

Does Income Affect Health? Evidence from a Randomized Controlled Trial of a Guaranteed Income*

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Abstract

We study a randomized trial in which 1,000 low-income U.S. adults age 21 to 40 received \$1,000 per month for three years, from November 2020 until October 2023, while 2,000 control participants received \$50 monthly over that same period. The transfer produced large but short-lived improvements in stress and food security and increased hospital, emergency department, and dental care use. However, it did not improve self-reported physical health, clinical biomarkers, or mental health after the first year, and we can rule out small effects on many outcomes. We also find no effects on the health of children in participants' households.

1 Introduction

The positive correlation between income and health—sometimes called the health-income “gradient”—is one of the strongest and most widely-documented associations in the social sciences. The differences in health outcomes observed between rich and poor are substantial: for example, conditional on reaching age 40, men at the top of the income distribution can expect to live nearly 15 years longer

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than their counterparts at the bottom of the income distribution (Chetty et al., 2016). These disparities are observed early in life, become larger as individuals age, and are present across numerous countries, time periods, and measures of health (Case et al., 2002; Chetty et al., 2016; Bavafa et al., 2023; Kennedy-Moulton et al., 2023; Evans et al., 2012).

Especially in the context of the United States, it is plausible that this correlation between income and health reflects an underlying causal relationship. Indeed, low-income people report poor access to medical care, face more stressors, have less access to nutritious food and exercise opportunities, and report lower-quality sleep than their high-income counterparts (Allcott et al., 2019; Granddner et al., 2010; Miller and Wherry, 2019; American Psychological Association, 2017). Higher income could affect these health inputs and improve health as a result. Such patterns of deprivation across many related health measures have led some health policy experts to advocate for programs that attempt to improve health by targeting social or economic determinants such as income, housing, or neighborhood quality in addition to—or even in lieu of—encouraging increased use of medical care. Providing vulnerable populations a guaranteed income, or other forms of cash transfers, is one such policy that advocates argue could affect the social determinants of health, improve health outcomes, and reduce health disparities between rich and poor.¹ However, such claims presuppose a causal link between income and health that has not been fully established. Existing literature using both experimental and non-experimental variation in income in the context of the United States shows mixed effects, with some studies finding health benefits (Agarwal et al., 2024; Evans and Garthwaite, 2014a; Gelber et al., 2023) but others showing minimal or mixed impacts (Sperber et al., 2023; Balakrishnan et al., 2024; Black et al., 2024). Additional evidence is therefore useful as policymakers assess the potential health benefits of investing in direct poverty alleviation via cash transfers.

Our paper provides new evidence on the causal relationship between income and health by analyzing a large-scale randomized controlled trial (RCT) of a guaranteed income, the OpenResearch Unconditional income Study (ORUS), which occurred in the United States between November 2020 and October 2023. To conduct this study, we assisted two non-profit partners in the recruitment of 3,000 low-income adults age 21 to 40 and randomly assigned 1,000 to receive \$1,000 per month for 3 years (a transfer of about 40% of baseline household income), with the control group of 2,000 adults

¹A few examples are: Avanceña et al. (2022), Johnson et al. (2023), <https://www.vox.com/future-perfect/23792854/poverty-mortality-study-public-health-antipoverty-america-deaths-poor-life-expectancy>; <https://publichealth.jhu.edu/2022/what-guaranteed-income-means-for-public-health/>; <https://blogs.bmj.com/medical-ethics/2024/01/29/health-inequity-is-a-problem-universal-basic-income-could-be-a-solution/>

receiving \$50 per month over the same period. To assess the impact of this unconditional cash transfer on health, we collected data from multiple sources measuring a large number of health inputs (e.g., nutrition, exercise, access to and use of health care services, alcohol and drug use, insurance coverage, and sleep quality) and health outputs (e.g., self-reported mental and physical health, clinical measures of health derived from blood draws, and mortality). The large size of the transfer, combined with the randomized design, give us confidence that we should be able to detect impacts of the 3-year transfer on health during the treatment period if they are present in our sample. Our study is also unique in the large number of health-relevant variables that we are able to observe by combining administrative data with survey data and other sources. Our sample, comprised of low-income adults in the US, is a population of particular interest to policymakers and the target of several existing cash transfer programs such as the Earned Income Tax Credit (EITC), the Child Tax Credit (CTC), Temporary Aid to Needy Families (TANF) and other state-level programs aimed at poverty alleviation. At baseline, about 29% of the sample was uninsured, 27% reported that they skipped needed care due to cost, and more than half reported poor, fair, or good (rather than very good or excellent) health. These baseline needs enhance the plausibility that a guaranteed income could affect participants' health outcomes, making our study well-positioned to provide highly policy-relevant new information on whether an unconditional cash transfer can effectively improve health outcomes over a 3-year time horizon.

We find that the transfer generated large but short-lived improvements in mental health measures such as stress and psychological distress. These improvements were observed only in the first year of the transfer. By year 2, there were no significant differences in mental health outcomes between the treatment and control groups. Pooling observations across time periods, our confidence intervals rule out even small improvements in mental health; for example, for our aggregated index of mental health outcomes, we can rule out improvements greater than 0.03 standard deviations. We also find no evidence of improvements in physical health. For an index of physical health outcomes, we can rule out improvements larger than 0.02 standard deviations. For many individual components of that index, such as the number of days reported to be in good physical health in the last 30 days or self-rated health on a scale from poor to excellent, we can rule out improvements greater than 1% of the control group mean. We also find no persistent improvements in clinical measures of health derived from blood draws such as A1c (a measure of diabetes risk), blood pressure, cholesterol, obesity, or other cardiovascular health measures; confidence intervals of the effect on an index of these clinical measures allow us to rule out improvements greater than 0.01 standard deviations, although for indi-

vidual measures the confidence intervals vary (e.g., we can only rule out reductions in elevated blood pressure rates of 31% of the control group mean or larger). We find no statistically significant effect on mortality, but our confidence intervals include reductions in mortality as large as 0.4 percentage points, or 79% relative to the control group mortality rate. It is important to note that these null effects are measured over a relatively short time horizon of three years, and within a population with the average age of 30, and thus may not generalize to contexts with different transfer periods or older populations. Additionally, the study began during the COVID-19 pandemic, which may reduce its generalizability to the post-pandemic era, particularly for estimates derived from the first year of the study when the pandemic was most disruptive.

Even if direct measures of health do not improve over the 3-year transfer period, long term health prospects may improve if participants' health inputs change. Here, we do find some evidence suggesting this may be the case. Treated participants spent about \$20 per month more on medical care compared to control participants, and they used more hospital, emergency department, and dental care as a result of the transfer. We also observe a positive effect of the transfer on an aggregate measure of office-based care that is statistically significant with traditional inference methods but not after adjusting for multiple hypothesis testing. Despite this increase, we do not find corresponding improvements in participants' self-reported ability to access or afford care. It is possible that this increase in the use of medical care associated with the transfer could generate future health improvements.

We do not find much evidence that the transfer changed participants' use of alcohol and drugs; treated participants drinking were somewhat less likely to report abuse of painkillers relative to the control group, but the significance of this estimate does not survive an adjustment for multiple hypothesis testing. In addition, we find that the transfer generated large and highly statistically significant improvements in food security in the first year. However, mirroring our results for mental health, these improvements were short-lived and, by the end of the program, participants in the treatment group reported no better ability to meet their food needs than those in the control group. We do not find that participants in the treatment group used more preventive care, such as vaccines or cancer screenings, or that they made more health investments by exercising or sleeping more. We can reject even small improvements in these measures. We also find no statistically significant improvement in the health of children in participants' households (as reported by their parents).

These null effects are present for many subgroups, although some patterns suggest that the transfer may have had beneficial effects among those who reported skipping needed care at baseline, a

group whose initial health needs were presumably highest. In this group, we find the largest increases in the use of health care, and it is the only group for which treatment effects on health and mental health appear to be positive (although not statistically significant).

Our results are robust to a variety of alternative specifications and to checks that assess the role of the small amount of differential non-response we observe across treatment arms in our survey measures. Notably, a survey of experts was more optimistic about the ability of the transfer we study to affect self-reported health, access to and use of medical care, and exercise; average predictions about treatment effects on these outcomes lie outside the corresponding estimate's 95% confidence interval.

Our results show that, at least over the 3-year time horizon we study, income transfers are unlikely to reduce health inequality among adults with different levels of non-transfer income. This finding suggests that organizations seeking to improve health by targeting income—at least for populations and time frames like the one we study—may be more successful if they instead focus on more traditional health interventions, such as expanding access to health insurance, reducing prescription drug costs, or facilitating primary care appointments, as such programs have been shown via rigorous evaluation to quickly and significantly improve many of the outcomes we consider.² Policies targeting other non-income health determinants such as air or water quality might also find more success (see, e.g., [Deryugina et al., 2019](#); [Keiser et al., 2023](#)). We conclude that, although unconditional cash transfers may generate large welfare gains for recipients by giving them the flexibility to consume what they value the most, more targeted and health-focused interventions may be better at reducing disparities in health and access to health care specifically across rich and poor patients.

2 Background

2.1 Through what mechanisms could income affect health?

Unconditional cash transfers may affect a range of outcomes—such as job choices, criminal justice involvement, or family formation—that in turn affect health. In this section, we briefly discuss the three mechanisms we believe represent the most likely direct causal links between a cash transfer and health.

Cash transfers could increase the use of medical care. Unlike other wealthy countries, the United States does not have a national health care program that guarantees access to medical care for all

²A few examples of such studies are [Goldin et al. \(2020\)](#); [Sabety et al. \(2023\)](#); [Miller et al. \(2021\)](#); [Wyse and Meyer \(2023\)](#); [Chandra et al. \(2024\)](#); [Finkelstein et al. \(2012\)](#).

residents. As a result, a substantial share of low-income adults-about one in five-go without health insurance at some point during the year, and many more experience at least one spell of uninsurance even if they are covered in other months (Lurie and Pearce, 2021). A large share of low-income adults report that they skip or delay needed medical care because it is too costly, fail to fill prescriptions because the out-of-pocket costs were too high, worry about paying for medical care, and have unpaid medical bills on their credit report (e.g., Miller and Wherry, 2019; Kluender et al., 2021). Providing low-income adults with a substantial unconditional cash transfer could make it easier for insured participants to cover cost-sharing obligations, such as co-pays or coinsurance, when they or their children need medical care, and could allow uninsured participants to enroll in health insurance coverage or to purchase medical care directly from health care providers. It could also make it easier for parents to take off work to take their children to medical appointments. In turn, this additional medical care could improve underlying health.

