 70.3% to 71.2%).

Changes in Access to Care

In Medicaid program expansion states, the proportion of Medicaid enrollees reporting poor access to care declined from 8.5% before the expansion to 7.3% after the expansion (change, -1.2 percentage points). No difference in perceived access was observed among Medicaid enrollees in control states, with the proportion of enrollees reporting poor access to care remaining constant at 5.3% (Table 3). After adjustment for demographic and clinical differences between enrollees, the DID estimate was -1.4 (95% CI, -4.1 to 1.2) percentage points (Table 4).

In both expansion and control states, ED users reported poorer access to primary care than non-ED users. In case states,

13.6% of enrollees reported poor access to care in contrast to only 4.8% of individuals without ED use before expansions. Among enrollees in control states, we observed close to a 6.0-percentage point difference in reported access to care between ED users and non-ED users at baseline (8.9% vs 3.1%). After the Medicaid expansions, we observed a 3.0-percentage point decrease in the proportion of ED users in case states reporting poor access; this corresponded with an almost 1.0-percentage point decrease among ED users in control states. After adjustment, the between-group difference was not significant (-2.6 [95% CI, -7.9 to 2.6] percentage points) (Table 5).

Changes in ED Use

In total, 41.2% of enrollees in expansion states reported any ED use before the Medicaid expansion, with 26.3% of enrollees reporting ED use at least twice annually (Table 3). After expansion, a small reduction to 40.1% was found in reported ED use, with 22.4% of enrollees reporting 2 or more ED visits. We found a similar magnitude of change in ED use in matched control states, where ED use decreased from 37.3% to 36.1%, along with a 1.1-percentage point decrease in the proportion of enrollees reporting 2 or more ED visits (from 20.2% to 19.1%). After adjustment, no apparent effect of the observed Medicaid expansions on ED use was observed (adjusted DID, 1.5 [95% CI, -1.3 to 4.3] percentage points). Similarly, no observed change was seen in the volume of individuals reporting 2 or more ED visits after expansion (adjusted DID, -2.7 [95% CI, -7.1 to 1.6] percentage points).

Stratified and Sensitivity Analyses

In stratified analyses by age, sex, race/ethnicity, self-reported health status, and history of chronic disease, we observed a consistent noneffect of Medicaid expansions on perceived access to care (Table 5). We found no evidence that expansions of a greater relative or absolute magnitude were associated with different effects from smaller expansions. After expansions, individuals in expansion states who were likely to be newly eligible based on their income reported slightly poorer access to care than individuals whose income corresponded with being previously eligible. However, this difference between groups was not significant after adjustment (adjusted DID, -3.8 [95% CI, -8.2 to 0.5] percentage points) (Figure). No effect of Medicaid expansion on ED use was observed for any of the subgroups of enrollees we examined.

Table 2. Market-Based Characteristics of Case and Control States Before 10 Medicaid Expansions

Variable	Case (n = 10)	Control (n = 14)
Medicaid eligibility for parents, % of FPL	82.6	77.1
Primary care physicians per 100 000 individuals, No.	80.8	78.3
Federally qualified health centers per 1000 individuals, No.	0.014	0.017
Medicaid enrollment, %	17.1	19.2
Unemployment rate, %	5.2	4.9
Uninsured rate, %	13.1	13.7
Medicaid fee index relative to Medicare	0.67	0.72
Median annual household income, \$	51 993	50 230
Medicaid managed care penetration, %	60.2	58.7

Abbreviation: FPL, federal poverty level.

Table 3. Change in Perceived Access to Care and ED Use in Case and Control States Before and After Medicaid Expansions

Variable	Case, %		Control, %		Percentage Point (95% CI)			
	Before		Before		Case Change	Control Change	Difference in Differences	
	Before	After	Before	After			Unadjusted	Adjusted
Enrollees reporting poor access to care	8.5	7.3	5.3	5.3	-1.2	0.0	-1.2	-1.4 (-4.1 to 1.2)
ED visits					NA	NA	NA	NA
0	58.8	59.9	62.7	63.9				
1	14.9	17.7	17.1	17.0				
≥2	26.3	22.4	20.2	19.1				
Any ED use	41.2	40.1	37.3	36.1	0.9	1.2	-0.3	1.5 (-1.3 to 4.3)

Abbreviations: ED, emergency department; NA, not applicable.

