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**Who Enrolls in Coverage and Who Remains Uninsured?
Medicaid Take-Up Before and After the Affordable Care Act and During Unwinding**

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Policy Points

- The Affordable Care Act (ACA) dramatically expanded Medicaid eligibility in participating states. However, many eligible individuals remain uninsured because they do not enroll in (or “take-up”) coverage. The unwinding of the pandemic continuous enrollment provision in 2023-2024 further raised the importance of this issue.
- After the ACA, we find a significant increase in Medicaid take-up among eligible individuals across all eligibility pathways; these gains persisted into 2023, which coincided with the beginning of the unwinding. However, important vulnerabilities in enrollment are still apparent, including a steep drop-off in take-up when children become young adults, and persistent lower take-up among childless adults and residents of non-expansion states.
- These findings can guide policies in the post-pandemic post-ACA era, and suggest that efforts to reduce outreach or scale back the ACA will threaten coverage for many Medicaid beneficiaries.

Abstract

Context

Many uninsured individuals in the U.S. are eligible for Medicaid but not enrolled. The Affordable Care Act (ACA) expanded Medicaid eligibility starting in 2014, streamlined enrollment, and boosted outreach. During the 2020 COVID-19 pandemic, states were required to provide continuous coverage to Medicaid enrollees, a policy that ended in April 2023, with resulting coverage losses during the “unwinding” of this policy.

Methods

Using household data from the American Community Survey and state-level eligibility criteria, we assessed Medicaid participation among U.S. citizens under age 65, who either had Medicaid coverage or no insurance. We compared results before the ACA (2008-2010), after the ACA (2017-2019), and during “unwinding” (2023). We utilized logistic regression to identify predictors of take-up in each of these time periods.

Findings

The national take-up rate among Medicaid-eligible individuals rose from 76.5% before the ACA to 85.0% after the ACA. These gains persisted in 2023 as unwinding began, when take-up was slightly higher (86.5%) than before the pandemic. Post-ACA participation was highest among eligible children; Asian American, Pacific Islander, and Native Hawaiian (AANHPI) and Black individuals; and residents of expansion states. Participation was lowest among adults ages 19-21, American Indian and Alaska Native (AIAN) individuals, employed adults, and those facing premiums for Medicaid coverage. Take-up improved post-ACA in both more and less deprived neighborhoods, while urban areas saw greater growth in take-up than rural areas.

Conclusions

From the pre- to post-ACA period, Medicaid take-up rates among eligible individuals increased, and these gains persisted during the beginning of the unwinding period, potentially reflecting increased outreach efforts under the Biden Administration. However, areas of vulnerability remain among young adults, working adults, AIAN individuals, and those in rural areas. These findings have important implications as the unwinding period ends and large changes to Medicaid may be considered after the 2024 elections.

INTRODUCTION

Millions of people in the U.S. who lack health insurance are potentially eligible for Medicaid but not enrolled.⁽¹⁾ This is problematic as expansion of health insurance has been found to improve health, reduce mortality (2-4), boost educational outcomes (5), and increase earnings (6). In addition, research has found important health implications of being continuously insured. Gaps in coverage are associated with decreased preventive visits and medication adherence (7, 8), as well as increased emergency department use and worse self-reported health (7). There is increasing policy interest, therefore, in ensuring that Medicaid-eligible individuals get enrolled and stay enrolled.

The Affordable Care Act (ACA) attempted to address both concerns by streamlining enrollment and retention in addition to dramatically expanding Medicaid eligibility in participating states starting in 2014. Between 2014 and 2025, 41 states (including D.C.) have opted in to expansion in a staggered fashion. At the same time, other pro-enrollment policies were occurring such as the launch of Marketplaces in 2014, and many would-be Medicaid beneficiaries may have initially come into contact with enrollment opportunities based on outreach for the Marketplaces or ACA more broadly. In 2020, when the COVID-19 public health crisis began, Congress enacted the Families First Coronavirus Response Act (9), which required states to pause verification of eligibility for the Medicaid and the Children’s Health Insurance Program (CHIP). In April 2023, this continuous enrollment provision came to an end, leading to the “unwinding” period in 2023-2024 as states resumed eligibility redeterminations. While the ACA sought to decrease uninsurance rates by expanding eligibility and reducing administrative barriers to access, the unwinding period appears to have had the opposite impact. More than 25

million people lost Medicaid coverage, with the majority losing coverage for procedural, rather than loss of eligibility reasons.(10, 11)

Research conducted before the ACA found that 63% of eligible adults without other insurance were enrolled in Medicaid, meaning more than a third of this group was uninsured.(12) Meanwhile, pre-ACA take-up rates for children were significantly higher, with an estimated 85% of eligible children without alternative coverage enrolled in Medicaid or CHIP.(13) Both groups exhibited wide variation in take-up rates across states. Prior to the ACA, a nationwide study of households at or below 250% of the federal poverty level (FPL) explored why households eligible for Medicaid/CHIP without other insurance were not enrolled in the program. Findings showed that top barriers to enrollment included the perception that enrollment was a difficult process and incorrectly believing that one was ineligible for the program, as well as uncertainty about where to apply or get information.(14) The ACA included a variety of provisions to address such barriers, such as creating a single streamlined application that can be accessed online and removing in-person interview requirements.(15)

Numerous studies have examined the coverage effects of the ACA Medicaid expansion, mostly by comparing coverage among low-income adults in expansion vs. non-expansion states.(16-21) Some studies have also shown that the ACA was effective in boosting coverage rates in Medicaid even among those previously eligible – a phenomenon that has been called “the welcome mat effect.”(22, 23) However, the literature lacks a broad population-level analysis of take-up rates among eligible populations comparing pre- vs. post-ACA, which can demonstrate the degree to which the ACA and state efforts have succeeded in boosting participation among eligible individuals. Moreover, while multiple recent studies have focused on groups that have lost coverage during the unwinding period (24-27), there has been no

analysis comparing how overall take-up rates during unwinding compare to those from prior to the pandemic. Identifying predictors of coverage – or conversely, of being uninsured despite Medicaid eligibility – can help with future outreach efforts and place the effects of unwinding in the broader context of a decade-long set of policies affecting Medicaid participation.

This study seeks to understand how a decade of policy changes under the ACA affected Medicaid participation, and whether pandemic-era changes, including the unwinding of pandemic continuous enrollment provision starting in 2023, modified the ACA effects. Analyzing recent patterns in Medicaid participation is particularly important as policymakers consider changes that could lead to lower participation, such as work requirements and more frequent eligibility redeterminations (28). In addition, understanding the impact of policies such as premiums in Medicaid and CHIP, as well the effect of Medicaid expansion itself on previously eligible individuals, can shed light on how state policies impact Medicaid participation and how future changes to Medicaid may impact the program.(29)

The objective of our analysis was to present a population-wide comparison, before and after the ACA, as well as during the beginning of the unwinding period, of Medicaid take-up among individuals who are eligible for the program and without any alternative form of health insurance. We hypothesize that ACA changes increased overall enrollment rates among eligible individuals, while the unwinding period may have reduced some of these benefits. To test this, we examined patterns of take-up by age group and eligibility pathway, as well as by geographic and demographic predictors. Understanding the geographic and demographic patterns of take-up among individuals eligible for Medicaid or the Children’s Health Insurance Program (CHIP) can guide future outreach efforts to highlight eligible individuals who may be least likely to take up Medicaid. This study therefore identifies groups at risk for remaining uninsured both after the

implementation of the ACA and during unwinding, offering a nuanced picture of where and for whom outreach efforts may be falling short.

METHODS

Overview

We first present a descriptive analysis of Medicaid take-up nationally and by state before and after the passage of the ACA and during unwinding, among eligible U.S. residents ages 0-64 years. Our sample contains only eligible individuals with Medicaid (alone or in combination with other insurance, such as private or Medicare) or individuals who are uninsured despite being Medicaid eligible; this approach, similar to prior research (13), focuses on take-up patterns where the consequence of not enrolling is going without coverage.

To do this, we created a subsample of households from the American Community Survey (ACS) eligible for Medicaid based on eligibility criteria documented by state-level surveys from the Kaiser Family Foundation (KFF). We include the state-level eligibility criteria for each year within our analysis. The pre-ACA period includes data from 2008-2010, the post-ACA period includes data from 2017-2019, and the unwinding period includes data from 2023 (the most recent year of ACS data available for this analysis). Our data from 2023 only capture the first 8 months of unwinding, which began in April 2023, though some states did not resume redeterminations until the summer. We excluded data from 2020-2022, since this coincided with the COVID-19 pandemic's continuous coverage provision which produced major – but likely temporary – changes in Medicaid participation rates.(27, 30, 31)

We then use logistic regression analysis to compare estimates of predictors of take-up during our time periods of interest (2008-2010, 2017-2019, and 2023). We focus on a variety of

demographic and geographic predictors, such as income, schooling, rurality, and neighborhood deprivation, as well as state policies including Medicaid expansion and premiums for Medicaid/CHIP coverage. An expanded justification of the inclusion of these variables can be found in our conceptual model following the description of our statistical analysis.

Data

Our primary data source was the ACS, for the pre- and post-ACA years of interest (2008-2010 and 2017-2019) and the beginning of the unwinding period (2023). We created state-based eligibility criteria where each person's eligibility was year dependent using state-level survey reports from the KFF (32, 33). Expansion status is also year dependent, so that if a state expanded between 2013 and 2019, for example, we accounted for the expansion starting in 2019.

We coded eligibility criteria for four pathways: children (ages 0-18), adults with a self-reported disability (regardless of whether they received any disability-related income), parents of dependent children, and adults without a disability and no dependent children in the home (consistent with prior literature, we refer to this group as “childless adults,” though in fact many may be parents without dependent children). Prior to the ACA, while childless adults were largely excluded from Medicaid coverage, a handful of states extended coverage to this group via 1115 waivers. The ACA then formally expanded Medicaid eligibility to childless adults as well as those who previously had incomes too high to qualify in their states. Of the 10 states that have yet to adopt ACA expansion, Wisconsin is the only one with a pathway to coverage for childless adults through the continuation of their 1115 waiver program. Wisconsin is therefore the sole state whose data is included in the non-expansion take-up rates for childless adults. Following prior research comparing take-up pre and post-ACA by eligibility pathway (12), we include take-up rate among childless adults within these waiver states in the pre-ACA period.

We treated the four pathways to eligibility mentioned above as mutually exclusive (with disability status taking priority over parental status when both criteria were present). Our sample included individuals who met eligibility criteria for either Medicaid or CHIP; for brevity below, we generally use “Medicaid” to refer to both programs. The sample contained all eligible U.S. citizens ages 0-64 who were either uninsured or reported having Medicaid/CHIP either alone or in conjunction with other insurance. Noncitizens were excluded from the primary analysis, following prior research,(12) since the ACS does not have information on documentation status needed to identify eligibility for non-citizens; however, we present a sensitivity analysis examining take-up rates among non-citizens as well.

