DOI: 10.1377/ hlthaff.2023.00649 HEALTH AFFAIRS 43, NO. 1 (2024): 80–90 ©2024 Project HOPE— The People-to-People Health Foundation, Inc. By Adrianna McIntyre, Mark Shepard, and Timothy J. Layton

## Small Marketplace Premiums Pose Financial And Administrative Burdens: Evidence From Massachusetts, 2016–17

#### Adrianna McIntvre

(amcintyre@hsph.harvard.edu), Harvard University, Boston, Massachusetts.

**Mark Shepard**, Harvard University, Cambridge, Massachusetts.

**Timothy J. Layton**, Harvard University, Boston, Massachusetts.

ABSTRACT Health insurance premiums are primarily understood to pose financial barriers to coverage. However, the need to remit monthly premium payments may also create administrative burdens that negatively affect coverage, even in cases where affordability is a negligible concern. Using 2016-17 data from the Massachusetts health insurance Marketplace and a natural experiment, we evaluated how coverage retention was affected by the introduction of nominal (less than \$10 for most enrollees) monthly premiums for plans that previously had \$0 premiums. Compared with plans that maintained \$0 premiums, those that took on nominal premiums saw enrollment fall by 14 percent over the following year. This attrition was attributable to terminations for nonpayment; most terminations occurred at the end of January, implying that a significant number of affected enrollees never initiated premium payments. These findings suggest that even very small premiums act as enrollment barriers, which may sometimes reflect administrative burdens more than financial hardship. Several policy approaches could mitigate adverse coverage outcomes related to nominal premiums.

ince the passage of the Affordable Care Act (ACA), the United States has seen a historic decline in the number of people who are persistently uninsured. And yet it is estimated that about one in six people (16.9 percent) were uninsured at some point during a one-year period as recently as 2018–19.¹ Scholars and policy makers alike have devoted considerable attention toward measuring and improving take-up of health insurance (particularly in Medicaid and the ACA Marketplaces), but there has been less focus on retention, which also matters for overall coverage rates.

Even very small premiums can inhibit coverage for low-income enrollees. Some states have imposed premiums on certain low-income enrollees in their Medicaid programs. Evaluations report that premiums of \$10 or less can drive significant disenrollment from Medicaid.<sup>2,3</sup> Oth-

er prior work has found that even small premiums have an adverse effect on take-up of Market-place coverage. 4-6

Premiums are often characterized as posing financial barriers to coverage, but where payments are not automatically made, they may be better understood as posing both financial and administrative burdens. The latter include both learning costs (how well people understand rules and requirements for a benefit or program, including what they're eligible for) and compliance costs (procedural hassles that must be overcome to successfully participate in a program or receive benefits).<sup>7</sup>

ACA Marketplace coverage (and nongroup commercial coverage more broadly) is a context in which one might particularly expect premiums to function as administrative burdens. In employer-sponsored insurance, employers automatically deduct premiums from employees'

paychecks. Medicare Part B premiums are automatically deducted from enrollees' Social Security checks; seniors may also elect to pay premiums for Part D, Medicare Advantage, and supplemental "Medigap" plans this way. States are traditionally prohibited from requiring Medicaid beneficiaries to pay premiums (although, as noted above, some have received limited exemptions to this rule). Marketplace premium payments are only automatic if enrollees take active steps to set up recurring deductions from a credit card or bank account.

Low-income Marketplace enrollees may have difficulty setting up recurring premium payments. Only 51.3 percent of households with annual family incomes between \$15,000 and \$30,000 had credit cards in 2021, compared with two-thirds of households with incomes between \$30,000 and \$50,000 (and even higher rates in households with higher incomes). About one in ten households in the \$15,000–\$30,000 income range were "unbanked" in 2021, meaning that they did not have an active bank account; Black and Hispanic households were more than four times as likely to be unbanked as White households.<sup>11</sup>

Absent automatic debits, enrollees must remember to pay their premium online, by telephone, or by mail each month. Active payments are plausibly a hassle; at a minimum, enrollees must remember to make the payments. Complicated Marketplace rules on subsidy eligibility may also introduce other learning costs.

Recent work has offered early evidence that premium payments introduce an independent administrative burden that hampers take-up of Marketplace insurance. Streamlining the enrollment process (letting enrollees use a check-thebox letter to select a plan) increased take-up; however, this intervention was only superior to personalized reminder letters among people with zero-premium plans. For people who had to pay a premium, there was no incremental improvement in take-up, suggesting that premium payment is its own form of administrative burden.<sup>12</sup> Other research, using data from Colorado's health insurance Marketplace, found that zero-premium plans improved how quickly people completed the enrollment process, suggesting that the hassle of premium payment delayed take-up.13

In this study, we used a difference-indifferences approach to evaluate whether and how coverage retention in the Massachusetts Marketplace was affected by introducing nominal (less than \$10 for most enrollees) monthly premiums for health insurance that previously had \$0 net premiums. We compared enrollment outcomes among people who experienced these modest premium increases with those of comparable enrollees who lived in rating areas where the zero-premium plan stayed the same. We also compared outcomes for different premium amounts; the lowest monthly premium was \$1. Our findings offer evidence that Marketplace premiums should be understood as posing both financial and administrative burdens that can disrupt coverage, particularly when newly introduced.