Cash transfers could change health behaviors or investments. Income transfers may also affect health by changing an individual's health investments or behavior outside of the system of medical care. For example, in general, low-income families eat less healthy food than their higher income counterparts and also report greater food insecurity (Allcott et al., 2019). Providing additional resources could improve the quantity, quality, or nutritional content of food consumed by participants and their families. Similarly, low-income adults appear disadvantaged relative to their higher-income counterparts in terms of sleep amount (Gindi, 2015), sleep quality (Granddner et al., 2010) and reported time spent exercising (Kari et al., 2015). They are also more likely to engage in risky health behaviors like heavy drinking and use of illegal drugs (Altekruse et al., 2020; Cerdá et al., 2011). If an income transfer meaningfully alters these behaviors, it could generate substantial short- and long-term health improvements.

Cash transfers could reduce stress, thereby improving health through biological pathways. Even if transfers do not affect medical care or health behaviors, they may affect physical health via biological mechanisms if they reduce stress. Researchers in epidemiology and medicine point to the fact that low-income individuals experience higher rates of systemic inflammation, in which the immune system over-produces an inflammatory response even without a specific danger to the body (such as an injury or illness). Such chronic inflammation can be triggered by prolonged periods of psychological stress, and can in turn result in worse health outcomes across a number of body systems (e.g.,

Albert et al., 2006; Nazmi and Victora, 2007). For example, Tawakol et al. (2019) demonstrate that individuals with lower socioeconomic status show heightened amygdalar activity in the brain, and that this activity in turn causes accelerated production of immune cells and arterial inflammation, increasing an individual's risk of a major cardiovascular disease event. Such systemic inflammation is also associated with increased risk and faster progression of cancer (Liu et al., 2023) and with the development and progression of metabolic diseases like diabetes and obesity (Hotamisligil, 2006). These documented biological pathways have led researchers to hypothesize that reducing poverty may improve health by reducing stress and inflammation, even if it does not increase the use of medical care or otherwise alter health-related behaviors (e.g., Baum et al., 1999; Tawakol et al., 2019). Indeed, differences in health care utilization and health-related behaviors across low- and high-income individuals appear inadequate on their own in explaining the markedly larger differences in health outcomes, suggesting that such a biological pathway is likely (Braveman and Gottlieb, 2014).

2.2 Existing evidence on the causal income-health relationship

A number of papers have examined the causal effect of income on health outcomes such as self-reported health, mortality, or chronic disease burden.³ Most closely related to our work are papers that evaluate the impact of unconditional cash transfers in the context of the United States on outcomes related to physical and mental health using large randomized controlled trials.⁴ Most of these studies have not found effects of cash transfers on health, although in some cases the confidence intervals of the estimated health treatment effects are wide. Baby's First Years (Noble et al., 2021) recruited 1,000 low-income mothers in four US cities, of which 400 were randomly selected to receive a guaranteed income of \$333 per month, with the remaining 600 receiving \$20 per month. The analysis of this intervention found minimal effects of the higher cash payment on either child or maternal health (Sperber et al., 2023; Yoo et al., 2022; Magnuson et al., 2022). Compton Pledge, a 2-year randomized controlled trial that provided the treatment group an average amount of \$500 per month, found no significant effects on mental health or food security (Balakrishnan et al., 2024). BIG:LEAP, a program implemented in Los Angeles that provided treated participants \$1,000 per month for 15 months found in surveys that treated participants reported worse mental and physical health than the control group

³Despite this literature, experts remain divided on the magnitude of the causal effect of income on health. We asked members of the National Bureau of Economic Research to register their predictions on the treatment effects of the income transfer we studied on a number of health outcomes. These predictions were diffuse. See Appendix Figure A21.

⁴A large number of smaller guaranteed income pilots have been conducted and, in an effort to be concise, we do not discuss each of these individually. Instead, we focus on the largest studies that have published detailed reports. See the Stanford Guaranteed Income Dashboard (<https://basicincome.stanford.edu/research/guaranteed-income-dashboard/>) for information on other completed and ongoing studies.

([Kim et al., 2024](#)). However, overall responses rates to among participants for this study were low and the differential response across treatment arms was large. Although the authors imputed missing values for non-respondents, unobserved differences between treatment and control participants may remain and could help explain these counterintuitive negative impacts on health.

Chelsea Eats, an unconditional cash transfer that was launched in response to the COVID-19 pandemic, is an exception to the largely null effects found in other US-based cash transfer RCTs. This program provided \$400 per month from November 2020 to August 2021 to a randomly-selected group of low-income residents of Chelsea, Massachusetts. Relative to a control group that received no payment, the treatment group reported greater food security and nutrition. The treatment group did not report different physical or mental health outcomes or better access to medical care when surveyed ([Liebman et al., 2022](#)). However, follow-up analysis using linked administrative records found that the treatment group had fewer hospital and ED visits (with notable declines in visits related to substance use disorder) ([Agarwal et al., 2024](#)). Other measures of health like weight and blood pressure captured in electronic health records were similar across the treatment and control groups.⁵

There is also a related quasi-experimental literature that takes traces out the health effects of “shocks” to income or wealth even in the absence of a randomized trial.⁶ This literature finds mixed effects of such shocks. For example, most analyses of expansions of the Earned Income Tax Credit (EITC) find associated health improvements ([Evans and Garthwaite, 2014b](#); [Lenhart, 2019](#); [Hoynes et al., 2015](#); [Rehkopf et al., 2014](#)), but at least one finds health reductions ([Schmeiser, 2009](#)). Two studies comparing lottery winners with different prize amounts find no effect of wealth on health or mortality ([Cesarini et al., 2016](#); [Apouey and Clark, 2015](#)), although an exception is [Kim and Koh \(2021\)](#) who find improvements in self-reported health but no change in use of medical care associated with lottery wins. Several papers have analyzed cash transfers related to disability status, using variation from program rules or from the random assignment of applicants to judges. [Gelber et al. \(2023\)](#) find that beneficiaries who receive higher payments have lower mortality; using different variation and a different sample of recipients, [Black et al. \(2024\)](#) find heterogeneous effects, with cash increasing mortality for some beneficiaries but decreasing it for others. [Silver and Zhang \(2023\)](#) find that higher disability payments to veterans lead to more health care utilization, improve food security and re-

⁵Other RCTs have provided cash with conditions (e.g., means-testing), or bundled it with other changes, such as altering search activity requirements for the unemployed, and found some evidence of beneficial health effects. See, e.g., [Forget \(2011, 2013\)](#); [Hämäläinen et al. \(2025\)](#).

⁶We provide a short discussion of example papers here, but see [Lleras-Muney et al. \(2024\)](#) for a more thorough recent review of this evidence.

ports of pain, but do not improve health on other dimensions such as blood pressure, glucose levels, or mortality. Similarly, a large literature on the impact of parents' income on children's health has found mixed results, with some papers finding that unconditional cash transfers improve children's health (e.g., [de Gendre et al., 2021](#)) while others finding no effect on health-related outcomes (e.g., [Borra et al., 2022](#)). Taken together, the quasi-experimental literature suggests that income increases the use of medical care but may or may not improve health itself.

Finally, there have been a large number of randomized controlled trials of unconditional cash transfers that have taken place in low- and middle-income countries. A recent meta-analysis examined the results of 72 unconditional cash transfer RCTs and found that these programs with a median payment of \$29 per month improve psychological well-being and food security by 0.1 and 0.2 standard deviations respectively ([Crosta et al., 2025](#)). A few other studies found physical health improvements result from unconditional cash transfers: [Baird et al. \(2012\)](#) find reductions in HIV prevalence among adolescent girls receiving a cash transfer in Malawi and [McIntosh and Zeitlin \(2024\)](#) and [Walker et al. \(2025\)](#) find reductions in child mortality associated with randomized cash transfers in Rwanda and Kenya respectively. These studies suggest that cash may be a promising way to improve health, although its health effects may differ substantially in a high-income country like the United States.

3 The OpenResearch Unconditional Income Study

The OpenResearch Unconditional income Study (ORUS) analyzes the impact of a guaranteed income program that was implemented by two non-profit organizations. Analysis of this program was pre-registered. However, over the several-years-long course of the study and in seeking feedback prior to and after the release of our results, we made a small number of amendments to our original pre-registered plan. For transparency, these are described in Appendix Section A. The current and previous versions of the pre-analysis plan are also available via the AEA RCT registry.⁷ This section describes eligibility, recruitment, randomization, and implementation of the program.

3.1 Eligibility and Recruitment

The cash transfer program was implemented by two non-profit organizations in two states: Illinois and Texas. These states contain a variety of location types, including counties with large urban, suburban, medium-sized urban and rural areas. We identified 1-5 counties of each type in each state that were demographically representative of these geographic types from which to recruit participants.

⁷AEARCTR-0006750.

Appendix Figure A1 shows a map of study counties with their geographic designation.⁸

Participants were eligible for the program if they lived in eligible counties, had self-reported household income under 300% of the Federal Poverty Level (FPL), and were age 21 to 40 (inclusive) at the time of recruitment. We chose this relatively young age range so that it would be more likely to observe the impact of the transfer on major life decisions such as enrolling in college, getting married, having children, or making career changes. We excluded participants receiving Supplemental Security Income (SSI) or Social Security Disability Income (SSDI), living in public housing or using a housing choice voucher, or living in a household with another member who receives SSI. The exclusions for the means-tested government programs were due to the fact that the guaranteed income program may have made participants ineligible and it could be difficult for participants to re-enroll in these programs at the conclusion of the guaranteed income intervention.