For each pathway, individuals were deemed eligible if they met the family income criteria (based on the health insurance unit [HIU]) as a percentage of the FPL, based on their age, self-reported disability, parental status, and work status. Our overall approach generally followed the methods in a previous analysis of Medicaid take-up prior to the ACA,(12) but using the ACS instead of the Current Population Survey, due to the former’s much larger sample size and ability to examine within-state geographic factors.

Statistical Analysis

Our primary outcome was the percentage of eligible individuals (excluding those who were otherwise covered via exclusively non-Medicaid insurance) who were enrolled in Medicaid. We assessed national average participation rates for each of the three time periods followed by an examination of patterns of take-up by state and age. To identify predictors of take-up, we used a multivariate logistic regression model using the following demographic and geographic variables: age, race and ethnicity, sex, education, income, employment, marital status, having a non-citizen and/or non-English speaking family member, having another family

member also eligible for Medicaid (based on prior research showing family coverage patterns affect enrollment behavior (34, 35)), quartile of percent of the area population identified as living in an urban vs. rural residence,(36) quartile of the Neighborhood Deprivation Index (NDI), and monthly premium for Medicaid/CHIP (if applicable).(37) Area-level factors were based on the public-use microdata area (PUMA) designation within the ACS. Data on premiums come from KFF survey reports.(32) All statistical analyses use ACS person-level survey weights. Standard errors are clustered at the HIU level. To assess the potential for collinearity among predictors, we include a univariate model in the appendix (Table 1). The overall similarity of the results in the univariate model compared to our main model suggests that collinearity or confounding are not driving most of our results.

Conceptual Model

Following prior work on Medicaid take-up (34), we conceptualize eligible individuals and families enrolling or not enrolling in Medicaid based on a comparison of the costs associated with Medicaid enrollment (or renewal) on the one hand versus the benefits associated with health insurance on the other. Costs include premiums, when applicable, as well as the opportunity cost and administrative challenges of enrolling – which includes whether a person is even aware of their likely eligibility. Therefore, when predicting the likelihood of Medicaid take-up, we include variables that affect the perceived value of Medicaid or affect barriers to enrollment. We theorize that as the perceived value of Medicaid decreases and as barriers to enrollment increase, eligible individuals will be less likely to enroll in Medicaid.

Characteristics such as age and categories of eligibility are likely to impact one's perception of the benefits of enrollment. For example, groups more likely to interact with the healthcare system, such as older adults, individuals with disabilities, or individuals with other

family members also eligible for Medicaid, may place heightened value on the benefits of enrolling in health insurance. Similarly, we include variables that impact the direct cost of enrollment (e.g. premiums) and real or perceived barriers to enrollment. Access to services and health care resources are more limited in rural and deprived neighborhoods, which may increase the cost of enrollment. Working adults may see a greater opportunity cost of missing work to complete enrollment requirements. Education, immigration status, English proficiency, and race/ethnicity may impact familiarity with enrollment procedures and awareness of eligibility, which impact the perceived costs of enrollment, as well as one’s trust in the healthcare system, which may affect the perceived value of coverage. Please see Appendix Figure 1 for a complete description of each variable’s direction of influence.

RESULTS

Sample Characteristics

Table 1 shows sample characteristics before and after the ACA to illustrate changes in patterns of eligibility. From the pre- to post-ACA period, the percentage of childless adults within our eligibility sample increased from 5.2% to 19.2%, consistent with the ACA’s major expansion of eligibility to this group. There was also an increase in the share of the sample with higher educational attainment and higher incomes (reflecting the ACA expansion’s more generous income eligibility criteria), as well as an increase in the percentage of the sample that was female and of child-bearing age (10.7% to 13.0%). Eligibility changes between 2019 and 2023 were much smaller than between 2010 and 2019; accordingly, demographics for the 2023 sample are not presented in the table but are available upon request.

[Table 1]

Patterns of Take-Up

Figure 1 shows estimates from before the ACA, after the ACA, and during unwinding for Medicaid take-up rates among four main eligibility groups: children (0-18), adults with disabilities (19-64), parents of dependent children (19-64), and adults (19-64) without a disability or dependent children (“childless adults”). Figure 2 shows this same breakdown by state expansion status. Overall, take-up rates increased substantially after the passage of the ACA in all eligibility pathways and in both expansion and non-expansion states; increases in take-up were most pronounced for parents and childless adults. The highest take-up rates were among children (at 82.5% and 91.5% pre- and post-ACA, respectively), then adults with disabilities and parents, while childless adults had the lowest take-up rates. However, take-up rates among eligible childless adults experienced the largest increase after the ACA, increasing by 28 percentage points. Take-up rates during the first year of unwinding were largely similar to the post-ACA period, with take-up stable for children (91.5% compared to 91.8%, $p < 0.001$), and increasing by 3 to 4 percentage points ($p < 0.001$) for other eligibility pathways (Figure 1).

[Figure 1]

As a sensitivity analysis (Appendix Figure 2), we excluded those with any other forms of coverage in addition to Medicaid. With this additional specification, take-up rates are slightly lower across all periods (74.1%, 83.2%, and 84.7% in the pre-ACA, post-ACA, and unwinding periods, respectively). By eligibility group, this difference ranged from 1 to 5 percentage points, with the largest changes for those with disabilities. However, the overall trend in take-up rates over time remained the same, even with this exclusion.

Figure 2 shows that while take-up generally increased after the ACA, participation rates were substantially higher in expansion states than non-expansion states, both before and after the ACA. Again, during the unwinding, modest gains in take-up for adults occurred in both expansion and non-expansion states.

[Figure 2]

Figure 3 shows variation in Medicaid take-up rates by age, focusing on the immediate pre- and post-ACA periods (for clarity, we did not include the unwinding estimates in this figure, which were fairly similar to the post-ACA estimates). Take-up was highest among infants (over 90%) and then gradually declined during childhood, before dropping dramatically (by roughly 20 percentage points) between ages 18 and 20. Among adults, the participation rate then increased with age, though never surpassing the levels seen in early childhood. After the ACA take-up rates increased for all ages, and the steep drop-off in take-up among young adults persisted but narrowed somewhat.

[Figure 3]

By state, take-up in the post-ACA period was highest in the Northeast (Exhibit 4), with a peak of 93.6% in Massachusetts. Conversely, the lowest rates of take-up appear across the Midwest Plains states and the Southwest, as well as in Alaska. The lowest state-level take-up rate post-ACA was 69.6% in North Dakota.

[Figure 4]

Predictors of Take-Up

Table 2 presents demographic and area-level predictors of Medicaid take-up in each of the three study periods. The strongest predictor of take-up across all three periods was the children eligibility category, with children being significantly more likely to enroll than disabled adults, parents, or childless adults. Also across all time periods, Asian American, Native Hawaiian, and Pacific Islander (AANHPI) and Black non-Hispanic individuals had higher take-up rates than Hispanic and White non-Hispanic individuals, while American Indian and Alaska Native (AI/AN) individuals had much lower take-up rates.

[Table 2]

Participation was higher among women of childbearing age and those living in more urban areas (particularly post-ACA). Income was also a significant predictor, with eligible individuals between 51% and 100% of the federal poverty level (FPL) most likely to enroll; notably, people with zero or negative income were much less likely to enroll, which may reflect that such individuals are often not truly low-income but may be in school and therefore with no income, or be reporting business losses that lead to negative income. Working adults were significantly less likely to enroll than non-working individuals.

Despite most demographic predictors having similar associations with take-up before and after the ACA, education changed over time: pre-ACA, college graduates were less likely to take up Medicaid than those who did not complete high school, while post-ACA, they were more likely, presumably due to with the ACA expansion expanding eligibility to higher income groups and broadening outreach. This trend of increasing likelihood of take-up among college graduates continued into the unwinding period.

We found that individuals with multiple family members eligible for Medicaid were more likely to enroll, consistent with prior evidence on household patterns of coverage.(34, 35) Meanwhile, individuals with non-citizen family members were less likely to enroll, a phenomenon previously described as the “chilling effect” of immigration-related concerns on program participation.(38, 39) In a sensitivity analysis focusing on the pre- and post-ACA time periods where our model included non-citizens who appear eligible based on income (but not necessarily by immigration status) and adjusted for length of time living in the U.S., we found that non-citizens were far less likely to enroll in Medicaid, with adjusted take-up rates roughly 20 to 30 percentage points lower than citizens, depending on the timeframe and duration of residence in the U.S. (Appendix Table 2). The remaining results for this expanded sample were quite similar to those described for our primary, citizens-only sample.

We also examined the role of Medicaid/CHIP premiums in the probability of take-up, finding that requiring *any* premium for coverage significantly decreased the likelihood of enrollment, by seven to ten percentage points depending on the size of the premium and the time period. Consistent with prior research, we generally found that the presence or absence of any premium was a stronger predictor of coverage than the actual premium amount.(40)

In terms of geography, across the pre- and post-ACA periods, take-up was significantly higher in neighborhoods with higher neighborhood deprivation scores, meaning higher Medicaid participation rates in poorer more deprived areas. In the unwinding period, this relationship became weaker and was only significant for the most deprived areas. Take-up was lower in rural areas than in urban areas, a pattern that was exacerbated somewhat after the ACA. Finally, living in an ACA expansion state was associated with a greater probability of Medicaid take-up even before the ACA, which likely reflects pro-coverage policies and outreach conducted in those

states; the take-up advantage in expansion states increased further post-ACA and has remained high in the unwinding period.

In an additional sensitivity analysis (Appendix Table 3), we stratified our sample by eligibility group to allow for differential impacts on Medicaid coverage. We include results across all models for the Post-ACA (2017-2019) period. When compared to our main model, there are some slight differences across groups. For example, level of education was not a significant predictor within the sample of disabled adults. Additionally, expansion status was associated differentially with take-up across eligibility groups differently, with the strongest association with take-up among disabled adults (OR: 4.25 [4.08, 4.42]).

DISCUSSION

In this national study of Medicaid enrollment among eligible populations without alternative coverage, we identify three key findings.

First, since the passage of the ACA, rates of Medicaid take-up have increased significantly across all eligibility groups, with major increases also evident for most population subgroups and in both expansion and non-expansion states. This suggests that the streamlining of application processes, expansion of eligibility, and increased outreach under the ACA all contributed to higher participation rates among eligible populations.