#### **Study Data And Methods**

This study used data from the Health Connector, the ACA health insurance Marketplace in Massachusetts, to study the enrollment effects of increasing monthly premiums from \$0 to some small amount (less than \$10 for most enrollees). To obtain plausibly causal estimates, we used an event study difference-in-differences approach to evaluate a natural experiment that occurred at the start of 2017.

**STUDY SETTING** The Connector administers a program called ConnectorCare that offers additional (state-funded) financial assistance and a simplified choice environment for eligible households with incomes below 300 percent of the federal poverty level. Plans are standardized, with uniform benefits and cost sharing; they differ on provider networks, prescription drug formularies, and monthly premiums. Carriers are only permitted to offer one ConnectorCare product per rating area. Consumers generally choose from five or fewer plans (each offered by a different carrier), varying by geography and year.

In ConnectorCare, after-subsidy premiums are fixed within income levels (100–150 percent of poverty, 150–200 percent of poverty, 200–250 percent of poverty, and 250–300 percent of poverty). <sup>14</sup> This stepwise approach is different from how subsidies are typically administered in other states, where financial assistance is related to household income in a more linear fashion; it is also different from how subsidies are administered at higher income levels in Massachusetts. The online appendix includes further detail on ConnectorCare pricing. <sup>15</sup>

Eligible households with family incomes below 150 percent of poverty always had access to at least one zero-premium plan. During our 2016–17 study period, ConnectorCare enrollees with incomes of 100–150 percent of poverty had access to exactly one plan with a \$0 net premium. <sup>16</sup> Small premiums for other plans offered to people in this income group represented the difference between a carrier's insurance bid and the lowest bid.

Subsidized enrollees are entitled to a threemonth "grace period" if they lapse on payments at any time (including at the start of a new plan year); during this period, they can remit owed payments and resume normal enrollment. If they fail to pay all outstanding premiums by the end of the third month of delinquency, their coverage is terminated. The termination date is backdated to the last day of the first month of delinquency—for example, someone who lapsed on premium payments starting in January would have their plan termination dated January 31. A detailed explanation of the grace period, including the timing of notices sent to enrollees, is in the appendix.<sup>15</sup>

**NATURAL EXPERIMENT** At the start of 2017, the lowest-cost ConnectorCare plan—the zero-premium product offered to enrollees with incomes of 100–150 percent of poverty—changed in eight of the thirteen rating areas in Massachusetts because the lowest-cost 2016 carrier was underbid by a competitor in 2017. Our "treatment" group was subscribers in these rating areas who would experience a transition from a \$0 premium to a positive (greater than \$0) premium if their coverage autorenewed in January 2017.

In affected rating areas, plans took on monthly net premiums ranging (by rating area) from \$1 to \$9 for single enrollees, whereas the lower-bidding carrier's plan became a zero-premium plan. For households with multiple people enrolled in a plan, the premium was the single premium multiplied by the number of household members on the plan. For example, a family of three in the rating area where single enrollees had a \$1 monthly premium would pay \$3 each month to cover all three family members.

Although subscribers in the treatment group could freely switch to the new zero-premium plan during the open enrollment period (November 2016–January 2017), the default outcome, absent any action from the subscriber, was renewal in their existing plan.

In the remaining five rating areas, the same plans continued to have no net premium throughout 2017. Our control group comprised subscribers with household incomes of 100–150 percent of poverty in these regions who would, by default, be automatically renewed into the same plan with no monthly premium in 2017.

ministrative data on enrollment maintained by the Massachusetts Health Connector. Our deidentified data set included person-month observations for all of those enrolled in a health plan through the Marketplace. Our data included certain sociodemographic characteristics (including age, sex, income as a percentage of poverty, and residential ZIP code), as well as information about the health plan in which they were enrolled and financial assistance they received.

# The relationship between the size of the premium increase and attrition suggests that affordability was a factor.

These data also included information on payment delinquency and reasons for plan terminations (including nonpayment). The payment variables were novel data elements not typically available to researchers studying Marketplace enrollment dynamics.<sup>17</sup>

To evaluate the effect of nominal premiums on retention, we restricted our regression sample to nonelderly adults (ages 18–64) continuously enrolled from December 2016 into January 2017 in the 100–150 percent of poverty income tier when premium changes took effect. We included enrollees who had any enrollment in January; people who never initiated premium payments would still be recorded as enrolled for January because of the way the grace period is enforced.

