NBER WORKING PAPER SERIES

NAVIGATING MEDICAID: EXPERIMENTAL EVIDENCE ON ADMINISTRATIVE BURDEN AND COVERAGE LOSS

Rebecca Mary Myerson
Allison Espeseth
Laura Dague

Working Paper 34191
http://www.nber.org/papers/w34191

NATIONAL BUREAU OF ECONOMIC RESEARCH
1050 Massachusetts Avenue
Cambridge, MA 02138
August 2025, Revised July 2026

1We are grateful to J-PAL for funding this project and to Alissa Bazsali for crucial help with implementing the intervention and preparing the data; Krista Bryz-Gornia, Qin Lin, Sara Hernandez, and Alexis Smith provided excellent research and data assistance, and Noreen Giga and Amanda Buechele provided excellent project management assistance. Rebecca Myerson worked at UW-Madison when the research was conducted. We are grateful to Marcella Alsan, Amy Finkelstein, Sumedha Gupta, Jenny Kenny, Tim Layton, Julian Reif, Kosali Simon, Justin Sydnor, Jacob Wallace, Barbara Wolfe, and participants at the Advances with Field Experiments Conference, APPAM, ASHEcon, ASSA, and Midwest Health Economics Conference as well as participants in seminars at Texas A&M University, Baylor University, Georgetown University, Emory University, the University of Georgia, the University of Pennsylvania, and the University of Wisconsin-Madison Institute of Research on Poverty for helpful comments. The authors would like to disclose that Laura Dague is principal investigator of an evaluation of a Medicaid waiver program, and Rebecca Myerson was co-principal investigator of an evaluation of a Medicaid care coordination program, for the Wisconsin Department of Health Services; Allison Espeseth is the director of Covering Wisconsin, which receives funding from Wisconsin Department of Health Services and the Centers for Medicare and Medicaid Services. This RCT was registered as AEARCTR-0009772 (Myerson and Dague 2022). IRB approval was obtained from the University of Wisconsin-Madison and Texas A&M University. The Wisconsin Department of Health Services had the right to review the paper prior to its circulation. Required disclaimers: The authors of this article are solely responsible for the content therein. The authors would like to thank the Wisconsin Department of Health Services for the use of data for this analysis, but this agency does not certify the accuracy of the analyses presented. The contents are those of the authors and do not necessarily represent the official views of, nor an endorsement by, CMS/HHS, the U.S. Government, or the National Bureau of Economic Research.

NBER working papers are circulated for discussion and comment purposes. They have not been peer-reviewed or been subject to the review by the NBER Board of Directors that accompanies official NBER publications.

© 2025 by Rebecca Mary Myerson, Allison Espeseth, and Laura Dague. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including © notice, is given to the source.

Navigating Medicaid: Experimental Evidence on Administrative Burden and Coverage Loss
Rebecca Mary Myerson, Allison Espeseth, and Laura Dague
NBER Working Paper No. 34191
August 2025, Revised July 2026
JEL No. C93, D73, H75, I13, I38

ABSTRACT

In a large-scale field experiment, we tested methods to inform Medicaid enrollees with an imminent renewal deadline about available assistance. Supplementing written outreach – which was sent to all beneficiaries – with a call reminding them about available assistance increased Medicaid renewal by 1 percentage point (1.5%), and reduced procedural denials by 1.1 percentage points, including significant effects for tribal members, children, lower-income people, and people with chronic disease. These findings suggest administrative frictions reduce coverage for eligible people, including those with chronic disease. The data also provide practical lessons for outreach.

Rebecca Mary Myerson
Emory University
rebecca.myerson@emory.edu

Laura Dague
Texas A&M University
and NBER
dague@tamu.edu

Allison Espeseth
Covering Wisconsin
allison.espeseth@wisc.edu

A randomized controlled trials registry entry is available at https://www.socialscienceregistry.org/trials/9772
A Supplemental Appendix is available at http://www.nber.org/data-appendix/w34191

I. Introduction

Administrative frictions are pervasive features of means-tested safety net programs. Required processes for enrollment and renewal of benefits are designed to prevent enrollment among ineligible people, but could also lead to disenrollment among eligible people if they don't complete needed steps (Ko and Moffitt 2022; Herd and Moynihan 2018; Currie 2004). These processes —sometimes termed transaction costs, ordeals, administrative burdens, or compliance costs— have welfare effects that are ex ante unclear (Finkelstein and Notowidigdo 2019; Deshpande and Li 2019). Neoclassical theory suggests that transaction costs could improve targeting of a program by screening out people who don't highly value the benefits (Nichols and Zeckhauser 1982; Besley and Coate 1992). Alternatively, they could worsen targeting if the people who could benefit the most from the program – people in poverty, or people with complex health problems, for example – have more difficulty completing the required processes (Bertrand et al. 2004; Mullainathan and Shafir 2013; Bertrand et al. 2000; Loewenstein et al. 2017).

This paper demonstrates how offering supplemental outreach and assistance can reduce administrative burden and affect benefit retention in an important social insurance program: Medicaid, which provides free or very low-cost health insurance coverage for more than 70 million people with low income or a disability. Medicaid sometimes faces low enrollment rates among likely-eligible people despite the value of the benefit to enrollees and their health care providers (Baicker et al. 2012; Buchmueller et al. 2015; Currie and Gruber 1996; Miller et al. 2021; Sommers 2007). One in five Medicaid beneficiaries lose their coverage during the renewal process (Dague and Myerson 2024). Half of Medicaid beneficiaries who lose coverage are uninsured 6 months later, despite likely eligibility for free or heavily subsidized coverage

through Medicaid or the Health Insurance Marketplace (Einav and Finkelstein 2023; Ndumele et al. 2023; McIntyre et al. 2024). These persistent coverage gaps raise questions about the optimal level of administrative stringency and are a topic of active policy debate (H.R.1 - 119th Congress (2025-2026) 2025; Centers for Medicare & Medicaid Services and Department of Health and Human Services 2023; Department of Health and Human Services and Centers for Medicare & Medicaid Services 2024). However, because eligibility of individuals who do not complete their renewal paperwork is unobserved, the impact of administrative burden on access to Medicaid for people who are truly eligible remains unclear.

We conducted a field experiment among 62,465 fee-for-service Medicaid enrollees to test the impacts of making the Medicaid renewal process easier during 2023-2024, a period with particularly high stakes. A 2020 federal policy temporarily implementing continuous Medicaid coverage resulted in a 40% increase in enrollment nationwide due to increased retention, and the 2023–2024 return-to-usual processes, called "the unwinding," prompted widespread concerns about mass uninsurance (Dague and Ukert 2024). In 2023 alone, more than 9 million U.S. residents lost Medicaid coverage for procedural reasons (i.e., because they did not complete the required renewal processes) (KFF 2023). Working with the Wisconsin Department of Health Services (DHS) and Covering Wisconsin (Wisconsin's federally-granted health insurance Navigator program), we sent outreach providing information and an offer of free, live assistance to beneficiaries with imminent renewal deadlines between June 2023 and February 2024.

Everyone in the study was sent some form of written outreach, which we randomized the modality of; for ethical reasons, we did not include a no-outreach control group. Our first key finding is that variations in written outreach (text message vs postcard, number or content of text messages) did not affect coverage outcomes. This result is practically important because

different written outreach methods had different costs. Text messages are cheaper than postcards to send (9 cents per text message versus 38 cents per postcard in our study) but performed equally well, with implications for organizations that contact Medicaid members.

Our second key finding is that using multiple modalities for outreach improved Medicaid coverage outcomes. Specifically, supplementing written outreach with a pre-recorded telephone call increased Medicaid renewal by 1.0 percentage points (a 1.5% increase compared to people receiving only written outreach). The pre-recorded call intervention also reduced the loss of Medicaid coverage for procedural reasons (i.e., coverage ended because the beneficiary didn't attempt to renew by the deadline or had missing or incomplete paperwork) by a similar amount (1.1 percentage points), suggesting a reduction in procedural denials accounted for the coverage effects. The effect on Medicaid retention diminished over time – as expected, given the fact that some people become Medicaid ineligible and lose coverage even between renewal deadlines – but remained significant for at least 6 months after the renewal date.

A critical but understudied friction in outreach is accuracy of beneficiary contact information, since messages can only be useful if they reach the right person. Using novel individual-level data on contact information accuracy, we found that at least 24% of listed phone numbers and at least 20% of addresses no longer belonged to the listed beneficiaries.[2] These data suggest one reason why outreach using multiple outreach methods could be helpful – some people may be reachable by phone but not mail or vice versa – and suggest that regularly updating administrative records is important to ensure information about benefit renewal requirements is received. In a treatment on the treated analysis using these data on contact information accuracy and other call feedback (e.g., call could not be placed, or voicemail was

[2] Although data on contact information accuracy were available in real time, legal concerns prevented the use of this information to update the contact information from DHS.

full), receiving the pre-recorded call reduced procedural denials by 1.8 percentage points (a 9% decline) and increased Medicaid renewal rates by 1.7 percentage points (a 3% increase). More generally, these data demonstrate how much the impact of outreach interventions could be underestimated in analyses that assume intervention receipt.

Transaction costs in the Medicaid renewal process could impact groups unevenly, underscoring concerns about optimal targeting and equitable access. In heterogeneity analyses, receiving a call increased Medicaid renewal among tribal members (by 7.9 percentage points or 14%), children (by 2.9 percentage points or 4%), people aged 50-64 (by 2.3 percentage points or 4%), people with below-median income (82% of FPL in our study) (by 2.3 percentage points or 4%), and people with chronic disease (by 2.9 percentage points or 5%). The effect of receiving a call on Medicaid retention remained for at least 12 months for tribal members, the group that saw the largest benefit. Assuming the call did not affect underlying Medicaid eligibility or the state's procedures or error rates in processing the paperwork, Medicaid-eligible people account for the results. In other words, eligible people – including people with chronic disease and other groups likely to value coverage – lose benefits because of avoidable frictions in the renewal process that supplemental outreach can mitigate.

Given that information interventions are unlikely to increase Medicaid renewal for people who are ineligible, additional scaling of the call's effect size is useful. In a national survey of people who lost Medicaid coverage in 2023, 17.4% reported they believed they lost Medicaid because of inability to complete the renewal process, rather than voluntarily or due to ineligibility (Rumalla et al. 2024). Applied to our sample, this would imply that 18% of potentially eligible people kept coverage due to being sent the supplemental pre-recorded call.

Our estimates contribute to the literature on take-up and retention in the social safety net (Alsan and Yang 2022; Bertrand, Luttmer, and Mullainathan 2000; Bhargava and Manoli 2015; Deshpande and Li 2019; Ko and Moffitt 2022 provide a recent review). Our focus on Medicaid retention is novel and is the first randomized trial of the impact of making the Medicaid renewal process easier. Retention has been studied less than take-up but represents an opportunity to retain eligible people with demonstrated need (Lopoo et al. 2020; Homonoff and Somerville 2021; Wu and Meyer 2023; Kabbani and Wilde 2003). In prior experiments, providing information and assistance increased enrollment in transfer programs such as SNAP (Daponte et al. 1999; Finkelstein and Notowidigdo 2019; Giannella et al. 2024; Schanzenbach 2009), college scholarships, and the earned income tax credit (Bettinger et al. 2012; Bhargava and Manoli 2015). However, as a program providing a non-fungible in-kind benefit – access to health care – Medicaid is theoretically distinct (Currie and Gahvari 2008). Another closely related literature assesses the impacts of advertising, assistance, or simpler administrative procedures on private or marketplace health insurance (Ericson et al. 2017; Aizawa and Kim 2018; Domurat et al. 2021; Goldin et al. 2021; Ericson, Layton, et al. 2025). However, adverse selection concerns are a key driver of the welfare impacts of changes to enrollment for premium-based health insurance plans, whereas as a safety net program, Medicaid's welfare impact is higher when eligible people with high need can enroll (Handel 2013; D. M. Cutler and Reber 1998; D. Cutler and Zeckhauser 1998; Einav et al. 2010; Finkelstein et al. 2019).

