

# What Is the Impact on Enrollment and Premiums if the Duration of Short-Term Health Insurance Plans Is Increased?

**Preethi Rao**  
Associate Policy Researcher  
RAND Corporation

**Sarah A. Nowak**  
Physical Scientist  
RAND Corporation

**Christine Eibner**  
Paul O'Neill Alcoa Chair in Policy Analysis  
Senior Economist  
RAND Corporation

## ABSTRACT

**ISSUE:** Short-term health insurance policies are inexpensive, limited-duration plans that provide few consumer protections. Two factors — a 2018 federal rule to extend the terms of these plans from three months to up to 12 months, and the repeal of the individual mandate penalty — could cause healthy people to leave the ACA-compliant market and premiums in that marketplace to increase.

**GOAL:** To determine the effects of these policy changes on health insurance enrollment and premiums.

**METHODS:** Using the RAND COMPARE microsimulation model to analyze the effect of extending short-term plans and repealing the individual mandate, both individually and in combination.

**FINDINGS AND CONCLUSIONS:** Extending the duration of short-term plans has little effect on premiums and enrollment alone. Repealing the individual mandate in addition to extending the duration of short-term plans leads to fewer young people enrolled in ACA-compliant plans; overall, it reduces enrollment in minimum essential insurance coverage by 6 million and leads to a 0.9 percent increase in ACA marketplace premiums. However, when behavioral factors (e.g., lack of consumer awareness of short-term plans, hassle of enrolling, desire to comply with law) are removed, we estimate that 5 million people will enroll in short-term plans, and ACA-compliant premiums will increase by 3.6 percent.

## KEY TAKEAWAYS

- ▶ **Changing only the duration of short-term health insurance plans — from the current three-month term to 12 months — would have minimal effects on enrollment and premiums.**
- ▶ **Removing the individual mandate penalty, eliminating behavioral barriers (e.g., increasing awareness of plans), and increasing the duration to 12 months would decrease enrollment in plans with minimal essential coverage by 9 million and increase premiums in silver-tier marketplace plans by 3.6 percent.**
- ▶ **People insured in short-term plans may face high out-of-pocket costs and coverage limitations, possibly making their health care unaffordable in the event of illness or injury.**

## INTRODUCTION

In February 2018, the U.S. Departments of Treasury, Labor, and Health and Human Services proposed a rule that would expand health insurers' ability to sell short-term plans. These are limited-duration policies that do not comply with requirements of the Affordable Care Act.<sup>1</sup> Under current law, such plans may be sold only for three-month terms; the federal rule proposes that insurers be allowed to sell them for terms of up to 12 months. Short-term plans are less comprehensive and often cheaper than ACA-compliant policies, and therefore potentially attractive to young, healthy people who do not expect to need insurance. However, if healthy, low-cost people leave the ACA's insurance risk pool to enroll in short-term plans, premiums for ACA-compliant policies may increase.

Short-term plans have been available since before the ACA took effect, but uptake of these plans has been low; just over 160,000 people were enrolled in such plans in 2016.<sup>2</sup> There are likely several factors responsible. First, short-term plans are intended to cover temporary gaps rather than serving as the primary source of coverage. Second, such plans typically have limited coverage compared to standard health insurance plans, and thus are less appealing to many individuals. Third, there may be behavioral factors that affect enrollment, such as lack of awareness that these plans exist, the time and hassle associated with enrolling, and choice overload resulting from multiple plan options. Finally, after the ACA was enacted, individuals carrying short-term plans were subject to the individual mandate penalty unless they had another source of coverage.

Shortly before the proposed federal rule to extend the duration of short-term plans, Congress passed the Tax Cut and Jobs Act of 2017, which repealed the ACA's individual mandate penalty. Estimates from the Congressional Budget Office (CBO) suggest that repealing the individual mandate will reduce health insurance enrollment and increase premiums for plans purchased on the individual market.<sup>3</sup>

Various factors — plans' limited duration, the fact they do not satisfy the individual mandate, hassle of enrolling — may have caused some individuals to rule them out. But

repeal of the mandate and extension of short-term plans' may motivate insurers to market short-term plans more aggressively or take steps to simplify enrollment. The expansion of short-term plan duration to 12 months also will allow those who enroll in 12-month short-term plans to switch to the ACA-compliant market during open enrollment if they experience a change in health status, without facing any penalties and without fear of a gap in coverage. This could lead to increased enrollment in short-term plans by young, healthy individuals who may nonetheless be risk averse.

