Coverage Disruptions and Transitions Across the ACA's Medicaid/Marketplace Income Cutoff



Anna L. Goldman, MD, MPA, MPH^{1,2} and Sarah H. Gordon, PhD, MPH³

¹Section of General Internal Medicine, Boston University School of Medicine, Boston, MA, USA; ²Boston Medical Center, Boston, MA, USA; ³Boston University School of Public Health, Boston, MA, USA.

BACKGROUND: The Affordable Care Act takes a "patchwork" approach to expanding coverage: Medicaid covers individuals with incomes 138% of the federal poverty level (FPL) in expansion states, while subsidized Marketplace insurance is available to those above this income cutoff. **OBJECTIVE:** To characterize the magnitude of churning between Medicaid and Marketplace coverage and to examine the impact of the 138% FPL income cutoff on stability of coverage.

DESIGN: We measured the incidence of transitions between Medicaid and Marketplace coverage. Then, we used a differences-in-differences framework to compare insurance churning in Medicaid expansion and non-expansion states, before and after the ACA, among adults with incomes 100–200% of poverty.

PARTICIPANTS: Non-elderly adult respondents of the Medical Expenditure Panel Survey 2010–2018

MAIN MEASURES: The annual proportion of adults who (1) transitioned between Medicaid and Marketplace coverage; (2) experienced any coverage disruption.

KEY RESULTS: One million U.S. adults transitioned between Medicaid and Marketplace coverage annually. The 138% FPL cutoff in expansion states was not associated with an increase in insurance churning among individuals with incomes close to the cutoff.

CONCLUSIONS: Transitions between Medicaid and Marketplace insurance are uncommon—far lower than pre-ACA analyses predicted. The 138% income cutoff does not to contribute significantly to insurance disruptions.

KEY WORDS: Affordable Care Act; income-based insurance eligibility; Medicaid; Marketplace; health policy; health insurance; continuity of coverage; vulnerable populations.

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INTRODUCTION

The Affordable Care Act (ACA) dramatically reduced the uninsured rate through two insurance programs: the expansion of Medicaid to all non-elderly adults with household incomes below 138% of the federal poverty level and the creation of the

state-based Health Insurance Marketplaces, which offer subsidized coverage to non-elderly adults with incomes between 138 and 400% of the poverty level. In states that expanded Medicaid, adults whose household incomes fluctuate across this 138% percent income cutoff may experience frequent changes in eligibility for the ACA's insurance programs. While the ACA coverage expansions have led to unprecedented gains in insurance enrollment, this "patchwork" approach to broadening coverage may have also created the potential for enrollees to experience "churning" between Medicaid and subsidized Marketplace insurance. ¹

Prior to the passage of the ACA, several studies projected that large numbers of individuals would move between Medicaid and Marketplace insurance due to the use of income-based eligibility cutoffs. ²⁻⁴ One pre-ACA study estimated that 28 million people per year would transition between Medicaid and Marketplace insurance under the ACA. ³ Some experts were concerned that the cutoff was too low: one pre-ACA analysis suggested that increasing the cutoff from 138 to 200% of poverty would mitigate the insurance churning problem, because household incomes became more stable at higher income levels. ⁵

Stability of health insurance coverage is a concern for patients and policymakers, as disruptions in coverage are associated with adverse health outcomes including delays in care, increased used of the emergency room, and decreased adherence to prescription medication. Such adverse outcomes have been observed not only when the disruptions result in a gap in coverage, but also in cases when an individual transitions from one insurance type to another. Coverage disruptions have been a persistent problem in Medicaid, and the associated administrative burden increases costs for states, health care providers, and Medicaid managed care organizations.

Although prior work has shown that the Medicaid expansion decreased churning amongst those with incomes below the 138% cutoff, ^{13,14} no post-ACA studies have examined the extent of churning between Medicaid and Marketplace insurance, nor has the effect of the 138% FPL income cutoff on coverage disruptions been examined. Therefore, the objectives of this study were to (1) measure the incidence of transitions between Medicaid and Marketplace coverage among U.S. adults and (2) assess whether the use of an income cutoff at 138% of FPL in expansion states is associated with increased insurance churning.