We assisted the partner organizations in recruiting participants to the program using a variety of methods. Recruitment was conducted on an ongoing basis from August of 2019 until August of 2020 (a high-level timeline can be found in Appendix Figure A2). We attempted to recruit a sample that matched population shares in each county geographic type (large urban, medium-sized urban, suburban and rural) and to over-sample participants in lower-income households. Most participants (about 87%) were recruited via direct mailers that contained a unique code for each applicant. We selected addresses in eligible Census tracts from a marketing firm. Using these data, we sent mailers both to individuals who appeared age and income eligible for the program based on variables provided by the marketing firm and to randomly-selected individuals. For each mailer, we appended "or current resident" to the name printed on the address. The mailer informed individuals that they may be eligible to participate in a new program and could receive "\$50 per month or more" for three years. We specifically did not alert applicants to the fact that they might receive \$1,000 per month to avoid emotionally harming the control participants (e.g. by disappointing or angering them) and to improve the likelihood that control group members would continue participating in surveys despite not being selected for treatment. Following Broockman et al. (2017), the mailers directed recipients to a website where they could register their interest in the program and complete a short eligibility screening survey. Individuals were not informed of the age or income eligibility criteria prior to their completion

⁸Companion papers on other topics (Vivalt et al., 2024; Bartik et al., 2024; Broockman et al., 2024; Krause et al., 2024) describe the effects of ORUS on employment, consumption, political outcomes, and child-related non-health outcomes respectively. The following exhibits, which describe the program's timeline, intervention, data collection methods, randomization procedure, and participant characteristics, are produced in some of these companion manuscripts: Table 1, Appendix Figures A1, A2, A3, A5, A24, A23, and Appendix Table A1.

of the online screener, reducing incentives for strategic misreporting. Incentives to complete the survey questionnaire varied randomly from \$0 to \$20. We also sent follow-up letters for non-responding households, and randomized the number of follow-ups from 0 to 4. In total, of the approximately 1.1 million mailers sent, 38,823 individuals responded to the mailers and completed the eligibility survey, of whom 12,745 were program eligible.

The remaining 13% of the sample were recruited via two alternative methods. First, the partner organizations purchased ads on the Facebook and Instagram platforms that were shown to all age-eligible individuals located in program counties. Participants recruited through this method make up about 1 percent of study participants. Second, the partners placed ads on the FreshEBT platform that were shown to users in eligible zip codes. FreshEBT is a free mobile application that allows Supplemental Nutrition Assistance Program (SNAP) recipients to check their balance and manage their benefits. Participants recruited through this method comprise roughly 12% of study participants.

In total, across all recruitment methods, 43,385 applicants completed the online screening survey to have their eligibility assessed. Of these applicants, 14,573 were determined to be eligible for the program. Table 1 compares the characteristics of those who applied by filling out the initial screener, in Columns (4) and (5), to the eligible population using the American Community Survey (ACS) as a benchmark. Column (2) shows characteristics for the full US population, derived from the ACS and re-weighted to match the shares we targeted by FPL-type and county-type as part of our recruitment strategy. Column (3) presents similar information, but only for ACS respondents who live in the counties where study recruitment took place. Comparing column (3) to column (4), we see respondents to our recruitment methods were similar to the eligible population on a number of observable demographic characteristics (income, geographic distribution, presence of children, household size, race, age, etc), although they were somewhat more likely to be a renter or to have a college degree. Health insurance coverage rates are also similar.⁹ So, respondents do appear to be broadly representative of the population we targeted based on observable characteristics. However, given the low response rate of the mailers used to recruit the majority of the sample, it is plausible that they vary on unobservable characteristics such as trust or planning ability, which may limit generalizability of our results.

⁹The ACS includes coverage via a parent's employer as employer-sponsored coverage, whereas our survey included parental coverage in the "other coverage" category, which likely accounts for part of the discrepancy in these variables between our sample and the ACS.

3.2 Randomization and Enrollment

After determining applicants' eligibility, we conducted two randomizations within the pool of eligible applicants. First, we randomized applicants into being in the program, for which they would receive either \$50 or \$1000 per month. We conducted this randomization in such a way to ensure the sample exhibited certain characteristics: i) the share of women in the program resembled the share in the eligible population in the study counties; ii) the sample was at least 20% non-Hispanic Black, 20% non-Hispanic white, Asian, or other race, and 20% Hispanic; iii) the household income of at least 30% of the sample was under the FPL, at least 30% was 101-200% of the FPL; and no more than 25% of the sample had income above 200% FPL. We implemented these quotas by blocking participants on characteristics and drawing different numbers of participants from within these blocks. That is, in the first randomization, from the broader pool of applicants to the program participants, the probability of being selected depended on participant characteristics.

Once this sample was selected, participants were enrolled in the program by the University of Michigan Survey Research Organization (SRO), a survey research firm with extensive experience fielding national studies. During enrollment, program participants who consented to take part in the research completed a baseline intake survey and provided bank account information so program funds could be directly deposited. For participants with no bank account, a no fee/no minimums online bank account was opened for them. As part of the enrollment process, participants also were invited to consent to have their data linked to administrative records. This enrollment was conducted in person from October 2019 until March of 2020, at which point enrollment was switched to phone due to the COVID-19 pandemic. Enrollment concluded in October 2020. To keep participants engaged over this period, and to collect additional baseline information, we sent enrolled individuals monthly surveys over this pre-treatment period. In addition, all enrolled participants received \$50 per month via direct deposit into their bank account for the duration of the enrollment period.

The second and focal randomization occurred once all 3,000 participants were enrolled. This randomization assigned participants to either continue receiving \$50 per month ("control group") or to receive \$1,000 per month ("treatment group") for 3 years. Unlike the first randomization, this assignment did not depend on participant characteristics and all participants had a 1/3 probability of being assigned to treatment. The comparison across these two treatment arms, within the 3,000 program participants, is the focus of our analysis.

We wanted to avoid a situation where treatment and control groups varied meaningfully on base-

line covariates simply due to chance. So, we used a blocked random assignment procedure to ensure balance. We also identified, over the course of the enrollment period, a small number of study participants who knew each other; we placed these individuals together in clusters so they would be assigned to either treatment or control together. We formed blocks of clusters as follows. We formed strata based on race/ethnicity, income group (0-100% FPL, 101-200% FPL, 201-300% FPL), and state; any clusters with more than one individual within them were placed in their own strata. Within these strata, we grouped participants into blocks of three based on how similar they were across several dozen pre-treatment covariates, using Mahalanobis distance to measure similarity. When the number of clusters in a strata did not evenly divide into three, there were either one or two leftover clusters in a strata after the first round of blocking. We then conducted a second round of blocking for these leftover clusters, again forming blocks based on a set of pre-treatment covariates. Within each block of three, we selected one of the three observations to be in the treatment group and placed the remaining two in the program control group. Given that the number of clusters did not evenly divide into three, within the final block we sampled from the vector $\{0, 0, 1\}$ without replacement to assign treatment.¹⁰

Finally, after randomizing, we further ensured balance by conducting a series of balance checks comparing the treatment and control group across pre-treatment covariates. We imposed a p -value floor, with covariates we deemed to be more important assigned a higher floor; these floors were determined *ex ante*. We rejected any randomization where the p -value on a t -test for difference across treatment arms was below the p -value floor for any of the selected variables and re-randomized, using a procedure similar to the one described in [Zhao and Ding \(2024\)](#). We also conducted an F -test for the joint significance of all of the same set of pre-treatment variables by outcome area and rejected a randomization if the p -value on the F -test was under 0.25.

If there were large outliers in the data, imposing balance in this way may generate a situation where some participants were more likely to be assigned to treatment than others. To examine this, we conducted 1,000 simulations and verified that this procedure resulted in all observations having a $1/3$ probability of being assigned to the treatment group. We could not reject that the simulated distribution of treatment assignments was significantly different from what we would observe from a Bernoulli distribution with a one third probability of success. Furthermore, baseline characteristics did not predict the average probability over these 1,000 simulations that any participant received

¹⁰We anticipated that some assigned to treatment may refuse the \$1000 per month, so we created a randomized waitlist among the control group. However, this did not end up being relevant in practice, as only one participant out of 1,000 ended up not receiving the treatment as assigned.

treatment. Appendix Section B provides more discussion and the results of this simulation.¹¹

Ultimately, our recruitment and randomization procedures resulted in a sample that was both largely representative of the demographics underlying population and highly balanced across treatment arms on a large number of important baseline characteristics. Table 1 shows how our study participants compare to the population of those who would be eligible for the study based on our eligibility criteria. Comparing columns (3) and (6) demonstrates that the final enrolled study sample closely matched the underlying eligible population across a large number of dimensions after taking into account our sampling strategy, although the participants are notably more likely to be a renter. Note that for Column (6), we use information collected at the baseline interview, rather than the online screener, which is why we observe some differences across Columns (5) and (6).¹²

Table 2 demonstrates that across treatment and control arms, baseline characteristics are very similar along a number of dimensions including demographic and economic characteristics. This table also describes selected characteristics of the sample related to their underlying health. About 29% of the sample were uninsured prior to randomization and 27% report skipping medical care due to costs. About 13% had a hospitalization in the last 12 months and 31% reported having an ER visit over the same period. Regarding mental and physical health, more than 15% of the sample are characterized as “high stress” according to their responses on the Perceived Stress Scale (PSS), a validated series of questions intended to measure stress; we also see similarly high rates of mental distress and depression. Only about half of the sample report their health to be very good or excellent and, on average, participants report that they were in poor physical health in 3.6 days of the last 30. About 40% of the sample were obese at baseline. We do not detect any statistically significant difference in these characteristics at baseline across treatment arms.

3.3 Intervention period

Randomization occurred in October of 2020. The higher (\$1,000) transfer payments to the treatment group began in November of 2020 and continued until October of 2023. Over the same period, the

¹¹Early in the study, one participant who was randomized into the treatment group was removed from the program by the non-profit partner, but continued to participate in the research activities. Another participant was assigned to treatment but initially declined, and was replaced from the waitlist. However, this participant changed their mind and ended up accepting the treatment. We use the original treatment assignment to calculate treatment effects, with 1001 participants assigned to treatment and 1000 actually receiving the cash transfers. Our estimates are therefore, technically, “intent to treat” (ITT) effects. However, given that the first stage effect of treatment assignment on program participation exceeds 0.999, the local average treatment effects are essentially indistinguishable from the ITT.