## MODELING

In this report, we use the RAND COMPARE microsimulation model to analyze the impact of extending short-term plans as a standalone policy and in combination with individual mandate repeal. To model short-term plan enrollment, we take into account a "behavioral barriers" parameter to account for factors not directly related to plan characteristics, including lack of awareness and hassle of enrolling. These factors may have previously led to low enrollment in these plans (see the [Appendix](#) for complete study methods). These barriers may be reduced, however, as a result of the new federal rule, the repeal of the individual mandate penalty, and changes in insurer behavior (like increased marketing) and consumer attitudes. We analyze the effects of five policy scenarios, projected to the year 2020:

- 1 Current law.** In this scenario the individual mandate penalty is in effect and applies to short-term plan holders; consumers have access to three-month-duration short-term plans. This scenario resembles the current state of the insurance market.
- 2 Twelve-month short-term plans.** The individual mandate penalty is in effect and applies to short-term plan holders; consumers have access to 12-month-duration short-term plans in states that do not restrict such plans. We model this scenario to isolate the effect of loosening restrictions on short-term plans.

- 3 **No individual mandate, three-month short-term plans.** The individual mandate penalty is repealed and consumers have access to three-month duration short-term plans. We model this scenario to isolate the effect of eliminating the individual mandate.
- 4 **No individual mandate, 12-month short-term plans.** The individual mandate penalty is repealed and consumers have access to 12-month short-term plans in states that do not restrict such plans. This scenario reflects the effect of the administration's planned changes, assuming behavioral barriers to enrollment in short-term plans remain the same.
- 5 **No individual mandate, 12 month short-term plans, behavioral barriers removed.** The individual mandate penalty is repealed, consumers have access to 12-month short-term plans in states that do not restrict such plans, and there are no behavioral barriers to enrollment in short-term plans. This scenario reflects the effect of the administration's planned changes, assuming behavioral barriers to enrollment in short-term plans are reduced.

## OVERVIEW OF SHORT-TERM PLANS

Short-term/limited duration health insurance policies are plans that are issued for a period of less than 365 days. Such plans have been available since before the enactment of the ACA. Their original purpose was to cover short-term gaps in health insurance coverage, rather than being a sole source of coverage. Because these plans do not have to comply with ACA insurance regulations, insurers can deny or fail to renew short-term plans for people with preexisting conditions, exclude coverage of essential health benefits and preventive care, and charge higher cost-sharing than permitted in the ACA-compliant market.<sup>4</sup> Because of these exclusions and limitations, short-term plans often have lower premiums than ACA-compliant plans. As a result, they may be attractive to young and healthy individuals, particularly those who

are ineligible for the ACA's tax credits. Because short-term plans do not meet the ACA's minimum essential coverage requirements, individuals enrolled in them without another source of coverage were subject to the individual mandate penalty in 2014 through 2017 and will continue to be subject to this penalty for the 2018 calendar year. Short-term plans are ineligible for the ACA's tax credits and cost-sharing reductions, meaning that enrollees in such plans must pay the full premium and any cost-sharing without federal financial assistance.

In April 2017, a new regulation — issued under the Obama administration — took effect, limiting the duration of short-term plans to less than three months. Previously, these plans could be issued for periods of less than 12 months, meaning they could be issued for up to 364 days, effectively a full year of coverage despite being considered “short-term.” New changes put forth by the February 2018 federal rule propose to reverse this regulation, allowing short-term plans to again be issued for up to 12 months. However, states may impose stricter regulations; some do not allow the sale of short-term plans and others restrict duration to a maximum of six months. Historically, enrollment in short-term plans has been low — just over 160,000 in 2016 — perhaps because enrollees were still subject to the individual mandate penalty.<sup>5</sup> If short-term plans are expanded to 12 months, some people may find it advantageous to enroll, switching to the ACA's regulated market only if they become sick.