In addition, our findings offer practical lessons for outreaching and assisting beneficiaries in safety net programs as well as for outreach interventions writ large. Given the presence of similar navigator programs nationwide, the technology-enabled outreach we tested could be implemented in other states if the navigator workforce and state-navigator partnerships were

sufficiently scaled. Our subgroup analyses also could inform decisions about which populations to target first. Furthermore, our data on contact information accuracy suggest the benefits of revising data flows to update safety net beneficiaries' contact information more frequently. Likewise, our findings on outreach modality (text message, telephone call, and/or postal mail) and the impact of multi-modal outreach can also inform how states plan to contact beneficiaries before an upcoming renewal. Decisions about how to contact beneficiaries are important for many safety net programs' beneficiaries, many of whom cannot be renewed ex parte and must actively renew their benefits; in the Medicaid program, these decisions are particularly timely given that beneficiaries must be notified about changes to renewal requirements in 2027 (H.R.1 - 119th Congress (2025-2026) 2025).[3] Finally, the effect sizes we find can inform states' decisions about making structural changes to increase ex parte renewals.

II. Background and Descriptive Evidence

Medicaid beneficiaries are subject to a unique set of transaction costs because unlike most safety-net programs, Medicaid is financed jointly by federal and state governments and is administered by states, which control almost every aspect of application, eligibility determination, and renewal subject to minimum federal standards. For example, although states can use existing data to renew some beneficiaries' coverage automatically (DeLeire et al. 2012; Rennane et al. 2024; MACPAC 2023), many states do not extensively use this "ex parte" process. How a state implements its eligibility policies varies by Medicaid agency structure,

[3] H.R. 1 stipulates that people affected by changes to renewal requirements must be notified in writing and one other modality. However, this second modality could comprise posting on a website. Alternately, the second modality could be telephone based; a pre-recorded call providing information about assistance, the method we tested, would meet the requirement.

available information technology systems, staffing level, and the extent to which automated processes can be used is dependent on whether the information needed to determine eligibility is verifiable without member input.

Medicaid's benefit renewal process – during which Medicaid beneficiaries must submit evidence of eligibility that meets their state's requirements and respond to clarification requests by a given deadline – plays an important role in determining enrollment. Simulation evidence suggests that Medicaid requires renewal too frequently (Pei 2017). Many Medicaid beneficiaries who lose coverage at renewal re-enroll within a few months (ASPE 2021). These re-enrollment patterns suggest some coverage losses are not due to ineligibility. However, because true eligibility is unobserved for people who do not complete renewal paperwork, there is no definitive proof.

Our study population included enrollees in Wisconsin Medicaid whose coverage was not renewed ex parte and which was administered on a fee-for-service basis (i.e., not through a managed care organization or MCO).[4] Broadly, Wisconsin covers children ages 0-18 and pregnant women with family incomes up to 300% FPL; elderly, blind, and disabled populations up to 100% FPL; and, despite not having adopted the ACA Medicaid eligibility expansion, has a state-funded partial expansion program that covers all non-elderly adults with family incomes below the poverty line (Dague, Burns, et al. 2022; "BadgerCare Plus Handbook," n.d.; *Medicaid Eligibility Handbook 23-02*, n.d.). Wisconsin rules allow administrative (ex parte) renewal for many members, as long as they are not in a time-limited benefit program or no longer

[4] Although managed care organizations are not typically allowed to assist with enrollment processes due to their financial interest in maintaining enrollment, the federal government relaxed and/or clarified certain conditions during the COVID-19 pandemic (CMS 2024b). In Wisconsin, Covering Wisconsin was responsible for outreach to all fee-for-service enrollees while MCOs were responsible for outreach to their members above and beyond standard contacts from the state.

categorically eligible (such as aging out), and do not have income on file that cannot be verified through data exchanges (such as self-employment, alimony, interest income) or other reasons that limit verifiability (such as a missing social security number). Ex parte renewal rates ranged from 20-50% in the location (Wisconsin) and years of our study (Herd et al. 2025). Because our study population was limited to enrollees who were not renewed ex parte, it is disproportionately composed of those whose information could not be independently confirmed or who could not be successfully administratively renewed (for example, if the data exchange suggests a change that would terminate or reduce benefits).

Fee-for-service enrollees represent about one-third of Medicaid beneficiaries nationally and 19% of beneficiaries in Wisconsin; all other enrollees receive care through managed care organizations (Buchmueller et al. 2015). Wisconsin allows tribal members and those who reside in a service area in which there is only one MCO available to opt-in to fee-for-service coverage. The state also requires dually enrolled home and community-based program enrollees and people living in nursing homes at the time of application to enroll in fee-for-service coverage. The fee-for-service population therefore differs from those enrolled in managed care; we explore the implications of this further below.

In Wisconsin as in other states, administrative processes are more complex for certain groups, e.g., people whose eligibility depends on their assets as well as their income or people who are not United States citizens or who live in a mixed-citizenship household. Instructions related to the required documentation of income, assets, immigration status, or household size, as well as information about the relevant deadlines, can take time for beneficiaries to parse if they are conducting their renewal without assistance. In an analysis of pre-pandemic Wisconsin data (Dague and Myerson 2024), higher and lower income people renewed Medicaid at similar rates,

suggesting some lower-income people may have lost coverage due to logistical challenges rather than genuine ineligibility. Hispanic enrollees and American Indian or Alaskan Native enrollees were disproportionately likely to lose Medicaid at the renewal deadline, even after adjustment for baseline household income, enrollment group, and past usage of Medicaid services. Patient surveys and qualitative work suggest that those with greater health-related challenges are less likely to be aware of Medicaid program rules (Heinrich et al. 2022; Stuber and Bradley 2005).

Matching this literature, the risk of Medicaid coverage loss at the renewal deadline for procedural reasons varied by personal characteristics in our study sample. Among people in our study sample who were sent only a postcard (our closest approximation to the status quo), 22% lost their coverage at the renewal deadline for procedural reasons. Procedural denial rates were particularly high for tribal members (37%) and people who preferred Spanish (34%); rates were lower but still elevated for people who were Black, Hispanic, or Asian/Pacific Islander (26%, 27% and 23%, respectively). When examining the data by age, procedural denial rates were also high for young adults who could be covered by their parents' insurance under the Affordable Care Act (40% for people aged 18-25), possibly reflecting non-submission of paperwork for people who had gained another source of coverage or lacked experience with Medicaid renewal processes. Use of health care during the COVID-19 era continuous coverage period (i.e., a baseline period when everyone in the sample had Medicaid) also predicted coverage renewal among people in the control group. Only 13% of people with one or more chronic conditions or 17% of people with medical expenses above the sample median, based on their recent Medicaid claims, experienced a procedural denial. These patterns might reflect the stronger motivation of this group to stay covered or seek assistance from health care providers. Finally, past success with the renewal process predicted current success: people who had not renewed their Medicaid

in the year prior to the continuous coverage period had procedural denial rates twice as high as people with a recent successful renewal (29% and 14%, respectively).

Attempts to reduce gaps in access using outreach – from the state, or from a collaborating navigator organization – may be complicated by frequent changes in contact information. For example, among SNAP program beneficiaries who only received program notifications by mail, moving to a new zip code was associated with a five-fold increase in the odds of losing benefits during the recertification process (Mills et al. 2014). All Medicaid beneficiaries are sent written outreach – e.g., a letter, which may be supplemented by email and/or text message in some states – from their agency at the time of renewal. Mail outreach is typically used by state agencies to contact Medicaid beneficiaries, although some innovations (including texting, for the first time in Wisconsin) were allowed and used after the COVID-19 pandemic. We used a contact information search service to collect new data on the accuracy of the information used by the state to contact beneficiaries. We are not aware of prior empirical data related to the impact on coverage rates of contacting Medicaid beneficiaries by text rather than postal mail or supplementing written outreach with telephone outreach.

In other contexts, written outreach alone can disproportionately benefit relatively advantaged (healthier or higher income) enrollees (Ericson et al. 2017; Howell et al. 2017; Lopoo et al. 2020; Domurat et al. 2021). Supplementing written outreach with telephone-based outreach providing live one-on-one assistance increases enrollment among groups that have low rates of enrollment without intervention (including people with lower incomes and people who prefer a language other than English) (Aizer 2003, 2007; Myerson et al. 2022). However, live outreach is labor intensive. Scalable methods are needed given the large number of Medicaid enrollees (KFF 2019; Medicaid and CHIP Payment and Access Commission 2017). Accordingly,

we tested the impact of not only variations in written outreach but also a pre-recorded call as low-touch, scalable supplements to written outreach.

III. Methods

We conducted a field experiment in Wisconsin to test the impact of low-touch, scalable outreach that notified beneficiaries about how to obtain live one-on-one assistance with their Medicaid renewal. In this type of information-provision field experiment, participants face real stakes and are not aware of the experiment, enhancing the generalizability of findings (Haaland et al. 2023). On average, participants in the experiment received outreach 28 days before their renewal deadline. IRB approval was obtained from the University of Wisconsin and Texas A&M University, and the study protocol was pre-registered on the AEA RCT registry (https://www.socialscienceregistry.org/trials/9772) (Myerson and Dague 2022).

a. Experimental Population

The study sample included fee-for-service Medicaid enrollees with an imminent renewal deadline between June 2023 and February 2024 whose coverage was not renewed ex parte. The state DHS assigned each enrollee a deadline by which they should renew and shared this information with Covering Wisconsin. All members were also sent standard outreach from DHS about their upcoming renewal deadline.

People were excluded from the experiment if they lacked a valid phone number or if their preferred language was neither English nor Spanish, the two languages in which navigator assistance was most readily available, or if they were institutionalized (for example, lived in a nursing home and had listed the front desk as their telephone contact). People excluded from the

experimental sample still received outreach from Covering Wisconsin in the form of a postcard in their preferred language. The final analytic sample included 62,465 Medicaid beneficiaries due for renewal across 55,471 Medicaid cases (i.e., the modal case had only 1 Medicaid-enrolled person up for renewal).[5]

b. Experimental Arms

The experimental outreach was designed to reduce frictions in the renewal process in two ways: 1) by reminding the recipient about their personal Medicaid renewal deadline, and 2) by notifying or reminding the recipient that they could receive free assistance with the renewal process.