METHODS

State Policies

The ACA gave states the option to extend Medicaid eligibility to all adults with household incomes below 138% of the FPL. Twenty-five states adopted the expansion by January 1, 2014, while an additional seven states expanded Medicaid before the end of our study period in 2018 (see Appendix Table A). In these states, adults with incomes between 138 and 400% of the FPL are eligible for subsidized Marketplace coverage. In nonexpansion states, subsidized Marketplace coverage is available to individuals with incomes between 100 and 400% of FPL. Income eligibility limits for Medicaid in non-expansion states vary widely across eligibility categories and states; the median income cutoff for Medicaid eligibility for parents is 41% of the FPL. 15 Childless adults are generally not eligible for Medicaid in non-expansion states, although a few nonexpansion states have extended limited eligibility for this group through state demonstrations.¹⁶

Data and Sample

We used the Medical Expenditure Panel Survey (MEPS) for the years 2010–2018. The MEPS is a nationally representative survey of approximately fifteen thousand households per year that contains information on monthly insurance enrollment, including insurance type, and on household income. Information is self-reported by survey participants, and all households are surveyed on five occasions over the course of two and a half years. In our analysis of Medicaid-Marketplace transitions, we examined all non-elderly adults of ages 19–64, regardless of income (N = 91,956) during the post-ACA period (2014–2018).

For our difference-in-differences analysis, we restricted our sample to non-elderly adults who had insurance for at least one month during the year and whose household incomes were between 100 and 200% of the federal poverty level (n =23,546) for all study years (2010–2018). In non-expansion states, adults are eligible for Marketplace insurance subsidies if their household income is above 100% of the FPL. Therefore, adults in non-expansion states comprised the comparison group as they were not subject to the 138% FPL income cutoff. Our non-expansion state group included the nineteen states that had not expanded eligibility for Medicaid by 2018, listed in Appendix A. Expansion states were the twenty-five states and the District of Columbia that had expanded Medicaid programs by January 1, 2014. We excluded the seven states that expanded between January 2014 and December 2018, but performed sensitivity analyses that included these seven states.

Measures

Our first primary outcome, which we examined descriptively, was the annual proportion of adults who transitioned between Medicaid and Marketplace insurance. A transition was defined

as having at least 1 month of Medicaid and of Marketplace coverage in the same year. Our second primary outcome, examined in a difference-in-differences analysis, was the annual proportion of individuals who experienced any coverage disruption. We defined a coverage disruption as moving between major insurance types (Medicaid, Marketplace, or employer-sponsored insurance (ESI)) or becoming uninsured over the course of a 1-year follow-up period. Secondary outcomes of the difference-in-differences analysis included the proportion of individuals who disenrolled from specific insurance types due to switching to a new insurance type or becoming uninsured. We examined disenrollment from Medicaid and ESI. We did not examine disenrollment from Marketplace in the difference-in-differences analysis, as no pre-ACA comparison is available for this insurance type.

Statistical Analysis

In our first analyses, we estimated the proportions of individuals who experienced a transition between Medicaid and Marketplace insurance. In our second analysis, we used a difference-in-difference approach to assess changes in churning rates in expansion versus non-expansion states before and after January 1, 2014. We employed linear probability models to facilitate interpretation of our difference-indifferences estimates.¹⁸ We examined the annual proportion of adults who experienced any coverage disruption, disenrolled from Medicaid, and disenrolled from ESI using the difference-in-differences framework, conditional on having had at least 1 month of insurance in a given year. In adjusted models, we included covariates for age, sex, race, employment status, birth outside of the U.S.A., family size, marital status, disability status (defined as receiving supplemental security income payments), presence of dependents in household, pregnancy status, and whether or not an individual reported a chronic disease, which included respiratory disease, cardiovascular disease, diabetes, joint disease, and cancer.

In a sensitivity analysis, we repeated the difference-in-differences analysis in the population of adults with incomes 100–200% of the FPL, regardless of insurance status (i.e., not conditional on having had insurance for at least 1 month). To explore the impact of restricting our study population to the narrow income range of 100–200% of the FPL, we performed another sensitivity analysis in which we repeated the difference-in-differences analysis in adults with incomes 50–250% of the FPL.