Removing the individual mandate penalty could increase enrollment in short-term plans. If this increase comes from young, healthy people moving out of marketplace plans, there could be serious implications for premiums on the ACA market as their populations become older and sicker. An analysis of the individual mandate by the CBO and the Joint Committee on Taxation predicts that repealing the individual mandate would increase the number of uninsured by 7 million individuals by 2020 and would increase average premiums in the nongroup market by 10 percent, not accounting for any changes in the ages of people purchasing insurance.<sup>6</sup> However, the CBO also points out that because of assumptions made about how people may respond to a change in the law, the

premium estimates may be high.<sup>7</sup> The CBO analysis does not directly address short-term plans; furthermore, CBO previously clarified that it considers people who are not enrolled in policies that provide “financial protection from major medical risks” to be uninsured.<sup>8</sup>

The Urban Institute recently released a report on the effects of short-term plan expansion, individual mandate repeal, and other recent policy changes, and found an increase of 6.4 million in the number of uninsured and an 18 percent increase in average premiums.<sup>9</sup> The changes reported by the Urban Institute are not directly comparable to our estimates because of differences in assumptions around cost-sharing reduction (CSR) payments, reporting of premiums (mean vs. age-specific), and other policy changes considered in the model.

## RESULTS

### Enrollment

Relative to current law (i.e., individual mandate penalty in effect and short-term plans restricted to three months), the consequence of increasing the duration of short-term plans to 12 months is that the overall number of nonelderly individuals with insurance that provides minimum essential coverage stays constant at 250 million. Removing the individual mandate penalty in both scenarios (three-month and 12-month short-term plans) reduces that number to 244 million, a decrease of 6 million people (Exhibit 1). This aligns with estimates from the CBO, which finds an additional 7 million uninsured people by 2020,<sup>10</sup> and by the Urban Institute, which finds 6.4 million

Exhibit 1. Estimated Enrollment in Health Insurance Plans, Individuals Under Age 65, in Millions

Scenario	Total enrolled in minimum essential coverage (in millions)	Enrolled in ACA-compliant nongroup plan (in millions)	Enrolled in short-term plan (in millions)
1 Current law Individual mandate penalty in effect Short-term plan duration limited to 3 months Behavioral barriers to short-term plan enrollment	250	18.9	0.2
2 Individual mandate penalty in effect Short-term plan duration expanded to 12 months Behavioral barriers to short-term plan enrollment	250	18.9	0.2
3 Individual mandate penalty repealed Short-term plan duration limited to 3 months Behavioral barriers to short-term plan enrollment	244	15.5	0.2
4 Individual mandate penalty repealed Short-term plan duration expanded to 12 months Behavioral barriers to short-term plan enrollment	244	15.5	0.3
5 Individual mandate penalty repealed Short-term plan duration expanded to 12 months No behavioral barriers to short-term plan enrollment	241	14.2	5.2

Data: Analysis based on the RAND COMPARE microsimulation model.

Notes: In scenarios in which the individual mandate penalty is still in effect, short-term plan holders are subject to the penalty. Minimum essential coverage does not include short-term plans.

additional uninsured people by 2019.<sup>11</sup> When we assume the elimination of behavioral barriers to enrollment in short-term plans, the number of people in insurance that provides minimum essential coverage declines by 9 million to 241 million. This is largely the result of an estimated 5 million people enrolling in short-term plans, with others dropping insurance coverage entirely.

