



# Insurance Churning Rates For Low-Income Adults Under Health Reform: Lower Than Expected But Still Harmful For Many

The Harvard community has made this article openly available. [Please share](#) how this access benefits you. Your story matters

Citation	Sommers, Benjamin D., Gourevich, Rebecca A., Maylone, Behany A., Blendon, Robert J., Epstein, Arnold M. Insurance Churning Rates For Low-Income Adults Under Health Reform: Lower Than Expected But Still Harmful For Many. Health Aff 35 (10): 1816-1824: doi: 10.1377/hlthaff.2016.0455
Published Version	10.1377/hlthaff.2016.0455
Citable link	<a href="http://nrs.harvard.edu/urn-3:HUL.InstRepos:28977439">http://nrs.harvard.edu/urn-3:HUL.InstRepos:28977439</a>
Terms of Use	This article was downloaded from Harvard University's DASH repository, and is made available under the terms and conditions applicable to Open Access Policy Articles, as set forth at <a href="http://nrs.harvard.edu/urn-3:HUL.InstRepos:dash.current.terms-of-use#OAP">http://nrs.harvard.edu/urn-3:HUL.InstRepos:dash.current.terms-of-use#OAP</a>

**Insurance Churning Rates For Low-Income Adults Under Health Reform:  
Lower Than Expected But Still Harmful For Many**

Benjamin D. Sommers, Rebecca A. Gourevitch, Bethany Maylone, Robert J. Blendon  
and Arnold M. Epstein

## ABSTRACT

Changes in insurance over time – “churning” – may lead to adverse consequences, but there has been little evidence to date on churning since the implementation of the Affordable Care Act (ACA). We explored the frequency and implications of churning with a survey of over 3000 low-income adults in three states with different ACA policies: Arkansas, Kentucky, and Texas. We also compared 2015 churning rates in these states to pre-ACA survey data from 2013. Overall, 20-25% of respondents experienced a change in coverage in the previous 12 months. While frequent, this rate was lower than some pre-ACA predictions. Churning rates were similar after Kentucky’s Medicaid expansion and Arkansas’ private option, compared to Texas, which did not expand. Common causes were job-related changes and loss of Medicaid/Marketplace eligibility. Churning was associated with disruptions in physician care and medications, trouble obtaining primary and specialty care appointments, and more ED use. Overall, 35-40% of churners felt that it had adversely impacted their quality of care and health. Outcomes were worst among those experiencing gaps in coverage, but even those who churned without becoming uninsured reported adverse effects. Our results indicate policies are needed to reduce churning frequency and to mitigate negative impacts when it occurs.

## **Introduction**

The Affordable Care Act's (ACA) coverage expansion is now in its third full year and has brought the nation's uninsured rate to an all-time low, from 16.0% in 2010 to 9.1% in 2015.<sup>1</sup> However, obtaining coverage is only part of the policy challenge in improving health care. Movement between and out of health plans – often called “churning” – may occur frequently, particularly among lower-income individuals.

The U.S.'s multi-payer system creates the possibility of several types of coverage transitions, many of which predate the ACA. These transitions include switching into or out of employer-sponsored insurance (ESI) due to a job change; switching between sources of subsidized coverage due to eligibility changes (e.g., Marketplace to Medicaid and vice versa); loss of coverage due to eligibility changes (Medicaid to uninsured); switching between plans within the same coverage type, either voluntarily (e.g., a better plan became available) or involuntarily (e.g., plan exit from the Marketplace); and administrative disruptions in coverage (e.g., difficulty with the Medicaid renewal process).

Within each of these transitions, some people may become uninsured for a time, while others may switch between different insurance types or plans without a coverage gap. While the former is likely to expose individuals to significant financial risk and impaired access to care,<sup>2,3</sup> even the latter may create negative effects because insurance benefits and provider networks often differ across coverage and plan types,<sup>4</sup> and changing providers has been linked to adverse outcomes.<sup>5</sup>

Previous research indicates that even before the ACA, churning was a common phenomenon, with annual rates of coverage disruptions estimated at 12% for those with employer-provided insurance,<sup>6</sup> 43% in Medicaid,<sup>2</sup> and 58% in non-group private insurance.<sup>7</sup>

Multiple analyses projected that churning would be a major challenge under the ACA in all states,<sup>8-10</sup> but there has been limited evidence to date on actual churning since the law's coverage expansions took effect.

Policymakers have considered various options to address this issue. One approach is currently being tested in Arkansas, where most new Medicaid beneficiaries are enrolled in subsidized Marketplace plans rather than traditional Medicaid.<sup>11</sup> By primarily providing private insurance to adults both above and below the ACA's Medicaid eligibility threshold of 138% of poverty, Arkansas's "private option" model may reduce the need for low-income adults to switch provider networks and treatment regimens in response to income fluctuations and other changes in life circumstances.<sup>12</sup> Several other states, including Iowa and New Hampshire, have adopted alternative approaches to Medicaid expansion that also use private coverage.

Despite the potential for adverse effects associated with churning, there is little information in the literature on the impact of churning under the ACA, and there has been limited evidence to date on policy efforts to reduce its impact through approaches like the one employed in Arkansas. In this study, we report our findings from a survey of over 3,000 low-income adults in Arkansas, Kentucky, and Texas from late 2015. Each state included in the survey has taken different pathways to Medicaid expansion under the ACA – the private option in Arkansas, a traditional Medicaid expansion in Kentucky, and no expansion in Texas.

Our objective was to address three questions: what was the frequency of churning and the risk factors for experiencing it; what were the most common causes of churning; and what were the consequences on continuity of care, access to care, quality of care, and health. We hypothesized that churning would have negative impacts on several dimensions of health care, but that the private option model in Arkansas would reduce churning rates considerably.