We graphed trends in insurance churning in expansion and non-expansion states during the pre-expansion years from 2010 to 2013. We also implemented "placebo tests" in which we re-estimated our primary difference-in-difference model restricting to pre-expansion years and testing falsified dates of the policy change in 2011, 2012, and 2013. Lastly, we created event studies showing the change in coverage disruption in expansion states vs. non-expansion states over time among adults with incomes 100–200% of the FPL, conditional

on having any insurance. In these figures, the *x*-axis represents time elapsed since the ACA's implementation in 2014. The *y*-axis represents yearly beta coefficients on the interaction between "time-to-policy change" and "Medicaid expansion status of the state of residence" in regressions for which the dependent variable was "coverage disruption." All regressions were performed with SAS, version 9.4, and used survey-based procedures that accounted for the complex sample design and weights in the MEPS. This study was deemed non-human subjects research by the Boston University Institutional Review Board.

RESULTS

For the analysis of Medicaid-Marketplace transitions, our study population included 55,068 non-elderly adults in expansion states and 36,888 non-elderly adults in non-expansion states. In expansion states, an average of 0.7% (SE = 0.05) of adults transitioned between Medicaid and Marketplace insurance per year, representing a weighted average of 785,508 individuals (Table 1). In non-expansion states, an average of 0.25% (SE = 0.04) of adults or 198,429 adults per year transitioned between Medicaid and Marketplace coverage.

In our difference-in-differences analysis, which examined the effect of the 138% FPL cutoff, our study population included 9714 non-elderly adults residing in non-expansion states and 13,832 in expansion states. In the pre-ACA cohort (n = 5997 in expansion states; n = 4288 in non-expansion states), the study subjects were more likely to be Hispanic and Asian in expansion states and more likely to be Black in non-expansion states (Table 2). In expansion states, subjects were less likely to be employed or born in the U.S.A. and more

Table 1 Incidence of Enrollment Switching Between Medicaid and Marketplace Insurance

Switched	enrollment			
	Non-expa	nsion	Expansio	n
Year	Percent (SE)	Weighted frequency (SE)	Percent (SE)	Weighted frequency (SE)
2014	0.12 (0.05)	91,679 (36,774)	0.33 (0.08)	379,035 (93,570)
2015	0.36 (0.11)	277,276 (85,441)	0.57 (0.10)	658,633 (114,477)
2016	0.22 (0.06)	167,566 (46,384)	0.88 (0.13)	1,018,887 (148,438)
2017	0.26 (0.06)	204,445 (44,419)	0.67 (0.09)	769,032 (107,998)
2018	0.31 (0.08)	251,177 (67,353)	0.98 (0.13)	1,101,953 (142,942)
Annual average	0.26 (0.04)	198,429 (65,074)	0.68 (0.05)	785,508 (75,928)

Notes: This analysis includes all non-elderly adults of ages 19–64, regardless of income for the years 2014–2018. Non-expansion states were the nineteen states that had not expanded eligibility for Medicaid by 2018. Expansion states were the thirty-one states and the District of Columbia that expanded Medicaid programs before the end of 2018. Switching enrollment was defined as a transition between Medicaid and Marketplace insurance anytime during a calendar year

likely to receive Supplemental Security Income (SSI), a marker of disability. The sociodemographic differences between our study groups changed only slightly in the post-ACA period compared to the pre-ACA period. The differences between our study groups in racial composition, family size, and birthplace outside the U.S.A. persisted in the post-ACA period, whereas the differences in rates of employment and receipt of SSI across study groups were no longer significant after the ACA.

When examined graphically (Fig. 1), the annual proportion of individuals experiencing coverage disruptions followed a similar trend in expansion and non-expansion state groups during the pre-ACA period, and these trends persisted in the post-implementation period. The proportion of individuals who became disenrolled from Medicaid was consistently higher in the expansion state group compared to the non-expansion state group, both before and after the ACA, but the trends were similar (Fig. 2). Annual rates of Marketplace disenrollment averaged 1% per year in both expansion and non-expansion states in both study groups (Appendix Figure B1). Rates of ESI disenrollment showed no differences in trend with respect to the implementation of the ACA (Appendix Figure B2).

In our difference-in-differences analysis, the proportion of individuals who experienced a coverage disruption was higher during the pre-ACA period in expansion states compared to non-expansion states (18.1% in expansion states vs. 16.3% in non-expansion states) (Table 3). These rates did not change significantly in the post-ACA period. Medicaid disenrollment rates were higher in non-expansion states at baseline (23.5% in expansion states vs. 29.2% in non-expansion states), and disenrollment from Medicaid decreased by 3.6 percentage points in expansion states in the post-ACA period compared to non-expansion states (p = 0.03). In the analysis of ESI disenrollment, rates of transitions out of ESI were similar in both groups prior to the ACA and were relatively unchanged in the post-ACA period. In the sensitivity analysis in which we repeated these three difference-in-differences analyses on a population of adults with incomes 50-250% of the FPL, our results were unchanged (results not shown).