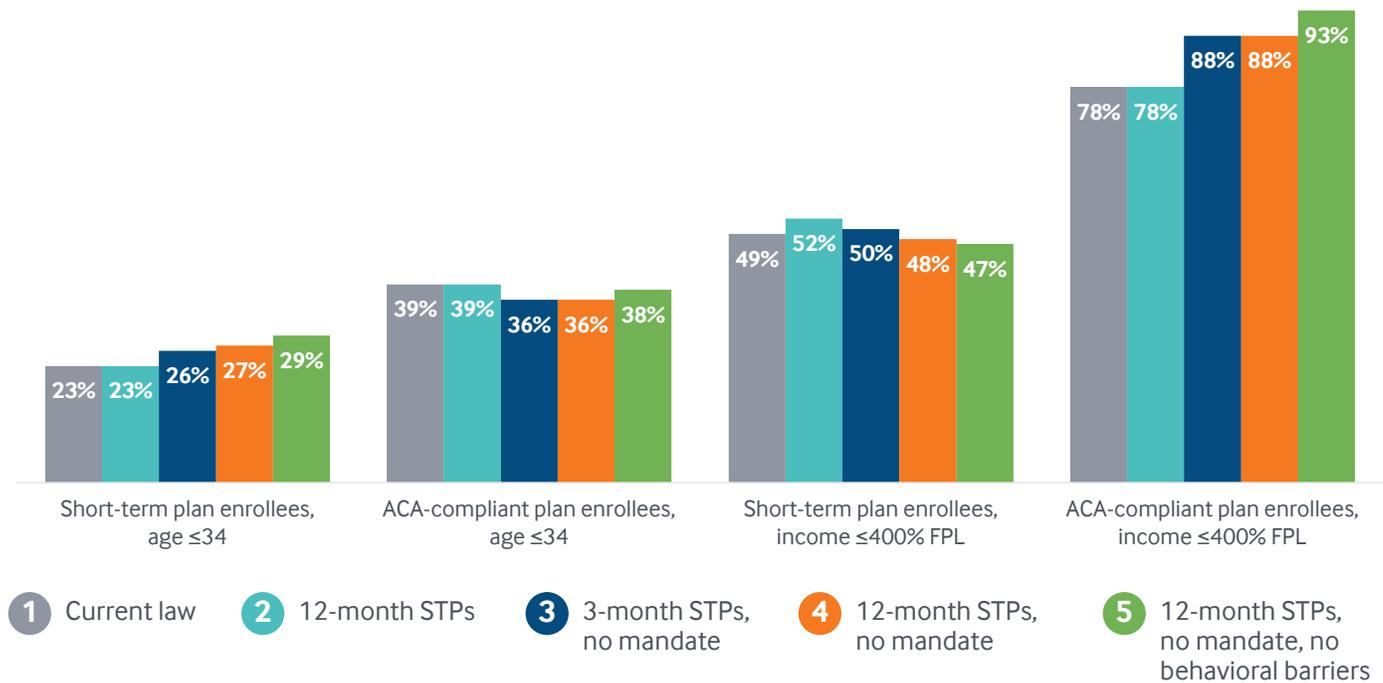
In the ACA-compliant nongroup market, enrollment stays constant when 12-month short-term plans are available, relative to current law, and falls by 3.4 million people when the mandate is repealed. It falls by a further 1.3 million when we remove behavioral barriers to enrollment in short-term plans. Enrollment in short-term plans is relatively low (200,000 to 300,000) in all scenarios except when behavioral barriers are removed, in which case enrollment jumps to 5.2 million. These results suggest that by themselves the repeal of the individual mandate and the increase in duration of

short-term plans may have relatively small effects on short-term plan enrollment. But if these two changes together are accompanied by reductions in behavior barriers to enrollment (e.g., increased marketing of plans to increase awareness, streamlining the application process, lack of concern over facing the mandate penalty), there could be a substantial effect.

**Age and Poverty Level of Nongroup Enrollees**

Under current law — short-term plans available for up to three months and the individual mandate penalty still in effect — the share of short-term plan enrollees age 34 or younger is 23 percent. This remains constant when the term is increased to 12 months. The shares increase to 26 percent and 27 percent under the three-month and 12-month plans, respectively, when the mandate is repealed. The share increases to 29 percent when behavioral barriers are removed (Exhibit 2). Conversely,

**Exhibit 2. Enrollment in Short-Term and ACA-Compliant Nongroup Plans, Enrollees Age 34 or Younger, Incomes at or Less Than 400% FPL**



Data: Analysis based on the RAND COMPARE microsimulation model.

Notes: Absolute numbers of short-term plan and ACA-compliant nongroup plan enrollees are presented in Exhibit 1. FPL = federal poverty level. STP = short-term plan.