¹²In addition, a few respondents declined to provide income information during the baseline survey, which is why the means of the FPL variables do not add to one in column (6). For other columns, these means may appear to sum to 0.99, rather than 1, due to rounding.

control group continued to receive the \$50 per month transfer. Note that the majority of the treatment period occurred after the introduction and widespread adoption of the COVID-19 vaccine, although the first year did include a few months before the vaccine was available. We expect that our results from years 2 and 3 of the study (i.e., November 2021 through October 2023) to be largely representative of the post-COVID-19 era, but that year 1 will be less representative. Receipt of the transfers was not conditional on participation in any of the research activities. Since the transfers were provided as an unconditional gift from a non-profit organization, they were not subject to income tax. Furthermore, the non-profit organizations worked with state benefit offices to ensure the transfer did not affect eligibility for public benefits whenever possible. This effort was facilitated by the passage of state-level legislation in the state of Illinois (SB 1735) that specifically excluded cash transfers made as part of research studies such as the ORUS payments from the calculation of eligibility for several state programs. The non-profit organizations worked with benefits administrators to alter instruction manuals for public employees to ensure this law was implemented. Appendix Table A1 contains detailed information on how government benefits were affected by the transfer.

At the end of the transfer period, the non-profit partners offered services to both treatment and control group participants to help them transition off of the program. All participants were given updated resource lists for services and support in the counties from which participants were selected at baseline, as well as national hotlines and services for those that moved during the program. Additionally, program staff were available by phone, text message, and email to assist participants. If appropriate, they connected the participants to services provided by the organization itself or referred them to relevant non-profit or government entities in the area.

3.4 Impact of ORUS on Other Relevant Outcomes

A large cash transfer may affect the lives of participants in many ways that, in turn, indirectly impact their health or the health of their children. While this paper focuses on outcomes specific to health—such as use of medical care, health-related behaviors, and measures of health itself—the effect of the transfer on other outcomes such as labor supply, educational attainment, consumption, or financial well-being could also be relevant in understanding health outcomes. In this section, we briefly describe how ORUS affected such outcomes by summarizing the results reported in concurrent work by [Vivalt et al. \(2024\)](#), [Bartik et al. \(2024\)](#) and [Krause et al. \(2024\)](#) respectively.¹³ In the future, we

¹³Other work examines how ORUS affected political preferences and behaviors ([Broockman et al., 2024](#)). These outcomes seem less likely to directly relate to health, so we do not summarize their results here.

plan to examine the impact of this intervention on a number of other outcomes related to criminal justice involvement, domestic violence and relationship quality, and executive function and decision quality.¹⁴

Employment. Those randomly selected to receive the \$1,000 per month transfer were 4.1 percentage points less likely to be employed, worked 1-2 fewer hours per week, and had less earned income than those in the control group. Most of the additional time spent not working was allocated to leisure. There were no changes in job amenities or measures of job quality, including measures of workplace safety which might predict health risks. We also do not detect changes in measures related to participants' human capital accumulation. Participants in the treatment group were also more likely to report that they have a work-limiting disability, which could reflect a higher likelihood of having a condition diagnosed and treated as a result of receiving the transfer. We might expect reduced work hours and increased leisure to reduce participants' stress, and thereby improve mental health, although it could also increase stress close to the end of the program if individuals are not able to re-adjust their work hours. At the same time, changes in the propensity to work could affect participants' access to employer-sponsored health insurance and, subsequently, their costs of using medical care.

Consumption and financial well-being The transfer increased consumption across a large number of categories of goods and services, with the biggest absolute increases observed for food and beverage, rent, and car payments. Savings and debt both increased somewhat as a result of the transfer, resulting in no overall change in net worth for participants. Participants reported somewhat less financial distress. Participants' ability to consume more and their improved self-reported financial well-being may have generated health benefits, for example by reducing their stress or increasing their consumption of healthy food. Moving to new neighborhoods could also improve their health if the neighborhoods were safer or closer to health-related amenities like pharmacies or doctors' offices, or if the moves resulted in less exposure to pollution.

Parenting and children. Among parents, the transfer generated small but statistically significant improvements in self-reported parenting quality and spending on children. Despite this, there were no detectable improvements in children's educational or developmental outcomes. Parents in the treatment group were more likely to move neighborhoods, but we did not find that neighborhood

¹⁴See our pre-registration plan for more details on planned future analyses.

quality meaningfully changed as a result of the transfer. The transfer could have improved children's health if these improved parenting behaviors led parents to detect (and intervene on) more health problems, or if the cash enabled parents to purchase more health care for their children.

4 Data

4.1 Survey data

We surveyed participants on their physical and mental health, health care access and utilization, and behaviors. First, we sent short, online-only surveys each month administered through Qualtrics and providing a \$10 incentive for completion. Monthly contact with participants allowed us to keep participants engaged in the program and track their contact information. Frequent surveys also gave researchers multiple opportunities to get questions answered in each year. For example, if a respondent missed a question about self-reported health on the April survey, they may have another chance to provide that information on the June survey of the same year. We treat responses to the same questions provided within the same year as capturing similar information, and collapse our outcomes to the respondent by survey year for analysis of these monthly surveys, taking the average within respondent/year if multiple responses to the same questions were provided. We asked participants with children in the household (about 57% of the sample) about the health of each child, generating data at the child, rather than participant, level. We report results for all children in the household in any given year (including those who are step-children, younger siblings, foster children, or grandchildren of the participant). In a robustness check, we restrict our sample to the approximately 88% of household children who are the biological child of the participant and, in a second check, to children who were in the household at baseline.

Second, we conducted two longer, enumerated surveys—a “midline” and an “endline,” which were administered by the University of Michigan Survey Research Organization (SRO). Respondents received a \$50 incentive payment for these surveys which were conducted primarily over the phone. At baseline, we collected contact information for people outside the participant's household who would be able to get in touch with the participant if we were unable to reach them during the study. If repeated outreach attempts via email, telephone, text message, and mail were unsuccessful, interviewers reached out to these alternative contacts. As a last resort, interviewers visited the last known address of participants if the address was located within the geographic area covered by interviewers. The midline survey was conducted from April 3 until August 2, 2022, and the endline survey

was conducted from March 30 until August 15, 2023. To keep the phone interviews reasonably short, we asked respondents complete additional midline and endline questions in three follow-up online surveys which provided \$15 per completed survey.¹⁵

Response rates for all types of surveys were high. The top panel of Figure 1 shows response rates for the control and treatment participants. Almost all participants responded to at least one monthly mobile surveys in each of the three study years, with 98% completing at least one Qualtrics survey in year 1, 96% in year 2, and 94% in year 3. About 97% of participants responded to the enumerated midline survey and 96% responded to the enumerated endline survey. The online surveys that followed up the midline and endline enumerated surveys had somewhat lower, but still high, average response rates of 91.3% and at 92.0%, respectively. Most participants (more than 99% averaged across all surveys) complete the entire survey without dropping off before the end. However, we did allow participants to skip particular questions if they did not want to answer them. In a typical survey, about 2% of questions were skipped on average. Differential response rates across treatment arms were modest. The midline and endline exhibited a less than 1.8pp and 3.2pp difference in response rates respectively and, for mobile surveys, ranged from less than 1pp (in year 1) to about 3.9pp (in year 3).

We take several measures to alleviate concerns that the differential response to surveys may bias our estimates. First, we examine characteristics of respondents and non-respondents both overall and by treatment group status. As shown in Appendix Tables A2-A6, we observe that the treatment and control groups remain highly balanced on a large number of pre-treatment characteristics even when limiting our sample to survey respondents only. This suggests that the modest differential response rates we observe do not undo the balance generated by the randomized treatment group assignment. Second, for outcomes where baseline values were collected, we estimate an alternative “difference-in-differences” version of the model that compares the changes before and after treatment across the groups. This model does not rely on random assignment across groups and instead requires the two groups to have parallel trends, which may be met even if non-random selection into survey response is present. Third, we identify a group of participants who responded to all monthly surveys during the enrollment period (i.e., prior to randomization). Among this subgroup, differential attrition is lower (see Appendix Figure A3). We demonstrate that our results are similar when limiting our sample to this group. Fourth, we provide bounds of our estimates taking into account differential response rates

¹⁵We escalated the payment to \$30 per survey for remaining non-respondents at the end of the final endline survey period.

across treatment arms based on [Lee \(2009\)](#).

We winsorized all dollar-denominated outcomes at the 99th percentile, and a small number of other outcomes that exhibited large outliers. However, we also show results for non-winsorized versions of these outcomes in [Section 6.5](#).

4.2 Phone app data

We also asked participants to install an “app” onto their phones which was used to collect nutrition and time use information. We developed this phone app in partnership with the private company Avicenna Research. Using this app, we asked participants to complete nutrition diaries three times per year (i.e., 9 times over the course of the study). These diaries were collected via the ASA 24 website, an online food diary tool developed by the National Cancer Institute.¹⁶ The phone app streamlined participants’ login and recording of the nutrition diary information through this website. The tool asked participants to report all times and foods that they ate in the last 24 hours (from midnight to midnight), including meals and snacks, and to describe portions with visualizations provided to help participants assess the correct portion size. [Appendix Figure A4](#) shows screen shots of this web tool. We used software provided by the ASA24 website to construct the “healthy eating index” (HEI) which measures the healthfulness of food consumed based on current USDA nutrition guidelines. The HEI ranges from 1 to 100, with 100 being the most healthful and 1 being the least healthful. In secondary analyses, we also assessed other measures of food consumption such as grams of sugar, cups of vegetables, total saturated fat and similar measures.

We also used the app to collect data on time use. The phone app prompted participants to record two time diaries on selected months, with one day a randomly selected week day and the second a randomly selected weekend day.¹⁷ The time diaries had a calendar interface into which participants could record their use of time. An example of this interface is provided in [Appendix Figure A5](#). From these diaries, we derived two measures of health investments: time spent sleeping and time spent exercising (see [Vivalt et al. \(2024\)](#) for a full analysis of these data).