Second, despite the large number of disenrollments that occurred starting in spring 2023 under the unwinding of the COVID-19 continuous coverage provision,(41) overall take-up rates in 2023 remained equal to or even higher than they were in 2019. There are several potential explanations for this. Since we are only looking at 2023, we are not capturing the full impact of unwinding policies, as there was staggered implementation of disenrollment efforts across states

(42). Additionally, as we are using self-reported enrollment, there are likely discrepancies between those who believe they are covered and those who are actually covered (43, 44). These results may also reflect in part the multiple policy changes that occurred between 2019 and 2023, such as major increases in coverage-related outreach under the Biden Administration compared to the Trump Administration(45) and blocking state demonstration programs that can reduce coverage such as work requirements in Medicaid.(46) Additionally, while 36 of the current 41 expansion states (including DC) had adopted the ACA expansion by 2019, 5 states adopted between 2020 and the beginning of 2023 (ID, MO, NE, SD, UT). Changes occurring in these states after expansion are going to be occurring at the same time as unwinding takes hold. Thus, despite the unwinding process that began in 2023, the overall policy environment appears to have been more favorable towards increasing coverage than during the 2017-2019 study period. With the recent 2024 election bringing President Trump back to office, it will be critical to continue to monitor these trends.

Third, even with the gains in coverage over the past decade, there remains substantial variation in Medicaid take-up among eligible populations, based on demographic and state-level factors. The rise in Medicaid take-up rates after the ACA was largest among childless adults in particular; however, this group still has lower take-up than pre-expansion eligible adults, consistent with prior research.(21, 23) The dramatic changes in the composition of this population post-ACA also undoubtedly contribute to the large change in take-up post-ACA. Children consistently had the highest rates of take-up across all three time periods – exceeding 90% in recent years, as documented previously(47) – despite the negative relationship we observed between take-up and premiums, which are largely concentrated in the CHIP program. The transition to adulthood, however, is a high-risk period, with a sharp drop-off in Medicaid

participation at age 19 even among those who remain eligible. The ACA helped reduce this drop-off, but further outreach efforts may be needed to facilitate transferring beneficiaries from the child eligibility pathway to parental or expansion pathways.

Our results indicate some of the key demographic, geographic, and economic characteristics that matter most when it comes to enrollment. For example, working eligible adults were consistently less likely than non-working eligible adults to enroll, even though our sample consists only of individuals without alternative coverage. This group may be especially vulnerable to procedural disenrollments, as their work schedules may make it harder to contact for coverage renewal or they may mistakenly assume they are not eligible for Medicaid; since work requirements also focus on this population, that may raise even further concerns that such policies could lead to larger Medicaid coverage losses (48, 49). We also find that eligible individuals within rural areas were less likely to enroll than their urban counterparts, and this gap widened after the ACA's implementation. Future outreach to rural areas to boost enrollment may be needed, though the finding that areas with higher deprivation have higher participation rates indicates that Medicaid enrollment can be strong even in underserved areas.

Additionally, we found disparities in likelihood of enrollment between AIAN individuals and the rest of the Medicaid population. Contrary to many other coverage disparities, however, we found that among eligible Black and Hispanic individuals, Medicaid participation rates were equal to or exceeded participation among White individuals. Ongoing targeted outreach efforts conducted by the federal government in recent years may build on coverage gains in these populations,(50, 51) but additional efforts are needed to close gaps among AIAN populations.

Finally, we find that state of residence remains a critical determinant of Medicaid take-up rates. Consistent with previous research, we found wide variation in Medicaid participation

across states,(52) even after directly accounting for eligibility in our sample. In fact, the gap between the highest and lowest performing states was nearly 23 percentage points – much greater than the variation based on most of the individual factors (other than age and citizenship) in our study. This points to the fact that state policies not only determine who is eligible, but also who among that population actually signs up for and remains in coverage, which in part may reflect implementation details like outreach and data infrastructure for eligibility verification (53). Future research – including making further use of the policy variation in effect during the Medicaid unwinding, as well as recent policy changes extending 12-months of continuous eligibility to all children in the U.S. and to postpartum individuals in participating states – can help clarify which policies can be most impactful to improving enrollment and retention.

Key limitations in our study included that coverage outcomes were self-reported, and previous research shows that some individuals with Medicaid report being uninsured or, more often, that they have private insurance,(54) and this “undercount” of Medicaid worsened during the pandemic.(44, 55) Our dataset also did not allow us to precisely identify eligibility related to immigration status or disability (since the latter is only self-reported and may not align with the medical criteria used to determine Medicaid eligibility), and did not allow us to examine pregnancy-related eligibility. Our analysis of the unwinding period was limited to the first year of unwinding, since 2024 ACS data are not yet available. Finally, annualized income as reported in the ACS is an imperfect measure of monthly income used by states to determine Medicaid eligibility.

CONCLUSION

The ACA – which expanded Medicaid and streamlined application and renewal procedures for the program – significantly increased participation rates in the program, in both

expansion and non-expansion states and across eligibility groups. These positive changes in Medicaid take-up persisted even during the first year of unwinding in 2023. Nonetheless, many eligible individuals remain uninsured, particularly young adults, childless adults, and people living in non-expansion states. Future efforts should aim to increase coverage in these groups, but reductions in outreach, increased use of premiums, or a rollback of ACA provisions could threaten the past decade's gains in coverage for millions of Medicaid enrollees.

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TABLES AND FIGURES

Table 1: Demographic Characteristics of the Sample of US Citizens (0-64) Eligible for Medicaid, Before and After the Affordable Care Act

	Pre-ACA (2008-2010)	Post-ACA (2017-2019)
Eligibility Category		
<i>Childless adult</i>	5.2%	19.2%
<i>Children 0-18</i>	69.7%	59.6%
<i>Adult with disabilities</i>	15.1%	12.2%
<i>Parent</i>	10.1%	9.0%
Education		
<i>College graduate</i>	6.2%	9.4%
<i>High school graduate</i>	58.5%	61.7%
<i>Did not complete high school</i>	23.7%	18.4%
<i>Other</i>	11.7%	10.4%
Work Status		
<i>Non-working Adult</i>	32.2%	32.4%
<i>Working Adult</i>	56.1%	57.2%
<i>Other</i>	11.7%	10.4%
Age		
<i>0-5</i>	22.9%	17.2%
<i>6-12</i>	25.2%	22.8%
<i>13-18</i>	18.4%	17.1%
<i>19-24</i>	7.7%	8.4%
<i>25-30</i>	5.5%	7.6%
<i>31-40</i>	6.9%	9.7%
<i>41-50</i>	6.5%	6.9%
<i>51-64</i>	6.8%	10.4%
Race/Ethnicity		
<i>AANHPI^a NH^p</i>	2.5%	3.2%
<i>Black NH</i>	22.7%	20.9%
<i>Hispanic</i>	28.4%	29.7%
<i>AI/AN^z NH</i>	1.5%	1.5%
<i>Other NH</i>	3.6%	4.3%
<i>White NH</i>	41.4%	40.3%
Female	51.7%	50.7%
Female of Childbearing Age	10.7%	13.0%
Rurality		
<i>Least rural</i>	16.4%	26.4%
<i>Below average rural</i>	18.4%	23.7%
<i>Above average rural</i>	29.7%	25.1%
<i>Most rural</i>	35.5%	24.9%
Neighborhood Deprivation Index (NDI)		
<i>Least deprivation</i>	16.2%	17.1%
<i>Below average deprivation</i>	23.4%	23.4%
<i>Above average deprivation</i>	31.7%	26.2%
<i>Most deprivation</i>	28.7%	33.4%

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Married	21.2%	18.6%
Federal Poverty Level (FPL)		
<i>0 or negative FPL</i>	13.8%	16.5%
<i>1-50% FPL</i>	25.5%	21.0%
<i>51-100% FPL</i>	30.2%	28.0%
<i>101-138% FPL</i>	13.8%	16.7%
<i>>138% FPL</i>	16.7%	17.8%
Premium		
<i>Mean premium amount</i>	\$11.40	\$13.30
<i>Percent subject to a premium</i>	14.40%	10.90%

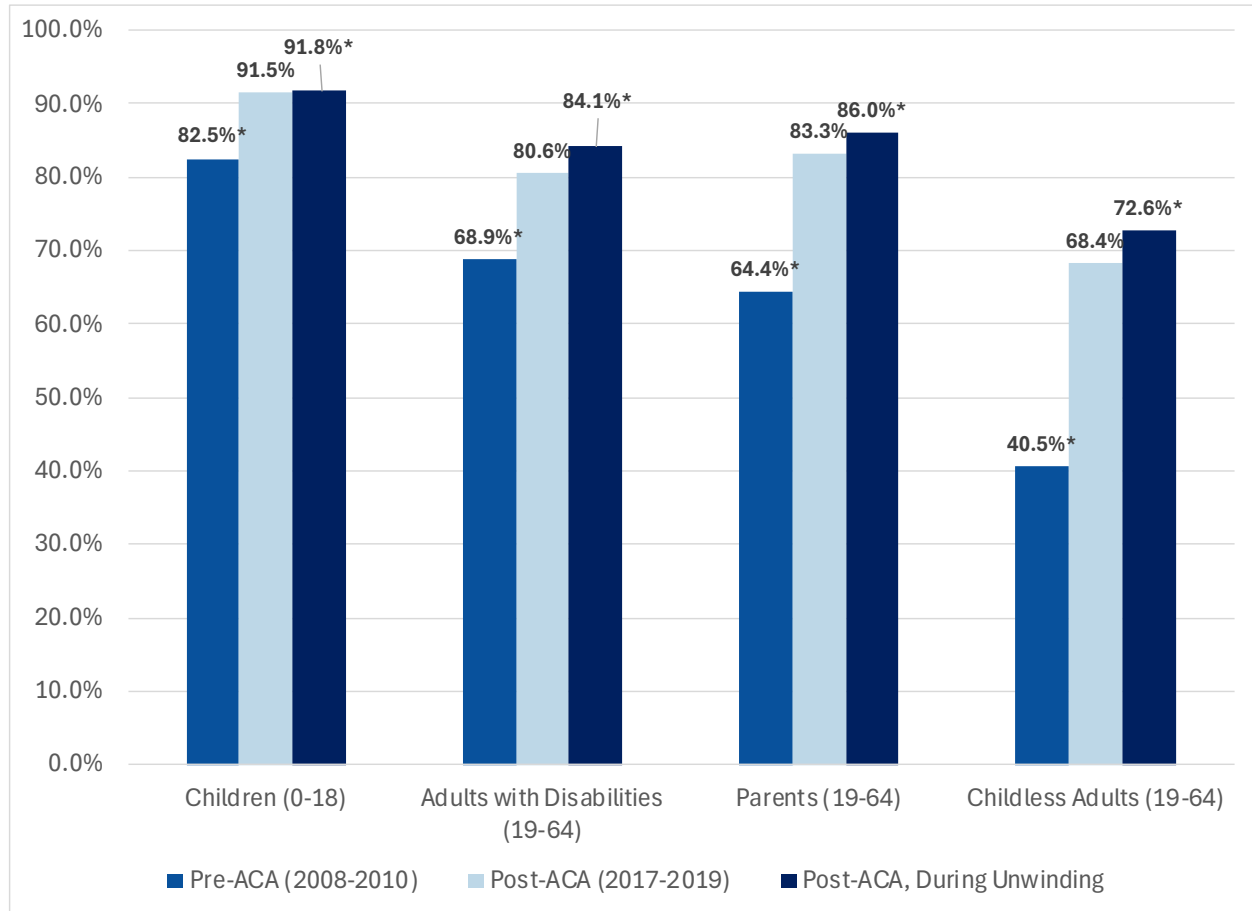
Note: ρ Non-Hispanic

α Asian American and Native Hawaiian/Pacific Islander

χ American Indian and Alaska Native

ACA = “Affordable Care Act”

