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Among Low-Income Adults Enrolled In Medicaid, Churning Decreased After The Affordable Care Act

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ABSTRACT Coverage disruptions and coverage loss occur frequently among Medicaid enrollees and are associated with delayed health care access and reduced medication adherence. Little is known about the effect on churning of the expansion of eligibility for Medicaid under the Affordable Care Act (ACA), which had the potential to reduce coverage disruptions as a result of increased outreach and more generous income eligibility criteria. We used a difference-in-differences framework to compare rates of coverage disruption in expansion versus nonexpansion states, and in subgroups of states that used alternative expansion strategies. We found that among low-income Medicaid beneficiaries ages 19-64, disruption in coverage decreased 4.3 percentage points in the post-ACA period in expansion states compared to nonexpansion states, and there was a similar decrease in the share of people who experienced a period without any insurance. Men, people of color, and those without chronic illnesses experienced the largest improvements in coverage continuity. Coverage disruptions declined in both traditional expansion states and those that used Section 1115 waivers for expansion. Our quasiexperimental study provides the first nationwide evidence that Medicaid expansion led to decreased rates of coverage disruption. We estimate that half a million fewer adults experienced an episode of churning annually.

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isruptions in coverage, often referred to as "churning," are a persistent problem in Medicaid.¹⁻³ People who experience coverage disruptions are more likely to delay care, receive less preventive care, refill prescriptions less often, and increase the number of emergency department visits.⁴⁻⁶

A common cause of coverage disruption is income fluctuation that leads to changes in Medicaid eligibility from month to month.⁷ Lowincome adults are more likely to have irregular sources of employment, which results in such fluctuation. Other sources of disruption include changes in eligibility that are not related to income (such as the end of a pregnancy), adminis-

trative difficulty with reenrolling, and switching to non-Medicaid coverage.⁸ Disruptions often lead to periods of uninsurance, but even disruptions due to plan switching can result in impeded access to care because of differing provider networks and drug formularies in various plans.¹

Several analyses before the implementation of the Affordable Care Act (ACA) projected that churning rates—particularly rates of switching between Medicaid and Marketplace coverage—would increase because of the ACA's use of income cutoffs as the defining feature of eligibility for both Medicaid and subsidized Marketplace coverage. 7,9,10 Projected estimates of churning between Medicaid and Marketplace coverage ranged from 31 percent to 50 percent. 9,10 Further-

more, churning within Medicaid was expected to be higher than that within Marketplace plans because Medicaid eligibility is generally measured monthly, whereas eligibility for Marketplace subsidies is based on a person's annual Modified Gross Adjusted Income.⁷

To counteract the potential increase in disrupted coverage, the ACA created a policy option known as the Basic Health Program. Beginning in 2015, this option allowed states to offer affordable, comprehensive insurance—comparable to Medicaid—to nonelderly adults with incomes of up to 200 percent of the federal poverty level and to institute twelve-month continuous eligibility. One analysis estimated that the adoption of a Basic Health Program on a national level, rather than as a state option, would reduce the number of adults forced to transition between Medicaid and Marketplace coverage by 4 percent per year. 12

Alternative state Medicaid expansion strategies through Section 1115 waivers also had the potential to affect churning. For example, the "private option" in Arkansas allowed the state to use Medicaid funds to purchase plans on the ACA's Marketplace for Medicaid-eligible adults. This approach was projected to decrease churning, as people could remain in the same plan even if their income fluctuated across the income ranges qualifying for Medicaid coverage or a Marketplace subsidy.¹³

Early evidence from a survey of three states (including Arkansas) suggested that churning did not increase after the ACA, ¹⁴ while another study indicated that the ACA may have shortened the length of uninsured spells. ¹⁵ However, to our knowledge, the nationwide effect that the Medicaid expansion and other relevant ACA policies such as the Basic Health Program had on Medicaid coverage continuity has not been studied. Therefore, the objective of this study was to evaluate the impact of the Medicaid expansion, including traditional and alternative approaches, on coverage disruptions and loss among Medicaid enrollees.