## **METHODS**

### **Survey Design**

We conducted a telephone survey using random digit dialing of both landline and cell phones in Arkansas, Kentucky, and Texas. The sample was restricted to U.S. citizens between 19-64 years old with family incomes below 138% of the Federal Poverty Level (FPL). Both English and Spanish interviews were available. For all estimates, survey weights were constructed using the American Community Survey and National Health Interview Survey to yield population-representative estimates for our study population. Additional details regarding the survey methodology have been previously published.<sup>13</sup>

The survey instrument assessed respondents' current insurance status and how many times they had changed coverage in the past twelve months, defined as "losing, gaining or switching one's health insurance plan." In the paper, for brevity, we refer to these episodes as "churning," though we did not use that language in the survey itself. Respondents who reported any episodes of churning in the past year were asked a series of questions about related impacts on continuity of provider relationships, prescription medication use, as well as quality of care and health status. All respondents provided information about access to care, affordability, utilization, and demographic characteristics. Survey questions were adapted from past surveys when feasible,<sup>14-16</sup> and the instrument was pilot-tested before going into the field (see Appendix for precise question wording).<sup>17</sup>

The survey was conducted in November and December of 2015 with a response rate of 21%, for a total sample of 3,011 individuals distributed evenly across the three states. This survey built on two prior surveys conducted in these states in 2013 and 2014 that did not focus

on churning but instead focused on other aspects of health care for low-income adults; however those prior surveys did ask about overall churning frequency. Thus, for the measure of churning frequency, we also compared the 2015 data to responses from a separate cohort of 2,823 adults who answered the same question in our 2013 survey, prior to the ACA's major coverage expansions.

## **Analysis**

We examined the frequency of churning across the three states by comparing the proportion of respondents who had experienced no coverage changes, one change, or at least two changes in the past year. We also estimated the proportions changing coverage from the pre-ACA period (2013) to the post-ACA period (2015), comparing Kentucky's Medicaid expansion to Arkansas's private option and Texas's lack of expansion. This analysis employed a differences-in-differences regression model, comparing the three states before and after the ACA, controlling for the state, year, race/ethnicity, age, gender, marital status, education, rural vs. urban residence, and family size.

Then, using our 2015 survey data, we assessed causes and implications of churning. We examined current coverage type and the total months of coverage for each individual in the past year, estimating the percentage of individuals experiencing a coverage gap. Respondents were then asked to identify the main reason for their coverage change: going from uninsured to new coverage, change in job or job-related coverage, did not like old plan, loss of eligibility, inability to afford old plan, old plan no longer available, and could not complete the renewal process.

Next, we used multivariate logistic regression to analyze which demographic predictors were associated with churning. Covariates in the model included sex, marital status, rural vs.

urban residence, cell phone or landline survey, self-reported health, having one or more chronic medical condition, age, race/ethnicity, education, income, state of residence, and insurance status.

Our remaining analyses focused on assessing the potential negative consequences of churning. We excluded those who had gone from uninsured to new coverage, and focused on two distinct groups of people experiencing potentially harmful churning: first, those who churned with a gap in coverage (i.e. went from insured to uninsured at some point), and second, those who churned without a gap in coverage (i.e. switched from one type of insurance to another without becoming uninsured). We asked these individuals whether they had to change their primary care or specialist providers due to insurance; switched or stopped taking any prescription medications due to insurance changes; and whether their coverage change had a positive, negative, or no impact on the quality of medical care they received and on their overall health.

Lastly, we investigated whether churning was associated with several measures of access to and affordability of care. These questions were asked of the full sample. For this analysis, we conducted multivariate logistic regression for each outcome to assess whether churning (with or without a gap in coverage) was associated with changes in these outcomes. We reported our results as adjusted odds ratios and converted them into predicted probabilities, to better convey the absolute change in outcomes after adjustment for covariates. All analyses were conducted using Stata version 13.1.

## **Limitations**

There are several relevant limitations to our study. First, the response rate to our survey was 21% in 2015 and 26% in 2013. While these rates are lower than those in government surveys, appropriate weighting to demographic benchmarks has been shown to reduce non-response bias,<sup>18</sup> and previous research using random-digit dialing surveys – with similar or even lower response rates – have produced valuable insights into the ACA across a range of topics that have been generally consistent with results from government surveys.<sup>19-22</sup>

Many of our analyses rely on self-reported outcomes regarding health, utilization of health care services, and quality of care. Such reports may be subject to recall bias. Furthermore, the extent to which the adverse outcomes reported by respondents in our survey can be causally linked to churning is unclear. In part to address this concern, we present two distinct approaches to measuring potential adverse results of churning: first, we asked respondents directly what effects they attribute to churning; then, using multivariate regression, we assessed whether certain results were more common among those with coverage changes after adjusting for other factors. However, individuals may not accurately attribute adverse events to the experience of churning, and unmeasured confounders could explain some of the relationships we observed in our regression models.

Finally, since our sample was restricted to three southern states, the results may not be generalizable to other states or regions of the United States. Moreover, though overall rates of churning were similar, the pattern of churning and challenges it creates may differ significantly across these states. However, these states were chosen for their distinct approaches to ACA implementation and therefore are useful case studies for how these policy approaches may – or may not – influence churning and associated outcomes.

## RESULTS

### *Churning Rates and Reasons for Coverage Changes*

Exhibit 1 shows overall rates of churning in our study states. In 2015, nearly one quarter of respondents reported one or more changes in health insurance status in the past twelve months. Churning rates were fairly similar across states both in the pre-ACA (2013) and post-ACA (2015) periods. A differences-in-differences logistic regression model showed no significant changes based on the state's expansion policy, with Arkansas's private option in 2015 associated with an odds ratio for churning of 0.99 compared to Texas ( $p=0.98$ ), and Kentucky's Medicaid expansion with an odds ratio of 1.13 compared to Texas ( $p=0.61$ ), both compared to the 2013 baseline. Linear differences-in-differences models also showed no significant changes related to the states' expansion approaches.

Exhibit 2 describes patterns of coverage gaps and reasons for the changes. Among those with coverage changes in our sample, 56% experienced a gap in insurance and nearly 30% were uninsured for longer than four months. Fewer Kentuckians who churned (47.8%) experienced a gap in coverage, compared to Arkansans (58.4%) or Texans (60.7%), though this difference was not statistically significant ( $p=0.15$ ).

Overall, nearly 20% of those who churned did so because they gained insurance coverage. The proportion gaining insurance was approximately double in Arkansas and Kentucky compared to Texas ( $p=0.09$ ). The remaining respondents churned for other reasons: 33.8% cited an employment-related change, 14.9% had lost eligibility for subsidized insurance in Medicaid or the Marketplace, and 14.1% couldn't afford to keep their coverage. Smaller shares of respondents said their old plan was no longer available or that they had trouble completing the

renewal process. Reasons for churning differed significantly across the study states.