Written outreach. For ethical reasons, all members of the study population received written outreach from Covering Wisconsin in their preferred language. 40% of people were randomly selected to be sent a postcard as their written outreach; the remaining 60% were sent a text message. Within the text message group, we also randomized the content of the text message (encouraging a call to a hotline vs an online webchat resource) and the number of text messages (1 vs 2). We used cross-randomization to avoid any systematic relationship between these variations in written outreach and our supplemental intervention, the pre-recorded call described below. Appendix A1 includes a visualization of the cross-randomization scheme and the content of the text messages and postcards.

Despite receiving written outreach from DHS and Covering Wisconsin, the group receiving only written outreach experienced significant non-renewal. Nearly one-third of people

[5] Cases sometimes approximate households, but some eligibility groups such as SSI-related or elderly, blind, and disabled are typically one-person cases even if the individual is legally married, and in multi-person cases it is possible that some members were administratively renewed while others could not be.

in this group lost their Medicaid coverage at their renewal deadline (Figure 1).[6] Approximately 21% of people in the group receiving only written outreach lost their coverage at the renewal deadline for procedural reasons (i.e., due to missing, incorrect, or incomplete paperwork rather than a determination of ineligibility).

Supplemental pre-recorded call. We randomized 50% of the experimental population to be sent a pre-recorded call as a supplement to written outreach; the remaining 50% were not sent a call. Calls were placed in the recipient's preferred language (English or Spanish) and sent to the primary person listed in each Medicaid enrollment case record. The text of the pre-recorded call in English (spoken and recorded by a person; in this case, a licensed Covering Wisconsin health insurance navigator) was as follows:

> *Hi, this is Covering Wisconsin for the Wisconsin Department of Health Services calling to remind you it's time to renew your BadgerCare or Medicaid. If you already renewed, great! If you didn't, be sure to renew by [date] to avoid a gap in coverage.*
>
> *Our state-licensed health insurance navigators provide free help with health insurance. We can help you renew, find financial help, or solve billing and coverage questions.*
>
> *To learn more, call us at [phone number], or visit coveringwi.org/gethelp.*
>
> *To opt out, press 1. To hear more about Covering Wisconsin, press 2. To repeat this message, press 3.*

Calls were randomly assigned to be sent at different times to different members over the space of one week, either in the afternoon (1:00 pm) or evening (7:00 pm). All messages sent on a Friday or Saturday were sent in the afternoon. If beneficiaries placed a return call to the number that called them, they reached the navigator hotline.

[6] For context, the comparable rate in pre-pandemic data for the full Medicaid population, including people with HMO coverage and people with ex parte renewals, was 20% (Dague and Myerson 2024).

Note that our experiment is not designed to make any direct comparison between the effect of phone call versus text message. As noted above, everyone who got a call also was sent written outreach in the form of a text or postcard.

c. Randomization Process

Assignment to treatment arms occurred monthly based on updated lists from DHS of enrollees with upcoming renewal deadlines. Randomization was clustered at the case level. To ensure balance on key characteristics, randomization was stratified by beneficiary characteristics measured at baseline including Spanish language preference, Medicaid eligibility category for the case at baseline, and demographics (any children or adults over 50 in the case, rural/urban residence, and race and tribal membership of the primary person on the case).

After an interim analysis in December 2023 found that the pre-recorded call increased Medicaid renewal, such calls were delivered to all enrollees. Analyses in this paper only use data from the period during which the pre-recorded call was randomized. (While stopping rules can increase Type I error risk, in this case stopping was not immediate due to delays in data matching; furthermore, our reported longer-duration outcomes were not used in the stopping decision.) Findings are similar, and available upon request, when we used the full sample but added statistical methods to ensure that only data from the randomization period were used to assess the impact of the pre-recorded call.

Caveat. Although we took steps to avoid our outreach messages being marked as spam by cell phone carriers, the spam rules carriers use are ambiguous, variable, and regularly updated, and our outreach phone number could be added to a spam list if messages were frequently marked as spam. This is part of the modern-day outreach context. We cannot observe

whether calls or text messages were marked as spam; to the extent that outreach was sent but not received, results will be biased towards the null.

d. Data and Measures

Data from the field experiment were merged with Wisconsin administrative records housed at the University of Wisconsin Institute for Research on Poverty using Medicaid identification numbers. The merged data set captures historical and current Medicaid enrollment and eligibility fields, as well as past health care use paid for by Medicaid (measured in Medicaid claims and encounters).

Outcomes of Interest. The primary outcome was successful Medicaid renewal, defined as ongoing enrollment in full-benefit Medicaid in the month after the renewal deadline. Late renewals are allowed for up to 90 days if the beneficiary was continuously eligible and coverage is back-dated as continuous. Because our data were extracted after this 90-day grace period, these back-dated renewals are coded in our data as successful renewals.

One pre-specified outcome captured Medicaid coverage loss due to a procedural denial. This variable took the value 1 if a beneficiary did not renew (lost coverage) because of procedural (paperwork) reasons, and 0 otherwise (i.e., if successfully renewed or if lost coverage due to a determination of ineligibility). Another set of pre-specified secondary outcomes measured the persistence of effects, e.g., whether beneficiaries retained Medicaid for a full 1, 3, 6, 9, or 12 months after the renewal deadline.

Another outcome of interest, which was not pre-specified because we were unaware of its availability, captured our best available proxy for whether the person outreached had called the navigator hotline to seek assistance. Individuals were considered to have called the navigator hotline to seek assistance if an inbound call was logged from the phone number associated with

their Medicaid case. This was the same phone number that was called if they were in the call group. (Because the inbound call data do not include personal information, we could not identify cases where a call recipient called back from a number other than the one originally listed.) We measured calls during the days immediately before and after each pre-recorded call was sent, leveraging the fact that the exact date of the call varied across beneficiaries who were outreached in each month and was randomly assigned.

Some pre-specified secondary and exploratory outcomes were ultimately not available for analysis. For example, SNAP data were not available and application data were only available for the small, non-representative group that used an online portal rather than a paper or phone application. Other secondary or exploratory outcomes (e.g., economic outcomes, or outcomes related to churn back into Medicaid after a coverage loss) were outside the scope of this paper.[7]

Call Receipt. Individuals were considered to have not received the call if feedback from the call placement vendor indicated that the call could not be completed (e.g., there was no answer and a voicemail could not be left) or a contact information search service (LexisNexis) indicated that the phone number was no longer associated with the person of interest.

Past Use of Medicaid-Covered Health Care. A screening mechanism for social safety net programs induces more welfare loss, all else equal, if it excludes people who would benefit relatively more from the program. Accordingly, we conducted subgroup analyses focusing on people who likely would have used their Medicaid coverage in the future based on the closest available proxy, their recent Medicaid claims. Due to the continuous coverage policy that had

[7] Pre-specified outcomes related to return to Medicaid after a coverage loss are not analyzed in this paper because those outcomes were targeted by a separate intervention providing a second round of outreach to people who lost Medicaid coverage. Because that intervention was only given to people after they lost coverage, it would not affect the outcomes reported in this paper (coverage renewal, how long coverage kept after renewal, reason for coverage loss). This second intervention will be analyzed in another manuscript.

been in place due to the COVID-19 pandemic, every member of the study population had continuous Medicaid coverage for at least 12 months, from either April 2020 or their initial enrollment date through April 2023. We used information from this continuous coverage period to classify members of the study sample into groups for heterogeneity analyses.

First, we measured whether each person used their Medicaid coverage to obtain care for chronic health care needs using the Chronic Conditions Warehouse algorithm (CMS 2024a). Second, we measured total health care expenditures covered by Medicaid (excluding prescription costs). We calculated each enrollee's annual Medicaid-covered health care costs during the continuous coverage period and assessed whether their health care costs were above or below the sample median.[8]

Past Success in Navigating Medicaid Renewals. People who have not completed the Medicaid renewal process recently might face a steeper learning curve when renewing their coverage. Accordingly, we pre-specified to examine outcomes among people who had less than 13 months of continuous Medicaid coverage in March 2020, i.e., had not been through a successful renewal in the year prior to the COVID-era continuous coverage provision.

Other Personal Characteristics. Policymakers have emphasized the importance of access to government safety net programs among historically marginalized or underserved populations such as tribal members, people with Black race or Hispanic ethnicity, people who prefer a language other than English, people with low income, and people living in rural areas, as well as vulnerable populations such as children (Biden 2021; Office of Management and Budget 2022). In additional pre-specified heterogeneity analyses, we examined effects separately for each of these groups. People were defined as living in a rural area if their case was administered

[8] Median Medicaid-covered health care costs in the study sample were $1,103 per year, in line with the higher age and prevalence of disabilities in our study population compared to the average Medicaid enrollee.

in a county with a rating of 8 or 9 in the U.S. Department of Agriculture 2013 Rural-Urban Continuum Codes. We used administrative eligibility records to measure income at baseline (in March 2020, or the first month income is observed during the continuous enrollment period, if not yet enrolled in March 2020).[9]

IV. Results

a. Study Population and Balance Across Study Arms

Table 1 describes the characteristics of the study population. Observable characteristics were balanced across the study arms, suggesting that randomization was successfully implemented. Compared to the average Medicaid enrollee, the study population was older and more often disabled, reflecting the population that receives fee-for-service Medicaid; see Appendix A2 for a comparison of people who met our inclusion criteria compared to other Medicaid members enrolled just prior to the beginning of the study.

b. Impact of Outreach on Medicaid Renewal

Our main intent-to-treat analysis examined the effects of random assignment to the pre-recorded call group (rather than no-call group) using an ordinary least squares regression:

$$Y_i = \beta_0 + \beta_1(Randomized\ to\ Text\ )_i + \beta_2(Randomized\ to\ Webchat\ Text\ )_i + \beta_3(Randomized\ to\ Reminder)_i + \beta_4(Randomized\ to\ Outbound\ Call)_i + \mu_t + X_i\delta + \varepsilon_i \quad (1)$$

In equation 1, Y_i denotes an outcome of interest (e.g., Medicaid coverage renewal) for individual *i* and μ_t denotes renewal deadline fixed effects. Coefficient β_4 captures the impact of being randomly assigned to be sent a pre-recorded call. The inclusion of renewal deadline fixed

[9] The median baseline household income in the study sample was 82% of the federal poverty level (FPL).

effects in the model allows us to control for potential unobserved differences in the groups selected by the state for renewal at different times (a de facto, although not pre-specified, stratification). Following the pre-analysis plan, we added interaction terms to test for differential effects of being sent a message on a weekday versus weekend and in the afternoon versus evening in secondary analyses. Standard errors were clustered by case, which was the level of randomization.

To increase statistical power, we adjusted for stratification variables and pre-specified covariates ($\boldsymbol{X}$) measured prior to outreach, which included fixed effects by county of residence, baseline income (50% of FPL or lower, over 50% through 100% FPL, over 100% through 200% FPL, over 200% FPL, missing), whether or not the case had recently successfully completed a redetermination, eligibility categories for the case at the start of the current enrollment spell (e.g., childless adult, pregnancy), whether or not there were any children or any adults aged 50 or older in the case, and characteristics of the primary person on the case including preferred language, gender, Black race, tribal membership, and age (<18, 18-25, 26-49, 50-64, 65+, missing). We used two-tailed tests with p-values under 0.05 to denote statistically significant effects.