Study Data And Methods

STATE POLICIES The ACA allowed states to expand their Medicaid programs to cover adults with family incomes at or below 138 percent of poverty. By the end of our study period in 2016, thirty-one states and the District of Columbia had opted to expand Medicaid, while nineteen states had not. (See online appendix A for the classification of states by expansion status.)¹⁶

Five of those thirty-one states (Arkansas, Indiana, Iowa, Michigan, and New Hampshire) implemented expansions during our study peri-

od using Section 1115 waivers. These states differ in the specific details of their program designs, but certain aspects are common to several of them. For example, Arkansas, Indiana, Iowa, and Michigan all charged some Medicaid enrollees premiums. ¹⁷ Indiana and Iowa disenrolled people with incomes above poverty for nonpayment of premiums. Arkansas and New Hampshire used premium assistance programs, in which Medicaid dollars were used to purchase private insurance coverage for certain groups of people eligible for Medicaid, based on income. ¹⁸ (Iowa initially had a premium assistance program but ended it in 2015.)

Basic Health Programs create an option for states to offer comprehensive benefits—similar to Medicaid coverage and with minimal or no cost sharing or premiums—both to adults with incomes of up to 200 percent of poverty who are not eligible for Medicaid and to legal permanent residents who have not yet met the five-year waiting period for Medicaid. 11,19 Two states have implemented Basic Health Programs: Minnesota for coverage beginning January 1, 2015, and New York for coverage beginning January 1, 2016. Basic Health Program plans act as a bridge between Medicaid and Marketplace insurance because they allow enrollees to keep the same insurer. In Minnesota any insurance carriers that offer these plans must also offer Medicaid plans. In New York the majority of insurers (eleven out of thirteen) that offer these plans also offer both Medicaid and Marketplace plans, to allow for continuity of coverage despite changes in income-based eligibility.11 Additionally, both states opted in to offering twelve-month continuous eligibility.20

pata and study sample We analyzed data from the Medical Expenditure Panel Survey—Household Component (MEPS-HC), which captured monthly insurance status for the period 2011–16, three years before and three years after the ACA's Medicaid expansion went into effect in 2014. We obtained access to restricted data for MEPS, which allowed us to identify respondents according to state Medicaid expansion policy. In our primary analysis the study population consisted of 14,370 nonelderly adults (ages 19–64) who had family incomes under 138 percent of poverty and reported having had Medicaid for at least one month during the survey year.

Our intervention group included adults who resided in states that had expanded Medicaid before December 31, 2015. Our control states consisted of adults who resided in states that had not expanded Medicaid before that date. We excluded Louisiana and Montana, which expanded Medicaid during 2016.

Our analysis of the effect of Basic Health Pro-

Our results suggest that Medicaid expansion helped healthier people retain more stable coverage.

grams on enrollment in any type of public insurance in Minnesota and New York included adults ages 19–64 who had incomes at or below 200 percent of poverty and at least one month of public insurance—Medicaid, Medicare, or any other government-sponsored hospital or physician insurance programs except TRICARE (military coverage).²¹

OUTCOMES Our two primary outcomes were the annual rate of disruption in Medicaid coverage and the loss of that coverage. The *rate of disruption in coverage* was defined as the proportion of Medicaid enrollees who moved from Medicaid coverage to no coverage or non-Medicaid coverage at any point during the calendar year. *Loss of coverage* was defined as transitioning from Medicaid coverage to uninsurance at any point in the year.

To explore the potential impact of churning on access to care, we analyzed three secondary outcomes using MEPS variables: inability to get necessary care, delays in receiving care, and delays in obtaining prescription medication.

STATISTICAL ANALYSIS We used linear regression to examine changes in our outcomes among Medicaid enrollees in expansion versus nonexpansion states, before and after the ACA's insurance expansions were implemented in January 2014. Our use of linear regression to estimate our binary outcomes allowed for more straightforward interpretation of difference-indifferences results.²² Our adjusted models included terms for deidentified state of residence, year, age group, sex, race/ethnicity, marital status, family size, pregnancy, presence of dependents in the household, diagnosis with a chronic condition, foreign birthplace, employment, and receipt of Supplemental Security Income (SSI). (See the appendix for additional details on our modeling.)16

We performed two sensitivity analyses. In one, we excluded pregnant women. In the other, we excluded disabled adults, defined as people who received SSI payments or had at least one month of Medicare coverage (that is, they were dually

eligible for Medicaid and Medicare). All regressions were performed with SAS, version 9.4, using survey-based procedures that accounted for the complex sample design and weights in MEPS.