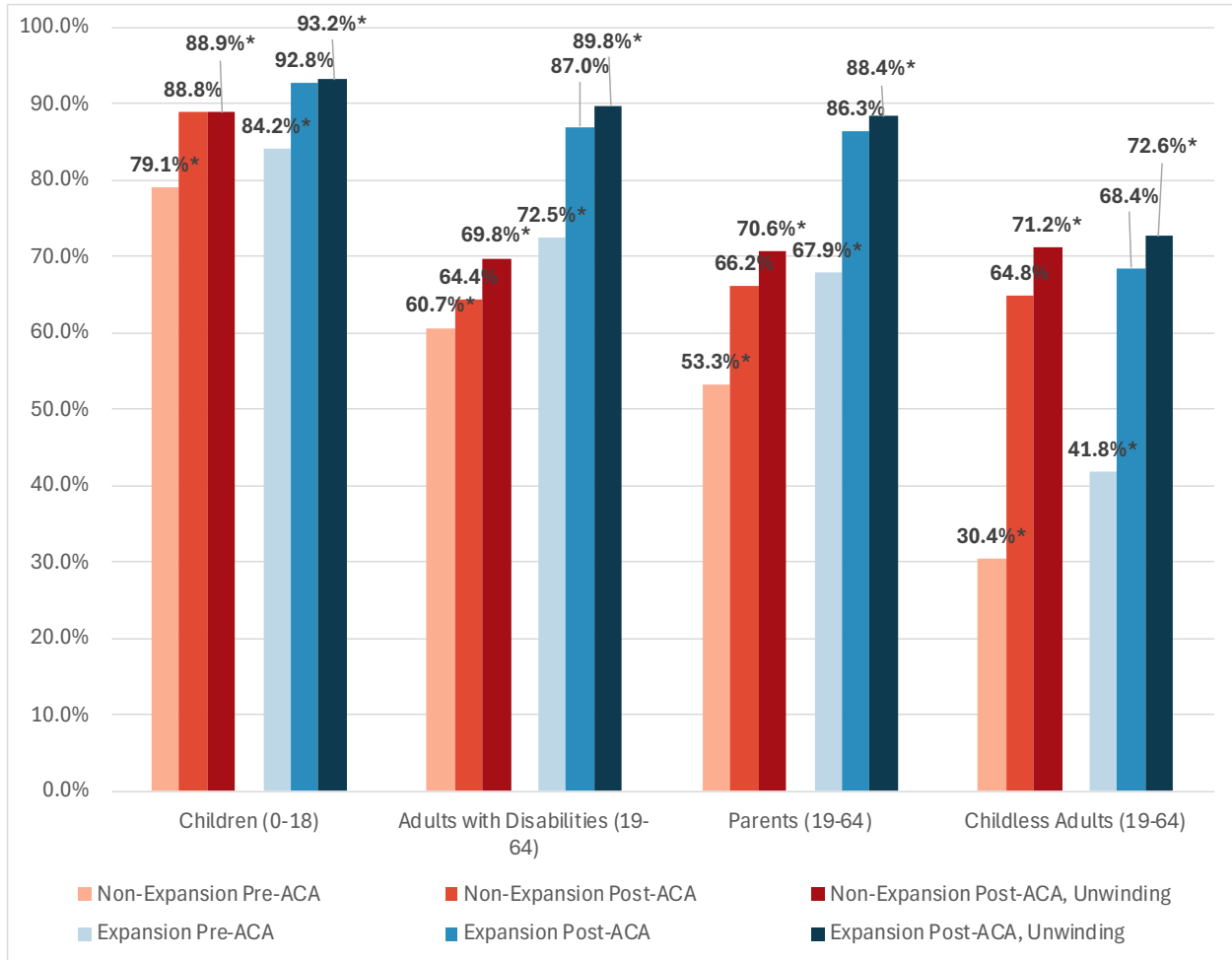
Figure 1: Medicaid Take-up Among US Citizens (0-64) Without Other Insurance, Before and After the Affordable Care Act and During Unwinding



Notes: ACA = “Affordable Care Act.” Figure created using ACS yearly microdata and KFF eligibility surveys and has a sample size of 2,556,743.

* p<0.001 from reference years post-ACA (2017-2019)

Figure 2: Medicaid Take-up by Expansion Status, Among US Citizens (0-64) Without Other Insurance, Before and After the Affordable Care Act and During Unwinding

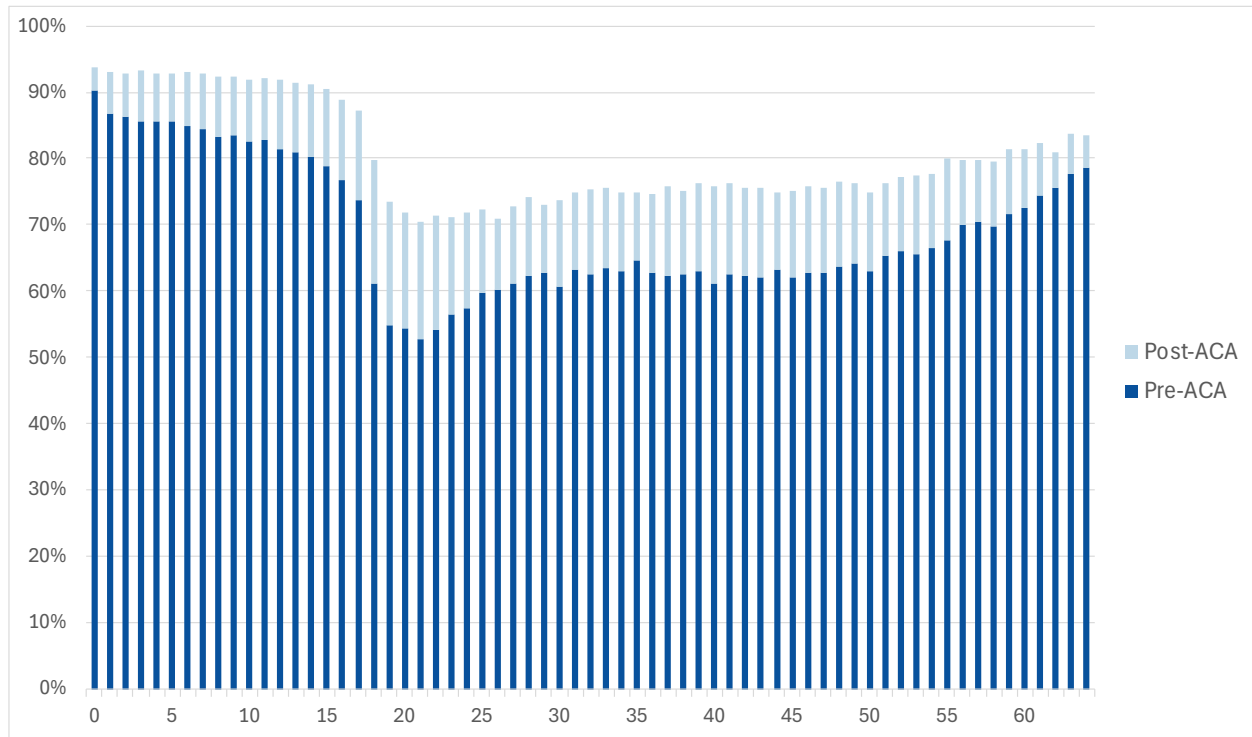


Note: ACA = “Affordable Care Act.” Figure created using ACS yearly microdata and KFF eligibility surveys and has a sample size of 2,556,743.

The only state that has not expanded its Medicaid program but provides coverage to childless adults through a waiver is Wisconsin. The data from this state alone are included in the childless adults post-expansion take-up percentage. Both Georgia and North Carolina are coded as non-expansion states in 2023 as Georgia’s July expansion was partial, and North Carolina’s expansion did not take place until the end of 2023.

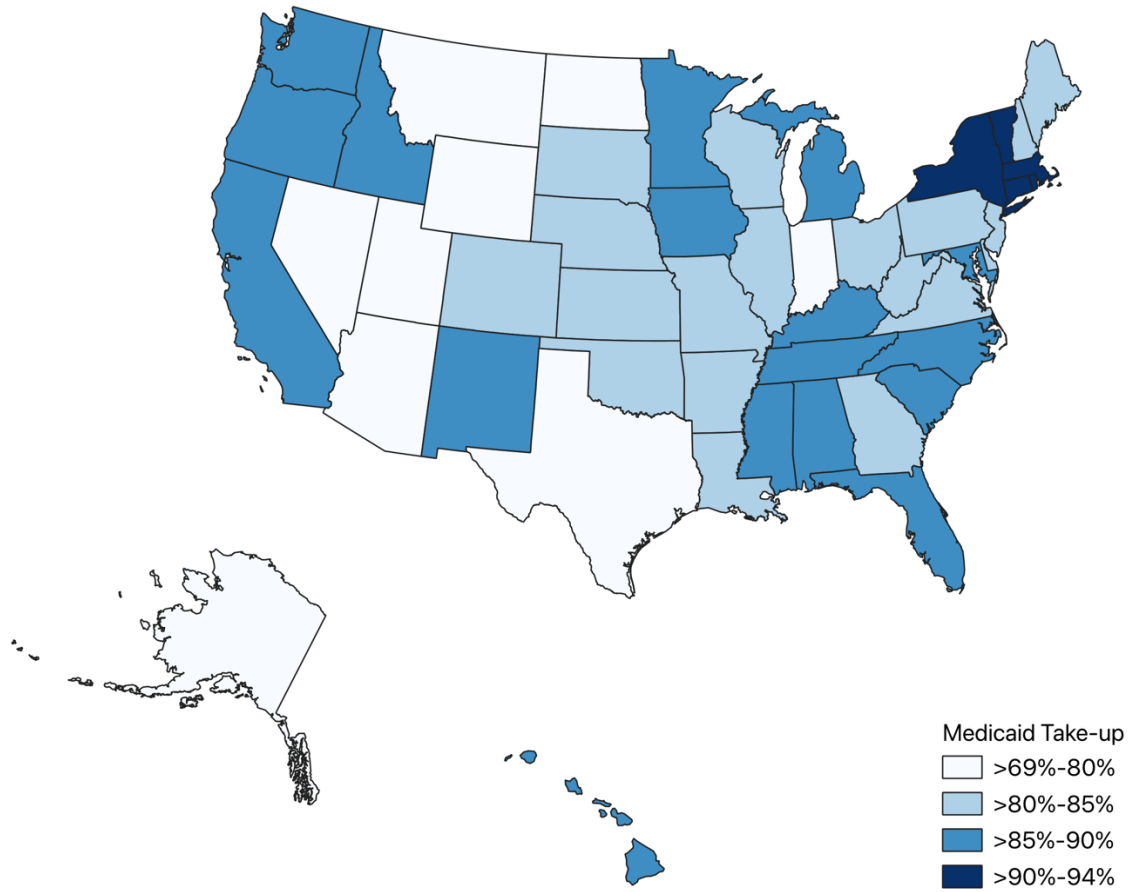
* $p < 0.001$ from reference years post-ACA (2017-2019)

Figure 3: Medicaid Take-Up Rates Among US Citizens (0-64) Without Other Insurance by Age, Before and After the Affordable Care Act (ACA)



Note: ACA = “Affordable Care Act.” Figure created using ACS yearly microdata and KFF eligibility surveys and has a sample size of 2,164,180.