Full Sample. Table 2 presents the impact of randomization across treatment arms on Medicaid renewal or loss of coverage for procedural reasons (procedural denial). Variations in written outreach did not significantly affect Medicaid renewal or procedural denial rates. However, multi-modal outreach (supplementing written outreach with a telephone call) increased successful renewal of Medicaid coverage by preventing procedural denials: sending a pre-recorded call increased Medicaid renewal rates by 1 percentage point and decreased procedural denials by a similar amount (1.1 percentage points). These changes comprised a 1.5% increase in

Medicaid renewal and 5.0% decrease in procedural denials compared to the group receiving written outreach only.

The latter rows of Table 2 and Figure 2 show the effects of the call intervention on Medicaid retention over time. Medicaid coverage retention is expected to diminish over time because some beneficiaries become ineligible each month for a reportable reason or withdraw and may therefore lose coverage even between renewal deadlines. Accordingly, the level of Medicaid retention in the no-call group declines over time: 69 percent renewed successfully but only 57 percent remained enrolled after 6 months and 54 percent remained enrolled at 12 months, i.e., just before the next renewal deadline. The effect of the supplemental call on Medicaid retention also diminishes over time, although significant effects of the call were detected through 6 months.

In secondary analyses with interaction terms to test the effect of randomly assigned call timing, calls sent during the afternoon had a larger effect on procedural denials than calls sent during the evening (p=0.03). Calls sent on a weekend versus weekday had no differential effect. Results were similar when we dropped covariates, used non-linear models appropriate for binary data, or used listwise deletion in pre-specified robustness checks; see Appendix A3.

Subgroup Analyses. All subgroup analyses were pre-specified in the pre-analysis plan and should be interpreted in that context. The first column of Table 3 shows the renewal rates without the pre-recorded call for the pre-specified subgroups described above. Among people who were sent only a postcard (no call), renewal rates were lowest for those who preferred Spanish (50%), young adults aged 18-25 (52%), tribal members (59%), and people without a recent successful Medicaid renewal (60%), and were highest for people with a recent successful renewal (78%). These baseline non-renewal rates are not informative of Medicaid eligibility

rates, however, since people who don't renew might be Medicaid ineligible or no longer need coverage. In contrast, the impact of reducing barriers to coverage on Medicaid renewal would reflect effects for people who were Medicaid-eligible and wanted coverage.

The subsequent columns of Table 3 show the impacts of outreach on Medicaid renewal across the subgroups. As in the full sample analysis, variations in written outreach did not significantly affect coverage outcomes, but receiving a pre-recorded call increased Medicaid renewal rates for some groups.

Groups significantly impacted by the pre-recorded call included people with chronic conditions (by 1.8 percentage points or 2.4%) and for people with below-median baseline income in the sample (by 1.4 percentage points or 2.3%), two groups likely to be eligible for Medicaid and to use their coverage. Sending a pre-recorded call also increased Medicaid renewal rates for people without a successful recent renewal, a group that might face a steeper learning curve with the Medicaid renewal process (by 1.1 percentage points or 1.8%).

There were also meaningful differences in impact across historically underserved groups. On the one hand, the effect of sending the call was largest in both absolute and relative terms among tribal members, at 4.0 percentage points (a 6.8% increase). On the other hand, we did not detect statistically significant effects for rural residents, people preferring Spanish, or people who were Black, Hispanic, or Asian or Pacific Islander, although the sample sizes for these groups were relatively small. These data suggest the potential importance of adapting outreach for different audiences.

When stratifying the sample by age, sending a call significantly increased Medicaid renewal rates among children (by 2.1 percentage points or 2.5%) and people aged 50-64 (by 1.4 percentage points or 2.0%). People aged 50-64 are an important group because chronic disease

rates are higher in this group than among younger adults, but people in this age group are not eligible for nearly-universal Medicare coverage; prior experiments have found impacts of outreach on insurance coverage and, subsequently, mortality in this group (Goldin et al. 2021).

c. Mechanisms

Effect of Outreach on Calls to the Navigator Hotline. Some recipients responded to the outreach by calling the hotline to seek help with their Medicaid renewal in a way that we could track.[10] Among people randomized to be sent only written outreach, only 1.3% called the Covering Wisconsin hotline during the 40 days before their deadline, according to available data on inbound calls. (The Covering Wisconsin hotline number is publicly available.) Sending a pre-recorded call encouraging the recipient to call the Covering Wisconsin hotline increased the proportion of people who did so by 1.2 percentage points (95% CI 1.0 to 1.4), nearly doubling the rate.

Figure 3 shows the impact of being randomly sent the pre-recorded outbound call on inbound calls to the hotline, day by day. The figure reflects the results of an event-study regression of calls to the hotline from sample members on days relative to the outbound call interacted with the treatment variables, showing the coefficients on days since or until outreach along with 95% confidence intervals; data from 7 or more days before the pre-recorded call were grouped together. These data show a sharp increase in calls to the Covering Wisconsin hotline on the (randomly assigned) date of the pre-recorded call, suggesting that the messages not only

[10] The data source did not capture calls received while the primary phone line was in use; thus, calls are underreported, although we do not expect patterns of underreporting to differ across groups.

reminded recipients of the need to renew but also increased take-up of navigator assistance, i.e., reduced frictions in the renewal process through two different mechanisms.

Contact Information Accuracy and Likely Receipt of Outreach. Messages can only be useful if they reach the right person. Among all cases in the study population (regardless of randomized study arm),[11] only 53% had listed phone numbers that were judged to be correct, 24% were judged to be incorrect, and 23% had uncertain accuracy, according to data from a contact information search vendor. Likewise, only 51% of addresses were judged to be correct; 6% had a minor error that a postal worker might be able to fix during delivery, such as an incorrect apartment number; 20% were judged to be incorrect; and 23% had uncertain accuracy.

Combining the data on telephone number accuracy with the call vendor's reports of calls that could not be placed,[12] we estimate that at most 61% of calls were received by the correct person (i.e., the primary person on the case). This is an upper bound, however; if contact information was inaccurate for some of the people whose contact information was marked as having uncertain accuracy, or if messages were marked as spam despite our attempts to remain "whitelisted," the proportion of people who received their outreach could be lower.

Treatment on the Treated Analysis. In a treatment on the treated analysis, we found a larger effect of the call when focusing on successfully contacted individuals. Specifically, we conducted an instrumental variables analysis in which randomization to the call group was used as an instrument for receipt of the call. The first stage of this model was:

$$CallReceived_i = \alpha_0 + \alpha_1 CallArm_i + \tilde{\mu_t} + G_i\tilde{\theta} + X_i\tilde{\delta} + v_i \quad (2)$$

[11] Because outreach messages were sent to the primary person on the case – so in the case of an enrollee who was a child, this would be a designated responsible adult - contact information accuracy analyses focused on that person.
[12] In our sample, 22% of pre-recorded outbound calls could not be placed, based on reports from the call vendor. This included cases where there was no answer and no voicemail was set up, the voicemail was full, etc.

with renewal deadline fixed effects $\tilde{\mu_t}$; X_i is defined as above and G_i is a vector capturing the randomized variations in written outreach. Among people sent the call, ($CallReceived_i$=1) unless we had evidence to the contrary; thus, a person in the call arm would have $CallReceived_i = 0$ if the call could not be successfully placed, or if the contact information search service found evidence the phone number was no longer associated with the person of interest. This measure likely overestimates actual receipt of the calls, which would bias treatment effects towards the null.

Randomization to the call arm was a strong instrument for receipt of the call (first stage F-statistic was 37,238). Receiving a call increased Medicaid renewal rates by 1.7 percentage points (a 3% increase) and reduced procedural denials by 1.8 percentage points (an 8% decline). As Table 4 shows, findings for this treatment on the treated analysis across subgroups were broadly similar to the intent to treat analyses. However, the call receipt data highlight the challenges in reaching certain groups of beneficiaries: receipt of the call was lowest among rural residents (51%) and tribal members (51%). Rural residents did not show significant effects of the call, although power may be limited by the small size of this group (less than 4,000 people). In contrast, tribal members who received the call experienced large effects, becoming 7.9 percentage points more likely to renew Medicaid successfully and 6.0 percentage points more likely to still have Medicaid 12 months later.

d. **External validity**

Our intervention took place during the unwinding of continuous coverage benefits, a policy that had paused Medicaid renewal requirements and prevented disenrollment for more than 3 years. Outside that context, enrollees might be less likely to have out-of-date contact information, and a higher proportion might have ongoing eligibility. There would also typically

be less media coverage about the need to renew benefits. Together, these factors might suggest that outreach might have larger effects in the standard renewal context than in the period we studied. On the other hand, enrollees might be more unfamiliar with requirements after a longer period without required renewals.

The intervention should be viewed as one component of a broader renewal system; effects will likely depend on states' ex parte renewal rates, administrative processes, outreach infrastructure, and navigator capacity. Given that assistance is only relevant for people who are not renewed ex parte, the impact of an intervention such as ours would likely vary in magnitude based on how many, and which, enrollees are renewed ex parte in any given state. Also, our study sample only included fee-for-service enrollees, who differ on some dimensions from the managed care population. Appendix A4 provides a reweighting exercise to further contextualize. Finally, government funding for the navigator program has changed over time, including major cuts in 2025; available navigators are needed for the one-on-one assistance component of the intervention.

V. Conclusion

This field experiment demonstrated that some Medicaid beneficiaries lose coverage due to frictions in the renewal process. More intensive outreach to connect beneficiaries with help increased successful Medicaid renewals among tribal members, children, people with income below the sample median (82% of FPL), and people with chronic health conditions, among other groups. These findings do not support the typical rationale for allowing barriers or costs to enrollment—namely, that they efficiently discourage participation by those who do not need or value the benefits.

Supplementing written outreach with a pre-recorded call resulted in a 1 percentage point increase in successful Medicaid renewal. This effect size is in line with the effects of other information interventions on health insurance enrollment (Goldin et al. 2021; Domurat et al. 2021; Ericson, Layton, et al. 2025). However, our data suggest that one potentially important factor limiting effect sizes in this study and, perhaps, in prior outreach interventions is inaccurate contact information. In our study context, we found that at least 1 in 5 listed phone numbers or addresses were no longer affiliated with the person of interest. These data are timely to inform states' decisions about whether to contact Medicaid members using multiple modalities – so that if an address is no longer accurate, the beneficiary could be reached by telephone or vice versa. Currently, it is only required to contact Medicaid beneficiaries before renewal using written outreach (mail or, if opted in, email), which our data suggest could result in avoidable procedural disenrollments. The data can also inform states' decisions about investment in new data flows for contact information updating, which is also an active area of policymaking.

A full cost-effectiveness analysis would need to account for navigator staffing, training, and potential wait-time effects that we could not measure. Nonetheless, even under conservative assumptions, the very low cost of automated outreach suggests the intervention may be cost-effective. The cost of sending a pre-recorded outbound call was 15 cents, which translates into a cost of $15 to successfully renew an enrollee by adding telephone outreach. The value of this additional enrollment to beneficiaries is at least $60 per month excluding value to external parties such as providers, indicating that such an intervention is likely cost-effective (Finkelstein et al. 2019; Ericson, Jaspersen, et al. 2025).[13]

[13] The monthly value calculation: $1450*.5 /12.