To elucidate the effects of Medicaid expansion type, we then separately examined states that implemented a traditional expansion through the ACA and states that used a waiver for expansion, comparing both groups to nonexpansion states. We also compared rates of disruption in or loss of any public insurance coverage in the two states with a Basic Health Program—New York and Minnesota—to rates in nonexpansion states, using the population that had incomes at or below 200 percent of poverty and at least one month of public insurance.

To understand whether certain demographic groups experienced disproportionate changes in coverage disruption or loss after the Medicaid expansion, we analyzed our primary outcomes in selected subgroups—men versus women, whites versus nonwhites, and people with versus without a chronic condition—as these factors may affect both the likelihood of coverage changes and their potential implications for health. People with chronic conditions were those who had ever been diagnosed with cancer (excluding nonmelanoma skin cancer), asthma, emphysema, diabetes, hypertension, arthritis, stroke, and heart disease.

Like all difference-in-differences analyses, our study design assumed that the trends in the intervention and control groups were similar before the intervention—in our case, the Medicaid expansion. To test for differential pre-intervention trends, we performed two sets of "placebo" tests that used only pre-ACA data, and we repeated our main difference-in-differences analyses as if the ACA's Medicaid expansion had occurred in January 2012 (for the first set of tests) or January 2013 (for the second set).²³

LIMITATIONS Our study was limited in several respects. First, because we restricted our study population to people enrolled in Medicaid, the post-ACA intervention group included many people who had higher incomes than, and differed in other demographic characteristics from, the post-ACA control group and the pre-ACA groups. However, the addition of this demographically distinct group probably led us to underestimate the postexpansion decrease in churning, because adults who acquired insurance because of the Medicaid expansion are likely at higher risk of churning. Prior research has shown that receipt of public assistance (such as Temporary Assistance for Needy Families), which many of the adults eligible for Medicaid before the ACA's Medicaid expansion would have qualified for, greatly lowers the chance of losing Medicaid.² Additionally, higher-income adults who acquired coverage because of the Medicaid expansion experience frequent income fluctuations: Among low-income people in the national longitudinal MEPS sample during our study period, adults who had incomes of 100–138 percent of poverty in the first year of of the two-year longitudinal sample were nearly twice as likely as those who had incomes below 50 percent of poverty to have an income above 138 percent of poverty in the following year. This was a consistent pattern both before and after the Medicaid expansion (appendix I).¹⁶

Second, the monthly insurance variables that we used to define disruption and coverage loss were self-reported and therefore subject to error. However, the MEPS data on insurance status are verified whenever possible by survey administrators^{24,25} and have been used previously for pre-ACA assessments of churning.²

Third, for confidentiality reasons, the Agency for Healthcare Research and Quality does not allow researchers working with restricted data to identify certain states. Instead, it provided us with several aggregate groupings necessary for our analysis (expansion states versus nonexpansion, waiver, and Basic Health Program states).

EXHIBIT 1

Characteristics of the study cohort before the implementation of the Affordable Care Act's Medicaid expansion, by state expansion of eligibility for Medicaid

Characteristic	Nonexpansion states	Expansion states
Sample size Weighted Unweighted	12,221,206 2,026	28,315,803**** 4,762****
Female	67.2%	64.8%
Older than age 40	42.9	43.9
Race/ethnicity ^a Hispanic Black Asian White Other	16.2 31.5 1.6 47.5 3.1	26.3*** 24.5** 5.2*** 41.5 4.4
Married	24.1	26.2
Born in the US	72.3	63.5****
Employed	25.1	30.0**
Receives Supplemental Security Income	21.4	19.9
Has dependents in household	25.4	24.2
Pregnant	15.2	10.8****
Has chronic disease diagnosis	61.2	58.4

SOURCE Authors' analysis of data for 2011–13 from the Medical Expenditure Panel Survey–Household Component. **NOTES** Nonexpansion states were the nineteen states that had not expanded eligibility for Medicaid by 2016, listed in appendix A (see note 16 in text). Expansion states were the twenty-nine states and the District of Columbia that had expanded Medicaid programs before December 31, 2015. Two states (Louisiana and Montana) that expanded Medicaid in 2016 were excluded. "Groups other than Hispanic are non-Hispanic. ***p < 0.05 ****p < 0.01 ****p < 0.001

Therefore, we were not able to distinguish between states that expanded Medicaid in 2014 versus 2015, so we grouped together all states that done so before the end of 2015. Similarly, we were able to analyze the five waiver states only in the aggregate, even though the specifics of their programs differed. We felt that this approach was reasonable because several of their programs had common themes such as premium assistance programs or premium requirement for enrollees, as described above.