Figure 4: Medicaid Take-Up Rates Among U.S. Citizens (0-64) Without Other Insurance, 2017-2019, By State



Note: Figure created using ACS yearly microdata and KFF eligibility surveys and has a sample size of 1,205,588.

Table 2: Individual Characteristics Associated with Medicaid Take-Up Among US Citizens (0-64) Without Other Insurance, Before and After the Affordable Care Act and During Unwinding

	Pre-ACA (2008-2010)		Post-ACA (2017-2019)		Post-ACA, During Unwinding	
	Odds Ratio [CI ^ϕ]	Predicted Probability	Odds Ratio [CI ^ϕ]	Predicted Probability	Odds Ratio [CI ^ϕ]	Predicted Probability
Eligibility Category						
<i>Children</i>	1.00	84.5%	1.00	93.7%	1.00	93.7%
<i>Childless adult</i>	0.13 [0.12, 0.14]	46.5%	0.10 [0.09, 0.1]	63.0%	0.11 [0.1, 0.12]	65.0%
<i>Adult with disabilities</i>	0.29 [0.28, 0.31]	63.7%	0.17 [0.16, 0.18]	73.9%	0.2 [0.18, 0.23]	76.7%
<i>Parent</i>	0.26 [0.25, 0.27]	61.1%	0.18 [0.17, 0.19]	74.9%	0.22 [0.2, 0.24]	78.0%
Education						
<i>College graduate</i>	0.89 [0.85, 0.93]	74.2%	1.13 [1.09, 1.17]	84.5%	1.22 [1.12, 1.31]	85.4%
<i>High school graduate</i>	1.04 [1.02, 1.07]	76.7%	1.19 [1.16, 1.22]	85.1%	1.4 [1.32, 1.47]	86.9%
<i>Did not complete high school</i>	1.00	76.1%	1.00	83.0%	1.00	83.0%
<i>Working adult</i>	0.26 [0.25, 0.26]	68.0%	0.32 [0.31, 0.32]	78.4%	0.36 [0.34, 0.38]	80.5%
<i>Age (per 10 years)</i>	0.93 [0.92, 0.94]	-	1.04 [1.03, 1.05]	-	1.06 [1.04, 1.08]	-
Race/Ethnicity						
<i>White NH^p</i>	1.00	75.1%	1.00	84.2%	1.00	85.4%
<i>AANHPI^a NH</i>	1.16 [1.08, 1.24]	77.3%	1.28 [1.22, 1.35]	86.9%	1.25 [1.12, 1.39]	87.7%
<i>Black NH</i>	1.40 [1.36, 1.44]	80.0%	1.21 [1.18, 1.25]	86.4%	1.24 [1.17, 1.31]	87.7%
<i>Hispanic</i>	1.04 [1.01, 1.07]	75.7%	0.98 [0.95, 1.00]	84.0%	0.99 [0.94, 1.04]	85.3%
<i>AI/AN^z NH</i>	0.54 [0.50, 0.58]	64.1%	0.53 [0.5, 0.56]	75.6%	0.68 [0.6, 0.78]	80.7%

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<i>Other NH</i>	1.26 [1.20, 1.34]	78.6%	1.13 [1.08, 1.19]	85.6%	1.29 [1.19, 1.4]	88.0%
Sex/Reproductive Age						
<i>Male</i>	1.00	74.7%	1.00	82.8%	1.00	84.3%
<i>Female non-Childbearing Age</i>	1.13 [1.11, 1.15]	76.6%	1.23 [1.2, 1.25]	85.1%	1.2 [1.16, 1.24]	86.4%
<i>Female of Childbearing Age</i>	1.44 [1.40, 1.48]	80.1%	1.65 [1.61, 1.69]	88.1%	1.63 [1.55, 1.71]	89.3%
Marital Status						
<i>Not Married</i>	1.00	76.5%	1.00	85.4%	1.00	86.2%
<i>Married</i>	0.87 [0.84, 0.90]	74.3%	0.84 [0.82, 0.87]	82.8%	0.79 [0.75, 0.84]	83.6%
Neighborhood Deprivation Index (NDI)						
<i>Least deprivation</i>	1.00	74.9%	1.00	83.4%	1.00	85.8%
<i>Below average deprivation</i>	1.05 [1.011, 1.082]	75.7%	1.08 [1.04, 1.11]	84.3%	0.95 [0.89, 1.01]	85.3%
<i>Above average deprivation</i>	1.13 [1.09, 1.17]	76.8%	1.14 [1.1, 1.17]	84.9%	1.01 [0.95, 1.08]	86.0%
<i>Most deprivation</i>	1.15 [1.11, 1.19]	77.1%	1.16 [1.13, 1.2]	85.2%	1.08 [1.01, 1.15]	86.7%
Rurality						
<i>Least rural (most urban)</i>	1.00	76.7%	1.00	85.6%	1.00	86.5%
<i>Below average rural</i>	0.95 [0.91, 0.98]	75.9%	0.99 [0.97, 1.02]	85.6%	0.97 [0.91, 1.04]	86.2%
<i>Above average rural</i>	1.00 [0.97, 1.04]	76.7%	0.93 [0.9, 0.95]	84.8%	0.98 [0.92, 1.05]	86.3%
<i>Most rural</i>	0.97 [0.93, 0.99]	76.1%	0.76 [0.74, 0.79]	82.5%	0.86 [0.81, 0.92]	84.9%
Non-citizen household member	0.75 [0.72, 0.78]	72.3%	0.81 [0.77, 0.85]	82.4%	0.89 [0.81, 0.98]	84.9%
At least one member of the household speaks limited English	1.12 [1.07, 1.17]	77.9%	1.08 [1.02, 1.14]	85.4%	0.98 [0.88, 1.09]	85.7%

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Other household member(s) also Medicaid-eligible	1.37 [1.33, 1.42]	77.8%	1.52 [1.47, 1.58]	86.9%	1.52 [1.41, 1.64]	88.0%
Household size	0.99 [0.97, 1.00]	-	0.94 [0.93, 0.95]	-	0.9 [0.88, 0.93]	-
Federal Poverty Level (FPL) Categories						
<i>0 or negative</i>	0.22 [0.21, 0.22]	47.7%	0.27 [0.26, 0.28]	70.2%	0.29 [0.27, 0.31]	70.6%
<i>1-50% FPL</i>	1.00	78.4%	1.00	86.9%	1.00	88.2%
<i>51-100% FPL</i>	1.47 [1.43, 1.51]	83.1%	1.40 [1.36, 1.44]	89.9%	1.33 [1.25, 1.42]	90.7%
<i>101-138% FPL</i>	1.17 [1.13, 1.22]	80.0%	1.07 [1.04, 1.11]	87.4%	1.07 [1, 1.16]	88.9%
<i>>138% FPL</i>	0.97 [0.93, 1.01]	77.1%	0.80 [0.76, 0.84]	84.3%	0.82 [0.74, 0.91]	86.1%
Medicaid Premium						
<i>No premium</i>	1.00	77.2%	1.00	85.1%	1.00	86.3%
<i>\$1-\$8.3 per month</i>	0.66 [0.63, 0.70]	70.7%	0.68 [0.64, 0.73]	80.4%	0.7 [0.62, 0.8]	82.2%
<i>\$8.3-\$25 per month</i>	0.67 [0.63, 0.70]	70.7%	0.72 [0.68, 0.77]	81.2%	0.98 [0.86, 1.11]	86.1%
<i>\$25+ per month</i>	0.57 [0.53, 0.61]	67.9%	0.62 [0.59, 0.66]	79.2%	0.76 [0.68, 0.85]	83.1%
Expansion Status						
<i>Non-expansion state</i>	1.00	71.0%	1.00	76.3%	1.00	78.7%
<i>Expansion state</i>	1.63 [1.60, 1.66]	78.7%	2.27 [2.21, 2.34]	86.5%	2.2 [2.08, 2.33]	88.0%

Note: Premium amounts are based totals of \$100/year (\$8.3/month) and \$300/year (\$25/month).

φ Confidence intervals at the 95th percentile

ρ Non-Hispanic

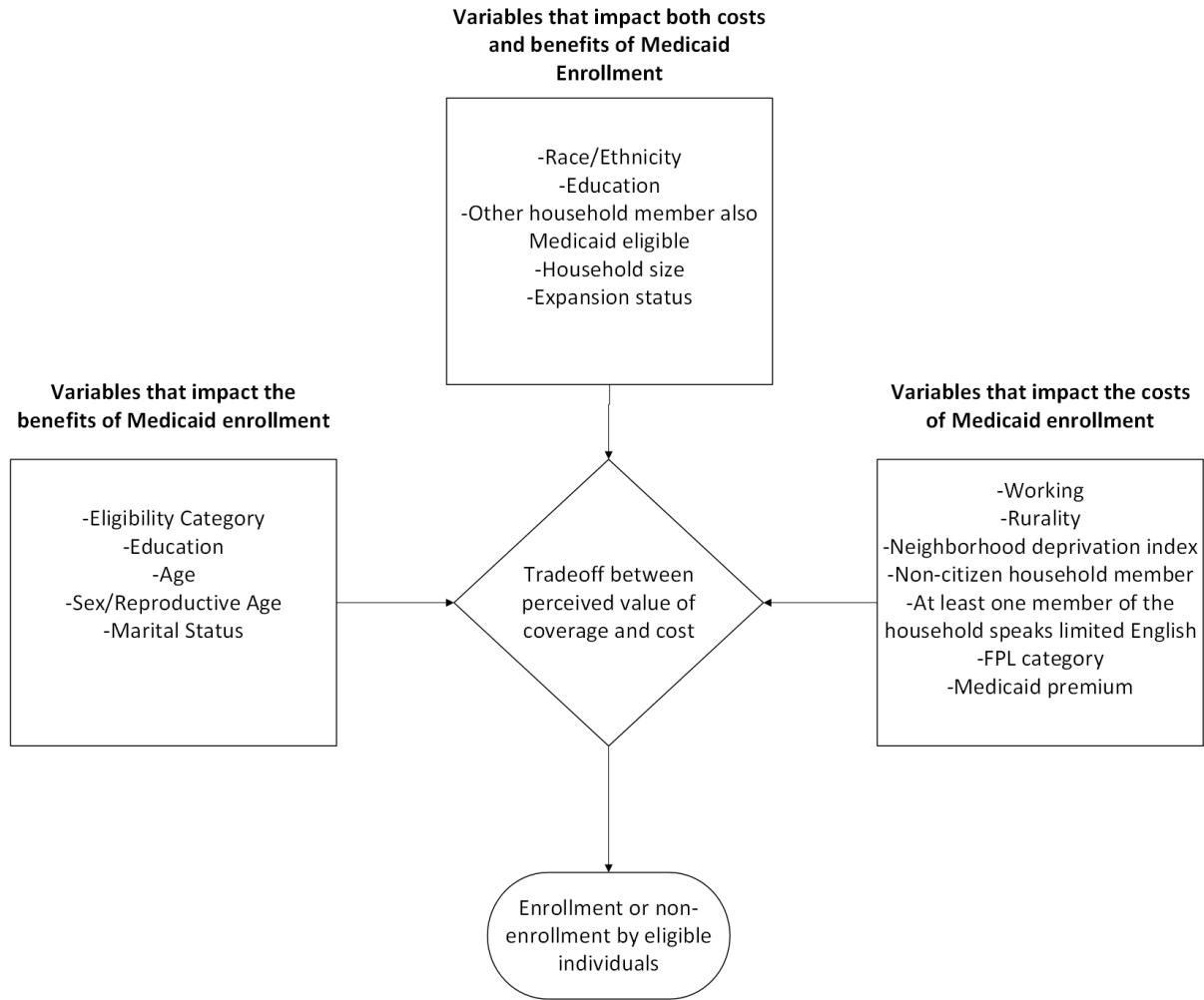
α Asian American and Native Hawaiian/Pacific Islander