People were assigned to treatment as though they would autorenew their December 2016 plan for 2017; in actuality, they were permitted to switch plans to avoid new premiums (while remaining attributed to the treatment group for analysis). The sample definition also permitted plan switching in other months; outside open enrollment, switching is permitted only if someone has a qualifying life event. The definition requires that an enrollee be in the 100–150 percent of poverty income band across December and January, so we could be confident that they faced nominal premiums at the start of a new plan year; moving to a higher income tier would sharply increase the amount of premium owed in January. Enrollees were permitted to move across income bands before December 1 and after January 31.

Our inclusion criteria omitted enrollees who terminated coverage in December 2016 and thus never faced the new nominal premium in 2017. December attrition rates were not statistically different between the treatment and control groups (14.1 percent versus 13.2 percent; p < 0.16) (data not shown). We relaxed this January enrollment condition as a robustness check; see appendix exhibit A9. 15

# Even temporary gaps in coverage have been linked to adverse health outcomes.

We restricted our sample to plan subscribers but retained information about whether a subscriber's plan covered dependents.

**OUTCOMES** Our primary outcome was an indicator variable for enrollment in Connector coverage (in any plan, not just the beneficiary's December 2016 plan) in a given month; this variable captured enrollment in cases where people reentered the Marketplace. To better characterize attrition after premiums are introduced, we considered two different categories of plan exit: terminations for nonpayment and all other terminations. The latter included voluntary Marketplace exits; transitions to Medicaid (which we could not distinguish from voluntary exits); and less common reasons for termination, including divorce or death. Enrollees who lapsed on premium payments and were eventually terminated for nonpayment were coded as enrolled for the first month of their grace period because their recorded termination date was the last day of that month.

ANALYSIS Using an event study design, we compared enrollment continuity for people in the affected regions, where 2016 zero-premium plans took on positive premiums in January 2017 (the treatment group), with those for people enrolled in unaffected regions, where 2016 zero-premium plans remained so through 2017 (the control group). We included individual-level fixed effects and month fixed effects. Our standard errors were clustered at the level of the rating area, which was the geographic unit by which premiums were assigned. Our estimates of interest captured differential change in enrollment in treated versus untreated rating areas, permitting reentry into Connector coverage after plan exit. January 2017 was our reference period; we omitted December 2016 because our outcome variable (any enrollment) was mechanically identical across these two months under our inclusion criteria.

We evaluated our primary outcome across different subgroups in our sample. We considered four types of enrollee characteristics: age, sex, whether any dependents were covered by the plan (versus single, subscriber-only plans), and duration of prior enrollment at the point of the premium change. Our age groups split at age forty (the approximate mean and median age in our sample). Our duration variable split enrollees into those enrolled before December 2016 for less than one year and those enrolled for a year or longer (again, based on the sample mean and median). We also stratified affected enrollees on the basis of the size of the premium increase they experienced. For simplicity of presentation and interpretation, subgroup analyses used a pre-post difference-in-differences specification to evaluate differential enrollment changes immediately after premiums were introduced, using December 2016 as our pre period and February 2017 as our post period, omitting January.

To investigate the extent to which terminations for nonpayment (versus other reasons) explained the trends that we observed, we created binary indicators for whether a given personmonth represented a month in which that enrollee was terminated for nonpayment or that person exited the market for any other reason. Using an event study difference-in-differences approach (with December 2016 as the reference period), we investigated differences in the monthly incidence of these terminations across the treatment and control groups after premium introduction. Finally, we descriptively characterized terminations in the first six months after premium introduction, plan switching, and returns to Connector coverage. These results are in appendix exhibit A8.15

Interpreting our main results causally relies on the assumption that enrollment patterns among people in unaffected regions reflected the patterns we would have observed in affected regions if the zero-premium plans in those regions had continued to require no monthly premium. To bolster confidence in our results, we conducted two falsification tests. Full specifications for all analyses, falsification tests, and additional robustness checks are in the appendix.<sup>15</sup>

LIMITATIONS Our study had several limitations. As noted above, causal inferences from our approach relied on the assumption that enrollment trends in rating areas where plans remained zero-premium offered a reasonable counterfactual. Our falsification test results supported this assumption. Second, because we were unable to observe other sources of health insurance, we could not characterize how many enrollees who exited Connector coverage became uninsured or whether any were carrying both ConnectorCare and another source of insurance simultaneously. It is possible that enrollees elected coverage through an employer without actively disenrolling from Connector coverage,

although prior research suggests that this phenomenon was likely small (because the relevant population was low income and less likely to have access to job-based coverage).18 If a meaningful share of people in zero-premium plans enroll in employer-sponsored insurance without dropping Marketplace coverage, that would have important policy implications; enrollees may owe some or all of their subsidy payments at tax time. We note that people in our sample should not have been simultaneously enrolled in Connector coverage and Medicaid, as the two programs share an eligibility system in Massachusetts. Third, although we discuss a \$1 premium as primarily representing the administrative burden of paying a monthly premium, we could not rule out the possibility that a \$1 premium was truly unaffordable for people in our study. However, we emphasize that all people had the opportunity to switch to a zero-premium plan offered by another carrier if affordability concerns were paramount. Fourth, to the extent that attrition was caused by the administrative burden of nominal premiums, we were unable to establish whether learning costs (do enrollees know they owe a premium?) or hassle costs (how much effort is required to initiate and sustain premium payments?) mattered more for disenrollment. More research is needed to clarify the roles of these frictions. Fifth, this study evaluated enrollment changes among low-income Marketplace enrollees in one state (Massachusetts), which could limit the generalizability of our findings.