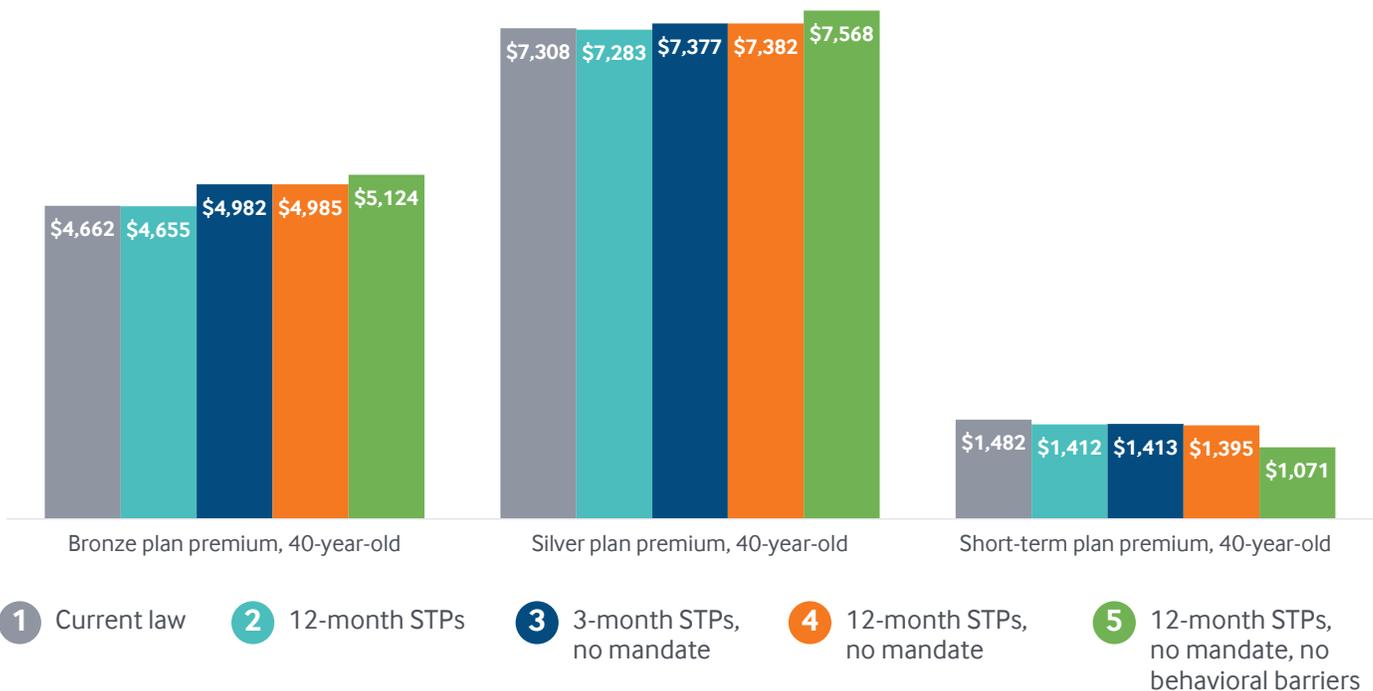
eliminating the mandate reduces the proportion of people age 34 or younger in ACA-compliant nongroup plans. These findings are consistent with concerns that repealing the individual mandate would cause young, healthy individuals to leave marketplace plans, leading to increases in premiums. The proportions of short-term plan enrollees with incomes under 400 percent of the federal poverty level (just over \$48,000 for an individual) is 49 percent under current law and 52 percent when plan duration is increased to 12 months. The proportion of enrollees with incomes under 400 percent of poverty in the ACA-compliant market is 78 percent under current law and 88 percent when the mandate penalty is lifted. This effect is largely because of high-income individuals leaving the ACA-compliant market when the mandate is lifted and either becoming uninsured or moving to short-term plans.

**Premiums**

Premiums for ACA-compliant plans are relatively constant across the first two scenarios, when the individual mandate is in effect. However, the age-specific premium

for an ACA-compliant silver plan increases by 0.9 percent (from \$7,308 to \$7,377) relative to current law when the individual mandate is lifted, and by 3.6 percent (from \$7,308 to \$7,568) when the mandate is lifted and behavioral barriers are removed (Exhibit 3). We find higher increases in premiums in bronze plans — 6.9 percent when the mandate is lifted (from \$4,662 to \$4,982), 9.9 percent (from \$4,662 to \$5,124) when behavioral barriers are removed. The difference is driven by the loading of CSR subsidies onto silver-tiered plans. (For additional discussion of this, see the [Appendix](#).) These estimates are somewhat lower than the CBO’s estimate that age-specific premiums will increase by roughly 10 percent if the individual mandate is lifted. CBO has said, however, that these estimates are preliminary and revised estimates “would likely be smaller.”<sup>12</sup> The Urban Institute predicts much higher increases in premiums (approximately 18%) following repeal of the individual mandate and expansion of short-term plans.<sup>13</sup> These estimates reflect average changes in premiums, as opposed to age- and metal-tier-specific premiums. These results may also reflect Urban Institute’s taking into account