In the sensitivity analysis that including all adults, regardless of insurance status, the implementation of the ACA was not associated with significant changes in annual rates of coverage disruptions; coverage disruptions increased in both expansion and non-expansion states after implementation of the ACA (p = 0.88) (Appendix Table 3). Rates of Medicaid disenrollment did not change in expansion states compared to non-expansion states in the post-ACA period (p = 0.11). Consistent with our primary analysis, we did not identify differences between expansion and non-expansion states in ESI disenrollment before versus after ACA implementation.

Results of the sensitivity analysis, in which we repeated the difference-in-differences including the seven states that expanded after January 2014, were substantively unchanged

Table 2	Characteristics	of the	100-200%	FPL Study	Sample

	Pre-ACA			Post-ACA		
	Non-expansion states	Expansion states	p value	Non-expansion states	Expansion states	p value
Weighted study groups	53,035,219	65,415,080		64,020,968	74,053,496	
Unweighted sample sizes	7521	9511		8054	9732	
Women (%)	53	51.3	0.07	54.2	52.8	0.16
Age (avg)	39.1	38.7	0.25	39.5	39.2	0.84
Hispanic	23.4	32.2	0.02	25.4	32.4	0.01
Black	20.4	12.2	0.0002	22.2	12.1	< 0.0001
Asian	3.1	6.2	< 0.0001	3.5	6.8	< 0.0001
White	51.1	47.7	0.24	45.5	45.5	0.99
Other race	1.8	2.5	0.19	3.4	3.2	0.7152
Married	43.3	42.8	0.75	25.0	24.5	0.7459
Family size (avg)	2.9	3.1	< 0.0001	2.9	3.0	< 0.0001
Born in U.S.A.	68.9	59	< 0.0001	78.3	70.9	0.0001
Employed	67.2	64.7	0.04	66.9	66.3	0.58
Receiving supplemental security income	2	2.7	0.048	1.0	1.2	0.45
Has dependents in home	20.5	20.9	0.56	16.9	16.9	0.99
Pregnant	4.1	4.5	0.36	2.4	2.7	0.51
Chronic disease diagnosis/poor health	20.9	24	0.06	21.8	24.8	0.55

Notes: Non-expansion states were the nineteen states that had not expanded eligibility for Medicaid by 2018, listed in Appendix A. Expansion states were the twenty-five states and the District of Columbia that had expanded Medicaid programs by January 1, 2014. We excluded seven states (Alaska, Indiana, Louisiana, Michigan, Montana, New Hampshire, and Pennsylvania) that expanded Medicaid after January 1, 2014, and before the end of 2018. Groups other than Hispanic are non-Hispanic. Chronic disease diagnosis included individuals with cancer (all types except non-melanoma skin cancer), asthma, emphysema, diabetes, hypertension, arthritis stroke, and heart disease. Poor health was self-reported "poor" or "fair" health Values in bold are significant at p < 0.05

(Appendix Table D). Our placebo analysis did not show evidence of differential pre-ACA trends in rates of coverage disruptions (Appendix Table E). The event studies, which depict graphically the change in coverage disruption in expansion states vs. non-expansion states over time, showed no change in the pattern of cover disruption relative to the implementation of the ACA in 2014 (Appendix Figure F).

DISCUSSION

In this study analyzing nationally representative data, we found evidence that rates of insurance transitions between Medicaid and Marketplace coverage are uncommon and were much lower than pre-ACA predictions. While Medicaid-Marketplace transition rates were higher in Medicaid expansion states compared to non-expansion states, overall less than

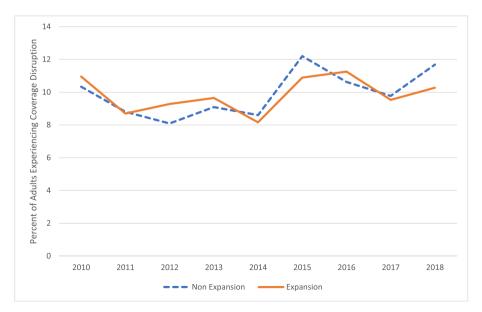


Figure 1 Trends in coverage disruptions before and after the ACA. Notes: A coverage disruption is defined as an event when an individual moves between insurance types (Medicaid, Marketplace, or employer-sponsored insurance (ESI)) or becomes uninsured during a calendar year.