Our findings contribute to the literature demonstrating a link between stricter administrative requirements and lower Medicaid or CHIP enrollment (Arbogast et al. 2024; Bansak and Raphael 2007; Blavin et al. 2014; Schmidt et al. 2024; Sommers 2010; Wolfe and Scrivner 2005). Medicaid enrollment decreases when beneficiaries are required to pay premiums (Dague 2014), and increases when Medicaid renews coverage for certain beneficiaries ex parte using existing government records (Ku and Platt 2022; MACPAC 2023; Nelson, Singer, and Fung 2024; Rennane et al. 2024), or implements continuous coverage periods (CMS 2023; Dague, Badaracco, et al. 2022). The Congressional Budget Office recently projected that stricter and more frequent Medicaid renewal requirements would cause over 6 million people to lose health insurance (Congressional Budget Office 2025), underscoring the importance of identifying effective methods to help Medicaid-eligible people navigate these administrative processes.

In summary, multi-modal outreach and assistance can reduce Medicaid coverage losses for procedural reasons, but many beneficiaries do not receive outreach messages because of out-of-date contact information. Taken together, these findings have important implications for the millions of people who must renew their benefits each year. The small effect size of outreach and challenges in delivering outreach underscore the importance of reducing administrative burden using structural methods, such as via ex parte renewals, whenever possible. Those who cannot be renewed ex parte due to a need for information or clarification must be informed about their renewal requirements, and our data can help inform a successful outreach and assistance campaign to maintain safety net access among eligible enrollees.

References

Aizawa, Naoki, and You Suk Kim. 2018. "Advertising and Risk Selection in Health Insurance Markets." *American Economic Review* 108 (3): 828–67. https://doi.org/10.1257/aer.20151485.

Aizer, Anna. 2003. "Low Take-Up in Medicaid: Does Outreach Matter and for Whom?" *American Economic Review* 93 (2): 238–41. https://doi.org/10.1257/000282803321947119.

Aizer, Anna. 2007. "Public Health Insurance, Program Take-Up, and Child Health." *The Review of Economics and Statistics* 89 (3): 400–415. https://doi.org/10.1162/rest.89.3.400.

Alsan, Marcella, and Crystal S. Yang. 2022. "Fear and the Safety Net: Evidence from Secure Communities." *The Review of Economics and Statistics*, September 27, 1–45. https://doi.org/10.1162/rest_a_01250.

Arbogast, Iris, Anna Chorniy, and Janet Currie. 2024. "Administrative Burdens and Child Medicaid and CHIP Enrollments." *American Journal of Health Economics* 10 (2): 237–71. https://doi.org/10.1086/728170.

ASPE. 2021. "Medicaid Churning and Continuity of Care." Issue Brief, April 11. https://aspe.hhs.gov/reports/medicaid-churning-continuity-care.

"BadgerCare Plus Handbook." n.d. Accessed January 21, 2025. https://www.emhandbooks.wisconsin.gov/bcplus/bcplus.htm#t=home.htm.

Baicker, Katherine, William J. Congdon, and Sendhil Mullainathan. 2012. "Health Insurance Coverage and Take-Up: Lessons from Behavioral Economics." *The Milbank Quarterly* 90 (1): 107–34. https://doi.org/10.1111/j.1468-0009.2011.00656.x.

Bansak, Cynthia, and Steven Raphael. 2007. "The Effects of State Policy Design Features on Take-up and Crowd-out Rates for the State Children's Health Insurance Program." *Journal of Policy Analysis and Management* 26 (1): 149–75. https://doi.org/10.1002/pam.20231.

Bertrand, Marianne, Erzo F. P. Luttmer, and Sendhil Mullainathan. 2000. "Network Effects and Welfare Cultures*." *The Quarterly Journal of Economics* 115 (3): 1019–55. https://doi.org/10.1162/003355300554971.

Bertrand, Marianne, Sendhil Mullainathan, and Eldar Shafir. 2004. "A Behavioral-Economics View of Poverty." *American Economic Review* 94 (2): 419–23. https://doi.org/10.1257/0002828041302019.

Besley, Timothy, and Stephen Coate. 1992. "Workfare versus Welfare: Incentive Arguments for Work Requirements in Poverty-Alleviation Programs." *The American Economic Review* 82 (1): 249–61.

Bettinger, Eric P., Bridget Terry Long, Philip Oreopoulos, and Lisa Sanbonmatsu. 2012. "The Role of Application Assistance and Information in College Decisions: Results from the H&R Block Fafsa Experiment*." *The Quarterly Journal of Economics* 127 (3): 1205–42. https://doi.org/10.1093/qje/qjs017.

Bhargava, Saurabh, and Dayanand Manoli. 2015. "Psychological Frictions and the Incomplete Take-Up of Social Benefits: Evidence from an IRS Field Experiment." *American Economic Review* 105 (11): 3489–529. https://doi.org/10.1257/aer.20121493.

Biden, Joseph. 2021. "Executive Order 13985 Advancing Racial Equity and Support for Underserved Communities Through the Federal Government." January 25. https://www.federalregister.gov/documents/2021/01/25/2021-01753/advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government.

Blavin, Fredric, Genevieve M. Kenney, and Michael Huntress. 2014. "The Effects of Express Lane Eligibility on Medicaid and CHIP Enrollment among Children." *Health Services Research* 49 (4): 1268–89. https://doi.org/10.1111/1475-6773.12157.

Buchmueller, Thomas, John C. Ham, and Lara D. Shore-Sheppard. 2015. "The Medicaid Program." In *Economics of Means-Tested Transfer Programs in the United States, Volume 1*. University of Chicago Press. https://www.nber.org/books-and-chapters/economics-means-tested-transfer-programs-united-states-volume-1/medicaid-program.

Centers for Medicare & Medicaid Services, and Department of Health and Human Services. 2023. "Streamlining Medicaid; Medicare Savings Program Eligibility Determination and Enrollment." Federal Register, September 21. https://www.federalregister.gov/documents/2023/09/21/2023-20382/streamlining-medicaid-medicare-savings-program-eligibility-determination-and-enrollment.

CMS. 2023. "SHO #23-004 Continuous Eligibility for Medicaid and CHIP Coverage | Medicaid." September. https://www.medicaid.gov/medicaid/enrollment-strategies/continuous-eligibility-medicaid-and-chip-coverage/index.html.

CMS. 2024a. "Chronic Conditions." Chronic Conditions Data Warehouse. https://www2.ccwdata.org/condition-categories-chronic.

CMS. 2024b. "Strategic Approaches to Engaging Managed Care Plans to Maximize Continuity of Coverage as States Resume Normal Eligibility and Enrollment Operations." March. https://www.medicaid.gov/resources-for-states/downloads/health-plan-strategy.pdf.

Congressional Budget Office. 2025. *Estimated Effects on the Number of Uninsured People in 2034 Resulting From Policies Incorporated Within CBO's Baseline Projections and H.R. 1, the One Big Beautiful Bill Act*. Congressional Budget Office. https://www.cbo.gov/publication/61463.

Currie, Janet. 2004. *The Take Up of Social Benefits*. No. W10488. National Bureau of Economic Research. https://doi.org/10.3386/w10488.

Currie, Janet, and Firouz Gahvari. 2008. "Transfers in Cash and In-Kind: Theory Meets the Data." *Journal of Economic Literature* 46 (2): 333–83. https://doi.org/10.1257/jel.46.2.333.

Currie, Janet, and Jonathan Gruber. 1996. "Saving Babies: The Efficacy and Cost of Recent Changes in the Medicaid Eligibility of Pregnant Women." *Journal of Political Economy* 104 (6): 1263–96.

Cutler, D. M., and S. J. Reber. 1998. "Paying for Health Insurance: The Trade-Off between Competition and Adverse Selection." *The Quarterly Journal of Economics* 113 (2): 433–66. https://doi.org/10.1162/003355398555649.

Cutler, David, and Richard Zeckhauser. 1998. "Adverse Selection in Health Insurance." In *Frontiers in Health Policy Research, Volume 1*, vol. 1.

Dague, Laura. 2014. "The Effect of Medicaid Premiums on Enrollment: A Regression Discontinuity Approach." *Journal of Health Economics* 37: 1–12.

Dague, Laura, Nicolás Badaracco, Thomas DeLeire, Justin Sydnor, Alyssa Shell Tilhou, and Donna Friedsam. 2022. "Trends in Medicaid Enrollment and Disenrollment During the Early Phase of the COVID-19 Pandemic in Wisconsin." *JAMA Health Forum* 3 (2): e214752. https://doi.org/10.1001/jamahealthforum.2021.4752.

Dague, Laura, Marguerite Burns, and Donna Friedsam. 2022. "The Line between Medicaid and Marketplace: Coverage Effects from Wisconsin's Partial Expansion." *Journal of Health Politics, Policy and Law* 47 (3): 293–318. https://doi.org/10.1215/03616878-9626852.

Dague, Laura, and Rebecca Myerson. 2024. "Loss of Medicaid Coverage During the Renewal Process." *JAMA Health Forum*.

Daponte, Beth Osborne, Seth Sanders, and Lowell Taylor. 1999. "Why Do Low-Income Households Not Use Food Stamps? Evidence from an Experiment." *The Journal of Human Resources* 34 (3): 612–28. https://doi.org/10.2307/146382.

DeLeire, Thomas, Lindsey Leininger, Laura Dague, Shannon Mok, and Donna Friedsam. 2012. "Wisconsin's Experience with Medicaid Auto-Enrollment: Lessons for Other States." *Medicare & Medicaid Research Review* 2 (2).

Department of Health and Human Services and Centers for Medicare & Medicaid Services. 2024. "Medicaid Program; Streamlining the Medicaid, Children's Health Insurance Program, and Basic Health Program Application, Eligibility Determination, Enrollment, and Renewal Processes." Federal Register, April 2. https://www.federalregister.gov/documents/2024/04/02/2024-06566/medicaid-program-streamlining-the-medicaid-childrens-health-insurance-program-and-basic-health.

Deshpande, Manasi, and Yue Li. 2019. "Who Is Screened Out? Application Costs and the Targeting of Disability Programs." *American Economic Journal: Economic Policy* 11 (4): 213–48. https://doi.org/10.1257/pol.20180076.

Domurat, Richard, Isaac Menashe, and Wesley Yin. 2021. "The Role of Behavioral Frictions in Health Insurance Marketplace Enrollment and Risk: Evidence from a Field Experiment." *American Economic Review* 111 (5): 1549–74. https://doi.org/10.1257/aer.20190823.

Einav, Liran, and Amy Finkelstein. 2023. "The Risk of Losing Health Insurance in the United States Is Large, and Remained so after the Affordable Care Act." *Proceedings of the National Academy of Sciences of the United States of America* 120 (18): e2222100120. https://doi.org/10.1073/pnas.2222100120.

Einav, Liran, Amy Finkelstein, and Mark R. Cullen. 2010. "Estimating Welfare in Insurance Markets Using Variation in Prices*." *The Quarterly Journal of Economics* 125 (3): 877–921. https://doi.org/10.1162/qjec.2010.125.3.877.

Ericson, Keith Marzilli, Johannes G. Jaspersen, and Justin R. Sydnor. 2025. "Moral Hazard under Liquidity Constraints." Working Paper No. 33648. Working Paper Series. National Bureau of Economic Research, April. https://doi.org/10.3386/w33648.