χ American Indian and Alaska Native

ACA = “Affordable Care Act”

APPENDIX

Figure 1: Conceptual Model of Variables Impacting Enrollment or Non-Enrollment by Eligible Individuals



Appendix Table 1: Comparison of Univariate to Multivariate Models Assessing Individual Characteristics Associated with Medicaid Take-Up Among US Residents (0-64) by Eligibility Category, Without Other Insurance, After the Affordable Care Act

	Univariate		Multivariate	
	Post-ACA (2017-2019)		Post-ACA (2017-2019)	
	Odds Ratio [CI ^ϕ]	Predicted Probability	Odds Ratio [CI ^ϕ]	Predicted Probability
Eligibility Category				
<i>Children</i>	1.00	91.5%	1.00	93.7%
<i>Childless adult</i>	0.20 [0.20, 0.21]	68.4%	0.10 [0.09, 0.1]	63.0%
<i>Adult with disabilities</i>	0.39 [0.39, 0.40]	80.6%	0.17 [0.16, 0.18]	73.9%
<i>Parent</i>	0.46 [0.45, 0.48]	83.3%	0.18 [0.17, 0.19]	74.9%
Education				
<i>College graduate</i>	1.16 [1.12, 1.19]	85.0%	1.13 [1.09, 1.17]	84.5%
<i>High school graduate</i>	1.15 [1.13, 1.18]	85.0%	1.19 [1.16, 1.22]	85.1%
<i>Did not complete high school</i>	1.00	83.1%	1.00	83.0%
Working adult	1.30 [1.28, 1.33]	85.9%	0.32 [0.31, 0.32]	78.4%
Age (per 10 years)	0.78 [0.78, 0.78]	-	1.04 [1.03, 1.05]	-
Race/Ethnicity				
<i>White NHP</i>	1.00	82.9%	1.00	84.2%
<i>AANHPI^α NH</i>	1.30 [1.24, 1.36]	86.3%	1.28 [1.22, 1.35]	86.9%
<i>Black NH</i>	1.33 [1.30, 1.36]	86.6%	1.21 [1.18, 1.25]	86.4%
<i>Hispanic</i>	1.34 [1.31, 1.36]	86.6%	0.98 [0.95, 1.00]	84.0%
<i>AI/AN^z NH</i>	0.58 [0.55, 0.61]	73.6%	0.53 [0.5, 0.56]	75.6%
<i>Other NH</i>	1.56 [1.50, 1.63]	88.3%	1.13 [1.08, 1.19]	85.6%
Sex/Reproductive Age				
<i>Male</i>	1.00	82.7%	1.00	82.8%
<i>Female non-Childbearing Age</i>	1.79 [1.76, 1.82]	89.5%	1.23 [1.2, 1.25]	85.1%
<i>Female of Childbearing Age</i>	0.87 [0.85, 0.88]	80.5%	1.65 [1.61, 1.69]	88.1%
Marital Status				
<i>Not Married</i>	1.00	85.5%	1.00	85.4%
<i>Married</i>	0.63 [0.62, 0.65]	78.8%	0.84 [0.82, 0.87]	82.8%
Neighborhood Deprivation Index (NDI)				
<i>Least deprivation</i>	1.00	84.5%	1.00	83.4%
<i>Below average deprivation</i>	1.02 [1.00, 1.05]	84.8%	1.08 [1.04, 1.11]	84.3%

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<i>Above average deprivation</i>	0.97 [0.94, 0.99]	84.0%	1.14 [1.1, 1.17]	84.9%
<i>Most deprivation</i>	1.14 [1.11, 1.17]	86.1%	1.16 [1.13, 1.2]	85.2%
Rurality				
<i>Least rural (most urban)</i>	1.00	86.4%	1.00	85.6%
<i>Below average rural</i>	0.96 [0.93, 0.98]	85.9%	0.99 [0.97, 1.02]	85.6%
<i>Above average rural</i>	0.88 [0.86, 0.90]	84.9%	0.93 [0.9, 0.95]	84.8%
<i>Most rural</i>	0.75 [0.73, 0.77]	82.7%	0.76 [0.74, 0.79]	82.5%
Non-citizen household member	1.62 [1.57, 1.67]	89.7%	0.81 [0.77, 0.85]	82.4%
At least one member of the household speaks limited English	1.53 [1.46, 1.60]	89.2%	1.08 [1.02, 1.14]	85.4%
Other household member(s) also Medicaid-eligible	3.12 [3.07, 3.12]	90.3%	1.52 [1.47, 1.58]	86.9%
Household size	1.34 [1.32, 1.35]	-	0.94 [0.93, 0.95]	-
Federal Poverty Level (FPL) Categories				
<i>0 or negative</i>	0.44 [0.43, 0.45]	72.5%	0.27 [0.26, 0.28]	70.2%
<i>1-50% FPL</i>	1.00	85.7%	1.00	86.9%
<i>51-100% FPL</i>	1.36 [1.32, 1.39]	89.1%	1.40 [1.36, 1.44]	89.9%
<i>101-138% FPL</i>	1.00 [0.97, 1.03]	85.7%	1.07 [1.04, 1.11]	87.4%
<i>>138% FPL</i>	1.29 [1.25, 1.33]	88.6%	0.80 [0.76, 0.84]	84.3%
Medicaid Premium				
<i>No premium</i>	1.00	85.0%	1.00	85.1%
<i>\$1-\$8.3 per month</i>	0.79 [0.75, 0.84]	81.8%	0.68 [0.64, 0.73]	80.4%
<i>\$8.3-\$25 per month</i>	0.90 [0.86, 0.95]	83.7%	0.72 [0.68, 0.77]	81.2%
<i>\$25+ per month</i>	1.15 [1.10, 1.20]	86.7%	0.62 [0.59, 0.66]	79.2%
Expansion Status				
<i>Non-expansion state</i>	1.00	83.9%	1.00	76.3%
<i>Expansion state</i>	1.12 [1.10, 1.14]	85.3%	2.27 [2.21, 2.34]	86.5%

Note: Premium amounts are based totals of \$100/year (\$8.3/month) and \$300/year (\$25/month).

φ Confidence intervals at the 95th percentile

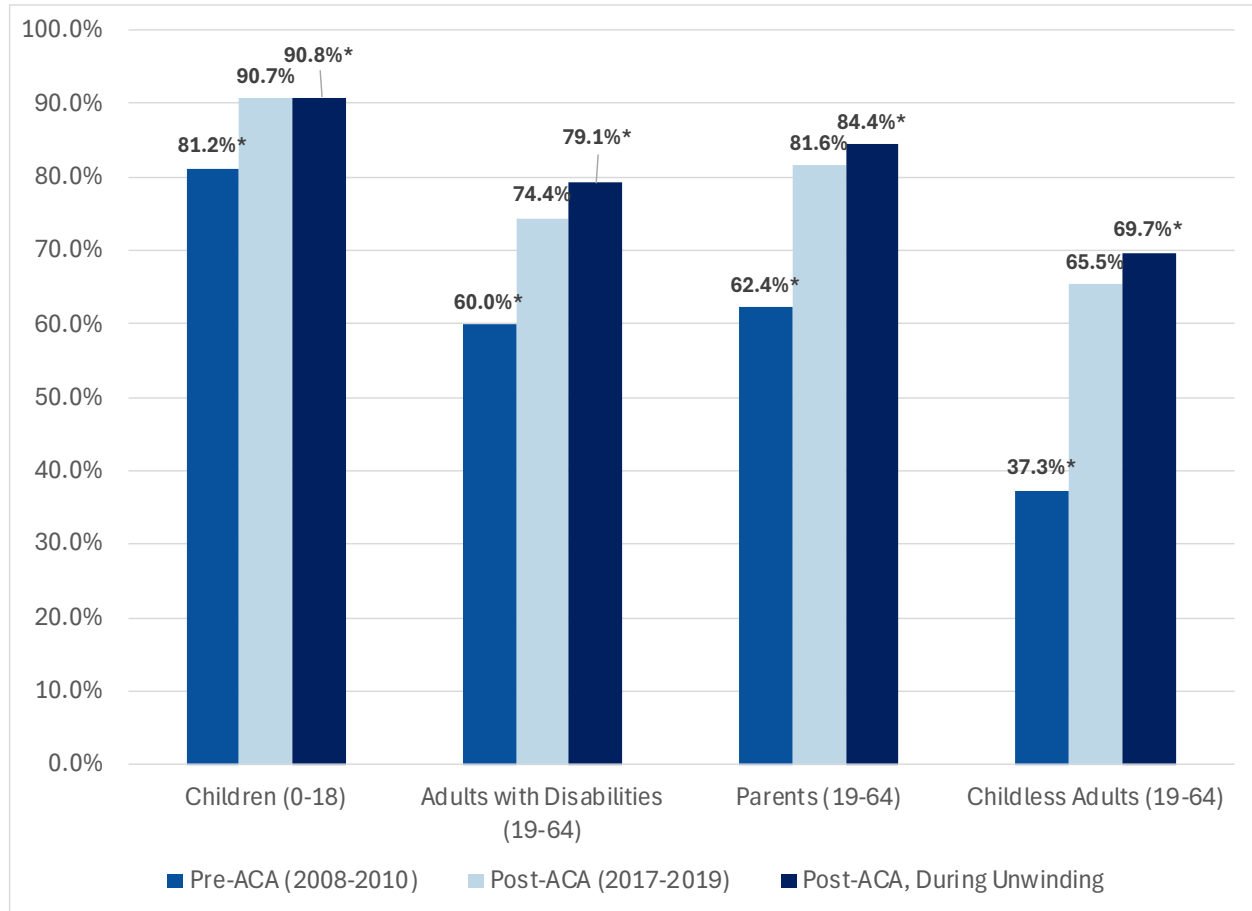
ρ Non-Hispanic

α Asian American and Native Hawaiian/Pacific Islander

χ American Indian and Alaska Native

ACA = “Affordable Care Act”

Appendix Figure 2: Medicaid Only Take-up Among US Citizens (0-64) Without Other Insurance, Before and After the Affordable Care Act and During Unwinding



Notes: ACA = “Affordable Care Act.” Figure created using ACS yearly microdata and KFF eligibility surveys and has a sample size of 2,269,696.