Participants received \$10 for each completed nutrition diary and \$5 for each completed time diary. Compliance with phone app tasks was relatively high but declined over the course of the study, with about 90% (85%) of participants completing at least one time (nutrition) diary in year 1, which declined to 78% (69%) by year 3. As with the surveys, response rates were somewhat higher in the treatment

¹⁶As of June 25, 2024, this tool can be accessed online at <https://epi.grants.cancer.gov/asa24/>.

¹⁷We initially asked participants to complete two time diaries in every month. However, in May of 2021, we switched to a schedule where participants were asked to complete time diaries in 7 of the 12 months to reduce the burden on participants.

group (see panel b of Figure 1). The treatment group also completed more time and nutrition diaries per year, and spent somewhat more time on average completing each time diary (see Appendix Figure A6).

4.3 Administrative data

We linked consenting participants to existing administrative records. Consent to be linked to administrative records was obtained prior to randomization, although a few participants who initially did not consent to share data decided to consent over the course of the study. In total, 87.5% consented to be linked and consent rates were reasonably balanced across treatment arms, with 86.9% consenting in the control group and 88.8% consenting in the treatment group. These consenting participants formed the pool of participants we could attempt to link to administrative records.

First, we linked participants to mortality records collected by the Social Security Administration via the US Census Bureau's Census Numident file. Nearly all consenting participants were successfully linked to this file, which contains information on date of death for decedents. We use this file to generate an indicator variable that takes a value of 1 if the participant survived until the first quarter of 2024, and 0 otherwise. The Census Numident file mortality data closely tracks mortality rates measured in other sources, such as the National Death Index (Finlay and Genadek, 2021).

Second, we linked participants to their credit report data from a large credit reporting agency, allowing us to see the amount of medical bills sent to collection agencies. Credit reports were linked using name, address, and (for participants who provided it), social security number. Again nearly all consenting participants were linked to at least one credit record in the post-treatment period, with 95.2 percent of consenting control group participants and 96.7 percent of consenting treatment participants being linked. The credit record archives we obtained represent snapshots of the consumer's credit profile on certain dates. We obtained archives for the following month/year dates (drawn the first of the month): 05/21, 11/21, 05/22, 11/22, 05/23, and 08/23. For participants who did not consent to share their administrative records, we filled in data on medical debt using self-reports from surveys so they could be included in the analysis.¹⁸

¹⁸Note that changes in the reporting of medical debt occurring in July 2022 and April 2023 imply that the amount of debt reported on the credit record may not fully reflect outstanding medical debt during the last half of our study. Details can be found in Blavin et al. (2024); CFPB (2023); Kluender et al. (2025).

4.4 Biomarkers

In addition to eliciting self-reported measures of health via surveys, we also collected direct, clinical measures of health through blood draws. We partnered with GetLabs, an organization that employs nurses and trained phlebotomists to collect blood samples that are then analyzed by the company Labcorp. Only participants living within GetLabs' catchment area were eligible to participate.¹⁹ In total, 2,087 participants were invited to participate in the blood sample collection, and 1,206 participants (57.8%) ultimately completed a visit to provide a sample.²⁰ The fraction of invited participants who provided a sample was somewhat higher in the treatment group, with 63 percent of those invited participating, as compared to 55.2 percent in the control group. Encouragingly, despite this differential uptake, control and treatment participants who participated in the biomarker collection look very similar across a number of baseline characteristics (see Appendix Table A7). The phlebotomists visited the participants at their homes, making the experience convenient. We paid participants \$100 to participate in the blood draw.

From these blood samples, Labcorp provided us with information about several measures of underlying health. We observed A1c, the percent of hemoglobin with glucose attached, used to assess long-term blood sugar levels and diabetes risk. We used this continuous measure to generate a variable indicating that A1c exceeds 6.5 (the threshold for diabetes) or falls between 5.7 and 6.4 (considered the "pre-diabetes" range). We observe a lipid panel including information on total cholesterol, high-density lipoprotein cholesterol (HDL, or the "good" cholesterol) and low-density lipoprotein cholesterol (LDL, or the "bad" cholesterol). We also generated an indicator that the participant had cholesterol in the high range. The lab also measured GlycA, a composite biomarker of systemic inflammation that has been used as a marker of chronic stress (Connelly et al., 2017). In addition to these markers derived from blood draws, the phlebotomist also measured the participant's blood pressure and collected their height and weight, from which we derive indicators that the participant has elevated or hypertensive blood pressure, the participant's body mass index (BMI), and whether the participant's BMI puts them in the obese range ($BMI > 30$).²¹ The intervention may affect A1c, cholesterol, weight, and blood pressure if it leads participants to adopt healthier diet and exercise

¹⁹These catchment areas were concentrated in the highest population counties in the Chicago and Dallas metropolitan areas. Coverage was less comprehensive in rural counties and smaller cities.

²⁰A small number of participants consented to provide a sample and were visited by the phlebotomist but had to be excluded at the point of collection for health reasons (e.g. because the participant was pregnant).

²¹At no additional cost to the research team, Labcorp provided additional biomarker results: triglycerides, diabetes risk index, and total non-HDL cholesterol. We estimated the effect of the transfer on these measures but consider them exploratory because their analysis was not pre-specified.

regimes, or if it resulted in participants using more or better medical care to treat underlying conditions like hypertension or diabetes. It may have also affected measures of inflammation by reducing a participants' stress level.

Ideally this blood draw would have occurred entirely during the treatment period. However, the funding required to finance this data collection did not materialize until late in the intervention period. As a result, collection did not begin until the last month of the treatment period and continued for four months after the intervention ended. In total, 28.9% of the contributing sample had blood drawn within one month of the treatment ending, with the rest providing samples 2-4 months after the treatment concluded. While the timing is not ideal, there are several reasons to think that the data are still useful in evaluating the health impact of the intervention. Many of the measures we collected are slow moving. A1c reflects average blood sugar over the past 3 months, cholesterol typically takes 3 to 6 months to change as a result of altered diet and exercise, and even for patients being treated with intensive counseling to change diet, monthly weight loss is only about 2 pounds per month.²² Therefore, even if participants significantly changed their diet or behavior following the treatment, it is unlikely that the difference in timing of a couple of months would meaningfully alter outcomes which may have been evolving differently over the past 3 years in the treatment versus control groups. In addition, data collection at this period is able to confirm (or rule out) any health benefits that extend beyond the treatment period. Understanding whether health advantages made over a three year period of a generous income transfer are rapidly eroded at the end of the transfer may be valuable to document.

Finally, in addition to examining each biomarker separately, we combine multiple measures with survey information to form an "ideal cardiovascular index" (as proposed by the American Heart Association in [Lloyd-Jones et al., 2010](#)). To generate this index, participants receive one point for total cholesterol under 200 mg/dL, blood pressure less than 120/80 mmHg, A1c below 5.7, non-smoker,²³ Healthy Eating Index at or exceeding 75 (out of 100), BMI less than 25 kg/m², and at least 150 minutes of weekly exercise reported. These points are then summed, resulting in a scale from 0 to 7, where 7 represents "ideal" cardiovascular health.

²²E.g., see <https://www.niddk.nih.gov/health-information/diagnostic-tests/a1c-test>, [Sacks et al. \(2009\)](#)

²³Measured in our sample as responding no to the question whether the participant smokes cigarettes daily. For participants who provided biomarkers but did not respond to the relevant surveys and thus do not have measures of smoking or exercising, we impute these values with the survey mean.

5 Estimation

We estimate the impact of the treatment on each outcome using the following regression:

$$Y_i = \beta_0 + \beta_1 \text{Treat}_i + \beta_2 X_i + \epsilon_i. \quad (1)$$

Here, X_i are characteristics of individual i measured in the pre-treatment period, which we include to improve the precision of our estimate. Because we collected many baseline measures, in a first step, we use the LASSO to select which covariates to include, selecting the penalty term λ using cross-validation similar to what is proposed in [Bloniarz et al. \(2016\)](#). We estimate robust standard errors clustered at the level of treatment assignment, as recommended in [Abadie et al. \(2022\)](#).²⁴

The outcomes Y_i may be observed at multiple time periods and we use these repeated observations to estimate time period specific effects. For example, Qualtrics surveys outcomes are examined at the first, second, and third year of the study while midline and endline survey outcomes are examined at those time periods. We also pool these time periods together to arrive at a single “effect” of the guaranteed income supplement over the entire study period. When doing this, consistent with our pre-analysis plan, we place greater weight on observations towards the end of the study period and on observations derived from the midline and endline surveys. For the midline and endline estimates, we place 70% of the weight on the endline and 30% of the weight on the midline. For the monthly surveys, we place 50% of the weight on surveys conducting in the final year, 30% of the weight on surveys conducted in the second year, and 20% of the weight on surveys conducted in the first year. For outcomes where we can aggregate across both types of surveys, we further weight the midline/endline outcomes with 70% of the weight and the monthly surveys with 30% of the weight, reflecting the higher response rates and likely higher quality of the data derived from the midline/endline surveys due to the fact that they were enumerated. If we have no measures of an item within a particular time period (e.g., year 2, at midline, etc.) for an individual but do have measures of that item at other time periods, we average over the non-missing time periods and redistribute weights accordingly. Furthermore, we also estimate a robustness check in which we rely only on the midline/endline surveys and do not derive information from the monthly surveys. For non-survey outcomes, we organize the data in a similar fashion; for example, we aggregate nutrition diary data to the yearly level and place

²⁴Recall most individuals are a cluster of one, but a small number of individuals are placed together if it was discovered in the pre-treatment period that they knew each other, see Section 3.2.

similar weights on nutrition diary responses in years 1, 2, and 3 as described above. Note that because we place greater weight on the later years of the study, our results will be mostly based on data collected after the most disruptive period of the COVID-19 pandemic, during 2022 and 2023. This timing may correspond to improved external validity relative to interventions occurring entirely during the height of the pandemic.

