

Identifying interventions to increase Affordable Care Act uptake through a systematic review and meta-analysis



Support-based interventions increase health insurance enrollment

Key findings

We found that outreach and support-based interventions increased health insurance enrollment. Interventions that included elements of support or personalization were more effective.

Agency priority

The passage of the American Rescue Plan Act (ARP) in 2021 and Inflation Reduction Act (IRA) in 2022 dramatically expanded the Affordable Care Act's (ACA) subsidies through the end of 2025. These policies have contributed to record-high marketplace enrollment.¹ Despite these coverage gains, an estimated 10.9 million individuals eligible for subsidized health insurance remained uninsured in 2021, possibly due in part to a lack of awareness of low-cost coverage options available through the marketplaces.² In addition, with the end of the federal COVID-19 Public Health Emergency in April 2023, approximately 15 million individuals are projected to lose Medicaid and Children's Health Insurance Program coverage.³ The Department of Health and Human Services (HHS) and state-based marketplaces seek to understand what types of outreach are most effective at increasing ACA uptake among prospective marketplace enrollees.

Program description

Given the dual challenges of addressing enrollment frictions for the remaining uninsured and for those

transitioning from Medicaid, state, and federal marketplace administrators need to understand what strategies have been effective at preserving — and expanding upon — the coverage gains in recent years. These strategies largely aim to alleviate administrative burdens, particularly learning costs (e.g., understanding eligibility, benefits of enrollment, and the steps involved) and compliance costs (e.g., navigating a marketplace, submitting an application, and completing the enrollment process).⁴ Information-only interventions, such as a letter outlining key steps and deadlines, can help address learning costs. Interventions that involve support, such as a phone call walking someone through the enrollment process, might alleviate compliance costs as well.

Descriptive analysis

This study uses a systematic review and meta-analysis to summarize evidence on interventions meant to increase ACA marketplace enrollment. This approach facilitates comparing the efficacy of various interventions on enrollment, providing decision-makers in state health exchanges and the federal marketplace with useful evidence as they consider approaches to encouraging enrollment.

Analysis of existing data

Systematic review: The systematic review involved English-language searches for published and registered studies from September to November 2022.⁵ Unpublished studies were also identified through reference list hand-searches and broad outreach to researchers and practitioners in the federal government, academia, data-focused organizations, and State-based marketplaces and All-payer Claims Databases. The selection criteria for the systematic review focused on empirical

¹ Ortaliza, Jared, Krutika Amin, Cynthia Cox. As ACA Marketplace enrollment reaches record high, fewer are buying individual market coverage elsewhere. 2023. KFF. <https://www.kff.org/private-insurance/issue-brief/as-aca-marketplace-enrollment-reaches-record-high-fewer-are-buying-individual-market-coverage-elsewhere/>.

² McDermott, Daniel, Cynthia Cox. A closer look at the uninsured Marketplace eligible population following the American Rescue Plan Act. 2021. KFF. <https://www.kff.org/private-insurance/issue-brief/a-closer-look-at-the-uninsured-marketplace-eligible-population-following-the-american-rescue-plan-act/>.

³ Unwinding the Medicaid Continuous Enrollment Provision: Projected Enrollment Effects and Policy Approaches (Issue Brief HP-2022-20) Washington, DC: Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. August 19, 2022. https://aspe.hhs.gov/sites/default/files/documents/404a7572048090ec1259d216f3fd617e/aspe-end-mcaid-continuous-coverage_IB.pdf.

⁴ Moynihan, Donald, Pamela Herd, Hope Harvey. 2015. Administrative burden: Learning, psychological, and compliance costs in citizen-state interactions. *Journal of Public Administration Research and Theory* 25, no. 1: 43–69. <https://doi.org/10.1093/jopart/muu009>.

⁵ This included three databases ([PubMed](#), [CINAHL](#), and [Google Scholar](#)) and four registries ([PROSPERO systematic review registry](#), [Open Science Framework](#), the [American Economic Association Randomized Controlled Trials registry](#), and [ClinicalTrials.gov](#))

research on interventions designed to increase health insurance enrollment among U.S. adults that took place between January 2014 (when most major provisions of the ACA were in force) and September 2022, when ARP-enhanced subsidies had been available for a little more than a year.