Respondents in Texas were the most likely to say they dropped coverage because they couldn't afford it (24.1%), while those in Arkansas were more likely to say their plan was no longer available (19.1%). Respondents in Kentucky were the most likely to report trouble with the renewal process as a cause for churning (13.6%).

In our remaining analyses, we exclude those who went from uninsured to insured (i.e. gaining new coverage) from “churning,” since this is a desired result of coverage expansion.

Appendix Exhibit 1 shows which demographic factors were associated with churning in 2015, excluding those who went from uninsured to insured.<sup>17</sup> Churning was significantly more common among women and younger adults, and less common among Latinos. Churning was roughly twice as common among those with Marketplace coverage (Odds Ratio [OR]=2.13,  $p=0.001$ ) or non-group private coverage (OR=2.67,  $p=0.002$ ), relative to Medicaid, and was lower in Arkansas (OR=0.59,  $p=0.007$ ) and Kentucky (OR=0.64,  $p=0.035$ ) compared to Texas. Churning in the two expansion states did not differ from each other.

### ***Implications of Coverage Changes***

Exhibit 3 describes disruptions in health care as a consequence of coverage changes (excluding those whose coverage change was going from uninsured to insured). Nearly 20% of churners had to change their doctor(s), often both primary care and specialists. Changing doctors was more common among churners with a coverage gap compared to those without a gap (25.2% vs. 13.3%,  $p=0.016$ ). Churning also impacted medication use: 16.2% of churners had to switch or change their prescription medications, and 33.9% either skipped doses or stopped taking their medications as a result of a coverage change. Skipping medications was more common among

those with coverage gaps than without gaps (44.9% vs. 22.4%,  $p < 0.001$ ). More than half (51.7%) of churners with a coverage gap reported that their coverage change had a negative impact on the overall quality of their medical care, and a similar share (47.3%) reported that churning had negatively impacted their health. Even among those who switched coverage without a gap, more than 20% reported a negative effect on quality of care and health.

Appendix Exhibit 2 shows these outcomes by state.<sup>17</sup> The proportion of churners who had to change doctors because of insurance was significantly higher in Texas (32.3%) than in Arkansas (14.1%) or Kentucky (11.4%,  $p < 0.001$ ). However, changes in health care quality or health associated with churning did not differ significantly across states.

Exhibit 4 compares several measures of health care access for churners with coverage gaps and without coverage gaps, both compared to non-churners. After controlling for demographics, health status, current insurance, and state of residence, churners with a coverage gap were significantly more likely than non-churners to have changed doctors due to insurance; skipped taking prescription medications or delayed necessary care due to cost; had trouble paying medical bills; and reported lower quality medical care.

Respondents who churned but without any gap in coverage still experienced challenges compared to non-churners: more trouble getting appointments with primary care physicians and specialists; more frequent changes in doctors; and higher rates of going to the emergency department because they could not obtain an outpatient appointment. They were also more likely to report receiving fair or poor quality medical care.

## **DISCUSSION**

The ACA has lowered the uninsured rate to a historic low. However, our study of insurance dynamics since the ACA's coverage expansion provides important new evidence that the negative impact of churning remains a significant challenge for many Americans in the post-health reform landscape. In our 2015 survey of over 3,000 adults in three states, we found that one in four low-income adults was affected by a change in coverage in the prior 12 months. Although these numbers are lower than pre-ACA projections, they are still substantial, and they were not reduced by the private option model in Arkansas.

Of those changing coverage in these three states, approximately 20% were uninsured individuals who gained coverage. For the remainder – both those who lost coverage and those who changed insurance plans with no gap in coverage – churning was problematic, forcing changes in doctors, disruptions in prescription medication treatment, and perceived negative effects on quality of care and health.

These results are consistent with pre-ACA evidence that insurance changes and switching clinicians can erode perceived health care quality.<sup>3,23</sup> But to our knowledge, our study is the first to examine the adverse impacts of churning since the ACA's coverage expansions took effect. Moreover, our analysis adds nuance to prior research by distinguishing between churners who had gaps in coverage and churners without gaps. While those with gaps experienced the worst outcomes, even among churners *without* a gap in coverage, nearly 15% had to change providers, 20% skipped medications, and roughly 30% reported an overall harmful effect on their health care quality. Our findings suggest that in addition to reducing gaps in coverage, policymakers must also improve transitions in coverage in order to address the potential harms of churning.

While churning itself is clearly problematic for health care continuity, overall rates of churning in our sample were much lower than many pre-ACA analyses predicted. For instance,

one study projected that within 12 months as many as half of all Marketplace and Medicaid beneficiaries could experience a coverage change under the ACA.<sup>9</sup> Our numbers – roughly 25% churning at one year – are substantially lower. In part, this reflects a different study sample, as previously-published projections were specific to Marketplace and Medicaid beneficiaries, whereas our sample contains all coverage types among low-income individuals. While Marketplace beneficiaries in our sample did experience higher rates of churning on average, we found that churning rates in Medicaid were actually *lower* than in other kinds of coverage, including employer-sponsored insurance.

Another possible explanation is that pre-ACA projections typically assumed that monthly fluctuations in income would be reported promptly and acted upon by states as required by law,<sup>8,9</sup> but in practice, individuals may not report such changes and states may be slow to respond. The Centers for Medicare and Medicaid Services (CMS) also gave states the option of delaying the annual eligibility redetermination process in Medicaid for 2014, and more than 2/3 of states chose to do so.<sup>24</sup> Both factors blunt the potential for frequent income-based churning, which was not the main cause for coverage switching in our sample. More commonly, churning in our study was the result of job-related changes in insurance. This may also relate to the fact that individuals with an affordable offer of ESI are ineligible for Marketplace tax credits, which could lead some adults experiencing income increases to move from Medicaid to uninsured (after declining an ESI offer) rather than to Marketplace coverage.<sup>10</sup>