Fourth, we included five states in our expansion group (Alaska, Indiana, Michigan, New Hampshire, and Pennsylvania) that expanded Medicaid after January 2014. As a result, our analysis may have underestimated the impact of the expansion on coverage continuity. However, we could not identify individual states for confidentiality reasons (as explained above), and we therefore classified these states in the expansion group.

Finally, income as measured in MEPS might not map directly to state eligibility requirements for Medicaid. Accordingly, we tested a model in which our sample used a slightly relaxed income threshold of 150 percent of poverty. The results were quite similar to those of our main analysis.

Study Results

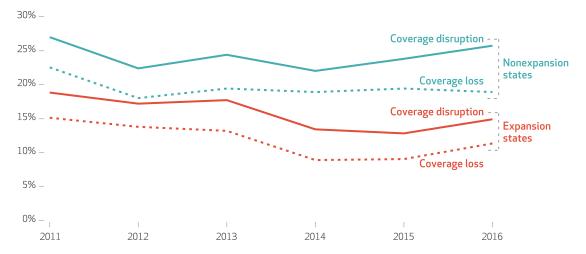
SUMMARY STATISTICS Our study population included 3,986 adults who resided in states that had not expanded Medicaid and 10,384 adults in states that had done so. In the pre-ACA cohort, those living in expansion states (n = 4,762) were more likely to be nonwhite, born outside of the US, and employed and less likely to be pregnant compared to adults in nonexpansion states (n = 2,026) (exhibit 1).

rates of disruption in coverage were lower in expansion states compared to nonexpansion states before 2014 but followed a similar trend in that period (exhibit 2), which was confirmed by our placebo testing (appendixes E–G). Annual rates of coverage loss also show a similar trend in both study groups in the same period. In both groups the majority of people who experienced a coverage disruption also experienced coverage loss: 81.0 percent in nonexpansion states and 78.4 percent in expansion states before 2014 and 80.6 percent in nonexpansion states and 74.7 percent in expansion states after 2014 (data not shown).

In our primary adjusted analysis, the annual rate of coverage disruption among Medicaid enrollees in all expansion states was 17.9 percent in the pre-ACA period, and it declined by 4.3 percentage points in the post-ACA period compared

EXHIBIT 2

Annual rates of Medicaid coverage disruption and loss among nonelderly adult enrollees, by state expansion of eligibility for Medicaid, 2011-16



SOURCE Authors' analysis of data for 2011–16 from the Medical Expenditure Panel Survey–Household Component. **NOTES** Coverage disruption occurs when a person moves from Medicaid coverage in one month to another type of coverage or no coverage in the next consecutive month. Coverage loss occurs when a person moves from Medicaid coverage in one month to no coverage in the next consecutive month.

to nonexpansion states (exhibit 3). Loss of coverage was experienced by 14.0 percent of Medicaid enrollees in all expansion states in the pre period, and this rate also decreased by 4.3 percentage points in the post period. Analyses that excluded people with disability or pregnant women produced similar results (appendix C). ¹⁶

STATE SUBGROUPS: MEDICAID EXPANSION TYPE Within the subgroup of states that implemented traditional Medicaid expansions, the annual rate

of coverage disruption was 17.2 percent before the ACA and decreased by 4.3 percentage points, compared to nonexpansion states (exhibit 3). The rate of coverage loss was initially 13.5 percent and declined by 4.4 percentage points. In the subgroup of states that expanded Medicaid using Section 1115 waivers, the rate of disruption was 22.5 percent in the pre-ACA period and decreased by 4.6 percentage points, compared to nonexpansion states. The rate of coverage loss