* $p < 0.001$ from reference years post-ACA (2017-2019)

Appendix Table 2: Individual Characteristics Associated with Medicaid Take-Up Among US Residents (0-64) Including Citizens and Noncitizens, Without Other Insurance, Before and After the Affordable Care Act

	Pre-ACA (2008-2010)		Post-ACA (2017-2019)	
	Odds Ratio [<i>CI</i> ^ϕ]	Predicted Probability	Odds Ratio [<i>CI</i> ^ϕ]	Predicted Probability
Eligibility Category				
<i>Children</i>	1.00	81.5%	1.00	92.4%
<i>Childless adult</i>	0.15 [0.14, 0.16]	45.5%	0.1 [0.1, 0.11]	61.4%
<i>Adult with disabilities</i>	0.32 [0.3, 0.33]	61.6%	0.19 [0.18, 0.2]	72.6%
<i>Parent</i>	0.26 [0.25, 0.28]	57.9%	0.16 [0.16, 0.17]	70.0%
Education				
<i>Did not complete high school</i>	1.00	72.5%	1.00	80.2%
<i>College graduate</i>	0.88 [0.84, 0.91]	70.4%	1.06 [1.03, 1.1]	81.0%
<i>High school graduate</i>	1.05 [1.02, 1.07]	73.2%	1.17 [1.15, 1.2]	82.2%
Working adult	0.28 [0.27, 0.29]	65.0%	0.38 [0.37, 0.39]	76.0%
Age (per 10 years)	0.95 [0.94, 0.96]	-	1.07 [1.06, 1.07]	-
Race/Ethnicity				
<i>White NH^p</i>	1.00	71.9%	1.00	81.5%
<i>AANHPI^α NH</i>	1.54 [1.44, 1.64]	78.4%	1.65 [1.58, 1.73]	87.0%
<i>Black NH</i>	1.42 [1.38, 1.45]	77.2%	1.21 [1.18, 1.24]	83.7%
<i>Hispanic</i>	0.92 [0.89, 0.95]	70.5%	0.86 [0.84, 0.89]	79.6%
<i>AI/AN^z NH</i>	0.53 [0.49, 0.57]	60.7%	0.53 [0.5, 0.57]	72.6%
<i>Other NH</i>	1.27 [1.21, 1.35]	75.7%	1.19 [1.13, 1.25]	83.6%
Sex/Reproductive Age				
<i>Male</i>	1.00	71.2%	1.00	79.6%
<i>Female non-Childbearing Age</i>	1.14 [1.13, 1.16]	73.3%	1.23 [1.21, 1.26]	82.2%
<i>Female of Childbearing Age</i>	1.36 [1.33, 1.4]	76.0%	1.58 [1.54, 1.61]	85.0%
Marital Status				
<i>Not Married</i>	1.00	73.1%	1.00	81.8%
<i>Married</i>	0.83 [0.8, 0.85]	70.1%	0.86 [0.84, 0.88]	79.9%
Neighborhood Deprivation Index (NDI)				
<i>Least deprivation</i>	1.00	71.0%	1.00	79.9%
<i>Below average deprivation</i>	1.06 [1.03, 1.1]	72.0%	1.09 [1.06, 1.12]	81.0%
<i>Above average deprivation</i>	1.15 [1.11, 1.19]	73.2%	1.17 [1.14, 1.21]	82.0%
<i>Most deprivation</i>	1.21 [1.17, 1.24]	74.0%	1.22 [1.19, 1.26]	82.4%
Rurality				
<i>Least rural</i>	1.00	73.6%	1.00	83.0%
<i>Below average rural</i>	0.92 [0.89, 0.95]	72.3%	0.96 [0.93, 0.98]	82.5%

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<i>Above average rural</i>	0.97 [0.94, 1]	73.1%	0.89 [0.87, 0.92]	81.6%
<i>Most rural</i>	0.92 [0.89, 0.95]	72.3%	0.71 [0.69, 0.73]	78.7%
At least one member of the household speaks limited English	1.05 [1.01, 1.09]	73.4%	0.96 [0.93, 1]	81.2%
Other household member(s) also Medicaid-eligible	1.39 [1.35, 1.43]	74.2%	1.5 [1.45, 1.55]	83.8%
Citizenship Status				
<i>Citizen with all citizen household</i>	1.00	75.8%	1.00	84.2%
<i>Citizen with noncitizen in household</i>	0.84 [0.81, 0.88]	73.1%	0.91 [0.87, 0.95]	83.0%
<i>Noncitizen for < 5 years</i>	0.21 [0.19, 0.22]	45.3%	0.18 [0.17, 0.19]	55.3%
<i>Noncitizen for > 5 years</i>	0.21 [0.2, 0.22]	46.1%	0.25 [0.24, 0.26]	62.4%
Household size	0.99 [0.98, 1]	-	0.95 [0.94, 0.96]	
Federal Poverty Level (FPL) Categories				
<i>0 or negative</i>	0.23 [0.22, 0.24]	46.2%	0.3 [0.3, 0.31]	65.8%
<i>1-50% FPL</i>	1.00	74.3%	1.00	83.7%
<i>51-100% FPL</i>	1.41 [1.37, 1.45]	79.4%	1.33 [1.3, 1.37]	86.8%
<i>101-138% FPL</i>	1.14 [1.1, 1.19]	76.4%	1.05 [1.02, 1.09]	84.3%
<i>>138% FPL</i>	0.94 [0.91, 0.98]	73.4%	0.83 [0.79, 0.87]	81.5%
Premium Categories				
<i>No premium</i>	1.00	73.6%	1.00	82.0%
<i>\$1-\$8.3 per month</i>	0.69 [0.66, 0.72]	67.4%	0.68 [0.64, 0.73]	77.0%
<i>\$8.3-\$25 per month</i>	0.7 [0.66, 0.73]	67.7%	0.73 [0.69, 0.77]	77.9%
<i>\$25+ per month</i>	0.58 [0.54, 0.62]	64.4%	0.62 [0.59, 0.65]	75.6%
Expansion Status				
<i>Non-expansion state</i>	1.00	66.7%	1.00	72.2%
<i>Expansion state</i>	1.71 [1.67, 1.74]	75.4%	2.35 [2.29, 2.41]	83.6%

Note: Premium amounts are based totals of \$100/year (\$8.3/month) and \$300/year (\$25/month).

φ Confidence intervals at the 95th percentile

ρ Non-Hispanic

α Asian American and Native Hawaiian/Pacific Islander

χ American Indian and Alaska Native

ACA = “Affordable Care Act”

Appendix Table 3: Individual Characteristics Associated with Medicaid Take-Up Among US Residents (0-64) by Eligibility Category, Without Other Insurance, After the Affordable Care Act

	Main		Children		Childless Adults		Parents		Disabled Adults	
	Post-ACA (2017-2019)		Post-ACA (2017-2019)		Post-ACA (2017-2019)		Post-ACA (2017-2019)		Post-ACA (2017-2019)	
	Odds Ratio [CI ^ϕ]	Pred. Prob.	Odds Ratio [CI ^ϕ]	Pred. Prob.	Odds Ratio [CI ^ϕ]	Pred. Prob.	Odds Ratio [CI ^ϕ]	Pred. Prob.	Odds Ratio [CI ^ϕ]	Pred. Prob.
Eligibility Category										
<i>Children</i>	1.00	93.7%	-	-	-	-	-	-	-	-
<i>Childless adult</i>	0.10 [0.09, 0.1]	63.0%	-	-	-	-	-	-	-	-
<i>Adult with disabilities</i>	0.17 [0.16, 0.18]	73.9%	-	-	-	-	-	-	-	-
<i>Parent</i>	0.18 [0.17, 0.19]	74.9%	-	-	-	-	-	-	-	-
Education										
<i>College graduate</i>	1.13 [1.09, 1.17]	84.5%	1.43 [1.33, 1.54]	92.1%	1.00 [0.95, 1.04]	68.6%	1.14 [1.03, 1.25]	82.9%	0.97 [0.89, 1.06]	80.3%
<i>High school graduate</i>	1.19 [1.16, 1.22]	85.1%	1.62 [1.53, 1.71]	93.0%	0.98 [0.95, 1.01]	68.3%	1.23 [1.16, 1.3]	83.9%	0.99 [0.95, 1.03]	80.5%
<i>Did not complete high school</i>	1.00	83.0%	1.00	89.3%	1.00	68.7%	1.00	81.2%	1.00	80.7%
<i>Working adult</i>	0.32 [0.31, 0.32]	78.4%	0.35 [0.32, 0.38]	91.0%	0.4 [0.39, 0.42]	58.3%	0.74 [0.7, 0.79]	81.6%	0.15 [0.14, 0.16]	58.4%
<i>Age (per 10 years)</i>	1.04 [1.03, 1.05]	-	0.71 [0.69, 0.73]	-	1.08 [1.07, 1.09]	-	1.01 [0.98, 1.05]	-	1.01 [1, 1.03]	-
Race/Ethnicity										
<i>White NHP</i>	1.00	84.2%	1.00	90.7%	1.00	68.4%	1.00	84.1%	1.00	81.1%
<i>AANHPI^α NH</i>	1.28 [1.22, 1.35]	86.9%	1.27 [1.14, 1.42]	92.5%	1.34 [1.26, 1.42]	74.0%	1.44 [1.24, 1.68]	88.1%	1.04 [0.89, 1.22]	81.6%
<i>Black NH</i>	1.21 [1.18, 1.25]	86.4%	1.89 [1.77, 2.02]	94.8%	1.01 [0.98, 1.05]	68.6%	1.13 [1.05, 1.21]	85.5%	1 [0.95, 1.05]	81.1%