**Exhibit 3. Estimated Changes in Premiums**



Data: Analysis based on the RAND COMPARE microsimulation model.  
 Notes: Absolute numbers of short-term plan and ACA-compliant nongroup plan enrollees are presented in Exhibit 1. STP = short-term plan.

other concurrent policy changes, such as the shortened open enrollment periods on the ACA-compliant market and reduced federal funding for outreach and assistance. In contrast, our analyses isolate the effects of the short-term plan expansion and the individual mandate repeal. Further, our analyses take into account the Trump administration's intent to halt CSR subsidy payments to insurers. We assume that insurers load such costs onto their silver-tier plans in all scenarios; the Urban Institute's analysis does not assume CSR payments are halted in their baseline scenario.

Premiums for short-term plans fall, relative to current law, in the 12-month short-term plan scenario without the mandate, particularly when we assume changes in insurer behavior and consumer attitudes. This is consistent with the hypothesis that younger, healthier individuals would leave the ACA-compliant market and enroll in short-term plans if the mandate were lifted, reducing premiums for short-term policies while causing premiums to rise in ACA-compliant plans.

## CONCLUSION

Our analysis suggests that in isolation, the changes to short-term plan duration put forth in the recent proposed federal rule would have minimal effects on enrollment in short-term plans, enrollment in ACA-compliant insurance policies, and premiums on the ACA-compliant market. Enrollment in short-term plans has been very low historically, and without an assumption of changes in insurer behavior and consumer attitudes, simply extending their duration will not affect enrollment substantially.

In contrast, eliminating the individual mandate, alone or in combination with expanding short-term plan duration, has a considerable impact on enrollment and other outcomes. Repealing the individual mandate increases the number of individuals without minimum essential coverage relative to current law, mainly because those people will leave their individual market coverage and employer-sponsored insurance plans. Premiums for ACA-compliant silver marketplace plans increase, largely because of younger and healthier individuals dropping coverage.

Without making additional assumptions, combining the extension of short-term plans with the individual mandate repeal has little additional effect beyond individual mandate repeal alone. However, the combination of expanded short-term plan duration and the mandate repeal may lead to changes in insurer behavior and consumer attitudes, ultimately reducing behavioral barriers to short-term plan enrollment. When we assume such barriers are eliminated along with the mandate repeal, we estimate substantially higher enrollment in short-term plans: slightly more than 5 million enrollees compared with roughly 200,000 if behavioral barriers continue. This scenario causes a decrease in the total enrollment in insurance plans that provide minimum essential coverage of 3 million (relative to the scenario of mandate repeal but including behavioral barriers), resulting in 9 million fewer people with minimum essential coverage. Those insured via short-term plans may face high out-of-pocket costs and coverage limitations, which may make their care unaffordable in the event of illness or injury. Simultaneously, we estimate that premiums for ACA-compliant silver plans would increase by 0.9 percent to 3.6 percent relative to the "current law" scenario.

We think there are credible reasons to believe that combining short-term plan expansion and individual mandate repeal could reduce behavioral barriers to enrolling in short-term plans. The fact that short-term plan holders were subject to the individual mandate could have made these policies a nonstarter for some consumers, regardless of their cost. Similarly, the limited duration of short-term plans could have caused some consumers to rule out these policies without seriously considering the costs and benefits. However, with the elimination of the ACA's individual mandate and resulting premium increases, people may be looking for low-cost insurance options. Insurers, in turn, may increase marketing of short-term plans and take other steps to reduce hassle or choice overload associated with enrolling in these policies. Particularly important is the fact that those who enroll in 12-month short-term plans will be able to switch to the ACA-compliant market during open enrollment if they experience a change in health status, without facing any penalties and without fear of a gap in coverage. This could encourage young, healthy individuals to enroll in short-term plans.