EXHIBIT 3

Changes in rates of Medicaid coverage disruption and loss among nonelderly adult Medicaid enrollees after implementation of the Affordable Care Act's Medicaid expansion, by state expansion of eligibility for Medicaid

	Pre-ACA	Post-ACA	Within-group	Pre-ACA	Post-ACA	Within-group	Difference in differences (percentage-point change)	
Had any:	Nonexpansion states		difference	All expansion states		difference ^a	Unadjusted	Adjusted
Disruption in coverage Coverage loss	24.5% 19.9	23.8% 19.1	-0.7 -0.8	17.9%	9.7	-4.2 -4.3	-3.4* -3.5*	-4.3** -4.3**
	Nonexpansion states			Traditional expansion states			Unadjusted	Adjusted
Disruption in coverage	24.5%	23.8%	-0.7	17.2%	13.1%	-4.1	-3.4*	-4.3**
Coverage loss	19.9	19.1	-0.8	13.5	9.2	-4.3	- 3.5*	-4.4**
	Nonexpansion states			Waiver expansion states			Unadjusted	Adjusted
Disruption in coverage	24.5%	23.8%	-0.7	22.5%	18.8%	-3.7	-3.0****	-4.6****
Coverage loss	19.9	19.1	-0.8	17.3	14.1	-3.2	-2.4****	-3.7****

SOURCE Authors' analysis of data for 2011–16 from the Medical Expenditure Panel Survey (MEPS)-Household Component. **NOTES** This analysis includes adults ages 19-64 with family incomes below 138 percent of the federal poverty level who had Medicaid for at least one month during the calendar year. The years 2011–13 constitute the period before implementation of the Affordable Care Act (pre-ACA), while the years 2014–16 constitute the post-ACA period. Expansion, nonexpansion, traditional expansion, and waiver expansion states are defined in the text and described in greater detail in appendix A (see note 16 in text). Adjusted analyses controlled for state of residence, year, age, sex, race/ethnicity, marital status, family size, pregnancy, presence of dependents in household, diagnosis with a chronic condition, foreign birthplace, employment, and receipt of Supplemental Security Income. All models used survey weighting and accounted for the complex survey design of MEPS. *Percentage points. *p < 0.10 **p < 0.05 ****p < 0.001

was 17.3 percent and decreased by 3.7 percentage points.

In our analysis of states with a Basic Health Program (Minnesota and New York), disruptions in coverage occurred in 13.6 percent of adults per year before the ACA and declined by 1.7 percentage points after the ACA, compared to nonexpansion states (appendix B). The rate of coverage loss did not change.

DEMOGRAPHIC SUBGROUPS In our subgroup analysis stratified by sex, men experienced an 8.2-percentage-point decrease in the rate of disruption in coverage and a 7.2-percentage-point decline in the rate of coverage loss, while women experienced no significant change in coverage disruptions or loss (exhibit 4). Nonwhites also experienced substantial declines in disruptions $(-5.9 \, \text{percentage points})$ and coverage loss $(-4.7 \, \text{m})$ percentage points), whereas whites experienced no significant change in either measure. Lastly, adults without chronic conditions had large reductions in both disruptions (-9.9 percentage points) and coverage loss (-10.4 percentage points), while adults with chronic conditions did not experience significant changes in these outcomes.

ACCESS OUTCOMES Access-to-care outcomes did not improve significantly in expansion states in comparison to nonexpansion states (appendix D). One measure, "unable to get necessary care," decreased significantly in nonexpansion states but was unchanged in expansion states, which led to a significant increase in the difference-in-differences estimate. The other two access measures showed no change.