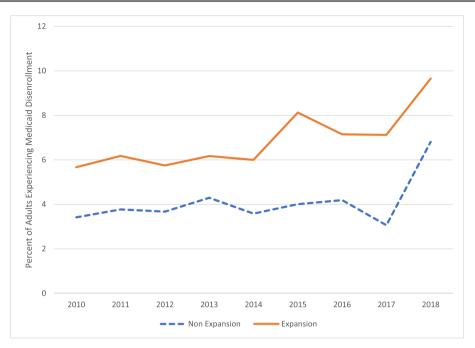


Figure 2 Trends in Medicaid disenrollment before and after the ACA. Notes: Medicaid disenrollment is defined as an event when an individual who had Medicaid in 1 month moves to a new insurance type (Marketplace or employer-sponsored insurance (ESI)) or becomes uninsured in the following month.

1% of the population experienced a transition in both expansion and non-expansion states. Furthermore, our difference-indifferences analysis did not show evidence that the use of a 138% FPL income cutoff between Medicaid and Marketplace eligibility was a driver of coverage disruption among individuals with incomes near the cutoff. Consistent with prior research showing that Medicaid expansion reduced insurance churning in the Medicaid-eligible population, we found that individuals with incomes close to the cutoff living in expansion states had a decreased risk of Medicaid disenrollment in the post-ACA period compared to those living in non-expansion states.

Our finding that the Medicaid-Marketplace transition rate was low, and that ACA's 138% income cutoff did not drive coverage disruptions, contradicts several pre-ACA predictions that the ACA's "patchwork" approach to insurance expansion would have the unintended consequence of creating large increases in insurance churning. ^{2,3} Several factors may have attenuated the impact of the 138% FPL income cutoff on coverage disruptions. First, it is possible that individual's incomes may have fluctuated less in the post-ACA period than predicted. However, this explanation is unlikely as post-ACA survey data shows that income volatility, defined as an income change of 25% or more, has affected one third of American households during the post-ACA period and is more common among lower-income families. ¹⁹

Other explanatory factors include the broadening of the income range (up to 138% of poverty) within which Medicaid-enrolled adults' incomes could fluctuate before losing eligibility. This may have decreased the likelihood of Medicaid loss. Increased outreach efforts may have improved

retention for both Medicaid and Marketplace plans. Additionally, the ACA created several regulations that ease the impact of income fluctuations on coverage disruption. ACA rules prevent states from requiring individuals to submit redetermination applications for Medicaid enrollment more often than once every 12 months.²⁰ States are directed to use internal sources of income data, such as data from the Supplemental Nutrition Assistance Program (SNAP), to make determinations about Medicaid renewal before contacting individuals. States may disenroll individuals if loss of eligibility due to income rise is detected through internal sources of income data, but the state must first contact the individual to request additional information. 15 Although little evidence is available on the degree of individual states' implementation of these regulations, these rules may have been effective in mitigating the potentially adverse consequences of the ACA's 138% FPL income cutoff.

Our study finds that just under 1 million adults per year experienced a transition between Medicaid and Marketplace insurance. Although this figure is low compared with pre-ACA predictions, it still represents a non-trivial number of individuals. Additional policies may smooth transitions among those whose income fluctuations trigger changes in insurance eligibility. Raising the income cutoff to 200% of the poverty level may reduce coverage switching between Medicaid and Marketplace by up to 4%.⁵ The introduction of a public option with broad eligibility to those in Marketplace and Medicaid could also improve continuity of coverage^{21,22} by enabling individuals to stay enrolled in the public option continuously rather than transition between Medicaid and Marketplace coverage as their incomes fluctuate. However,

Table 3 Difference-in-Differences Analysis of Coverage Disruptions and Disenrollment