#### **Study Results**

**SAMPLE CHARACTERISTICS** In our sample of 9,012 subscribers, 6,730 had coverage in a rating area where plan bids resulted in a monthly premium increase ranging from \$1 to \$9 for single enroll-

ees. Among subscribers with multiple people on the plan (22 percent of the premium-increase group), 88 percent faced an anticipated premium increase of less than \$10; the maximum expected monthly family premium was \$36 (data not shown). The remaining 2,282 subscribers were enrolled in rating areas where there was no required monthly contribution. Exhibit 1 shows summary statistics for the full sample, control group, and treatment group split into two groups (those with a "high" versus "low" premium increase). Demographic characteristics statistically differed across groups, although these differences were generally modest in practical terms.

**EFFECTS ON ENROLLMENT** A very sharp differential change in enrollment (-14.3 percent; p < 0.001) occurred in February 2017, directly after premiums were introduced in the treatment regions (exhibit 2). The enrollment gap was sustained through 2017; reentry after plan exit did not meaningfully offset differences in attrition between the treatment and control groups. In any given month in the post period, the enrollment difference between treatment and control regions ranged between -13.5 percent and -14.4 percent (coefficients are reported in appendix exhibit A13). <sup>15</sup>

The lack of significant coefficients in the event study pre period (exhibit 2) suggests that there were no appreciable differences in pre-period enrollment trends between subscribers in our treatment and control regions. About half of our enrollees started their enrollment spell midyear; this natural churn is why coefficients got noisier as we went farther back in time.

Differential enrollment changes from December to February varied with enrollee characteristics and with the size of the newly imposed monthly premium (exhibit 3). Younger enrollees

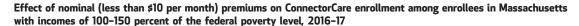
Monthly premium increaseb

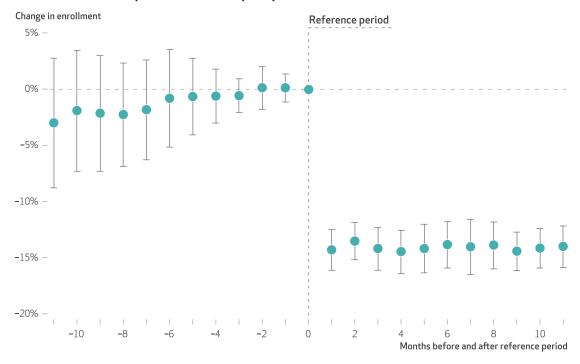
#### EXHIBIT 1

Mean sample characteristics for ConnectorCare enrollees in Massachusetts with incomes of 100-150 percent of the federal poverty level, 2016-17

	Full sample ( <i>N</i> = 9,012)	Stayed \$0° (n = 2,282)	7 1		
			Low (\$1-\$2) (n = 2,595)	High (\$4-\$9) (n = 4,135)	p value
Age (years)	40.03	40.57	40.21	39.61	< 0.01
Proportion female	0.56	0.55	0.58	0.54	< 0.01
Income (% of poverty)	132.69	132.86	134.79	131.29	< 0.01
Proportion with enrolled dependents	0.21	0.18	0.19	0.24	< 0.01
Enrollment duration as of December 2016 (months)	11.01	11.22	10.26	11.36	< 0.01

**SOURCE** Authors' analysis of administrative data from the Massachusetts Health Connector. **NOTES** The sample included ConnectorCare enrollees with the specified income who were continuously enrolled in coverage from December 2016 to January 2017. Premium increase amount corresponds to a plan with a single enrollee (no dependents). Significance tests indicate whether significant differences were detected across the "stayed \$0," "low (\$1-\$2)," and "high (\$4-\$9)" groups, using one-way analysis of variance tests for continuous variables (age, income, and enrollment duration) and Pearson's chi-square tests for binary variables (proportion female, proportion with enrolled dependents). \*Control group. \*Treatment group.





**SOURCE** Authors' analysis of administrative data from the Massachusetts Health Connector. **NOTES** The sample included Connector-Care enrollees with the specified income who were continuously enrolled in coverage from December 2016 to January 2017. January 2017 is the reference period centered at 0; we omitted a separate data point for December 2016 because our outcome variable (any enrollment) was mechanically identical across these 2 months under our continuous-enrollment inclusion criteria. Full specification and regression results are in appendix exhibit A13.6 (see note 15 in text).