Table 4. Adjusted Predictors of Reporting Poor Access to Care^a

Variable	Percentage Point Difference (95% CI)	P Value
Medicaid expansion	-1.4 (-4.1 to 1.2)	.69
Age, y		
18-30	1 [Reference]	
31-40	1.2 (-0.6 to 3.0)	.21
41-50	0.5 (-1.5 to 2.5)	.68
≥51	-1.6 (-3.3 to 0.2)	.07
Sex		
Male	1 [Reference]	
Female	-1.1 (-2.5 to 0.3)	.11
Race/ethnicity		
Black	-2.1 (-3.8 to -0.5)	.01
Hispanic	-1.7 (-3.5 to -0.1)	.04
Other	-1.2 (-4.0 to 1.6)	.40
White	1 [Reference]	
Educational level		
≥Some college	1.5 (-3.0 to 6.0)	.51
≤High school	1 [Reference]	
Self-reported health status		
Fair or poor	-1.4 (-3.1 to 0.3)	.12
Good	1.6 (-0.2 to 3.4)	.09
Excellent or very good	1 [Reference]	
Site of primary care		
Community health center or clinic	-0.8 (-2.4 to 0.8)	.53
Private physician office or HMO	0.2 (-2.2 to 4.4)	.73
Hospital outpatient clinic	-1.8 (-3.0 to -0.4)	.02
ED	6.1 (-16.3 to 4.3)	.28
None designated	1 [Reference]	
Chronic condition		
Yes	-1.0 (-3.2 to 1.3)	.55
No	1 [Reference]	

Abbreviations: ED, emergency department; HMO, health maintenance organization.

^a Estimates correspond to the adjusted probability of reporting poor access to care, with estimates expressed in percentage point differences. Models also included state fixed effects and year time trends.

Table 5. Stratified Difference-in-Differences Estimates of Reporting Poor Access to Care or Any ED Use by Selected Characteristics^a

Variable	Difference in Differences, Percentage Point (95% CI)	
	Reporting Poor Access to Care	Reporting Any ED Use
Race/ethnicity		
White	-4.4 (-9.5 to 0.6)	2.3 (-6.8 to 8.5)
Black	1.9 (-2.7 to 6.6)	0.6 (-6.9 to 8.1)
Hispanic	0.4 (-4.7 to 5.6)	2.6 (-3.2 to 8.4)
Sex		
Male	-2.7 (-7.8 to 2.4)	0.1 (-12.9 to 13.2)
Female	0.2 (-3.1 to 3.5)	1.8 (-1.7 to 5.4)
Self-reported health status		
Excellent or very good	-0.9 (-5.0 to 3.3)	5.5 (-0.2 to 10.4)
Good	-0.9 (-5.9 to 4.1)	-1.9 (-9.9 to 0.6)
Fair or poor	0.4 (-4.8 to 5.5)	3.5 (-2.9 to 9.5)
Chronic condition ^b		
Yes	-2.8 (-7.0 to -1.3)	2.3 (-1.3 to 5.8)
No	1.9 (-1.6 to 5.6)	0.2 (-3.8 to 4.1)
ED visits		
≥1	-2.6 (-7.9 to 2.6)	NA
0	-0.1 (-2.9 to 2.7)	NA
Baseline Medicaid eligibility, % FPL		
≤100.0	-0.7 (-4.6 to 3.2)	3.0 (-2.9 to 0.9)
>100.0	-2.0 (-6.2 to -5.9)	-0.2 (-6.8 to 6.4)
Relative expansion increase, %		
25.0-50.0	-1.8 (-5.0 to 4.2)	-0.7 (-4.7 to 3.3)
>50.0	-0.4 (-3.6 to 2.4)	3.7 (-1.0 to 8.6)

Abbreviations: ED, emergency department; FPL, federal poverty level; NA, not applicable.

^a Estimate is defined as the change among enrollees in control states subtracted from the change among enrollees in case states. Models were adjusted for age, sex, education, race/ethnicity, site of primary care, self-reported health status, geographic region, and chronic condition (asthma, hypertension, type 2 diabetes mellitus, or hypercholesterolemia).

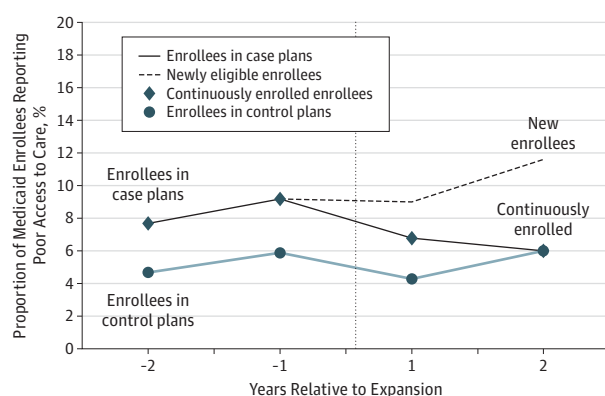
^b Enrollees reporting a history of asthma, hypertension, type 2 diabetes mellitus, or hypercholesterolemia.

Discussion

We used a quasi-experimental design to examine the effects of previous state Medicaid eligibility expansions on access to care and ED use among adult Medicaid enrollees. Our study is among the first to forecast the potential effect of Medicaid expansion on individuals with existing Medicaid coverage. Our results indicate that previous Medicaid expansions did not produce significant changes in perceived access to care or ED use among adult Medicaid enrollees. Contrary to our hypothesis, expansions of greater absolute and relative magnitude were not associated with significantly different outcomes compared with smaller expansions. Finally, in the period following a Medicaid expansion, we observed an increasing gap in perceived access to care among newly eligible and previous Medicaid enrollees, although the overall difference between these groups was not statistically significant.

