

adult provision led to an increase of 2.5 percentage points (95% confidence interval [CI], 1.6 to 3.4) in private-insurance reimbursement — a 9.9% relative increase from baseline. Medicaid payments decreased by 2.1 percentage points (95% CI, 3.0 to 1.3), and self-payments decreased by 0.3 percentage points (95% CI, 0.5 to 0.2). Most of the changes involved payments for births to unmarried mothers (Table S1 in the Supplementary Appendix).

In our confirmatory analysis using the Nationwide Inpatient Sample, we found similar results. Coverage by private insurance increased, and Medicaid-funded and uninsured deliveries decreased (Table S2 in the Supplementary Appendix).

Our study shows that the young-adult provision was associated with a significant increase in private coverage and a significant decrease in Medicaid coverage of childbirth among women 19 to 26 years of age. As such, it suggests a shift in financing of childbirth from Medicaid to private insurance in this population. This research may be limited insofar as it only looks at two specific points of pregnancy and delivery: points immediately before and after childbirth. How-

ever, childbirth tends to be the most costly part of pregnancy and payment sources for childbirth probably are similar to payment sources for concurrent care.

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State Medicaid Expansion and Changes in Hospital Volume According to Payer

TO THE EDITOR: The Affordable Care Act (ACA) has many potential implications for the hospital industry. One of the most closely followed issues is the expansion of Medicaid, which became a state option as a result of the Supreme Court decision of 2012.¹ As of this writing, 31 states and Washington, D.C., have elected to expand Medicaid, and enrollment grew by 21% to more than 71 million persons between January 2014 and March 2015.² State decisions about Medicaid expansion potentially have important implications for hospital payment sources and revenue.

A number of reports have shown a reduced volume of uninsured patients in hospitals in expansion states. However, most of these data have come from for-profit hospitals or from a single state.^{3,4}

We performed a study using hospital-discharge data from the Hospital ACA Monitoring

Project (HAMP), a voluntary surveillance effort funded by the Robert Wood Johnson Foundation.⁵ All state hospital associations were invited to participate by submitting quarterly data on inpatient admissions and emergency department visits according to payer. Of the 21 states currently participating, 11 have expanded Medicaid. Data submitted through HAMP are highly representative of overall hospital volume in their respective states, including, on average, 98% of acute care hospitals. States that participate in the study, as compared with nonparticipating states, have smaller Hispanic populations and lower rates of uninsurance and poverty, as shown in Table S1 in the Supplementary Appendix, available with the full text of this letter at NEJM.org.

Table 1 shows changes in hospital volume per capita between 2013 and 2014 according to

Table 1. Mean Hospital Volume per 1000 State Residents Younger than 65 Years of Age, According to Payer and Medicaid Expansion Status, 2013 and 2014.*

Variable	Expansion States (N=10)†				Nonexpansion States (N=11)‡				Mean Difference-in-Differences Result¶	P Value		
	Average Volume, 2013	Average Volume, 2014	Average Absolute Difference§	P Value	Mean State Change§	Average Volume, 2013	Average Volume, 2014	Average Absolute Difference§			P Value	
Inpatient admissions												
Total	74.8	74.2	-0.60	0.23	-0.1	71.7	71.6	-0.04	0.96	0.0	-0.6	0.59
Commercial insurance	44.1	43.0	-1.1	0.04	-2.5	40.8	41.1	0.3	0.50	1.0	-1.5	0.04
Medicaid	24.4	27.5	3.2	0.004	14.8	21.6	21.8	0.2	0.71	2.1	3.0	0.005
No insurance	6.3	3.7	-2.7	0.008	-33.2	9.4	8.8	-0.6	0.4	-7.1	-2.1	0.06
Emergency department visits**												
Total	286.6	293.9	7.0	0.03	2.8	324.7	332.7	8.1	0.14	2.6	-1.0	0.87
Commercial insurance	133.0	134.0	1.0	0.61	0.7	134.9	142.3	7.4	0.03	6.0	-6.5	0.10
Medicaid	91.6	119.8	28.2	0.009	40.4	101.5	108.7	7.2	0.02	9.0	21.0	0.01
No insurance	62.2	40.1	-22.1	0.02	-29.9	88.3	81.7	-6.6	0.006	-8.7	-15.5	0.04

* State averages are shown.

† Expansion states were Colorado, Connecticut, Illinois, Iowa, Kentucky, Maryland, Michigan, Minnesota, New Jersey, and New York.

‡ Nonexpansion states were Florida, Georgia, Indiana, Kansas, Missouri, Montana, South Carolina, Tennessee, Virginia, Wisconsin, and Wyoming.

§ The average absolute difference and the mean state percent change are changes in the average state and are not directly calculated from the average state volume per capita.

¶ The difference-in-differences (per 1000 residents) estimate was calculated by subtracting the absolute difference for the nonexpansion states from the absolute difference for the expansion states.

|| Commercial insurance includes health insurance provided by an employer or directly purchased, as well as several other small categories such as worker's compensation, disability, and auto insurance in some states.

** Maryland, Michigan, and Virginia did not provide data on emergency department visits, so data on emergency department visits are from 8 expansion states and 10 nonexpansion states.

payer (excluding Medicare) and Medicaid expansion status. Two-sided hypothesis tests were used to measure differences according to payer, and difference-in-differences tests were used to measure differences according to expansion status. In expansion states, there were significant decreases in admissions covered by commercial insurance and not covered by insurance (self-payment) and significant increases in Medicaid admissions. The difference-in-differences results showed significant changes for admissions covered by Medicaid and commercial insurance. In both groups of states, Medicaid-covered emergency department visits increased and visits by self-paying patients decreased significantly, and the difference-in-differences results showed significant changes. Commercial insurance-covered emergency department visits increased significantly in nonexpansion states. Results were similar in analyses of mean total state volumes (i.e., rather than per capita) (Table S2 in the Supplementary Appendix).

In conclusion, in this analysis of data from 21 states, states that expanded Medicaid, as compared with states that did not expand Medicaid, had a greater increase in Medicaid-covered inpatient hospital admissions and emergency department visits and a greater decrease in commercial insurance-covered inpatient admissions and emergency department visits that were not covered by insurance.

Many factors affect hospital financial status. These results suggest that Medicaid expansion may have important effects on the payer mix, primarily by reducing the volume of uncompensated care.

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