Overall, we find that churning rates for low-income adults were less than expected in many pre-ACA estimates, and the majority of coverage changes were of a different nature than the Medicaid-to-Marketplace churning that was the focus much of the research prior to 2014 (for instance, ESI changes and plan switching within the Marketplace). This pattern is consistent

with administrative data from seven states, which showed modest churning between Medicaid and Marketplace coverage in 2014 ranging from 2% to 13%.<sup>25</sup>

Nonetheless, even at an annual rate of 25%, churning affected a substantial portion of our sample and was strongly associated with adverse consequences. Moreover, in addition to the adverse effects on consumers identified in our survey, churning has other potential impacts including higher administrative costs for states and plans, difficulty measuring plan quality for members who leave mid-year, and reduced incentives for plans to make long-term investments in beneficiaries' health.<sup>10</sup>

Thus, our findings raise important policy challenges. Much of the current debate about health reform has focused on the enrollment process for Medicaid and Marketplace coverage, with less attention on transitions in coverage. Some states, however, have sought to address this issue. Arkansas implemented a plan that supporters hoped would reduce the frequency of churning. In theory, the private option allows for income changes that do not disrupt coverage; enrollees could keep their health plans and their doctors, while only premiums would change. However, we found no evidence that churning rates among low-income individuals were lower under the private option compared to Kentucky's traditional Medicaid expansion.

Given predictions that the private option would reduce churning dramatically,<sup>12</sup> how can we explain our findings? In part, this reflects the multifaceted nature of coverage changes in these states. Marketplace-to-Medicaid transitions (and vice versa) were only a portion of the frequent coverage changes we observed. The gain or loss of ESI, switches between private plans, and renewal difficulties in Medicaid all played varying roles in the different states.

More specifically in terms of the private option model, some evidence points to Arkansas's renewal process as a large contributor. In mid-2015, the state imposed a 10-day

response window for private option beneficiaries to provide proper documentation of eligibility, and failure to respond resulted in a termination of insurance benefits. As a result of this policy, almost 50,000 Arkansans were dropped from coverage.<sup>26</sup> Furthermore, only one of the three original issuers from 2014 remained in the Arkansas Marketplace in 2015 (along with three new entrants in 2015), which is consistent with our finding that Arkansas respondents were the most likely of the three states to report churning because their old plan was no longer available.<sup>27</sup>

Turnover in Marketplace offerings has been a challenge in other states as well. In Texas, only four of twelve issuers from 2014 to 2015 returned, and there were ten new entrants in 2015.<sup>27</sup> Meanwhile, Kentucky currently faces similar challenges: in October 2015, Kentucky Health Cooperative (the state's Marketplace Co-op) announced that it would cease operations by the end of the year.<sup>28</sup> Whether Marketplace offerings will become more stable as the law matures is an open question.

However, even with stable offerings, plan switching within the Marketplace may be frequent. To capitalize on competition between plans and to encourage insurers to improve quality and/or reduce costs, frequent plan switching may be an essential component of a well-functioning market. In fact, the Obama administration has encouraged Marketplace beneficiaries to aggressively shop during open enrollment and consider changing coverage each year. Thus, some annual plan switching may be inevitable under the ACA.

In this context, what policy options remain available to decrease the incidence of churning or its adverse consequences? The notion of 12-month continuous eligibility in Medicaid, which has been part of the generally successful national effort to improve retention rates for children,<sup>29</sup> has only recently become a state option for adults in Medicaid via accelerated federal waiver. To date, only New York has adopted this approach. The

introduction of a Basic Health Program may also reduce churning somewhat by moving the transition point between Medicaid and Marketplace coverage from 138% to 200% of FPL, though there is no evidence to date other than pre-ACA projections,<sup>30</sup> suggesting the need for additional research to evaluate this approach.

The other set of policy options focuses less on reducing coverage changes and more on reducing the negative impacts of these changes. In this regard, we did find some evidence that either form of expansion – Medicaid or private option – is preferable to non-expansion in terms of the likelihood of changing providers. Adults in Texas were nearly three times more likely to have to switch providers after churning than were their counterparts in Arkansas and Kentucky; likely some of this is a direct effect of Medicaid expansion. Simply put, coverage expansion is an important tool for reducing the harms of churning by shifting the distribution away from churning with a coverage gap towards the less harmful (though still problematic) churning without a gap.

Another promising policy option to mitigate the impact of churning is the use of multimarket plans, which can enable individuals to keep the same provider network and benefit design as they move between Medicaid and Marketplace coverage. One 2016 estimate is that 40% of all insurers offering Marketplace plans also offer a Medicaid managed care plan in the same state, and 36 states had at least one such “overlap” insurer.<sup>31</sup> Encouraging insurers in other states to follow suit could improve continuity of care.

However, this only addresses Medicaid-Marketplace churning. Continuity of care across other coverage transitions requires broader action, such as New York’s law requiring up to 60 days of coverage for treatment after a change in insurance plans and 90 days after a change in

provider networks for patients with serious conditions or pregnancy. Extending this sort of approach nationally could provide an important safeguard for patients.

In conclusion, churning rates in the three states we studied do not appear to be as high as initially feared under the ACA, but still affect approximately one quarter of the population annually. These changes in coverage are clearly problematic for access to care, continuity of care and quality. As the coverage expansions under the ACA take hold, ongoing attention from policymakers and researchers will be needed to ensure that the law's impressive insurance gains are not substantially compromised for many by gaps in coverage and disruptions in care over time.