An income transfer can affect a large number of health inputs and outputs, and in some cases it may be interesting to know whether we can reject the null hypothesis that certain groups of outcomes collectively were affected by the transfer. To facilitate this type of analysis, we group items at two levels. First, we group closely related items into groups that we refer to as “components.”²⁵ For example, we group the items measuring whether the participants’ reports of using the ER as their usual source of care, skipping different types of needed medical care due to costs, or using alternative therapies to save money into a component called “Needed Care Access.” Second, we aggregate related components into broader families. For example, we aggregate together components “Has insurance coverage,” “Health Care Finances,” “Needed Care Access,” and “Prescription Drug Access,” into a family called “Healthcare Access” and measure whether, collectively, these different aspects of being able to access health care were affected by the income supplement. To construct these components and families, we start with the individual level item regression estimates $\hat{\beta}_1$. We standardize these estimates by dividing by the control group standard deviation, and then aggregate them using seemingly unrelated regression (SUR) into components and, subsequently, families, by averaging the standardized effects.

We account for the fact that we are conducting many statistical tests by using a false discovery rate (FDR) adjustment. We use [Benjamini and Hochberg \(1995\)](#)’s false discovery rate adjustment to compute q-values; following [Benjamini and Hochberg \(1995\)](#) we do this within families of outcomes within this paper. Furthermore, we follow [Guess et al. \(2023\)](#) by placing the family-, component-, and item-level estimates into tiers for the purpose of this adjustment, corresponding with our prioritization of the estimates. The purpose of placing tests within these tiers is so that analysis that is considered exploratory or ad hoc can be conducted without affecting the statistical power of our primary outcomes of interest. These tiers were pre-specified. We consider family-level estimates (both those estimated using all data and using only midline/endline data) in the top tier and pool all family-level estimates across this paper in a single tier. We place component-level estimates in the next tier, and

²⁵The non-aggregated outcomes we refer to as “items” for clarity.

pool these tests with the family-level tests and other components within the family. Then, we place all of our primary outcomes in the next tier; these are computed pooling the family-level estimates and all component-level and other outcome estimates within the family. The last tier is comprised of estimates we consider to be more exploratory in nature: estimates by each time period, subgroup analyses, and outcomes pre-specified as secondary. As a result of this tiering, these exploratory estimates must be highly statistically significant in order for the significance to survive the multiple comparisons adjustment. We do not conduct an FDR adjustment for robustness checks, except for the robustness check that relies only on midline and endline data, which we treat similarly as we do our main estimates, as was pre-specified. Note that the FDR adjustment controls the *rate* of false positives to be no more than 5% of cases where the null hypothesis is rejected. It therefore scales with the number of tests conducted, preserving power even in cases when the researcher needs to test a large number of hypotheses.

Taking inspiration from [Cesarini et al. \(2016\)](#), we also create a “predicted change” measure based on the observed cross-sectional correlation between baseline personal income and each outcome in the control group. We do this by regressing the outcome observed in the control group on the control group’s personal income scaled to be the total annual size of the net transfer (i.e., \$12,000 received by the treatment group minus \$600 received by the control group, or \$11,400). This baseline “predicted change” therefore tells us how much we might expect each outcome to change if the health-income correlation were fully causal.²⁶ For simplicity, we calculate the predicted effect using the net size of the cash transfer without further adjusting it for changes in income that occurred endogenously because of labor supply changes (see [Vivalt et al., 2024](#)). Incorporating the the approximately \$1,900 decrease in annual earnings associated with the transfer decreases the size of the predicted effect by about 17% but does not meaningfully change the conclusions of these comparisons. For mortality, which is very rare in our sample and is necessarily zero during the baseline period, we obtain a more precise estimate of the gradient by using the 3-year mortality rate observed among respondents to the 2016 National Health Interview Survey who are in the same age and income range as study participants and who, like study participants, do not receive SSI or SSDI.

²⁶Note that this gradient captures the relationship between current (both permanent and transitory) income and health, whereas our transfer is a transitory income shock. To the extent permanent and transitory income predict health differently, the gradient may overstate our expectations for health changes due to the temporary income transfer. Nevertheless, it provides a useful benchmark regarding differences in health across the distribution of current income in the specific sample we study.

6 Results

6.1 Summary of Results

We start by summarizing our main family-level and component-level results.

We group all outcomes into 12 broad families of outcomes measuring aspects of physical and mental health, use of medical care, health behaviors, and outcomes related to child health. We plot the effect of the guaranteed income on these families in Figure 2 where the size of each bar shows the standardized treatment effect on each outcome with 95 percent confidence intervals plotted as lines. The family-level outcomes are measured in standard deviation units and oriented such that higher values equate to better outcomes. As a point of comparison, we also plot in gray the predicted change based on a regression of personal income on health outcomes using the control group.

We do not find statistically significant effects of the transfer on measures of physical or mental health over the 3-year period we observe, even though we might have predicted large beneficial effects in our sample based on cross-sectional associations. In contrast, we do see that the cash transfer increased the use of medical care, especially hospital and ED care. Notably, variation in income observed in the control group would have predicted that the cash would decrease, rather than increase, hospital and ED care. We do not see much evidence of changes in health behaviors or outcomes related to the health of children in the participants' household.

Next, we provide a summary of results at the next level of detail, the component level, in Figure 3. These component-level treatment effects are also reported in standard deviation units and oriented so that higher values indicate better outcomes or more use of medical care. The figure orders the components by the size of the effect. On the right side of the figure, the FDR-adjusted q-values are printed. The transfer significantly increased the use of emergency department care and hospital care. We also see increases in dental care and medical care spending, although these effects are significant only with traditional and narrowly miss significance with FDR-adjusted inference. The transfer had little effect on many other health outcomes, and may have worsened participants' reports of days being in good physical health (of the last 30), although this estimate is not statistically significant after adjusting inference to control the false discovery rate.

6.2 Effect of a Guaranteed Income on Detailed Health-Related Outcomes

Next, we present more detailed treatment effect estimates for the effect of the cash transfer on specific items. First, Tables 3-6 show the effect of the transfer on measures of health. Outcomes are listed

in the leftmost column. We report the size of the change we might predict from the cross sectional health-income relationship for each outcome in Column 2. Column 3 reports the control group mean and standard deviation. We do not report control group means for estimates that are generated by aggregating up lower level estimates into a component or family index estimate. Column 4 reports the estimated effect of the transfer with the standard error in parentheses. Under the estimate, we report 95% confidence intervals. In braces beneath the confidence interval, we report the FDR-adjusted q value.²⁷ At the top of the table, we report in bold the family-level effect in standard deviation units, which is also reported in Figure 2. Component-level measures are underlined in each table; if the component contains more than one outcome listed beneath it, it is reported in standard deviations. Otherwise, it is reported in its natural units. Where feasible, we orient variables so that higher values correspond to better outcomes. However, in some cases there is no natural “positive” orientation or the “negative” orientation is already well-established (e.g., for outcomes derived from widely-used scales). In these cases, we flag that the outcome is negatively oriented (i.e., higher values correspond to worse outcomes) by printing the variable name in red.

Table 3 shows results related to mental health. In addition to finding no evidence of changes in the family-level measure, we can reject quite small improvements in each constituent outcome. For example, we can reject improvements smaller than about 1% of the control group mean in participants’ reports that they accomplished less than they would have liked or done things less carefully due to emotional problems or that physical or emotional problems interfered with social activities. Notably, we would have predicted large effects on these outcomes given their strong baseline correlations with income. The underlined component labeled “Emotional problems interfere with daily life” is an index that considers these three related items together; we can rule out improvements in this index greater than 0.03 standard deviations. The Kessler 6 score is derived from the answers to six survey questions about general mental distress (Kessler et al., 2003).²⁸ Similarly, the Perceived Stress Scale uses 10 questions to derive a score ranging from 0 to 40 (Cohen et al., 1983). For both of these scales, higher values indicate worse outcomes. Neither of these measures are significantly different across the treatment and control arms and we can rule out improvements in these outcomes greater than 5% and 2% respectively. The Generalized Anxiety Disorder screener is a two-question survey used to screen

²⁷The q -values are capped at 1, so with a large number of tests associated with relatively high p -values, it is expected that many q -values will be 1.

²⁸Several mental health measures are derived from a validated battery of survey questions. We do not find that the transfer significantly improved outcomes for any of these questions once we apply our adjustment to control the false discovery rate. Estimates of the impact of the guaranteed income payment on the individual questions within the battery for the Kessler 6 and other such measures are reported in the appendix in Appendix Tables A8-A10.

patients for anxiety and the PHQ-9 is a series of questions used as a depression assessment([Spitzer et al., 2006](#); [Kroenke et al., 2001](#)); as with the previous two scales, higher values indicate worse mental health outcomes. We can reject improvements associated with the treatment larger than 3% and 2.5% of the control group mean respectively. Finally, we ask participants how many of the last 30 days their mental health was good. We find no effect on this outcome and can reject improvements of less than 1%. All mental health outcomes exhibit a strong correlation with income, and the predicted change lies outside the confidence intervals for the actual treatment effect for all outcomes.

Table 4 shows that we similarly are able to reject very small improvements in various measures of self-reported physical health. We can reject any improvement in the number of days a participant reports being in good health of the last 30. For participants' rating of their own health on a 5-point scale, and for a series of questions about health limitations and limitations due to pain derived from the SF-12 survey battery, we find no effect and can rule out improvements larger than 2% or smaller. For all measures, the correlation between annual income and the outcome at baseline was strong, and falls outside of the confidence interval of our treatment effect.

In addition to these primary measures of self-reported health, we also estimate the impact of the treatment on a number of alternative measures where we transformed different physical health scales into binary variables to make them easier to interpret. For these alternative measures, we include an indicator that health was reported to be "very good" or "excellent;" that the respondent reports no health limitations for moderate activities or climbing stairs, that pain interferes "not at all" or "only a little bit," and that physical or emotional problems interfere "none of the time" or "only a little bit." We also include two COVID-related outcomes that we did not pre-specify at baseline since our baseline survey was conducted largely prior to the COVID-19 pandemic: an indicator that the participant reported having been diagnosed with COVID (collected only as part of our midline survey in 2021) and an indicator that the participant reported having been hospitalized due to COVID-19.²⁹ As with our primary outcomes, we do not find evidence of any improvements for these measures. For most outcomes, we can rule out even small effects. See Appendix Table A11 for more details.