(younger than age forty) had a significantly larger (in absolute magnitude) differential enrollment change (–19 percent) than older enrollees (–9 percent); differential enrollment changes were also significantly higher among subscribers in self-only plans (–17 percent) compared with plans sponsoring dependents (–5 percent). Enrollees who had been enrolled for less than twelve months had a larger differential enrollment change (–16 percent) than people who had been enrolled for twelve months or more (–12 percent). Formal tests of subgroup differences are in appendix exhibit A18.<sup>15</sup>

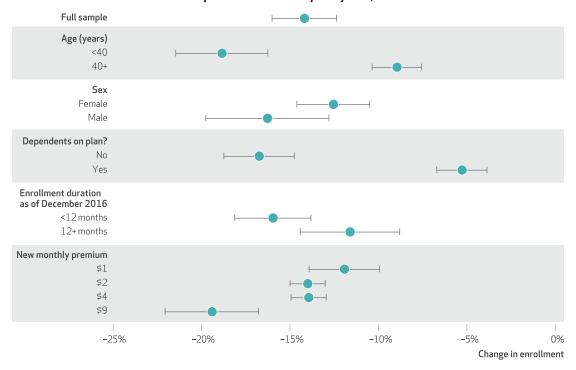
Differential enrollment changes for people in plans that took on premiums of \$1 (the lowest premium) were about two-thirds the magnitude of the differential enrollment changes for enrollees whose plans took on premiums of \$9 (the highest premium) (exhibit 3). If one infers that a new \$1 premium was primarily an administrative (rather than financial) burden, our results suggest that hassle costs and awareness issues drove an enrollment decrease of 12 percentage points (exhibit 2), with the remainder of the effect size at higher premiums coming from issues related to ability or willingness to pay for insurance.

REASONS FOR DISENBOLLMENT Exhibit 4 shows coefficients from an event study examining differential incidence of termination (for nonpayment or other reasons) between the treatment and control groups in each month. Terminations for nonpayment among subscribers newly facing premiums were highly concentrated in January (dated January 31, 2017), implying that enrollees never initiated payments for their new premiums. Significant terminations for nonpayment also happened later in the year, but to a much lesser extent. However, monthly rates of termination for reasons other than nonpayment did not significantly differ between the treatment and control groups.

REENROLLMENT IN CONNECTOR COVERAGE We found that the 1,414 enrollees who were newly subject to premiums in January 2017 (21 percent of the treatment group) had their coverage terminated for nonpayment in the first six months of the year (by the end of June 2017). Only 139, or 9.8 percent, of those people returned to Connector coverage within the calendar year (appendix exhibit A8). Additional details on termination rates and returns to coverage are in appendix exhibit A8.

#### EXHIBIT 3

Heterogenous effects of nominal (less than \$10 per month) premiums on ConnectorCare enrollment among enrollees in Massachusetts with incomes of 100–150 percent of the federal poverty level, 2016–17



**SOURCE** Authors' analysis of administrative data from the Massachusetts Health Connector. **NOTES** The sample included ConnectorCare enrollees with the specified income who were continuously enrolled in coverage from December 2016 to January 2017. Population is split at the mean age (40 years). "Dependents" refers to any nonsubscriber member of the plan, which is generally understood to include spouses and children. "Enrollment duration" refers to how long someone was continuously enrolled in coverage as of December 31, 2016. "New monthly premium" refers to the amount of premium the enrollee would have been required to pay in 2017 if they maintained enrollment in the plan they were enrolled in as of December 2016. Full specification and regression results are in appendix exhibit A17 (see note 15 in text).

**PLAN SWITCHING** Affected enrollees could avoid new premiums simply by switching carriers during open enrollment. By February 2017, 8 percent of affected enrollees had taken this step (they were attributed to their December 2016 carriers for purposes of our analyses elsewhere). Switching rates among affected enrollees, which increased monotonically with premium size (detailed in the appendix), <sup>15</sup> were significantly larger than the switching rate in unaffected plans (1.5 percent) but were consistently lower than the share of enrollees terminated for nonpayment at the end of January.

#### **Discussion**

This was the first study, to our knowledge, offering direct evidence that introducing nominal premiums into previously zero-premium plans led to significant attrition in the nongroup market, even when enrollees could switch into a different plan without a monthly premium. We observed levels of plan switching that were lower

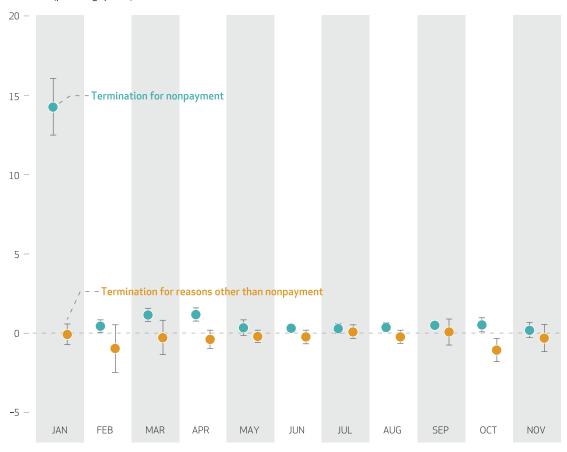
than levels of termination for nonpayment, which speaks to strong inertial tendencies in plan choice, consistent with prior literature.<sup>19</sup>