## References

1. Cohen RA, Martinez ME, Zammiti EP. *Health Insurance Coverage: Early Release of Estimates From the National Health Interview Survey, 2015*. Hyattsville, MD: National Center for Health Statistics;2016.
2. Banerjee R, Ziegenfuss JY, Shah ND. Impact of discontinuity in health insurance on resource utilization. *BMC health services research*. 2010;10:195.
3. Olson LM, Tang SF, Newacheck PW. Children in the United States with discontinuous health insurance coverage. *N Engl J Med*. Jul 28 2005;353(4):382-391.
4. Rosenbaum S, Lopez N, Dorley M, Teitelbaum J, Burke T, Miller J. *Mitigating the Effects of Churning Under the Affordable Care Act: Lessons from Medicaid*. New York, NY: The Commonwealth Fund;2014.
5. Wasson JH, Sauvigne AE, Mogielnicki RP, et al. Continuity of outpatient medical care in elderly men. A randomized trial. *Jama*. Nov 2 1984;252(17):2413-2417.
6. Cutler DM, Gelber AM. Changes in the incidence and duration of periods without insurance. *N Engl J Med*. Apr 23 2009;360(17):1740-1748.
7. Sommers BD. Insurance cancellations in context: stability of coverage in the nongroup market prior to health reform. *Health Aff (Millwood)*. May 2014;33(5):887-894.
8. Sommers BD, Graves JA, Swartz K, Rosenbaum S. Medicaid and marketplace eligibility changes will occur often in all States; policy options can ease impact. *Health Aff (Millwood)*. Apr 2014;33(4):700-707.
9. Sommers BD, Rosenbaum S. Issues in health reform: how changes in eligibility may move millions back and forth between medicaid and insurance exchanges. *Health Aff (Millwood)*. Feb 2011;30(2):228-236.
10. Buettgens M, Nichols A, Dorn S. *Churning Under the ACA and State Policy Options for Mitigation*. Washington, DC: Urban Institute;2012.
11. Guyer J, Shine N, Musumeci M, Rudowitz R. *A Look at the Private Option*. Washington, DC: Kaiser Family Foundation;2015.
12. Rosenbaum S, Sommers BD. Using Medicaid to buy private health insurance--the great new experiment? *N Engl J Med*. Jul 4 2013;369(1):7-9.
13. Epstein AM, Sommers BD, Kuznetsov Y, Blendon RJ. Low-income residents in three States view medicaid as equal to or better than private coverage, support expansion. *Health Aff (Millwood)*. Nov 1 2014;33(11):2041-2047.
14. *Behavioral Risk Factor Surveillance System 2012 Summary Data Quality Report*. Atlanta, GA: Centers for Disease Control and Prevention;2013.
15. Long SK, Kenney GM, Zuckerman S, et al. The health reform monitoring survey: addressing data gaps to provide timely insights into the affordable care act. *Health Aff (Millwood)*. Jan 2014;33(1):161-167.
16. *NCHS Fact Sheet: National Health Interview Survey*. Hyattsville, MD: National Center for Health Statistics;2014.
17. Editor please insert Appendix verbiage
18. *Assessing the Representativeness of Public Opinion Surveys*. Washington, D.C.: Pew Research Center;2012.

19. Collins SR, Rasmussen PW, Doty MM, Beutel S. *The Rise in Health Care Coverage and Affordability Since Health Reform Took Effect*. New York, NY: The Commonwealth Fund;2015.
20. Sommers BD, Gunja MZ, Finegold K, Musco T. Changes in Self-reported Insurance Coverage, Access to Care, and Health Under the Affordable Care Act. *Jama*. Jul 28 2015;314(4):366-374.
21. Black LI, Cohen RA. *Insurance Status by State Medicaid Expansion Status: Early Release of Estimates From the National Health Interview Survey, 2013-September 2014*. National Center for Health Statistics;2015.
22. ASPE. Health Insurance Coverage and the Affordable Care Act. 2015; [http://aspe.hhs.gov/health/reports/2015/uninsured\\_change/ib\\_uninsured\\_change.pdf](http://aspe.hhs.gov/health/reports/2015/uninsured_change/ib_uninsured_change.pdf).
23. Orfield C, Hula L, Barna M, Hoag S. The Affordable Care Act and Access to Care for People Changing Coverage Sources. *Am J Public Health*. Nov 2015;105 Suppl 5:S651-657.
24. Brooks T, Touschner J, Artiga S, Stephens J, Gates A. *Modern Era Medicaid: Findings from a 50-State Survey of Eligibility, Enrollment, Renewal, and Cost-Sharing Policies in Medicaid and CHIP as of January 2015*. Washington, D.C.: Kaiser Family Foundation;2015.
25. Dickson V. Income-based churn in coverage less common than feared. *Modern Healthcare*. 22 April, 2015.
26. Ramsey D. *The 10-day cancellations and the rocky transition off of the private option*. Arkansas Times;2015.
27. QHP Landscape Individual Market Medical. 2016; <https://data.healthcare.gov/dataset/QHP-Landscape-Individual-Market-Medical/b8in-sz6k>. Accessed 22 March 2016.
28. Dunlap S. *Kentucky Health Cooperative Not Offering Plans In 2016*. PR Newswire;2015.
29. Kenney GM, Lynch V, Haley J, Huntress M, Resnick D, Coyer C. *Gains for Children: Increased Participation in Medicaid and CHIP in 2009*. Urban Institute / Robert Wood Johnson Foundation;2011.
30. Hwang A, Rosenbaum S, Sommers BD. Creation of state basic health programs would lead to 4 percent fewer people churning between Medicaid and exchanges. *Health Aff (Millwood)*. Jun 2012;31(6):1314-1320.
31. *Overlap Between Medicaid Health Plans and QHPs in the Marketplaces: An Examination*. Washington, DC: Association for Community Affiliated Plans;2016.

## Exhibit List

### EXHIBIT 1: Figure

TITLE: Frequency of Coverage Changes Among Low-Income Adults in 2013 and 2015, By State

SOURCE: Authors' analysis of data from a telephone survey of 2,823 adults in 2013 and 3,011 adults in 2015, ages 19-64 with family incomes below 138% of the federal poverty level.

### EXHIBIT 2: Table

TITLE: Reasons for Coverage Changes and Types of Changes by State

NOTES:

<sup>a</sup> These categories exclude item non-response and "other." Due to a survey administration error, some adults were not asked to provide a reason for churning. These individuals are therefore not included in the denominator for this result, and the estimates for the remaining individuals were re-weighted to account for the demographics of this omitted group.

SOURCE: Authors' analysis of data from a 2015 telephone survey of adults ages 19-64 with family incomes below 138% of the federal poverty level.

### EXHIBIT 3: Table

TITLE: Health Care Disruptions Related to Coverage Changes Among Adults Churning in the Past Year

NOTES: All estimates exclude item non-response.

<sup>a</sup> These subtotals do not sum to the overall heading "had to change doctor(s) because of insurance," since some individuals reporting such a change chose not to answer the follow-up question.