Ericson, Keith Marzilli, Jon Kingsdale, Tim Layton, and Adam Sacarny. 2017. "Nudging Leads Consumers In Colorado To Shop But Not Switch ACA Marketplace Plans." *Health Affairs* 36 (2): 311–19. https://doi.org/10.1377/hlthaff.2016.0993.

Ericson, Keith Marzilli, Timothy J. Layton, Adrianna McIntyre, and Adam Sacarny. 2025. "Reducing Administrative Barriers Increases Take-Up of Subsidized Health Insurance Coverage: Evidence from a Field Experiment." *The Review of Economics and Statistics*, March 5, 1–32. https://doi.org/10.1162/rest_a_01573.

Finkelstein, Amy, Nathaniel Hendren, and Erzo F. P. Luttmer. 2019. "The Value of Medicaid: Interpreting Results from the Oregon Health Insurance Experiment." *The Journal of Political Economy* 127 (6): 2836–74. https://doi.org/10.1086/702238.

Finkelstein, Amy, and Matthew J. Notowidigdo. 2019. "Take-Up and Targeting: Experimental Evidence from SNAP." *The Quarterly Journal of Economics* 134 (3): 1505–56. https://doi.org/10.1093/qje/qjz013.

Giannella, Eric, Tatiana Homonoff, Gwen Rino, and Jason Somerville. 2024. "Administrative Burden and Procedural Denials: Experimental Evidence from SNAP." *American Economic Journal: Economic Policy* 16 (4): 316–40. https://doi.org/10.1257/pol.20220701.

Goldin, Jacob, Ithai Z. Lurie, and Janet McCubbin. 2021. "Health Insurance and Mortality: Experimental Evidence from Taxpayer Outreach." *The Quarterly Journal of Economics* 136 (1): 1–49. https://doi.org/10.1093/qje/qjaa029.

Haaland, Ingar, Christopher Roth, and Johannes Wohlfart. 2023. "Designing Information Provision Experiments." *Journal of Economic Literature* 61 (1): 3–40. https://doi.org/10.1257/jel.20211658.

Handel, Benjamin R. 2013. "Adverse Selection and Inertia in Health Insurance Markets: When Nudging Hurts." *American Economic Review* 103 (7): 2643–82. https://doi.org/10.1257/aer.103.7.2643.

Heinrich, Carolyn J., Sayil Camacho, Sarah Clark Henderson, Mónica Hernández, and Ela Joshi. 2022. "Consequences of Administrative Burden for Social Safety Nets That Support the Healthy

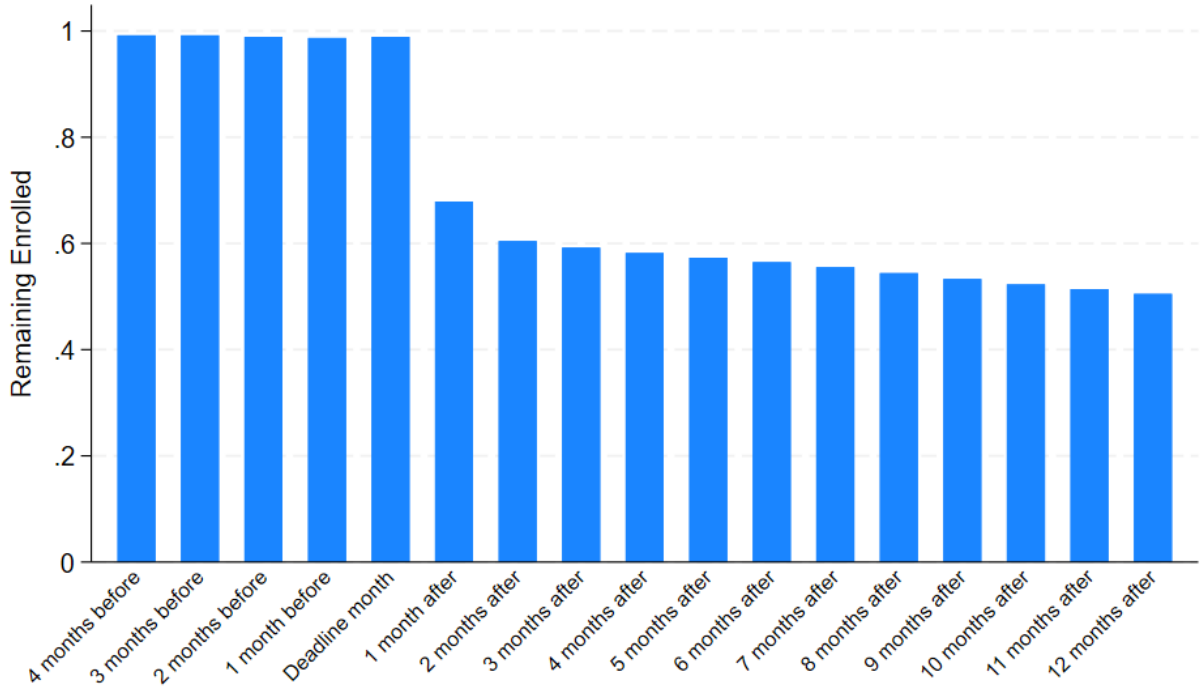
Development of Children." *Journal of Policy Analysis and Management* 41 (1): 11–44. https://doi.org/10.1002/pam.22324.
Herd, Pamela, Eric R. Giannella, Jeremy Barofsky, Luke Farrell, and Donald Moynihan. 2025. "Interventions To Automate Medicaid Renewals Reduce Procedural Denials And Increase Coverage." *Health Affairs* 44 (11): 1336–43. https://doi.org/10.1377/hlthaff.2025.00316.
Herd, Pamela, and Donald Moynihan. 2018. *Administrative Burden: Policymaking by Other Means*. Russell Sage Foundation Press.
Homonoff, Tatiana, and Jason Somerville. 2021. "Program Recertification Costs: Evidence from SNAP." *American Economic Journal: Economic Policy* 13 (4): 271–98. https://doi.org/10.1257/pol.20190272.
Howell, Benjamin L., Partha Deb, Sai Ma, et al. 2017. "Encouraging Medicare Advantage Enrollees to Switch to Higher Quality Plans: Assessing the Effectiveness of a 'Nudge' Letter." *MDM Policy & Practice* 2 (1): 2381468317707206. https://doi.org/10.1177/2381468317707206.
H.R.1: One Big Beautiful Bill Act (2025). https://www.congress.gov/bill/119th-congress/house-bill/1/text.
Kabbani, Nader S., and Parke E. Wilde. 2003. "Short Recertification Periods in the U.S. Food Stamp Program." *The Journal of Human Resources* 38: 1112–38. https://doi.org/10.2307/3558983.
KFF. 2019. "Total Monthly Medicaid & CHIP Enrollment and Pre-ACA Enrollment." *KFF*, December. https://www.kff.org/health-reform/state-indicator/total-monthly-medicaid-and-chip-enrollment/.
Ko, Wonsik, and Robert A. Moffitt. 2022. "Take-up of Social Benefits." Working Paper No. 30148. Working Paper Series. National Bureau of Economic Research, June. https://doi.org/10.3386/w30148.
Ku, Leighton, and Isabel Platt. 2022. "Duration and Continuity of Medicaid Enrollment Before the COVID-19 Pandemic." *JAMA Health Forum* 3 (12): e224732. https://doi.org/10.1001/jamahealthforum.2022.4732.
Loewenstein, George, David Hagmann, Janet Schwartz, et al. 2017. "A Behavioral Blueprint For Improving Health Care Policy." *Behavioral Science & Policy* 3 (January): 53–66. https://doi.org/10.1353/bsp.2017.0005.
Lopoo, Leonard, Colleen Heflin, and Joseph Boskovski. 2020. "Testing Behavioral Interventions Designed to Improve On-Time SNAP Recertification." *Journal of Behavioral Public Administration* 3 (September). https://doi.org/10.30636/jbpa.32.183.
MACPAC. 2023. "Increasing the Rate of Ex Parte Renewals." Issue Brief, September. https://www.macpac.gov/wp-content/uploads/2023/09/Increasing-the-Rate-of-Ex-Parte-Renewals-Brief.pdf.
McIntyre, Adrianna, Benjamin D. Sommers, Gabriella Aboulafia, et al. 2024. "Coverage and Access Changes During Medicaid Unwinding." *JAMA Health Forum* 5 (6): e242193. https://doi.org/10.1001/jamahealthforum.2024.2193.
Medicaid and CHIP Payment and Access Commission. 2017. *Federal Requirements and State Options: Enrollment and Renewal Procedures*. https://www.macpac.gov/wp-content/uploads/2017/07/Federal-Requirements-and-State-Options-Enrollment-and-Renewal-Procedures.pdf.
Medicaid Eligibility Handbook 23-02. n.d.
Miller, Sarah, Norman Johnson, and Laura R. Wherry. 2021. "Medicaid and Mortality: New Evidence From Linked Survey and Administrative Data*." *The Quarterly Journal of Economics* 136 (3): 1783–829. https://doi.org/10.1093/qje/qjab004.
Mills, Gregory, Tracy Vericker, Heather Koball, Kye Lippold, Laura Wheaton, and Sam Elkin. 2014. *Understanding the Rates, Causes, and Costs of Churning in the Supplemental Nutrition*

Assistance Program (SNAP). United States Department of Agriculture. https://fns-prod.azureedge.us/sites/default/files/ops/SNAPChurning.pdf.
Mullainathan, Sendhil, and Eldar Shafir. 2013. *Scarcity: Why Having Too Little Means so Much*. Scarcity: Why Having Too Little Means so Much. Times Books/Henry Holt and Co.
Myerson, Rebecca, and Laura Dague. 2022. "Outreach and Maintenance of Medicaid Enrollment: Evidence from Wisconsin's Navigator Program." AEA RCT registry. https://doi.org/10.1257/rct.9772-3.0.
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 (1): 129–37. https://doi.org/10.1377/hlthaff.2021.01000.
Ndumele, Chima D., Anthony Lollo, Harlan M. Krumholz, Mark Schlesinger, and Jacob Wallace. 2023. "Long-Term Stability of Coverage Among Michigan Medicaid Beneficiaries: A Cohort Study." *Annals of Internal Medicine* 176 (1): 22–28. https://doi.org/10.7326/M22-1313.
Nelson, Daniel B., Phillip M. Singer, and Vicki Fung. 2024. "Implementing Automated Medicaid Eligibility Renewals Was Not Associated with Higher Levels of Program Participation." *Health Affairs Scholar* 2 (6): qxae071. https://doi.org/10.1093/haschl/qxae071.
Nichols, Albert L., and Richard J. Zeckhauser. 1982. "Targeting Transfers through Restrictions on Recipients." *The American Economic Review* 72 (2): 372–77.
Office of Management and Budget. 2022. *Strategies for Reducing Administrative Burden in Public Benefit and Service*. https://bidenwhitehouse.archives.gov/wp-content/uploads/2022/12/BurdenReductionStrategies.pdf.
Pei, Zhuan. 2017. "Eligibility Recertification and Dynamic Opt-In Incentives in Income-Tested Social Programs: Evidence from Medicaid/CHIP." *American Economic Journal: Economic Policy* 9 (1): 241–76. https://doi.org/10.1257/pol.20130271.
Rennane, Stephanie, Danielle Sobol, Bradley D. Stein, and Andrew Dick. 2024. "Insurance Coverage during Transitions: Evidence from Medicaid Automatic Enrollment for Children Receiving Supplemental Security Income." *Health Services Research* 59 (3): e14261. https://doi.org/10.1111/1475-6773.14261.
Rumalla, Kranti C., Daniel B. Nelson, K. John McConnell, and Jane M. Zhu. 2024. "Racial and Ethnic Disparities in Medicaid Disenrollment After the End of the COVID-19 Public Health Emergency." *JAMA Internal Medicine* 184 (8): 987–89. https://doi.org/10.1001/jamainternmed.2024.1503.
Schanzenbach, Diane Whitmore. 2009. "Experimental Estimates of the Barriers to Food Stamp Enrollment." Discussion Paper no. 1367-09. September. https://www.irp.wisc.edu/resource/experimental-estimates-of-the-barriers-to-food-stamp-enrollment/.
Schmidt, Lucie, Lara Shore-Sheppard, and Tara Watson. 2024. "Safety-Net Program Spillovers and Administrative Burden." *National Tax Journal* 77 (1): 199–221. https://doi.org/10.1086/728475.
Sommers, Benjamin D. 2007. "Why Millions Of Children Eligible For Medicaid And SCHIP Are Uninsured: Poor Retention Versus Poor Take-Up." *Health Affairs* 26 (Supplement 2): w560–67. https://doi.org/10.1377/hlthaff.26.5.w560.
Sommers, Benjamin D. 2010. "Targeting in Medicaid: The Costs and Enrollment Effects of Medicaid's Citizenship Documentation Requirement." *Journal of Public Economics* 94 (1): 174–82. https://doi.org/10.1016/j.jpubeco.2009.11.004.
Stuber, Jennifer, and Elizabeth Bradley. 2005. "Barriers to Medicaid Enrollment: Who Is at Risk?" *American Journal of Public Health* 95 (2): 292–98.