PLACEBO ANALYSIS Our placebo tests showed no significant differential changes in disruptions or coverage loss in the pre-ACA period for expansion versus nonexpansion states overall (appendixes E-G).16 with small point estimates close to zero. Placebo tests comparing the group of traditional expansion states to the group of nonexpansion states also showed no change in either outcome. However, among the Section 1115 waiver expansion states, tests that used a 2012 start date for the placebo expansion showed a small decrease (1.5 percentage points) in churning, while tests that used a 2013 start data showed a significant increase. This pattern of a decrease followed by an increase in churning provides no evidence of a consistent trend in the pre-ACA period. Furthermore, the

EXHIBIT 4

Rates of Medicaid coverage disruption and loss among nonelderly adult enrollees after implementation of the Affordable Care Act's Medicaid expansion, by subgroup and state expansion of eligibility for Medicaid

Subgroup	Nonexpansion states		Within-group	Expansion states		Within-group	Difference-in-differences (percentage-point change)	
	Pre-ACA	Post-ACA	difference ^a	Pre-ACA	Post-ACA	difference	Unadjusted	Adjusted
SEX								
Had any disruption in coverage Male Female Had any coverage loss Male	21.1% 26.2 16.8	23.0% 24.1	1.9 -2.1 1.3	20.3% 16.6	14.9% 13.0	-5.4 -3.6 -5.8	-7.4** -1.5 -7.1**	-8.2** -2.2 -7.2**
Female	21.4	19.5	-1.9	12.9	9.4	-3.5	-1.6	-2.3
RACE/ETHNICITY Had any disruption in coverage Nonwhite White Had any coverage loss Nonwhite White	25.9% 23.1 21.9 17.6	26.5% 20.6 21.7 16.0	0.6 -2.5 -0.2 -1.6	17.9% 17.9 14.8 12.9	13.4% 14.0 10.7 8.6	-4.5 -3.9 -4.1 -4.3	-5.1** -1.5 -3.9* -2.7	-5.9** -2.5 -4.7** -3.8
CHRONIC CONDITIONS								
Had any disruption in coverage No chronic condition Chronic condition Had any coverage loss	31.7% 19.7	34.9% 16.7	3.2 –3.0	20.7% 15.8	15.4% 12.4	-5.3 -3.4	-8.4** -0.4	-9.9** -1.6
No chronic condition Chronic condition	28.5 14.1	30.8 11.6	2.3 -2.5	17.9 11.1	11.7 8.3	-6.2 -2.8	8.6** 0.3	-10.4*** -1.1

SOURCE Authors' analysis of data for 2011–16 from the Medical Expenditure Panel Survey–Household Component. **NOTES** The pre– and post–Affordable Care Act (ACA) periods are explained in the notes to exhibit 3. Adjusted analyses controlled for the variables listed in the notes to exhibit 3. The subgroup with chronic conditions included people who reported a diagnosis of cancer (all types except nonmelanoma skin cancer), asthma, emphysema, diabetes, hypertension, arthritis, stroke, and heart disease. *Percentage points. *p < 0.10 **p < 0.05 ***p < 0.01

Waiver features approved in recent years may partially erode some of the improvements in continuity of coverage.

small point estimates of the decrease in churning in the 2012 placebo tests were all less than half the magnitude of the estimates in our main analysis in the postexpansion period. Overall, the placebo tests did not suggest the presence of an unrelated, pre-ACA factor driving the sizable effect that we identified with our main analysis in the postexpansion period.

Discussion

Using a quasi-experimental approach and nationally representative survey data, we found that the share of low-income adults who experienced disruptions in and loss of Medicaid coverage decreased significantly in states that expanded Medicaid under the ACA, compared to those that did not. These results indicate that part of the ACA's reduction in the US uninsured population by nearly twenty million in 2016, the last year of our study period, can be attributed not just to new enrollment of uninsured people but also to increased retention of Medicaid enrollees. Our point estimate of a 4.3-percentage-point decrease in coverage loss, applied to the population of twelve million nonelderly adult Medicaid beneficiaries in expansion states in 2016, indicates that the ACA expansion has prevented the loss of coverage for half a million adults annually.

There are likely three mechanisms by which the Medicaid expansion decreased churning: The increased income cutoff allowed for greater fluctuations in income without resulting in loss of eligibility; a standardized income cutoff simplified requirements across all states that chose to expand Medicaid; and greater outreach efforts and enrollment assistance generally occurred in expansion versus nonexpansion states. ²⁶ The individual mandate imposed by the ACA, which carried a financial penalty through 2018, may also have motivated some people to maintain

enrollment. Our unadjusted models produced smaller estimates than our adjusted models did, which suggests that demographic changes in the population eligible for Medicaid in the post-ACA period did not drive the decrease in churning that we identified.