SOURCE: Authors' analysis of data from a telephone survey of adults ages 19-64 with family incomes below 138% of the federal poverty level who reported a coverage change in 2015, excluding those who went from uninsured to insured. We also excluded 18 respondents who reported a coverage change but did not answer whether they had a gap or not.

### EXHIBIT 4: Table

TITLE: Associations Between Churning and Access to Care

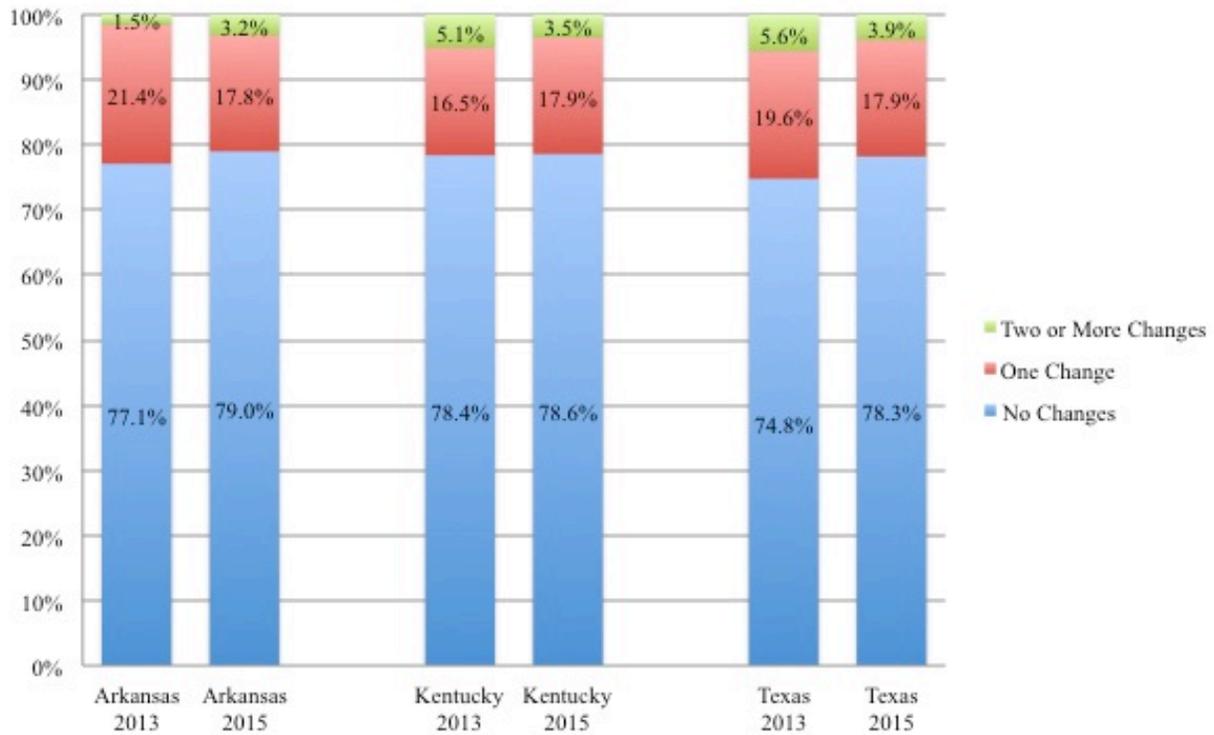
NOTES: Models adjust for sex, age, race/ethnicity, education, family income, marital status, rural vs. urban residence, self-reported health status, presence of chronic conditions, insurance status and months without insurance, state and cell phone interview. All estimates exclude item non-response. Predicted probabilities were calculated from the logistic regression estimates using Stata's "margins" command with default settings, which holds all other covariates at their actual values.

<sup>a</sup> Reference group

\*\*\* p <0.01, \*\* p<0.05, \* p<0.10

SOURCE: Authors' analysis of data from a 2015 telephone survey of adults ages 19-64 with family incomes below 138% of the federal poverty level. Individuals who went from uninsured to insured (i.e. gained new insurance) were not considered "churners." Sample for each row excludes item non-response, and we also excluded 18 respondents who reported a coverage change but did not answer whether they had a gap or not.

**Exhibit 1: Frequency of Coverage Changes Among Low-Income Adults in 2013 and 2015, By State**



**SOURCE:** Authors' analysis of data from a telephone survey of 2,823 adults in 2013 and 3,011 adults in 2015, ages 19-64 with family incomes below 138% of the federal poverty level.

**Exhibit 2: Reasons for Coverage Changes and Types of Changes by State**

<b>Outcome</b>	<b>Total</b>	<b>Arkansas</b>	<b>Kentucky</b>	<b>Texas</b>	<b>p-value</b>
<b>Gap in Coverage among Those with a Coverage Change (N=551)</b>					
No gap (12 months of coverage)	44.4%	41.6%	52.2%	39.3%	0.15
Some gap	55.6%	58.4%	47.8%	60.7%	0.15
– 1-4 month gap	26.8%	25.7%	24.4%	30.1%	0.65
– 5-8 month gap	16.4%	20.4%	16.4%	12.7%	0.36
– 9-11 month gap	12.5%	12.3%	7.0%	18.0%	0.09
<b>Main Reason for Coverage Change (N=376)<sup>a</sup></b>					
Went from uninsured to new coverage	19.6%	25.8%	22.6%	11.6%	0.09
Change in job or job-related coverage	33.8%	31.7%	31.9%	37.3%	0.75
No longer eligible for Medicaid/ Marketplace	14.9%	11.5%	15.8%	16.9%	0.66
Could no longer afford old plan	14.1%	6.2%	10.4%	24.1%	0.007
Old plan no longer available	8.8%	19.1%	4.6%	4.0%	<0.001
Couldn't complete renewal process	6.5%	3.7%	13.6%	2.2%	0.002
Didn't like old plan	2.4%	2.0%	1.1%	3.8%	0.27

**SOURCE:** Authors' analysis of data from a 2015 telephone survey of adults ages 19-64 with family incomes below 138% of the federal poverty level.

**NOTE:**

<sup>a</sup> These categories exclude item non-response and "other." Due to a survey administration error, some adults were not asked to provide a reason for churning. These individuals are therefore not included in the denominator for this result, and the estimates for the remaining individuals were re-weighted to account for the demographics of this omitted group.