Wolfe, Barbara, and Scott Scrivner. 2005. “The Devil May Be in the Details: How the Characteristics of SCHIP Programs Affect Take-Up.” *Journal of Policy Analysis and Management* 24 (3): 499–522. https://doi.org/10.1002/pam.20112.

Wu, Derek, and Bruce D. Meyer. 2023. “Certification and Recertification in Welfare Programs: What Happens When Automation Goes Wrong?” Working Paper No. 31437. Working Paper Series. National Bureau of Economic Research, July. https://doi.org/10.3386/w31437.

Figure 1.
Maintenance of Medicaid Enrollment,
Before and After the Medicaid Renewal Deadline



Source: Administrative data from Wisconsin.
Note: Data are from the group receiving written outreach only.

Table 1.
Description of the Study Population

	% of the Study Population	*p*-value of Hypothesis Test Assessing Whether Characteristics Differ by Randomized Study Arm			
		Variations in Written Outreach			Supplement to Written Outreach
		Text vs. Postcard	Webchat Text vs. Hotline Text	Reminder Text vs. No Reminder Text	Call vs. No Call
Personal characteristics					
Female	52	0.10	0.53	0.78	0.64
Tribal member	12	0.81	0.96	0.30	0.13
Black	10	0.87	0.35	0.88	0.84
Hispanic	8	0.54	0.33	0.88	0.53
Asian or Pacific Islander	1	0.58	0.44	0.58	0.87
Prefer Spanish	4	0.56	0.66	0.87	0.69
Rural resident	6	0.58	0.91	0.54	0.55
Age category					
Less than 18 years	17	0.92	0.91	0.94	0.57
18-25 years	6	0.79	0.37	0.68	0.42
26-49 years	21	0.70	0.74	0.64	0.76
50-64 years	26	0.17	0.70	0.57	0.98
65+ years	30	0.12	0.80	0.24	0.51
Eligibility category at the time of Medicaid enrollment					
Aged, blind, or disabled	54	0.98	0.37	0.67	0.57
Parent	7	0.62	0.27	0.66	0.75
Childless adult	19	0.85	0.75	0.54	0.58
Pregnant	3	0.79	0.83	0.52	0.91
Child	15	0.54	0.40	0.94	0.41
Extensions	2	0.14	0.97	0.86	0.85
History of Medicaid renewal					
Recent successful Medicaid renewal	48	0.19	0.77	0.38	0.56

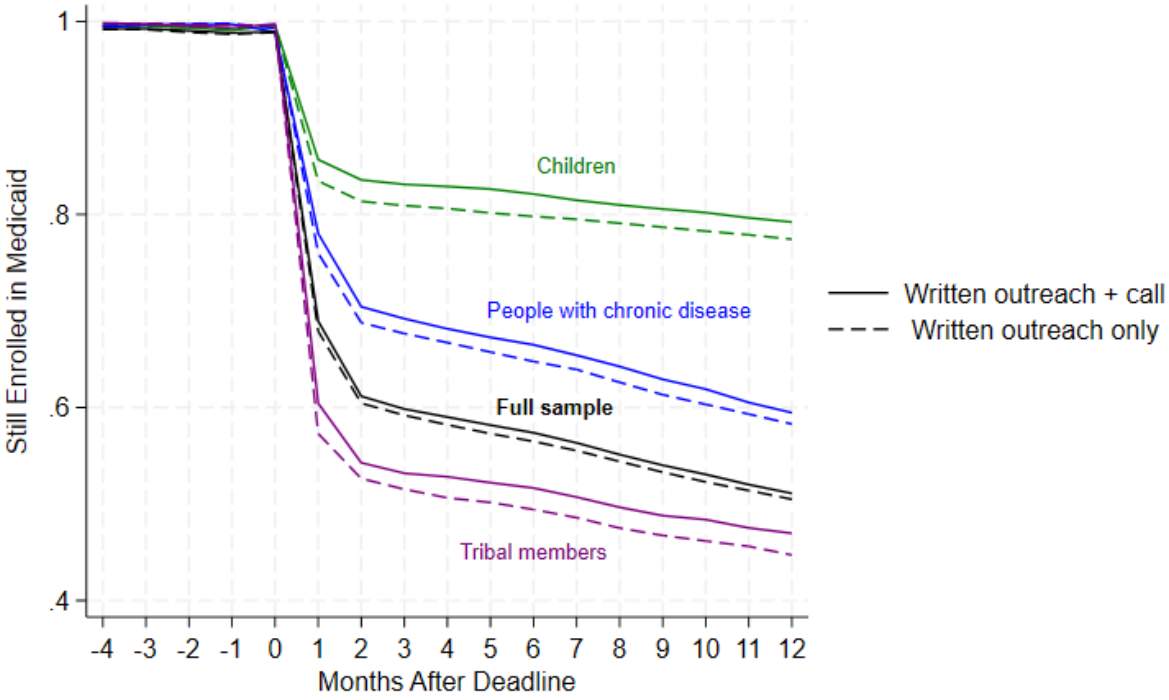
Recent health care use					
Any inpatient visits	11	0.30	0.41	0.71	0.14
Any chronic conditions	20	0.98	0.42	0.69	0.61
Income (federal poverty level)					
<=50% FPL	29	0.94	0.28	0.27	0.14
>50-100% FPL	20	0.34	0.82	0.01	0.20
>100-200% FPL	25	0.05	0.58	0.56	0.49
>200% FPL	26	0.23	0.38	0.58	0.79

Source: Administrative data from Wisconsin.
Note: There is 1 significant coefficient for over 100 hypothesis tests, as expected under the null of no difference between groups with a type 1 error rate of 5%. Health care use and expenditures were measured during a period when all members of the study sample had continuous Medicaid coverage.

Table 2.
Impact of Outreach Variations on Medicaid Renewal Outcomes (Intent-to-Treat)

Outcome	Average in Postcard-Only Group	Variations in Written Outreach			Supplement to Written Outreach
		Impact of Randomization to Text Message, Rather Than Postcard (pp)	Impact of Randomization to Webchat Rather than Hotline Text, If in Text Group (pp)	Impact of Randomization to Additional Reminder, If in Text Group (pp)	Impact of Randomization to Pre-Recorded Call (pp)
	(1)	(2)	(3)	(4)	(5)
Medicaid Renewal					
Successful Medicaid Renewal	68.7	0.3 (-0.7 to 1.3) [0.54]	-0.4 (-1.3 to 0.6) [0.42]	0.4 (-0.6 to 1.3) [0.47]	1.0*** (0.3 to 1.7) [0.01]
Lost Medicaid at Renewal Deadline for Procedural Reasons	21.2	-0.5 (-1.4 to 0.4) [0.30]	0.7 (-0.1 to 1.6) [0.10]	-0.6 (-1.4 to 0.3) [0.20]	-1.1*** (-1.8 to -0.4) [0.00]
Medicaid Retention					
3 Months after Renewal Deadline	60	0.3 (-0.7 to 1.4) [0.52]	-0.2 (-1.2 to 0.7) [0.61]	-0.1 (-1.1 to 0.8) [0.80]	0.6 (-0.1 to 1.4) [0.10]
6 Months after Renewal Deadline	57.3	0.3 (-0.8 to 1.3) [0.59]	-0.1 (-1.1 to 0.8) [0.79]	-0.1 (-1.1 to 0.8) [0.78]	0.9** (0.1 to 1.6) [0.02]
9 Months after Renewal Deadline	54.2	0.3 (-0.8 to 1.3) [0.59]	-0.1 (-1.1 to 0.8) [0.77]	-0.1 (-1.1 to 0.9) [0.86]	0.7* (-0.1 to 1.5) [0.07]
12 Months after Renewal Deadline	51.4	0.6 (-0.5 to 1.6) [0.29]	-0.6 (-1.6 to 0.4) [0.23]	-0.4 (-1.4 to 0.5) [0.38]	0.6 (-0.2 to 1.4) [0.12]

Figure 2.
Maintenance of Medicaid Enrollment Over Time,
With vs Without Phone Outreach



Source: Administrative data from Wisconsin.