The search process identified 703 studies through databases and registries and 45 studies through hand searches and individual outreach; 34 met the inclusion criteria for the systematic review. Of these 34, 32 were randomized controlled trials covering over 18 million people. Two were quasi-experimental studies. Eight were published studies; the remaining 24 were unpublished. Eight were studies of national (or near-national) interventions, 22 were of interventions in California, and one each were of interventions in Kentucky, Massachusetts, Maryland, and Colorado.

Meta-analysis: To be included in the meta-analysis, studies were required to measure treatments and outcomes at the household level; to report an effect size, a sample size, and a measure of variance; and to estimate effects in comparison with a control group that did not receive any intervention as a result of the study. Twenty seven of the studies identified in the systematic review qualified for inclusion in the meta-analysis, covering 58 treatment arms; 22 were unpublished. The goals of the statistical models used in the meta-analysis were to estimate an average effect of interventions, and to explore differences in effects across intervention types and other study characteristics.⁶

Results

On average, the rate of enrollment was close to one percentage point higher for those who received an intervention (0.009, $p < 0.001$; 95% CI [0.006, 0.012]), a 24 percent increase relative to the control group. The average base rate of enrollment in control groups, weighted by control group sample size, was 3.7%.

Interventions providing enrollment support tended

⁶ To identify an average estimated effect size and explore heterogeneity in effects, we used multi-level random effects models with inverse variance weighting that assume a constant within-study correlation between effect size estimates. This approach weights more precise estimates more heavily, and it accounts for potential relationships between estimates from different arms of the same study.

to be more effective than those providing information alone. Support-based interventions increased enrollment by 2 percentage points (0.020, $p = 0.004$; 95% CI [0.010, 0.030]), while information-based interventions increased enrollment by 0.6 percentage points (0.006, $p < 0.001$; 95% CI [0.004, 0.008]).⁷

Personalization also appears to make interventions more effective. Personalized interventions increased enrollment by 1.2 percentage points (0.012, $p < 0.001$; 95% CI [0.008, 0.016]), while interventions with no personalized component increased enrollment by 0.5 percentage points (0.005, $p = 0.011$; 95% CI [0.002, 0.009]).⁸

Outreach interventions may be more effective among people with some prior interaction with the marketplaces, such as those who have already started an application. Among those with some prior interaction, interventions increased enrollment by 1.2 percentage points (0.012, $p < 0.001$; 95% CI [0.007, 0.017]), compared to 0.6 percentage points (0.006, $p = 0.004$; 95% CI [0.002, 0.010]) among those with no prior interaction.⁹

There was no evidence of statistically significant differences in estimated effect sizes across study setting, year, or timing relative to the declaration of the federal COVID-19 Public Health Emergency.

Implications

Outreach interventions can be effective ways to increase health insurance enrollment. Interventions aimed at alleviating compliance costs by providing enrollment support were about four times as effective as information alone. These support-based interventions are likely to be more resource-intensive, but they have been found to be cost-effective.¹⁰ In populations with low base rates of enrollment, other approaches will be necessary to make a substantial difference.

⁷ A robust Wald test rejected the hypothesis that average effects are equal across dependent variables ($p = 0.010$). Note that we perform separate tests for each comparison exploring differences across intervention types or study characteristics.

⁸ A robust Wald test rejected the hypothesis that average effects are equal across dependent variables ($p = 0.045$).

⁹ A robust Wald test rejected the hypothesis that average effects are equal across dependent variables ($p = 0.014$).

¹⁰ Myerson, Rebecca, Nicholas Tilipman, Andrew Feher, Honglin Li, Wesley Yin, and Isaac Menashe. 2022. Personalized Telephone Outreach Increased Health Insurance Take-Up For Hard-To-Reach Populations, But Challenges Remain. *Health Affairs* 41, no. 1: 129-137. <https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.2021.01000>.

Figure 1. Support-based interventions increased ACA enrollment more than information alone, based on a meta-analysis covering 58 interventions