**Exhibit 3: Health Care Disruptions Related to Coverage Changes Among Adults Churning in the Past Year**

<b>Outcome</b>	<b>All Churners (n=475)</b>	<b>Churners with a Coverage Gap (n=231)</b>	<b>Churners without a Coverage Gap (n=244)</b>	<b>p-value (with a gap vs. without a gap)</b>
Had to change doctor(s) because of insurance	19.8%	25.2%	13.3%	0.016
– Had to change primary care doctor <sup>a</sup>	6.1%	7.0%	5.0%	0.49
– Had to change a specialist <sup>a</sup>	2.1%	1.9%	2.3%	0.79
– Had to change a specialist and primary care doctor <sup>a</sup>	9.1%	11.5%	6.2%	0.15
Had to switch or change prescription medications	16.2%	17.0%	15.3%	0.73
Skipped doses or stopped taking prescription medications	33.9%	44.9%	22.4%	0.001
Coverage change had a negative impact on overall quality of medical care	41.3%	51.7%	28.8%	<0.001
Coverage change had a negative impact on overall health	35.6%	47.3%	21.5%	<0.001

**SOURCE:** Authors’ analysis of data from a telephone survey of adults ages 19-64 with family incomes below 138% of the federal poverty level who reported a coverage change in 2015, excluding those who went from uninsured to insured. We also excluded 18 respondents who reported a coverage change but did not answer whether they had a gap or not.

**NOTES:**

All estimates exclude item non-response.

<sup>a</sup> These subtotals do not sum to the overall heading “had to change doctor(s) because of insurance,” since some individuals reporting such a change chose not to answer the follow-up question.

**Exhibit 4: Associations Between Churning and Access to Care**

Outcome	Churners with a Coverage Gap (n=231)		Churners Without a Coverage Gap (n=244)		Non-Churners (n=2,477)	
	Odds Ratio	Predicted Probability	Odds Ratio	Predicted Probability	Odds Ratio <sup>a</sup>	Predicted Probability
Have a personal doctor	1.07	63.6%	1.15	64.7%	1.00	62.4%
Had to change doctor(s) due to insurance	4.63***	23.5%	1.87**	11.9%	1.00	7.0%
Trouble getting a primary care appointment	1.59*	18.5%	1.81**	20.4%	1.00	12.9%
Trouble getting a specialist appointment	1.43	17.7%	2.03** *	22.7%	1.00	13.6%
Went to ER because no outpatient appointment available	1.04	11.9%	1.84**	18.5%	1.00	11.5%
Did not take medications because of cost	2.52***	44.3%	1.11	28.1%	1.00	26.3%
Did not get needed care because of cost	3.54***	53.9%	1.20	31.4%	1.00	28.0%
Fair/poor quality of medical care in past year	1.76**	25.6%	1.75**	25.6%	1.00	17.3%
Trouble paying medical bills	2.95***	50.6%	1.11	30.1%	1.00	28.2%
Spending >\$1,000 out of pocket on care in past year	2.22***	25.8%	1.32	18.1%	1.00	14.8%
Spending >\$200 out of pocket on care in past year	2.01***	51.3%	1.37	43.3%	1.00	36.8%

**SOURCE:** Authors’ analysis of data from a 2015 telephone survey of adults ages 19-64 with family incomes below 138% of the federal poverty level. Individuals who went from uninsured to insured (i.e. gained new insurance) were not considered “churners.” Sample for each row excludes item non-response, and we also excluded 18 respondents who reported a coverage change but did not answer whether they had a gap or not.

**NOTES:** Models adjust for sex, age, race/ethnicity, education, family income, marital status, rural vs. urban residence, self-reported health status, presence of chronic conditions, insurance status and months without insurance, state and cell phone interview. All estimates exclude item non-response. Predicted probabilities were calculated from the logistic regression estimates using Stata’s “margins” command with default settings, which holds all other covariates at their actual values.

<sup>a</sup> Reference group

\*\*\* p <0.01, \*\* p<0.05, \* p<0.10

## APPENDIX: METHODS

### SURVEY QUESTION WORDING

*Note: The appendix below lists the primary questions used in this analysis, in the order in which they were administered (questions not used here were omitted for brevity). In addition, we also used several questions from prior years' versions of the survey including population demographics and several access measures, which have been published previously – see Methods section for relevant citations.*

1) I am going to read a few common types of health insurance. For each one, please tell me ‘yes’ if you currently have it and ‘no’ if you don’t. You can answer ‘yes’ more than once.

		Marketplace Name	Medicaid Program
AR	Arkansas	The Arkansas Health Connector	Medicaid
KY	Kentucky	KYnect (pronounced: Connect)	Medicaid, Kentucky Partnership Program, or KenPAC
TX	Texas	The HealthCare.gov website	Medicaid, STAR, or STAR+PLUS

- a. [State Medicaid Plan Name] (Clarify, if needed, “Medical Assistance or government-assistance plan for those with low incomes or a disability”)
- b. Medicare (Clarify, if needed, “for people 65 and older, or people with certain disabilities”)
- c. A military health care plan, such as TRI-CARE, CHAMPUS, or CHAMP-VA
- d. A health plan you got through an employer or union
- e. A health insurance plan that you signed up for through [State Marketplace Name] or a health insurance Marketplace created by the national health reform law.
- f. A health plan that you bought directly from an insurance company, not through an employer or union, and not through a health insurance Marketplace
- g. Some other kind of health insurance I haven’t already mentioned.

*If ‘No’ to all options above:*

**1a)** “Does this mean you have no health insurance of any kind?”

- 1 Yes, have health insurance (SPECIFY TYPE: \_\_\_\_\_)
- 2 No, do not have health insurance of any kind

*All Respondents:*

2) How many times have you lost or changed your medical insurance in the past 12 months? By this I mean any change in your insurance status, including losing insurance, gaining new insurance, or switching insurance plans.

- 1 Zero changes
- 2 One change
- 3 Two or more changes

CHURNING ITEMS - If Question 2 = "one change" or "two or more changes":

3) Which of the following is the main reason you most recently lost or changed your health insurance?