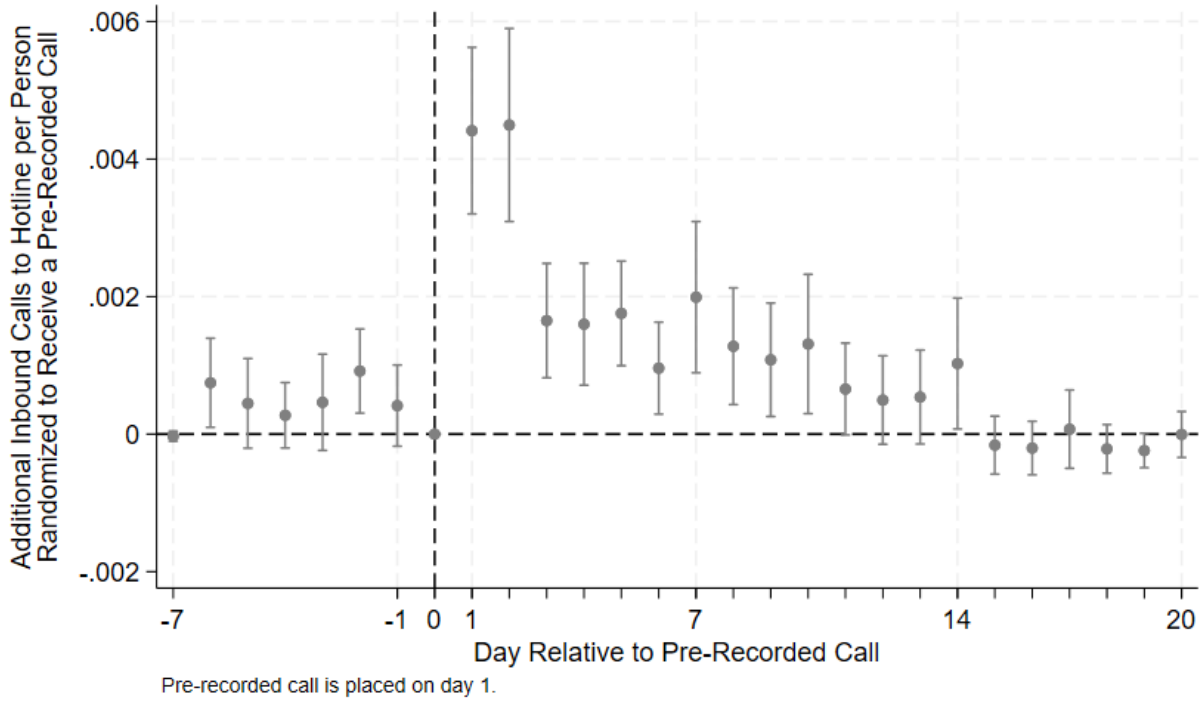
Table 3.
Impact of Outreach Variations on Medicaid Successful Renewal, By Subgroup
(Intent to Treat)

Subgroup	Average in Postcard-Only Group	Variations in Written Outreach: Impact of Randomization to Text Message, Rather Than Postcard (pp)	Variations in Written Outreach: Impact of Randomization to Webchat Rather than Hotline Text, If in Text Group (pp)	Variations in Written Outreach: Impact of Randomization to Additional Reminder, If in Text Group (pp)	Supplement to Written Outreach: Impact of Randomization to Pre-Recorded Call (pp)
	(1)	(2)	(3)	(4)	(5)
By Personal Characteristics					
Tribal member N=7403	58.5	-0.7 (-4.5 to 3.1) [0.71]	-1.4 (-5.0 to 2.2) [0.44]	1.4 (-2.2 to 5.0) [0.46]	4.0*** (1.2 to 6.8) [0.01]
Black N=6161	65.7	1.8 (-1.3 to 4.9) [0.26]	0.9 (-2.0 to 3.8) [0.54]	-0.1 (-3.0 to 2.8) [0.94]	-0.3 (-2.5 to 2.0) [0.83]
Hispanic N=4720	61.6	2.8 (-0.8 to 6.4) [0.13]	-2.5 (-6.0 to 0.9) [0.16]	0.3 (-3.2 to 3.7) [0.88]	1.9 (-0.7 to 4.6) [0.16]
Asian or Pacific Islander N=879	67.7	-0.9 (-9.2 to 7.4) [0.82]	1.4 (-6.4 to 9.1) [0.73]	2.2 (-5.8 to 10.1) [0.59]	2.3 (-3.9 to 8.6) [0.46]
Prefers Spanish N=2337	49.8	2 (-3.1 to 7.1) [0.45]	1.6 (-3.2 to 6.3) [0.52]	-0.4 (-5.2 to 4.4) [0.88]	0.7 (-3.0 to 4.5) [0.70]
Rural resident N=3472	66.2	0.7 (-4.7 to 6.1) [0.80]	0.3 (-4.7 to 5.2) [0.92]	3 (-2.0 to 7.9) [0.24]	2.2 (-1.8 to 6.1) [0.28]
Lower income N=25160	60.7	-0.4 (-2.0 to 1.3) [0.66]	-0.1 (-1.7 to 1.5) [0.90]	0.6 (-1.0 to 2.1) [0.47]	1.4** (0.2 to 2.6) [0.03]
Age category					
<18 years N=10914	84.3	1.2 (-1.1 to 3.5) [0.31]	-1.2 (-3.3 to 0.9) [0.25]	-1.4 (-3.6 to 0.7) [0.18]	2.1*** (0.5 to 3.8) [0.01]
18-25 years N=3909	52.3	-3.8* (-8.0 to 0.4)	0 (-3.9 to 3.9)	3.7* (-0.2 to 7.6)	-0.1 (-3.1 to 2.9)

		[0.07]	[1.00]	[0.06]	[0.94]
26-49 years	59.9	-1.3	0.8	1.6	1.5*
N=12944		(-3.4 to 0.9)	(-1.2 to 2.8)	(-0.5 to 3.6)	(-0.1 to 3.0)
		[0.25]	[0.42]	[0.13]	[0.07]
50-64 years	71.4	1.6*	-0.8	-0.6	1.4**
N=15954		(-0.2 to 3.4)	(-2.5 to 0.9)	(-2.3 to 1.1)	(0.1 to 2.8)
		[0.09]	[0.38]	[0.46]	[0.03]
65+ years	67.2	1.1	-0.3	0.6	-0.2
N=18744		(-0.7 to 2.8)	(-1.9 to 1.3)	(-1.0 to 2.2)	(-1.4 to 1.1)
		[0.23]	[0.71]	[0.46]	[0.80]
Successful recent renewal	78	0.6	0	-0.3	0.9*
N=29677		(-0.7 to 1.9)	(-1.2 to 1.2)	(-1.5 to 0.9)	(-0.1 to 1.8)
		[0.36]	[0.97]	[0.61]	[0.08]
No successful recent renewal	59.8	0.2	-0.7	0.9	1.1**
N=32788		(-1.3 to 1.7)	(-2.1 to 0.6)	(-0.4 to 2.3)	(0.1 to 2.2)
		[0.80]	[0.29]	[0.18]	[0.04]
By Recent Health Care Use					
Chronic conditions	75.5	1.2	-0.1	0.9	1.8***
N=12514		(-0.7 to 3.1)	(-1.9 to 1.7)	(-0.9 to 2.7)	(0.4 to 3.2)
		[0.23]	[0.91]	[0.32]	[0.01]
Above-median medical expenditures	73.7	0.4	-0.3	0.1	0.7
N=31224		(-0.8 to 1.7)	(-1.5 to 0.9)	(-1.1 to 1.3)	(-0.2 to 1.7)
		[0.49]	[0.58]	[0.91]	[0.12]

Source: Administrative data from Wisconsin.
*Note: * p<0.1, ** p<0.05, ***p<0.01. Pp=percentage points.*
Lower income denotes income below the sample median. Medicaid renewal is a variable that takes the value 1 for people who still had Medicaid coverage the month after their renewal deadline, and 0 otherwise. Health care use and expenditures were measured during a period when all members of the study sample had continuous Medicaid coverage. P-values are in brackets; 95% confidence intervals are in parentheses.

Figure 3.
Timing of Inbound Calls to Navigator Hotline from People Randomized to Receive an Outbound Call



Source: Information technology data on inbound calls to Covering Wisconsin's hotline. We matched inbound calls to people in the study population based on the phone number listed.

Table 4. Impact of Receiving a Call on Successful Medicaid Renewal (Treatment on the Treated)

Subgroup	Successful Call Delivery Rate (%)	First stage *F* statistic	Impact of Receiving a Call on Medicaid Retention (pp)		
			1 Month After the Deadline	6 Months After the Deadline	12 Months After the Deadline
Full Sample	61.2	37,238	1.7*** (0.5 to 2.9) [0.01]	1.4** (0.2 to 2.7) [0.02]	1 (-0.3 to 2.2) [0.12]
By Personal Characteristics					
Tribal member	51.3	1,742	7.9*** (2.4 to 13.3) [0.01]	5.9** (0.4 to 11.4) [0.04]	6.0** (0.6 to 11.3) [0.03]
Black	58.6	3,957	-0.4 (-4.3 to 3.4) [0.83]	1 (-3.0 to 4.9) [0.63]	2.2 (-1.8 to 6.2) [0.29]
Hispanic	63.0	3,087	3 (-1.1 to 7.2) [0.15]	2.5 (-1.4 to 6.5) [0.21]	1.3 (-2.7 to 5.2) [0.53]
Asian or Pacific Islander	65.1	571	3.6 (-5.4 to 12.6) [0.44]	-4.7 (-13.8 to 4.5) [0.32]	-5.7 (-14.9 to 3.5) [0.22]
Prefers Spanish	63.4	1,723	1.2 (-4.7 to 7.0) [0.70]	1.9 (-2.6 to 6.4) [0.41]	0.4 (-4.0 to 4.7) [0.87]
Rural resident	50.8	845	4.3 (-3.4 to 11.9) [0.28]	5.4 (-2.4 to 13.3) [0.18]	2.5 (-5.3 to 10.2) [0.53]
Lower income	59.0	12,355	2.3** (0.3 to 4.4) [0.03]	1.4 (-0.6 to 3.4) [0.17]	0.8 (-1.2 to 2.8) [0.44]
Age category					
<18 years	72.4	7,803	2.9** (0.7 to 5.2) [0.01]	3.0** (0.6 to 5.5) [0.02]	2.4* (-0.1 to 4.9) [0.07]
18-25 years	62.0	2,964	-0.2 (-5.0 to 4.6) [0.94]	-2 (-6.4 to 2.5) [0.39]	-1 (-5.1 to 3.1) [0.63]

26-49 years	56.2	8,097	2.6* (-0.2 to 5.4) [0.07]	1.4 (-1.3 to 4.2) [0.32]	0.5 (-2.3 to 3.2) [0.73]
50-64 years	61.3	12,127	2.3** (0.2 to 4.5) [0.03]	3.0** (0.7 to 5.3) [0.01]	2.2* (-0.1 to 4.6) [0.06]
65+ years	57.9	12,210	-0.3 (-2.5 to 1.9) [0.80]	-0.6 (-2.9 to 1.6) [0.59]	-0.7 (-3.0 to 1.6) [0.54]
By History of Medicaid Renewal					
Successful recent renewal	62.1	18,940	1.4* (-0.2 to 2.9) [0.08]	1.6* (-0.1 to 3.2) [0.06]	0.7 (-1.1 to 2.4) [0.44]
No successful recent renewal	60.4	20,381	1.9** (0.1 to 3.7) [0.04]	1.2 (-0.6 to 3.0) [0.18]	1.2 (-0.6 to 2.9) [0.19]
By Recent Health Care Use					
Chronic conditions	62.8	10,408	2.9** (0.7 to 5.1) [0.01]	2.3* (-0.2 to 4.7) [0.07]	1.4 (-1.2 to 4.0) [0.29]
Above-median medical expenditures	62.1	22,312	1.2 (-0.3 to 2.7) [0.12]	0.9 (-0.7 to 2.5) [0.26]	0.8 (-0.9 to 2.4) [0.36]

Source: Administrative data from Wisconsin.
*Note: * p<0.1, ** p<0.05, ***p<0.01. Pp=percentage points.*
Lower income denotes income below the sample median. Medicaid renewal is a variable that takes the value 1 for people who still had Medicaid coverage the month after their renewal deadline, and 0 otherwise. "Call Delivery Rate" includes data from people randomized to the call group, and captures the percent of people in the call group who received the call (i.e., the call was successfully placed and they were still reachable at that number). Health care use and expenditures were measured during a period when all members of the study sample had continuous Medicaid coverage. P-values are in brackets; 95% confidence intervals are in parentheses.