Our results are consistent with those of a study that found that uninsured periods decreased overall after the ACA,¹⁵ as well as with those of a recent two-state study of Medicaid.²⁷ Rates of churning in our study population during the pre-ACA period are also consistent with those in prior literature.^{2,3}

The overall reduction in churning rates identified by our study was driven by larger decreases in churning among men, people of color, and those with no chronic condition. The larger changes among nonwhite enrollees could be related to previous evidence that people of color experience greater income volatility²⁸ as well as to evidence that the ACA expansion disproportionately increased coverage rates among nonwhites.²⁹ The Medicaid expansion is known to have disproportionately increased coverage for low-income men compared to women,³⁰ because men without dependents generally had very little access to Medicaid before the ACA. Our study provides new evidence that the Medicaid expansion also led to significant improvement in coverage continuity for men. The results of our subgroup analysis of people with and without chronic conditions are consistent with the results of previous analyses that show lower baseline rates of churning among sicker people.² Our results suggest that Medicaid expansion helped healthier people—who tend to have less regular contact with the health care system—retain more stable coverage.

States that expanded Medicaid through Section 1115 waivers had higher baseline rates of both disruption and loss of coverage relative to traditional expansion states, and both groups of states experienced decreases in churning of a similar magnitude after the ACA. The improvement seen in the waiver expansion group is especially noteworthy because the premiums required for Medicaid enrollees in four of these five states could have led to increased churning which would have been consistent with some qualitative or in-depth survey studies in these states. 31,32 However, we found no evidence of this in national data. It is possible that improvements in churning between Marketplace and Medicaid coverage attributable premium assistance programs in two of the waiver states, Arkansas and New Hampshire, are driving some of the decrease. However, given the small size of both states' populations, the two premium assistance programs cannot entirely explain our findings,

and at least one prior study of premium assistance did not find that it reduced churning rates. ¹⁴ Features of the Medicaid expansion waiver states that are common to all expansion states, such as the simplified and more generous eligibility criteria, are likely the major drivers of the improvements we identified.

The study states that implemented Basic Health Programs with twelve-month continuous enrollment—Minnesota and New York—experienced a modest decline in enrollment disruptions but not in coverage loss, most likely because both of them already had state health programs very much like the Basic Health Program. In addition, both states had lower rates of coverage disruption and loss compared to other expansion states before the ACA. It is also important to note that the income range for the two states with Basic Health Programs was not the same as that for the rest of our analyses, which precluded direct comparison of the estimates for those groups of states.

While previous studies have found notable improvements in access to care after the Medicaid expansion among low-income adults, 33,34 we did not identify any improvement in access in our population that included only those who had had at least one month of Medicaid coverage. (The previous studies have generally included many low-income adults who were initially uninsured because they were not eligible before the expansion.) One measure, "unable to get necessary care," improved only in nonexpansion states, possibly because of ACA-related factors that were separate from Medicaid—such as increased funding for community health centers.35 In addition to the fact that our sample excluded many people in the pre-ACA period who became eligible for Medicaid after the expansion, another potential explanation for the lack of positive effects on access is that our outcomes were based on MEPS questions that assessed self-reported access for the entire twelve months preceding the MEPS interview date—and thus may have failed to capture the effects of a few months without insurance, perhaps because of recall bias.³⁶ Previous literature has shown that access outcomes in the Medicaid population are less responsive than patterns of utilization are to short-term changes in insurance status.³⁷ Longer-term follow-up of churning may find different results. Additionally, constraints on provider supply may have prevented greater gains in expansion states.38

Conclusion

Our study provides new evidence on the effects of the Medicaid expansion and alternative expansion types on coverage continuity. Both disruptions in Medicaid coverage and coverage loss decreased by 4.3 percentage points among lowincome adult Medicaid enrollees living in states that expanded Medicaid under the ACA. This effect was driven by improved coverage continuity among nonwhites, men, and people without chronic conditions. Waiver features approved in recent years by the Centers for Medicare and Medicaid Services, including work requirements and premiums in Medicaid, may partially erode some of the improvements in continuity of coverage that we identified here. Our findings make a novel contribution by showing that part of the ACA's overall coverage effect was due not just to new enrollment in Medicaid but also to reduced churning after enrollment.

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