Next, we examine the impact of the guaranteed income transfer on health biomarkers derived from blood draws. The estimated effect of the transfer on these biomarkers is reported in Table 5. Surprisingly, the predicted change for these outcomes is smaller than what we found for self-reported physical health; for example, we would only predict an improvement in our family-level measure of

²⁹In our analysis of health care utilization, we also examine COVID vaccinations.

health for these biomarker outcomes of 0.02 standard deviations, in contrast to the 0.08 standard deviation improvement we might have expected in self-reported physical health. This difference may reflect greater noise in the underlying data, or could be due to the fact that our sample is relatively young and so physical health differences may not yet have manifested in clinical measures such as blood pressure. In the first row, we show that we are able to rule out improvements in an index of these measures larger than about 0.01 standard deviations. Our predicted change therefore lies outside the confidence interval for our estimated family-level treatment effect. We also find no statistically significant improvements in any individual biomarker. Our precision in percent terms varies considerably across outcomes: we can rule out improvements in A1c, blood pressure, cholesterol, GlycA, and BMI of less than 5%, but cannot rule out even large relative improvements in having an A1c in the diabetic range (we can rule out improvements larger than about 20%), having high cholesterol (15%), or having elevated (31%) or hypertensive (11%) blood pressure. In addition to these primary effects, our lab contract provided data on several additional biomarkers at no cost to the research team. We also examined the effect of the transfer on c-reactive protein (a measure of inflammation). We find no statistically significant improvements in any of these measures (see Appendix Table [A12](#)). We also find no improvement in a measure of ideal cardiovascular health that combines biomarkers and health behavior measures following [Lloyd-Jones et al. \(2010\)](#).

Finally, we examined survival probabilities across the treatment and control groups through the first quarter of 2024 based on administrative mortality records from the Census Numident file. These results are reported in Table [6](#). We do not find significant differences across the treatment arms, although the confidence interval is wide and we cannot reject that the treatment reduces mortality by more than 0.4 percentage points, or 79 percent relative to the control group mortality rate.³⁰

Taken together, these results demonstrate that the guaranteed income program had no detectable effect on the physical and mental health of our sample during the three year period of the treatment and, in most cases, these null effect estimates are quite precise. However, we might be optimistic that health improvements could emerge in the future if we observed increases in health investments that might generate health improvements over a longer time horizon. We next examine the impact of the treatment on several measures of health inputs.

³⁰We were unable to disclose the control group mean mortality rate based on administrative records due to disclosure concerns. Instead, we provide a control group mortality rate based on information we acquired during the process of surveying the control group and our attempts to re-contact non-respondents. This mortality rate is therefore based on all control group participants (not just those linked to administrative data) but may under count mortality since it is not based on administrative records.

First, we examine how the transfer affected measures of access to health care in Table 7. As with the measures of health itself, we find no improvement in access to health care services, and can rule out improvements in the composite index of about 0.03 standard deviations. We do not find that the transfer significantly affected the probability that a participant was insured. While the point estimate indicates an increase in coverage of 1.3 percentage points, our confidence intervals allow us to rule out changes greater than about 5% of the control group mean. However, it is possible that the transfer affected the type of coverage participants enrolled in. For example, if the transfer led participants to exit the labor force, they may have less access to employer sponsored coverage. When we examine coverage by type, we find that treated participants were about 3 percentage points more likely to enroll in Medicaid and 4 percentage points more likely to enroll in health insurance exchange plans. These effects are statistically significant using traditional inference, but do not remain significant after adjusting inference to control the FDR. We see non-statistically significant decreases in employer-sponsored insurance, insurance through a spouse, and insurance through the military. These estimates are found in Appendix Table A13.

We find no improvement in measures of the financial burden of health care: being worried about paying for medical costs, skipping other bills to pay for health care, and the amount of medical collections reported on the participant's credit report.³¹ We can rule out an improvement in a the component-level index of these measures larger than about 0.02 standard deviations. We also find no improvements in measures of access to needed medical care or prescription drug access and can rule out improvements in the component index of 0.02 standard deviations and 0.06 standard deviations respectively. We also examine whether expenditures on insurance premiums increased, which could reflect better access to care via enrollment in a more generous plan.³² While the point estimate is positive, indicating that the transfer induced more insurance premium spending, it is not statistically significant.

Table 8 shows changes in use of office-based or non-emergency department outpatient services, including primary care, specialist and surgical care, dental care and preventive care. We group surgical care with these other outpatient care measures even though surgeries may occur in either an inpatient or outpatient setting depending on the procedure. We also report the change in monthly

³¹For participants we were unable to link to credit records, we use a self-reported medical debt measure instead. All dollar denoted outcomes were winsorized at the 99th percentile to reduce the influence of outliers. This estimate also appears in analysis of the impact of this transfer on other debt and credit outcomes in Bartik et al. (2024).

³²We do not include this outcome in the construction of the family-level estimate for this table because higher spending could reflect elements other than care access, such as moving to a higher cost area.

spending on medical care, excluding spending on insurance premiums, which could also reflect care use. When considering all outcomes together, we find an increase in the family level index of about 0.034 standard deviations which is statistically significant using traditional inference but does not remain significant after the FDR adjustment. Our results also indicate that participants used more dental care if randomized to the treatment arm; this effect is significant when considering the component using traditional inference and but not after the FDR correction. The item indicating any dentist visit in the last 12 months is also significant using traditional inference but not after the FDR correction. This effect suggests that the cash transfer increased the probability of having any dentist visit by a bit more than 10% compared to the control group mean. We also see a significant increase in monthly medical care spending of about \$22, excluding insurance premiums, that is significant with traditional inference but misses significance after the FDR adjustment ($q = 0.112$). We also see some suggestive evidence that specialist visits and office visits may have increased as a result of the transfer, although these are only significant at the 10% level based on unadjusted p values. In contrast, we see a significant (using unadjusted p values) decrease in the likelihood a participant had a COVID vaccine; this effect is not statistically significant after FDR adjustment.³³ Taken together, these results suggest that the use of office-based and other non-emergency department outpatient care was affected by the guaranteed income, and that, for the most part, the transfer led participants to consume more care.

The transfer may have also affected the use of hospital and emergency department (ED) care, which tends to be more expensive than office-based care. We show the effects of the transfer on hospital and ED care in Table 9. Here, we show that the transfer did increase the amount of this type of care received. While the significance of the family-level index does not survive an adjustment for multiple testing, several of the components and items do remain significant after adjustment. We observe an increase in the probability of having any ED visit in the last year of 2.7 percentage points (about 11% of the control group mean), and the number of ED visits over the same period of 0.11 (about 19%). We also see an increase in the likelihood of having any hospitalization of about 1 percentage points (about 13%) and in the number of hospitalizations in the last year of 0.053 (about 23%). This type of care is relatively expensive, and could increase if treated participants were better able to afford the associated cost-sharing. Alternatively, the transfer may have affected behavior in other ways that would lead to more ED or hospital care. For example, we show later that the transfer led participants to drink alcohol more frequently, which could have led to more health problems or emergencies. Existing work

³³Note this outcome is not included in our component- or family-level indices because it was added later in the study.

on the effect of insurance on utilization suggests that the small and non-significant increase in insurance coverage among the treated group likely plays only a small role in the observed increase in ED and hospital care.³⁴ Notably, the baseline gradient for these effects is opposite-signed: correlations between income and hospital care observed at baseline would have predicted that participants in the treatment group would have used *less*, rather than more, hospital care.

The apparent increase in use of medical care associated with the transfer may initially seem hard to reconcile with the null effect of the transfer on participants' self-reported ability to access that care. However, it is possible that the lack of effect of the transfer on access to care reflects participants' greater awareness of their health needs—and the costs associated with these needs—following their increased interaction with the health care system. It is notable, for example, that treated participants both used more dental care but also appeared to be somewhat more likely to report that they skipped dental care due to costs, perhaps due to learning at their initial appointment that additional dental work was recommended.

The guaranteed income transfer may also have affected nutrition and food security, which we examine in Table 10. Examining the family-level index, we find no improvement overall and can reject improvements larger than 0.04 standard deviations. We measure food insecurity using 6 items from the USDA food security scale, which ranges from 0 to 6, with 6 representing the greatest degree of food security.³⁵ Surprisingly, we do not find the transfer improved food security, despite the strong baseline correlation between income and food security. We can reject improvements in food security larger than about 3%. We do see some suggestive improvements in the healthy eating index, which was derived from food diaries (of about 1% relative to the control group mean), although this effect is only marginally significant using unadjusted *p* values and not significant after adjustment. We also used the food diaries to examine how consumption of different types of nutrition—such as cups of fruit, grams of protein or sodium, or teaspoons of added sugar—were affected by the transfer. We do not find significant differences across treatment and control for these measures of nutritional intake and estimated effect sizes are small, with the exception of grams of alcohol, which is significantly

³⁴For example, Taubman et al. (2014) shows that gaining Medicaid coverage increases the number of ED visits by 0.408 visits over an 18 month period, which can be rescaled to about 0.27 visits annually (i.e., $0.408 \times (12/18)$). If the coverage gain observed in this experiment produces a similar effect, we might expect that it generated an increase in visits of $0.27 \times 0.013 = 0.00351$, or only about 3% of the total treatment effect on this outcome.

³⁵We also do not find significant effects of the transfer on the probability that the participant is classified as “food insecure” or having “very low food security” based on this measure, nor on any of the individual questions that comprise this survey battery. See Appendix Table A14 for details. We use these 6 items (which incorporates a question from the 2-item version) rather than the standard 6 item scale.

higher in the treatment group using per comparison p values but not after adjusting for the FDR.³⁶ These results are reported in Appendix Figure A7. Taken together, these estimates suggest that the transfer may have improved nutritional intake somewhat.

The transfer may have also affected other health investments, such as physical activity or sleep. We report the estimated effect on these outcomes in Table 11. We can rule out very small improvements in the family-level index of these measures greater than 0.003 standard deviations; if anything, our estimates indicate that outcomes may have worsened on these dimensions. We collect information on time spent in different activities both from survey measures (which ask about hours spent in the last week) and from time diaries (which record time spent in minutes per day). We find that treated participants spent less time on physical activity, measured as “recreation/physical activity, like exercising, walking, playing sports, etc.,” when using the survey measure, but not the time diary measure. The reduction is statistically significant but small, representing a reduction of only about 5 minutes per day. We also asked about the number of times a participant exercised in the last two weeks, but find no change in this measure. Similarly, we find neither changes in amount of sleep whether measured via surveys or via the time diary app, nor changes in the quality of sleep, and can rule out even very small improvements in these outcomes.