The relationship between the size of the premium increase and attrition suggests that affordability was a factor, even with very small (less than \$10) monthly premiums and the option to switch to another zero-premium plan during open enrollment. However, the fact that a shift in premiums from \$0 to \$1 resulted in 12-percentage-point attrition strongly suggests that burdens other than cost—such as lack of awareness of the new premium, uncertainty about how to set up payment, or the hassle of sustaining payments or switching plans—operated in tandem with any financial hardships imposed by new Marketplace premiums. For premiums of \$9, these administrative burdens appear to have accounted for around two-thirds of the attrition effect; for premiums of \$2-\$4, the administrative burdens accounted for almost the entire effect.

Our findings are consistent with those of prior work finding that small premiums had an ad-

### Differential rates of termination among ConnectorCare enrollees in Massachusetts with incomes of 100–150 percent of the federal poverty level, 2017

Difference (percentage points)



**SOURCE** Authors' analysis of administrative data from the Massachusetts Health Connector. **NOTES** The figure compares rates of termination (for nonpayment and other reasons, as outlined in the text) across treatment and control groups by month (that is, the percentage-point difference in termination rates between enrollees in the treatment and control groups at a given point in time). The termination month is the last month of enrollment. The sample included ConnectorCare enrollees with the specified income who were continuously enrolled in coverage from December 2016 to January 2017. Data for December 2017 are not included, as explained in the text and appendix exhibit A6 (see note 15 in text). Full specification and regression results are in appendix exhibits A15 and A16.

verse effect on take-up of Marketplace coverage. <sup>4-6</sup> They also echo research finding that small premiums reduced the probability of staying enrolled in Medicaid for a whole year. <sup>2</sup> Our study population was reasonably comparable to the Medicaid expansion population; as such, these results offer a cautionary tale for policy makers considering introducing premiums into the public program.

#### **Policy Implications**

These findings have important implications for Marketplace insurance policy nationwide. Starting in 2021, federal legislation enhanced the amount of financial assistance available to households purchasing Marketplace insurance;

boosted subsidies are available through the end of 2025.20 Under the new subsidy scheme, an estimated 79 percent of current HealthCare.gov enrollees, and about 62 percent of eligible uninsured people in states using HealthCare.gov, have access to at least one zero-premium plan.<sup>21,22</sup> Enrollees with incomes below 150 percent of poverty typically qualify for up to two zero-premium plans on the silver tier, which include additional financial help to offset cost sharing at the point of care. This makes the federal context look quite similar to our study setting for low-income enrollees (Massachusetts supplemented federal subsidies with state funds to enable zero-premium coverage). At higher income levels, zero-premium plans are typically in the less-generous bronze tier.

However, a plan being zero-premium in one year is not a guarantee that it will remain zero-premium the following year. Turnover in zero-premium status is particularly common for silver-tier plans available to Marketplace enrollees with incomes of 100–150 percent of poverty. In states using HealthCare.gov, 93 percent of these enrollees lived in counties where at least one zero-premium silver plan took on a positive premium in 2022. In most cases—for 84 percent of enrollees in that income group—all zero-premium silver plans available in 2021 became positive-premium in 2022. Our findings suggest that these enrollees are highly vulnerable to being terminated for nonpayment.

New policies could help mitigate coverage loss at these key moments where premiums change from zero to nonzero. In March 2022, the Centers for Medicare and Medicaid Services announced a special enrollment period that permitted midyear reenrollment for people with incomes below 150 percent of poverty who qualified for net \$0 coverage.<sup>23</sup> However, enrollees who elected \$0 coverage at higher income levels did not qualify for this special enrollment period and could be effectively locked out of Marketplace coverage unless they experienced a qualifying life event triggering a new enrollment opportunity. A broader special enrollment period applying to any enrollees terminated after experiencing a zero-to-nonzero premium shift would be more inclusive.

Even temporary gaps in coverage have been linked to adverse health outcomes; some policy approaches could prevent these gaps altogether. For example, states could supplement federal subsidies to bring net premiums from small dollar amounts to zero. Alternatively, federal regulators could amend current rules to allow or require that carriers waive unpaid premium balances, in lieu of taking actions that could result in coverage loss, when those balances are quite small. For example, when those balances are quite small.

Before the ACA, the Connector had an "automatic retention" policy in place that moved enrollees into zero-premium plans (if they were eligible for one), instead of terminating coverage after lapsed premium payments. The effects of this policy (retaining 14 percent of affected enrollees during the period 2010–13) are remarkably consistent with the magnitude of coverage loss observed in this study's more recent setting.