	Pre- ACA	Pre- Post- ACA ACA	Within-group difference	Pre- Post-	Post- ACA	Within- group difference	Unadjusted Difference in Differences	95% confidence interval	Adjusted Difference in Diffwrenches	95% confidence interval
	Non-exp	ansion states		Expansion	ı states					
Any disruption in	16.3	16.3	3.1	18.1 18.9	18.9	8.0	-2.3	9.0	-2.1	0.7
coverage (%)								5.1		4.9
Medicaid disenrollment	29.2	27.2	- 2.0	23.5	17.9	- 5.6	- 3.6	1	- 3.6	1
_* (%)								7.0 0.3		6.8 0.4
ESI disenrollment (%) [‡]	15.4	17.4	2.0	15.3	17.0	1.6	- 0.4	- 3.3	0.1	- 3.5
								4.1		3.6

constitute the period before implementation of the Affordable Care Act (pre-ACA), while the years 2014–2018 constitute the post-ACA period. Expansion and non-expansion states are defined in the text and foreign birthplace, employment, and receipt of Supplemental Security Income. All models used survey weighting and accounted for the complex survey design of MEPS The years 2010-2013 presence of dependents in household, family incomes between 100 and 200% of the federal poverty level who had insurance for at least 1 month during the year. pregnancy, This analysis was limited to those who had at least 1 diagnosis with a chronic condition, described in greater detail in

those who had at least 1 month of employer-sponsored insurance enrollment during the calendar year to those who had Values in bold are significant at p < 0.05This analysis was This analysis was

increasing eligibility limits for the Medicaid expansion population or introducing a public option would represent an increase in federal and state spending. The median per capita annual expenditures for the Medicaid expansion population was \$6709 in 2019,²³ while data from 2015 found that the administrative cost of one cycle of churn ranged from approximately \$460 to \$700 per enrollee (accounting for inflation).²⁴ Policymakers must weigh these trade-offs between increased cost vs. better access to health care when considering policies to reduce churning. Medicaid 12-month continuous eligibility policies, which allow enrollees to maintain coverage for a year coverage regardless of income changes, may decrease Medicaid churning among non-elderly adults by 30% according to a 2015 analysis.²⁵ Twelve-month continuous eligibility policies may prove to have benefits in terms of cost-effectiveness as prior work has shown that average monthly Medicaid costs fall the longer a beneficiary is enrolled within the year.²⁶

Our analysis has several limitations. We assessed our primary outcomes of coverage transitions and disruptions as an annual measure. A 1-year follow-up period may fail to capture those who had a coverage disruption over longer time periods; however, several previous studies have used 1-year follow-up periods to produce valid estimates of insurance churning. 13,14 With regard to the difference-in-difference analysis, we assessed income as a percentage of FPL once annually, whereas incomes may fluctuate within the year. This may have resulted in including some enrollees in our 100-200% FPL study sample whose incomes fluctuated out of this range during the year and were therefore were less likely to be exposed to the cutoff. Additionally, we conducted this analysis in a narrow income band, but those outside of the 100-200% FPL range may also have experienced income fluctuations that resulted in eligibility changes. Thus, our findings may not be generalizable to the entire income distribution affected by ACA coverage expansions. However, the sensitivity analysis in which we expanded the income band to 50-250% yielded nearly identical results. Another limitation of our study is that insurance type is self-reported. However, previous validation studies have demonstrated that MEPS respondents report their insurance type accurately in a large majority of cases: reporting of enrollment Medicaid and private insurance was found to be 82%^{27,28} and 97%²⁹ accurate, respectively. Finally, it is possible that changes in our sample composition over the course of the study period as more individuals gain insurance could bias our findings. However, the differences in sociodemographic characteristics between study groups remained largely consistent in the pre- vs. post-ACA period (Table 2), making compositional change unlikely to explain our findings.

In conclusion, we found low rates of insurance churning between Medicaid and Marketplace coverage, with an average of 984,000 adults per year, across all 50 states, transitioning between Medicaid and Marketplace plans. We further found that the introduction of a 138% FPL insurance eligibility cutoff between Medicaid and Marketplace coverage options did not substantively contribute to insurance churning in expansion states among those most likely to be exposed to the cutoff.

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Corresponding Author: Anna L. Goldman, MD, MPA, MPH; Section of General Internal Medicine, Boston University School of Medicine, Boston, MA, USA (e-mail: Anna.Goldman@bmc.org).

Declarations:

Disclosures: Sarah Gordon is a senior advisor on health policy in the Office of the Assistant Secretary for Planning and Evaluation at the Department of Health and Human Services. However, this article was conceived and drafted while Dr. Gordon was employed at Boston University, and the findings and views in this article do not reflect the official views or policy of the Department of Health and Human Services.

Conflict of Interest: The authors report no conflicts of interest.

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