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<i>Hispanic</i>	0.98 [0.95, 1.00]	84.0%	1.23 [1.17, 1.3]	92.3%	0.98 [0.94, 1.01]	67.9%	0.71 [0.66, 0.76]	79.3%	0.84 [0.8, 0.9]	79.1%
<i>AI/AN^z NH</i>	0.53 [0.5, 0.56]	75.6%	0.42 [0.37, 0.47]	80.9%	0.65 [0.6, 0.71]	59.2%	0.46 [0.4, 0.53]	72.2%	0.49 [0.43, 0.56]	71.7%
<i>Other NH</i>	1.13 [1.08, 1.19]	85.6%	1.53 [1.4, 1.68]	93.7%	0.98 [0.91, 1.05]	67.9%	1.09 [0.93, 1.27]	85.1%	0.83 [0.74, 0.93]	78.9%
Sex (Child category only)										
<i>Male</i>	-	-	1.02 [0.99, 1.05]	92.2%	-	-	-	-	-	-
<i>Female</i>	-	-	1.00	92.1%	-	-	-	-	-	-
Sex/Reproductive Age										
<i>Male</i>	1.00	82.8%	-	-	1.00	63.3%	1.00	78.5%	1.00	77.9%
<i>Female non-Childbearing Age</i>	1.23 [1.2, 1.25]	85.1%	-	-	1.69 [1.63, 1.76]	75.6%	1.25 [1.16, 1.35]	81.8%	1.51 [1.44, 1.58]	82.9%
<i>Female of Childbearing Age</i>	1.65 [1.61, 1.69]	88.1%	-	-	1.85 [1.8, 1.91]	74.0%	1.64 [1.55, 1.75]	85.2%	1.82 [1.71, 1.93]	84.8%
Marital Status										
<i>Not Married</i>	1.00	85.4%	1.00	92.2%	1.00	68.9%	1.00	83.8%	1.00	81.5%
<i>Married</i>	0.84 [0.82, 0.87]	82.8%	0.41 [0.3, 0.57]	83.4%	0.76 [0.73, 0.8]	63.3%	0.9 [0.83, 0.96]	82.4%	0.54 [0.51, 0.58]	73.8%
Neighborhood Deprivation Index (NDI)										
<i>Least deprivation</i>	1.00	83.4%	1.00	91.3%	1.00	67.0%	1.00	80.9%	1.00	79.5%
<i>Below average deprivation</i>	1.08 [1.04, 1.11]	84.3%	1.08 [1.02, 1.15]	91.9%	1.04 [1, 1.08]	67.8%	1.12 [1.03, 1.22]	82.4%	1.10 [1.03, 1.17]	80.6%
<i>Above average deprivation</i>	1.14 [1.1, 1.17]	84.9%	1.2 [1.13, 1.28]	92.6%	1.04 [1.00, 1.09]	67.9%	1.28 [1.18, 1.40]	84.2%	1.15 [1.08, 1.23]	81.2%
<i>Most deprivation</i>	1.16 [1.13, 1.2]	85.2%	1.19 [1.12, 1.26]	92.5%	1.16 [1.12, 1.21]	70.0%	1.27 [1.17, 1.38]	84.1%	1.08 [1.02, 1.15]	80.5%
Rurality										
<i>Least rural (most urban)</i>	1.00	85.6%	1.00	92.5%	1.00	69.1%	1.00	84.8%	1.00	83.7%

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<i>Below average rural</i>	0.99 [0.97, 1.02]	85.6%	1.01 [0.95, 1.07]	92.6%	1.04 [1.00, 1.08]	69.9%	0.93 [0.87, 1.01]	84.0%	0.89 [0.84, 0.95]	82.5%
<i>Above average rural</i>	0.93 [0.9, 0.95]	84.8%	0.97 [0.92, 1.03]	92.3%	1.00 [0.96, 1.04]	69.1%	0.91 [0.84, 0.98]	83.7%	0.73 [0.68, 0.77]	80.1%
<i>Most rural</i>	0.76 [0.74, 0.79]	82.5%	0.83 [0.78, 0.89]	91.2%	0.83 [0.80, 0.86]	65.3%	0.73 [0.68, 0.80]	80.8%	0.59 [0.55, 0.62]	77.4%
Non-citizen household member	0.81 [0.77, 0.85]	82.4%	0.86 [0.81, 0.91]	91.3%	0.88 [0.77, 0.99]	65.7%	0.64 [0.57, 0.71]	77.1%	0.57 [0.45, 0.72]	73.5%
At least one member of the household speaks limited English	1.08 [1.02, 1.14]	85.4%	1.22 [1.12, 1.32]	93.3%	0.98 [0.90, 1.07]	68.0%	0.86 [0.76, 0.97]	81.3%	1.17 [1.01, 1.35]	82.3%
Other household member(s) also Medicaid-eligible	1.52 [1.47, 1.58]	86.9%	1.56 [1.48, 1.66]	92.5%	1.11 [1.03, 1.20]	70.3%	0.35 [0.09, 1.31]	83.3%	1.36 [1.23, 1.5]	83.4%
Household size	0.94 [0.93, 0.95]	-	0.91 [0.89, 0.92]	-	1.14 [1.10, 1.18]	-	1.04 [1.02, 1.06]	-	1.18 [1.13, 1.23]	-
Federal Poverty Level (FPL) Categories										
<i>0 or negative</i>	0.27 [0.26, 0.28]	70.2%	0.28 [0.24, 0.31]	81.4%	0.38 [0.36, 0.39]	52.2%	0.42 [0.39, 0.45]	70.7%	0.17 [0.16, 0.18]	57.2%
<i>1-50% FPL</i>	1.00	86.9%	1.00	93.8%	1.00	72.9%	1.00	84.7%	1.00	84.9%
<i>51-100% FPL</i>	1.40 [1.36, 1.44]	89.9%	0.98 [0.92, 1.06]	93.7%	1.25 [1.21, 1.3]	76.8%	1.2 [1.12, 1.28]	86.8%	2.34 [2.22, 2.47]	92.1%
<i>101-138% FPL</i>	1.07 [1.04, 1.11]	87.4%	0.81 [0.75, 0.88]	92.5%	1.04 [1, 1.08]	73.5%	0.98 [0.9, 1.06]	84.4%	1.89 [1.6, 2.23]	90.6%
<i>>138% FPL</i>	0.80 [0.76, 0.84]	84.3%	0.68 [0.63, 0.73]	91.2%	1.53 [1.01, 2.32]	80.0%	1.3 [0.67, 2.52]	87.7%	1.02 [0.23, 4.52]	85.1%
Medicaid Premium										
<i>No premium</i>	1.00	85.1%	1.00	92.7%	1.00	68.9%	1.00	83.7%	1.00	80.6%
<i>\$1-\$8.3 per month</i>	0.68 [0.64, 0.73]	80.4%	0.63 [0.58, 0.68]	89.1%	0.63 [0.56, 0.71]	59.1%	2.36 [0.58, 9.51]	92.0%	0.4 [0.22, 0.73]	68.3%

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<i>\$8.3-\$25 per month</i>	0.72 [0.68, 0.77]	81.2%	0.79 [0.73, 0.86]	91.1%	0.63 [0.58, 0.68]	58.8%	0.23 [0.1, 0.55]	57.7%	1.58 [0.73, 3.39]	85.5%
<i>\$25+ per month</i>	0.62 [0.59, 0.66]	79.2%	0.67 [0.62, 0.72]	89.6%	0.57 [0.51, 0.64]	56.9%	0.52 [0.47, 0.57]	73.8%	0.76 [0.65, 0.88]	77.2%
Expansion Status										
<i>Non-expansion state</i>	1.00	76.3%	1.00	89.4%	1.00	65.4%	1.00	66.9%	1.00	67.0%
<i>Expansion state</i>	2.27 [2.21, 2.34]	86.5%	1.74 [1.67, 1.82]	93.5%	1.16 [1.05, 1.28]	68.4%	3.24 [3.05, 3.45]	86.2%	4.25 [4.08, 4.42]	86.4%

Note: Premium amounts are based totals of \$100/year (\$8.3/month) and \$300/year (\$25/month).

φ Confidence intervals at the 95th percentile

ρ Non-Hispanic

α Asian American and Native Hawaiian/Pacific Islander

χ American Indian and Alaska Native

ACA = “Affordable Care Act”

Appendix Table 4: Medicaid Take-Up Rates Among U.S. Citizens (0-64) Without Other Insurance, 2017-2019, By State & Age Group

State	Take-up Rate	Take-up Rate	Take-up Rate
	Overall (0-64)	Adults (19-64)	Children (0-18)
Alabama	88.0%	60.7%	94.2%
Alaska	72.0%	61.1%	85.4%
Arizona	76.9%	67.2%	86.6%
Arkansas	81.7%	68.5%	93.8%
California	87.5%	79.2%	94.8%
Colorado	82.6%	72.2%	91.5%
Connecticut	90.6%	85.6%	95.4%
Delaware	85.0%	76.3%	93.8%
District Of Columbia	91.5%	87.1%	97.7%
Florida	85.2%	68.0%	90.0%
Georgia	81.2%	54.3%	86.9%
Hawaii	85.6%	77.9%	92.9%
Idaho	87.4%	65.7%	92.1%
Illinois	84.8%	75.8%	93.0%
Indiana	76.8%	66.8%	86.2%
Iowa	87.6%	79.4%	93.7%
Kansas	84.3%	64.9%	88.6%
Kentucky	87.0%	80.8%	93.9%
Louisiana	83.4%	71.3%	95.9%
Maine	84.6%	77.5%	91.2%
Maryland	86.5%	77.6%	93.9%
Massachusetts	93.6%	89.7%	97.6%
Michigan	86.3%	79.4%	94.8%
Minnesota	87.2%	80.7%	92.5%
Mississippi	85.6%	61.6%	92.5%
Missouri	83.6%	70.1%	87.7%
Montana	79.9%	69.9%	88.9%
Nebraska	82.6%	68.2%	86.5%
Nevada	77.2%	66.1%	88.2%
New Hampshire	83.3%	70.8%	93.9%
New Jersey	84.3%	74.6%	92.6%
New Mexico	85.4%	77.1%	93.3%
New York	90.4%	85.2%	95.3%
North Carolina	88.7%	74.2%	93.2%
North Dakota	69.6%	58.6%	82.5%
Ohio	83.3%	75.3%	91.8%
Oklahoma	81.2%	57.9%	88.8%

****PREPRINT – Milbank Quarterly****

Oregon	85.2%	77.0%	92.9%
Pennsylvania	83.8%	77.0%	90.9%
Rhode Island	92.0%	88.5%	96.2%
South Carolina	86.5%	71.6%	92.3%
South Dakota	81.3%	59.8%	85.8%
Tennessee	87.3%	73.4%	92.4%
Texas	80.0%	51.1%	84.6%
Utah	77.5%	74.5%	78.4%
Vermont	92.5%	86.5%	97.6%
Virginia	81.8%	64.9%	91.4%
Washington	88.4%	79.3%	95.1%
West Virginia	84.7%	76.0%	95.1%
Wisconsin	84.6%	75.3%	91.0%
Wyoming	73.3%	55.9%	78.3%