Last, the tax system could be used to ease administrative burdens inherent in paying premiums, either by recapturing modest unpaid premium balances (perhaps in the reconciliation process already used to ensure that Marketplace subsidies accurately reflect household income) or by allowing enrollees to "prepay" premium

In the case of very small premiums, administrative burdens may present a larger obstacle to staying insured than financial costs.

balances using their tax refund. Such approaches could, in part, also address affordability concerns; at tax time, lower-income households may be less financially stressed (after receipt of the Earned Income Tax Credit and tax refunds).<sup>26</sup>

Each of these policies comes with its own set of trade-offs. Shared among them is the fact that keeping people in subsidized coverage when they would otherwise be disenrolled would increase taxpayer spending on insurance subsidies.

Volatility in the lowest-cost plans is no longer a pressing issue in Massachusetts. In 2019, the Connector implemented a policy ensuring that the two lowest-bidding ConnectorCare plans in each rating area have the same after-subsidy contribution so long as the discrepancy in underlying premium bids was \$45 or less (Marissa Woltmann, Massachusetts Health Connector, personal communication, January 12, 2021). Under this policy, regions with more than one carrier typically have two zero-premium plans for enrollees with household incomes of 100-150 percent of poverty. Had these rules been in place for 2017, nobody in our sample would have experienced premium increases at the start of the new year; the two lowest-cost plans in our treatment areas were consistent across years, but they actively competed to be the lowest-cost option. However, this approach may be less feasible or effective in markets with more plans and more complicated choice architectures than in ConnectorCare.

#### Conclusion

Using a novel data set with detailed individuallevel information on insurance enrollment and a difference-in-differences specification, we offer evidence that suggests that premiums, at least in some contexts, should also be understood as posing both financial and administrative burdens. In the case of very small premiums, administrative burdens may present a larger obstacle to staying insured than financial costs, particularly if those premiums are newly introduced to incumbent enrollees who previously did not need

to make regular payments. Given the prevalence and volatility of zero-premium coverage in ACA Marketplaces, coverage retention is likely to suffer if state and federal policy design is inattentive to these dynamics, leading to people becoming unnecessarily uninsured.

This work was supported by the National Institute on Minority Health and Health Disparities, National Institutes of Health (Grant No. 5R01MD014970). Preliminary results for the manuscript were presented at the AcademyHealth Annual Research Meeting in Washington, D.C., June 5,

2022, and the University of Pennsylvania Health Insurance Exchange Conference in Philadelphia, Pennsylvania, May 26, 2022. This research would not have been possible without generous assistance with data access and interpretation from Marissa Woltmann, Nikhita Thaper Miskin, and Audrey

Gasteier, who are or were affiliated with the Massachusetts Health Connector. The authors express their deepest gratitude for this support; any errors in the resulting work are their own. To access the authors' disclosures, click on the Details tab of the article online.

#### NOTES

- 1 Einav L, Finkelstein A. The risk of losing health insurance in the United States is large, and remained so after the Affordable Care Act. Proc Natl Acad Sci U S A. 2023;120(18): e2222100120.
- **2** Dague L. The effect of Medicaid premiums on enrollment: a regression discontinuity approach. J Health Econ. 2014;37:1–12.
- **3** Cliff BQ, Miller S, Kullgren JT, Ayanian JZ, Hirth RA. Adverse selection in Medicaid: evidence from discontinuous program rules. Am J Health Econ. 2022;8(1):127–50.
- 4 Finkelstein A, Hendren N, Shepard M. Subsidizing health insurance for low-income adults: evidence from Massachusetts. Am Econ Rev. 2019; 109(4):1530-67.
- 5 Drake C, Anderson DM. Association between having an automatic reenrollment option and reenrollment in the health insurance Marketplaces. JAMA Intern Med. 2019;179(12): 1775-6
- **6** Drake C, Anderson DM. Terminating cost-sharing reduction subsidy payments: the impact of Marketplace zero-dollar premium plans on enrollment. Health Aff (Millwood). 2020;39(1):41–9.
- 7 Herd P, Moynihan DP. Administrative burden: policymaking by other means. New York (NY): Russell Sage Foundation: 2018.
- 8 Baicker K, Congdon WJ, Mullainathan S. Health insurance coverage and take-up: lessons from behavioral economics. Milbank Q. 2012;90(1):107–34.
- 9 Jaffe S. Social Security error jeopardizes Medicare coverage for 250,000 seniors. NPR, Shots [serial on the Internet]. 2019 Jun 6 [cited 2023 Nov 6]. Available from: https://www.npr.org/sections/health-shots/2019/06/06/730396134/social-security-error-jeopardizes-medicare-coverage-for-250-000-seniors
- 10 KFF. Medicaid waiver tracker: ap-