These results are particularly encouraging in light of the federally proposed Medicaid expansion that began in 2014. Some investigators have suggested that the Medicaid coverage expansions may increase demand for care without providing sufficient mechanisms to increase the supply of providers available to care for Medicaid enrollees, thereby eroding access to care for these patients.^{1,10-12} Our findings do not support that hypothesis. Rather, our results indicate that increasing the number of individuals covered by Medicaid does not reduce access to care or increase the use of ED services for persons enrolled in the Medicaid program. It is unclear whether the negligible change in the proportion of Medicaid enrollees reporting poor access to timely care is related to sufficient capacity among safety net providers or lower demand for services among newly eligible populations. However, the latter is an unlikely possibility given that prior findings suggest that new Medicaid enrollees seek substantial amounts of care to fulfill previously unmet health care needs.^{3,20,21} In addition,

Figure. Annualized Change in Perceived Access to Care Among Medicaid Enrollees



Date of expansion is indicated by the vertical dotted line.

the Medicaid expansions due to the Patient Protection and Affordable Care Act are being enacted simultaneously with new health insurance exchanges. Prior studies²²⁻²⁴ of a broader insurance expansion in Massachusetts demonstrated mixed results in terms of the overall system capacity to care for an increased volume of patients. Joynt and colleagues²³ showed no negative spillover effects in access among Medicare enrollees, while other investigators have observed a persistent gap in access between individuals covered by Medicaid relative to individuals having other insurance types.²⁴

One area of potential concern is the observed trend toward new enrollees' reporting worse access to care than enrollees who were likely previously eligible for Medicaid. This is consistent with some previous estimates suggesting that as many as 40% of primary care providers are unwilling to add new Medicaid enrollees to their panel.^{7,8} Provisions in the Patient Protection and Affordable Care Act, particularly those that increase Medicaid reimbursement to primary care providers and bolster the safety net workforce in community health centers and the National Health Service Corps, may be critical in ensuring that there is an adequate supply of providers for newly eligible enrollees.²⁵

Recent studies exploring Medicaid expansions have found increases in the use of health services and improvements in some health outcomes. Sommers et al⁶ used a quasi-experimental design and determined that expanding Medicaid programs have been associated with significant decreases in population-level mortality rates and increases in self-reported health status. Studies^{3,4,26,27} of a randomized lottery in Oregon found that Medicaid coverage increased the use of primary care, improved self-reported access to care and health status, and decreased depression but did not produce statistically significant improvements in several measures of physical health and increased use of the ED. Our study offers new insight concerning the expected changes in the access and use of services for those Medicaid recipients already insured before an expansion, the largest proportion of the Medicaid population. The results add to a growing body of evidence suggesting that Medicaid expansions have generally been successful in providing

individuals with health insurance, without significant measurable detriments to their ability to access services.^{3,4,6,28}

This study has important implications for policy makers as state Medicaid agencies implement planned coverage expansions. Our findings should be useful in assessing potential effects for states deciding whether to participate in Medicaid expansions. Expansions seem to assist states in reducing the proportion of uninsured individuals, without increasing the rates of ED service use among the Medicaid population, services commonly cited as a source of excessive health care spending. Also, given our finding that newly eligible populations may face the most pronounced barriers to accessing care in a timely fashion, state Medicaid agencies should be particularly vigilant in efforts to engage newly eligible populations in primary care.

Our study had some limitations. Although we used a survey designed to capture a nationally representative estimate, it did not follow respondents longitudinally; therefore, we were unable to track changes in individuals' perceived access to care or ED use. Moreover, individuals' self-reported access or use of health services may be biased, although we would not expect any bias to be associated with residence in an expansion state or a control state. Respondents' perceptions of access to care may not accurately reflect the true availability of timely access to services in their communities.

Additional limitations of this study include that our sample size did not allow us to reliably examine the heterogeneity of estimates across states. However, we found similar effect sizes for states with different magnitudes of eligibility expansions. Similarly, the effects observed at the state level may not hold for all subpopulations in the state, particularly individuals residing in rural areas or those having physician shortages. In addition to the implemented changes in Medicaid eligibility, changes in state policy may have affected enrollees' access to care or use of health services. Because Medicaid expansions are implemented by changes in income eligibility requirements, new Medicaid enrollees may differ in important ways compared with the enrollees in control states; the DID framework attempts to address this but cannot do so perfectly. Moreover, the Medicaid expansions analyzed in this study were designed for working parents or guardians; this may represent a narrower sample of the population than is expected in the 2014 expansions. Finally, we evaluated state-initiated changes in Medicaid eligibility; consequently, the terms of the policy implementation were dictated by state Medicaid agencies. States participating in the federally mandated expansions in 2014 may not have an equivalent preparedness compared with the states included in this study.

Conclusions

We found no evidence that expanding the number of individuals eligible for Medicaid coverage erodes perceived access to care or increases the use of ED services among adult Medicaid enrollees. States that expand Medicaid are unlikely to observe substantial increases in costs attributable to poor access to care among previously enrolled adults.

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