## NOTES

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6. CBO, *Repealing the Individual*, 2017.
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8. Jared Maeda and Susan Yeh Beyer, “How Does CBO Define and Estimate Health Insurance Coverage for People Under Age 65?” *Congressional Budget Office Blog*, Dec. 20, 2016, <https://www.cbo.gov/publication/52352>. While CBO lists several plan types that fail to meet these criteria, short-term plans are not included. In our analyses, we present the number of individuals with insurance that provides minimum essential coverage, a category that does not include short-term plans, and separately report the number of individuals enrolled in short-term plans.
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12. CBO, *Repealing the Individual*, 2017.
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## APPENDIX. STUDY METHODS

We estimated the effects of the expansion of short-term plan duration using RAND's COMPARE model, which uses economic theory and data to estimate the impacts of different health care reforms.<sup>a</sup> We used our national model, which uses data from the April 2010 wave of the 2008 Survey of Income and Program Participation, to create our population of individuals and families, and data from the 2009 Kaiser Family Foundation/Health Research and Educational Trust Employer Health Benefits Survey to create our population of firms. Health care expenditures in COMPARE are derived from the 2010–2011 Medical Expenditures Panel Survey, the Centers for Medicare and Medicaid Services National Health Expenditure Accounts, and the Society of Actuaries. While our data sources predate the implementation of the ACA, we updated them to reflect population growth (using factors reported by the U.S. Census Bureau) and to reflect health care cost growth (using the CMS National Health Expenditure Accounts).

In October 2017, the Trump administration announced its intention to halt cost-sharing reduction (CSR) subsidy payments to insurers; such payments serve to reduce out-of-pocket expenses to low-income individuals. However, even without federal funding for CSRs, insurers are required to provide reduced cost-sharing for low-income individuals in silver-tier plans. In anticipation of this executive action, many insurers built the costs of the CSR payments into premiums for their silver plans. The second-lowest-cost silver plan is used to calculate tax credits provided to low-income individuals to purchase health insurance, so by increasing silver-plan premiums, insurers can effectively recoup CSR payments. Given that insurers in most states did load CSR payments onto silver-plan premiums,<sup>b</sup> we take this into account in COMPARE by eliminating CSR payments by the federal government and loading the costs of CSRs onto the premiums of silver nongroup market plans. In general, this change increases premiums for silver plans and increases advanced premium tax credit payments by the federal government (while reducing federal CSR payments to 0).

To incorporate short-term plans into COMPARE, we considered several features:

- **Benefit design.** Short-term plans generally do not cover preexisting conditions and are not required to adhere to ACA regulations on the actuarial value of insurance plans. Therefore, we modeled short-term plans to have an actuarial value of 50 percent, or 10 percent lower than the actuarial value of bronze-tier plans. This is consistent with estimates

of the actuarial value of individual plans sold prior to the ACA.<sup>c</sup> In addition, we account for the possibility that since short-term plans are typically not guaranteed issue, some individuals may be denied coverage.

- **Increased risk.** We account for the fact that limited duration (e.g., three-month) short-term plans expose individuals to the possibility of being denied coverage later in the year. For example, if an individual is issued a three-month plan at the start of the year, he or she faces the risk of uninsurance because of denial at the beginning of each subsequent quarter of the year. We model this risk of uninsurance based on the age- and gender-based risk of transitioning to a poor health state each quarter.<sup>d</sup> Since COMPARE is an annual model, and the probabilities of health status transitions were annual, this was done by annualizing the risk of being denied coverage each quarter. We assume that unless an individual is denied coverage in any quarter, they continue enrolling in three-month plans for the full year. We note that while there is anecdotal evidence that insurers may attempt to circumvent the three-month limitation on short-term plan duration,<sup>e</sup> there are no estimates of the extent to which this is happening. Therefore, we assume in the model that the three-month limitation on plan duration does in fact expose enrollees to the risk of uninsurance at every subsequent quarter in which they may seek insurance coverage via an additional three-month short-term plan.
- **State variation in regulations.** Despite the proposed federal rule, some states have stricter regulations on short-term plans. Details of state regulations on short-term plans have been published elsewhere.<sup>f</sup> In particular, short-term plans are not available in some states, and are restricted in others. In states with restrictions on short-term plans, the most common restriction is a six-month duration restriction with renewals not permitted. We model these state policies either by making short-term plans unavailable in states where they are not sold or by accounting for the fact that enrollees in six-month plans face risk of denial midway through the year.
- **Behavioral barriers.** Finally, we considered that despite the consistent availability of short-term plans both prior to and following the enactment of the ACA, enrollment has historically been very low. We assumed that this low enrollment is at least partially because of features not directly related to plan characteristics: lack of knowledge of the existence of such plans, the time and hassle costs of applying for such plans, the uncertainty associated with