- proved and pending Section 1115 waivers by state [Internet]. San Francisco (CA): KFF; [last updated 2023 Oct 26; cited 2023 Nov 6]. Available from: https://www.kff.org/medicaid/issue-brief/medicaid-waiver-tracker-approved-and-pending-section-1115-waivers-by-state/
- 11 Federal Deposit Insurance Corporation. 2021 FDIC National Survey of Unbanked and Underbanked Households [Internet]. Arlington (VA): FDIC; 2022 Oct [cited 2023 Dec 7]. Available from: https://www.fdic.gov/analysis/household-survey/2021report.pdf
- 12 Ericson KM, Layton TJ, McIntyre A, Sacarny A. Reducing administrative barriers increases take-up of subsidized health insurance coverage: evidence from a field experiment [Internet]. Cambridge (MA): National Bureau of Economic Research; 2023 Jan [cited 2023 Nov 15]. (NBER Working Paper No. 30885). Available from: https://www.nber.org/system/files/working\_papers/w30885/w30885.pdf
- 13 Drake C, Anderson D, Cai ST, Sacks DW. Financial transaction costs reduce benefit take-up evidence from zero-premium health insurance plans in Colorado. J Health Econ. 2023:89:102752.
- 14 Massachusetts Health Connector.

  Massachusetts cost sharing subsidies in ConnectorCare: design, administration, and impact [Internet].

  Boston (MA): Connector; 2021 Aug [cited 2023 Nov 6]. Available from: https://www.mahealthconnector.org/wp-content/uploads/MA-Cost-Sharing-Subsidies-in-Connector Care-Brief-083021.pdf
- **15** To access the appendix, click on the Details tab of the article online.
- **16** Kong E, Shepard M, McIntyre A. Turnover in zero-premium status among health insurance Marketplace plans available to low-income

- enrollees. JAMA Health Forum. 2022;3(4):e220674.
- 17 Unlike most Marketplaces (including HealthCare.gov), the Massachusetts Health Connector centrally manages premium payment for on-Marketplace products, which permits evaluation of payment status. Typically, insurers independently manage these processes.
- **18** McIntyre A, Shepard M, Wagner M. Can automatic retention improve health insurance market outcomes? AEA Pap Proc. 2021;111:560–6.
- 19 Drake C, Ryan C, Dowd B. Sources of inertia in the individual health insurance market. J Public Econ. 2022;208:104622.
- 20 Keith K. Congress poised to extend enhanced Marketplace subsidies through 2025. Health Affairs Forefront [blog on the Internet]. 2022 Aug 9 [cited 2023 Nov 6]. Available from: https://www.healthaffairs.org/content/forefront/congress-poised-extend-enhanced-market place-subsidies-through-2025
- 21 Branham DK, Conmy AB, DeLeire T, Musen J, Xiao X, Chu RC, et al. Access to Marketplace plans with low premiums on the federal platform. Part II: Availability among uninsured non-elderly adults under the American Rescue Plan [Internet]. Washington (DC): Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, Office of Health Policy; 2021 Apr 1 [cited 2023 Dec 7]. (Issue Brief No. HP-2021-08). Available from: https://aspe .hhs.gov/sites/default/files/ migrated\_legacy\_files//199741/ ASPE%20ACA%20Low%20 Premium%20Plans%20Issue%20 Brief%20II.pdf
- 22 Branham DK, Conmy AB, DeLeire T, Musen J, Xiao X, Chu RC, et al. Access to Marketplace plans with low premiums on the federal platform. Part III: Availability among current HealthCare.gov enrollees under the

- American Rescue Plan [Internet]. Washington (DC): Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, Office of Health Policy; 2021 Apr 13 [cited 2023 Dec 7]. (Issue Brief No. HP-2021-09). Available from: https://aspe.hhs.gov/sites/default/files/migrated\_legacy\_files//199886/low-premium-plans-ib-part-iii.pdf
- 23 Norris L. An SEP if your income doesn't exceed 150% of the federal poverty level [Internet]. St. Louis Park (MN): HealthInsurance.org; c 1994–2023 [cited 2023 Dec 15]. Available from: https://www.health insurance.org/special-enrollment-
- guide/an-sep-if-your-income-doesntexceed-150-of-the-federal-povertylevel/
- 24 Sugar S, Peters C, Lew ND, Sommers BD. Medicaid churning and continuity of care: evidence and policy considerations before and after the COVID-19 pandemic [Internet]. Washington (DC): Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, Office of Health Policy; 2021 Apr 12 [cited 2023 Dec 7]. (Issue Brief No. HP-2021-10). Available from: https://aspe.hhs.gov/sites/default/files/private/pdf/265366/medicaid-churning-ib.pdf
- 25 Fiedler M, McIntyre A. Tweaking the Marketplace enrollment process could magnify effects of larger premium tax credits [Internet].
  Washington (DC): Brookings
  Institution; 2022 Sep 13 [cited 2023 Nov 6]. Available from: https://www.brookings.edu/articles/tweaking-the-marketplace-enrollment-process-could-magnify-effects-of-larger-premium-tax-credits/
- **26** Swartz K, Graves JA. Shifting the open enrollment period for ACA Marketplaces could increase enrollment and improve plan choices. Health Aff (Millwood). 2014;33(7): 1286–93.