- 0 Gained new coverage (went from uninsured to insured)
- 1 I, or a family member, had a job-related change in insurance (note to interviewer: this includes a change in a job or change in employer benefit offerings)
- 2 I could no longer afford my old plan
- 3 My old plan was no longer available
- 4 I lost my [State Medicaid Plan Name] or [State Marketplace Name] plan because my income changed
- 5 I lost my [State Medicaid Plan Name] or [State Marketplace Name] plan because of a change in my family's circumstances such as divorce, pregnancy, or moving
- 6 I didn't like my old plan
- 7 I tried to keep my plan but I could not complete the renewal process

4) Out of the past 12 months, how many months did you have health insurance?

- 1 I had insurance for the whole year (12 months) *[option not given for currently uninsured]*
- 2 I had insurance for 8-11 months
- 3 I had insurance for 4-7 months
- 4 I had insurance for 3 months or less

5) Now I'm going to ask you some questions about your health care. At any point in the past 12 months, have you taken any prescription medications or received a prescription for a medication? This may include birth control.

- 1 Yes
- 2 No

For Churners and if Question 5 = "Yes",

6) When you most recently changed or lost your health insurance plan, did you have to switch or change any prescription medications that you take?

- 1 Yes
- 2 No

7) When you most recently changed or lost your health insurance plan, did you skip any doses or stop taking any of your prescription medications?

- 1 Yes
- 2 No

ALL CHURNERS:

8) When you most recently changed or lost your health insurance plan, how did it impact the overall quality of the medical care you received? Would you say it had...?

- 1 A negative impact
- 2 A positive impact
- 3 No impact

9) When you most recently changed or lost your health insurance plan, how did it impact your overall health? Would you say it had...?

- 1 A negative impact
- 2 A positive impact
- 3 No impact

ALL RESPONDENTS:

10) Is there one person you think of as your personal doctor or health care provider, or not?

- 1 Yes, only one
- 2 Yes, more than one
- 3 No person

11) Since last year, did you have to change your doctor or doctors because of your health insurance?

- 1 Yes
- 2 No

If Question 11 = "Yes",

12) Did you have to change your primary care doctor, your specialist doctor, or both?

- 1 I changed my primary care doctor
- 2 I changed my specialist(s)
- 3 I changed both types of doctors

**CHRONIC CONDITIONS ASSESSED IN THE SURVEY:**

I am going to read a list of medical conditions. For each, please indicate if you have ever been told by a doctor or other health professional that you have had that condition. How about (INSERT)?

- 1 Yes, have been told
  - 2 No, have not been told
- 
- a. High blood pressure
  - b. A heart attack, coronary artery disease, or heart failure
  - c. A stroke
  - d. Asthma, chronic bronchitis, COPD, or emphysema
  - e. Chronic kidney disease or dialysis
  - f. Diabetes
  - g. Depression or anxiety
  - h. Cancer, except for skin cancer
  - i. Alcoholism or drug addiction

## Appendix Exhibit 1: Predictors of Experiencing Churning in the Past Year

Variable	Likelihood of Coverage Change	
	Odds Ratio	Predicted Probability
Female	1.41**	20.7%
Married/Partnered	1.04	18.9%
Rural	1.24	20.4%
Cell Phone Survey	1.08	18.9%
Fair/Poor Health	1.20	20.3%
Any Chronic Medical Condition	1.10	19.0%
Age		
19-34	1.42*	21.1%
35-44	1.14	17.7%
45-54	1.07	17.0%
55-64	1.0	16.0%
Race/Ethnicity		
Latino	0.45***	10.6%
Black Non-Latino	0.87	18.5%
Other Non-Latino	1.13	22.5%
White Non-Latino	1.0	20.5%
Education		
Less than High School Degree	0.78	15.8%
High School Graduate	0.99	19.2%
Some College	1.0	19.3%
Income		
Not Reported	0.53*	13.7%
Less than 50% FPL	0.70*	17.2%
50-100% FPL	0.73*	17.8%
100-138% FPL	1.0	22.6%
State		
Arkansas	0.59***	15.9%
Kentucky	0.64**	16.9%
Texas	1.0	23.8%
Current Health Insurance		
Uninsured	2.39***	23.6%
Employer-Sponsored Insurance	1.94***	20.2%
Marketplace	2.13***	21.7%
Non-Group Private	2.67***	25.7%
Medicare, Military, Other	1.27	14.3%
Medicaid	1.00	11.7%

**SOURCE:** Authors’ analysis of data from a 2015 telephone survey of 3,011 adults ages 19-64 with family incomes below 138% of the federal poverty level, excluding 41 individuals who did not answer the question about coverage changes. Individuals who went from uninsured to insured (i.e. gained new insurance) were not considered “churners.”

**NOTES:** Predicted probabilities were calculated from the logistic regression estimates using Stata’s “margins” command with default settings, which holds all other covariates at their actual values.

\*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.10

**Appendix Exhibit 2: Health Care Disruptions Related to Coverage Changes Among Adults Churning in the Past Year, by State**

<b>Outcome</b>	<b>Arkansas</b>	<b>Kentucky</b>	<b>Texas</b>	<b>p-value for between-state differences</b>
Had to change doctor(s) because of insurance	14.1%	11.4%	32.3%	<0.001
– Had to change primary care doctor*	3.3%	2.8%	11.4%	0.004
– Had to change a specialist*	1.5%	2.6%	2.0%	0.87
– Had to change both a specialist and a primary care doctor*	5.6%	5.9%	15.0%	0.06
Had to switch or change prescription medications	18.9%	20.8%	9.1%	0.12
Skipped doses or stopped taking prescription medications	39.3%	38.6%	24.3%	0.13
Coverage change had a negative impact on overall quality of medical care	41.4%	35.8%	46.1%	0.40
Coverage change had a negative impact on overall health	38.9%	32.7%	35.3%	0.71

**SOURCE:** Authors’ analysis of data from a telephone survey of 475 adults ages 19-64 with family incomes below 138% of the federal poverty level who reported a coverage change in 2015, excluding those who went from uninsured to insured. We also excluded 18 respondents who reported a coverage change but did not answer whether they had a gap or not.

**NOTES:** All estimates exclude item non-response.

\* These subtotals do not sum to the overall heading “had to change doctor(s) because of insurance,” since some individuals reporting such a change chose not to answer the follow-up question.