whether one will receive coverage, choice overload given the abundance of plan options, confusion regarding plan costs and benefits, and other factors.<sup>g</sup> Since we cannot distinguish between factors or account for them in COMPARE based on plan features alone, we predicted enrollment that is an order of magnitude larger than actual enrollment for the years for which data are most recently available.<sup>h</sup> Therefore, we introduced a “behavioral barriers” parameter to more accurately predict enrollment in short-term plans. This is done by taking a random sample of those who would otherwise choose a short-term plan and removing short-term plan coverage as an insurance option; these individuals would then choose the insurance option with the next-highest utility that is available to them.

To simulate the effects of repealing the individual mandate, we eliminated the financial penalty for those who remain uninsured in the model. RAND had previously conducted such an analysis.<sup>i</sup> Our current estimates of the increases in premiums on the nongroup market of 5 percent are somewhat lower than the 2015 results (8% increase) for several reasons:

- To account for noncompliance and nonenforcement of the individual mandate penalty, we downweighted the effect of the penalty by 20 percent.<sup>j</sup>

- Because of the publicity of the ACA and enrollment outreach efforts, we added a “welcome-mat” effect to the model, which increased Medicaid enrollment among previously eligible individuals after Medicaid expansion in 2014.
- We also accounted for states that have expanded Medicaid since 2015 (Louisiana, North Carolina, and Alaska), which has implications for marketplace enrollment and premiums, since those with incomes between 100 percent and 138 percent of the federal poverty level became eligible for Medicaid in those states.

Additionally, we made three recent upgrades to COMPARE to better match actual experience. First, we incorporated an adjustment factor to ensure that the model more accurately matches the distribution of tax-credit-eligible and -ineligible enrollees in the ACA-compliant market. The factor reduces uptake of tax-credit-eligible plans, reflecting the possibility that some individuals may be unaware of their eligibility, or prefer nonmarketplace coverage. Second, we made adjustments to the income distribution of individuals over 400 percent of poverty who pay the individual mandate tax penalty to better match data reported by the IRS.<sup>k</sup> Finally, we allowed for geographic variation in premium levels. These adjustments are explained in more detail in the [Technical Appendix](#).

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## ABOUT THE AUTHORS

**Preethi Rao, Ph.D.**, is an associate policy researcher at the RAND Corporation. Her research focus is on topics related to health policy and health economics. Her recent work has involved using RAND's COMPARE microsimulation model to understand the effects of changes to the Affordable Care Act's provisions on insurance coverage, costs, and spending. Her other work includes research on provider payment and reimbursement issues in Medicaid and Medicare. She earned her Ph.D. in health economics from the Wharton School at the University of Pennsylvania.

**Sarah A. Nowak, Ph.D.**, is a physical scientist at the RAND Corporation, specializing in mathematical modeling. Much of Dr. Nowak's recent work has focused on using the RAND COMPARE microsimulation model to evaluate health insurance reforms including assessing the impact of the Affordable Care Act on individual and family spending, and how alternatives to current Affordable Care Act provisions would impact health insurance coverage and enrollment, government spending, and families' health care spending. Dr. Nowak holds a Ph.D. in biomathematics from the University of California, Los Angeles, and a bachelor's degree in physics from the Massachusetts Institute of Technology.

**Christine Eibner, Ph.D.**, is a senior economist at the RAND Corporation and the Paul O'Neill Alcoa Chair in Policy Analysis. Eibner's recent studies have considered changes in health insurance enrollment since 2013, use of pharmaceuticals among marketplace enrollees compared with employer-insured individuals, and geographic variation in marketplace premiums and cost-sharing. In addition, she has led a series of analyses using the RAND COMPARE microsimulation model to assess how changes to the Affordable Care Act could affect key outcomes, including federal spending, Medicaid enrollment, and individual market coverage. Eibner's research has been published in journals such as *Health Affairs*, *Health Services Research*, and the *New England Journal of Medicine*. She earned her Ph.D. in economics from the University of Maryland and her bachelor's degree from the College of William and Mary.

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### For more information about this report, please contact:

Preethi Rao, Ph.D.  
 Associate Policy Researcher  
 RAND Corporation  
[Preethi\\_Rao@rand.org](mailto:Preethi_Rao@rand.org)

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