Next, we consider a range of unhealthy behaviors related to alcohol use and abuse, smoking and use of tobacco, and drug use. These results are reported in Table 12. At the family level, we find no change in these outcomes; however, examining each outcome individually, we do see some suggestive differences across the treatment and control groups. The treatment group appears to report drinking alcohol more frequently in the past 30 days than the control group, although this is a secondary outcome. The treatment group also is less likely to report that drinking or hangovers interfere with their responsibilities. Both treatment effects are only significant at the 10% level with traditional inference. We also see a significant increase in the number of days that the treatment group reported not abusing painkillers. However, none of the estimates in this family remain statistically significant after adjusting inference to control the FDR, so these effects should be interpreted with caution.

Finally, we examine whether the transfer may have affected the health of children within the household. Table 13 shows the effect of the transfer on access to and use of medical care. We do not find any statistically significant effect of the transfer on the probability a participant reported that the child had to skip needed healthcare because the participant could not afford it and, if anything, reports

³⁶These food category measures were winsorized due to the presence of outliers.

that the child skipped medical care because the participant could not take time off work increased in the treatment group, although this effect was not statistically significant after adjusting inference to control the false discovery rate. We do not find changes in the amount of time since the child saw a dentist or doctor due to the transfer nor in the probability that the child was current on all vaccinations. Table 14 shows the effect of the transfer on the child's health, as reported by the participant. The transfer did not appear to improve children's health outcomes overall, and we can rule out improvements larger than 0.02 standard deviations at the family level. We also do not find improvements on the constituent parts of this index such as the presence of a health issue or disability that limits the child's activities or on the participant's rating of the child's health on a 5-point scale.

6.3 Effects by Time

The results reported in the previous section pooled survey data across time to generate a single effect. We also estimated treatment effects separately for each time period. For the most part, effects appear similar across time periods or are too noisy to draw interesting conclusions. However, there are two notable exceptions. First, some measures of mental health show large improvements in the first year, which fade by year two. In particular, stress and mental distress both appear lower in year 1 in the treatment group relative to the control group, but no significant differences are present in year 2. The year 1 effect on stress remains significant at the 10 percent level after accounting for multiple comparisons, and is fairly large, at almost a tenth of a standard deviation; by year 3, we can rule out even very small improvements in stress, and the point estimate actually indicates that treatment group participants reported more stress than control group participants.³⁷ Second, we see a similar pattern for food hardship, with large and highly significant differences present in year 1 that fade over time. The year 1 estimate remains highly significant even after adjusting the p values for multiple comparisons. See Appendix Figures A8-A20 for these results and note that the presented estimates are standardized by dividing each coefficient by the control group standard deviation to facilitate comparisons.

There could be multiple explanations for the fade out of these beneficial effects. For example, these patterns could reflect dynamics in consumption, debt, and savings surrounding the end of the transfer, as participants do not increase their net worth substantially but do pay more in rent and have higher

³⁷We also collected data on measures of subjective well-being and life satisfaction. These results show a very similar pattern as our results for mental health measures, with significant improvements in the first year that fade out, but no significant effect overall. See Appendix Table A15 and Appendix Figure A9 for estimates. These estimates are also reported in Vivalt et al. (2024).

monthly debt payments that they may have trouble maintaining (see [Bartik et al. \(2024\)](#)). Participants may have also experienced increased pressure to share the transfer with partners or family members over time. And, the dynamics surrounding the stress effects could reflect anticipation of the transfer ending and the need to transition to a lower level of consumption.

6.4 Effects by Subgroup

We also estimate our effects across several pre-specified subgroups defined by pre-treatment respondent characteristics. We estimate heterogeneous treatment effects by baseline insurance status, by household income (at or below the FPL vs above the FPL), by whether the respondent reported skipping any medical care due to costs, by age (under or over 30 years old), and by baseline self-reported health (very good or excellent vs poor, fair, or good). In addition to these pre-specified subgroups, we also present results separately for participants recruited from Illinois and Texas. Effects may be different in these two states given the differences in the local policy environment, performance of the local economy, and demographics and culture. However, it is important to keep in mind this analysis was not pre-specified. Figures 4-5 show the family-level estimates with 95% confidence intervals for these groups.³⁸ In the appendix, we report the estimates for each outcome in Appendix Tables A18-A63. Given the small sample sizes within any given subgroup, we consider these estimates to be exploratory. In addition, we do not conduct this analysis for the mortality and biomarker outcomes, given the smaller sample sizes available for these outcomes.

Participants who reported skipping needed medical care due to costs at baseline appear to have somewhat larger increases in use of hospital and ED care. It is notable that this is the only subgroup in which our coefficients indicate improvements in mental and physical health at the family level, although the effects are not statistically significant. We also observe somewhat larger increases in hospital and ED care for those age 30 and older and those who report worse health at baseline. However, no subgroup specific estimate remains significant using q values that control the false discovery rate.

We pre-specified different subgroups when considering outcomes measured at the child level. In particular, we considered the gender of the child and the baseline income of the household at baseline (at or below the FPL vs above the FPL). Also, because children's health and developmental needs are different at different ages, we also examined whether effects differed for children who were under age 5, age 5 to 10, or age 11 to 17 at baseline. These results are reported in Figure 6. We again do not find much evidence of heterogeneity across these groups. Detailed subgroup estimates are reported

³⁸Confidence intervals are based on unadjusted standard errors.

in Appendix Tables [A64-A69](#).

6.5 Alternative specifications and robustness checks

In our surveys and actively-collected data, we observed small but statistically significant differential response rates across treatment arms. Reassuringly, we do not find that those who responded differed systematically across the treatment and control groups when examining a large number of observable baseline characteristics (see Appendix Tables [A2-A6](#)). However, it's possible there were differences in unobservable characteristics. We therefore conduct a series of robustness checks to assess how such selection might have affected our results. We also probe the robustness of our results to our chosen model specification. To avoid reporting a very large number of estimates, we report these robustness tests only at the family and component level.

Specifically, we conduct the following robustness checks: First, we show how removing the control variables from our econometric model affects our results. Second, we examine how the results change if we rely only on midline and endline surveys. While a large number of respondents responded to at least one Qualtrics survey in each study year, response rates on any particular survey were lower than what we observed for our midline and endline surveys. Third, we have baseline measures for many of our outcomes. This allows us to estimate a differences-in-differences model for these outcomes in which we compare changes from baseline in the treatment group to the changes observed in the control group, rather than comparing these groups cross-sectionally in the post-intervention period. This model requires that the treatment and control groups are on parallel trends but allows survey respondents to have different fixed (non-time-varying) unobservable characteristics across the two groups, which may be the case when there is differential survey response. Fourth, we estimate the effect of the transfer on a subgroup that showed high rates of survey compliance in the baseline period. As we demonstrate in Appendix Figure [A3](#), this subgroup exhibits somewhat lower rates of differential response across treatment arms. In line with our subgroup analyses described in Section [6.4](#), we do not estimate this robustness check for the biomarkers family, given the smaller sample size available for these measures. We also do not conduct this check for our mortality outcome due to the small number of deaths within the high compliance group by treatment arm. Fifth, we estimate bounds based on [Lee \(2009\)](#). We do not conduct this check for the mortality outcome given the low mortality rate in both treatment arms. Sixth, for the handful of outcomes we winsorized as part of the data cleaning process, we show results using the unwinsorized variables and results estimated via

median regression. Finally, for outcomes estimated at the child level, we examine how sensitive our results are to restricting the sample to only the biological children of the participant (i.e., excluding step-children, foster children, adopted children, younger siblings and grandchildren) rather than analyzing all children within the participant's household. We also conduct analysis restricting the sample only to children who were in the household at baseline, in case the transfer causes some children to select into or out of the treated participants' households.

The estimates from these tests are found in Appendix Tables [A71-A82](#). Removing control variables has very little impact on our results, as one might expect given the high degree of balance across treatment and control groups in our sample. In almost all cases, the standard errors are slightly larger when controls are removed, illustrating our rationale for including these controls (i.e., to improve precision). Our results are also very similar when relying only on the midline and endline data for analysis as reported in Column 3. Note that some outcomes were only asked at midline and endline, in which case results in this column will match the baseline specification exactly, and some outcomes were not asked at midline and endline, in which case we cannot produce these estimates. We also find very similar results when estimating the difference-in-differences version of the model for most outcomes, although it is not possible to estimate this model for biomarker outcomes (given that we collected only a limited number of biomarkers, from part of the sample, at baseline) or for mortality (since mortality in the pre-period is necessarily zero). Results are also similar, although less precise, when limiting to the group who had high compliance at baseline. For outcomes related to children, results are similar when limiting the sample to the biological children of the participant or to those who were in the household at baseline.

We also report the upper and lower [Lee \(2009\)](#) bounds, which assume the differential non-response in the control group is drawn either from the very top (in the case of the lower bound) or bottom (in the case of the upper bound) of the outcome's distribution. These bounds are known to be conservative and the fact that baseline characteristics appear balanced between responding treatment and control participants suggests that differential non-response is unlikely to be biasing our estimates. Nevertheless, we present these bounds in the last two columns of Appendix Tables [A71-A82](#). These bounds are relatively tight for the self-reported physical and mental health families, consistent with our conclusion that there was no effect on these outcomes. But they are larger for other families, and are particularly wide for the biomarkers family, which was based on a smaller sample that exhibited more differential participation than the surveys. It is reassuring that, conditional on providing

a biomarker, characteristics of the treatment and control groups are highly balanced on a large number of pre-treatment measures (see Appendix Table A7). However, if there are *unobserved* differences across treatment arms driven by differential participation in the biomarker part of the study, the results may not be reliable. This might occur if, for example, participants who are unobservably less healthy are more eager to participate when they are part of the treatment group (perhaps because they have more time or bandwidth because of the transfer) than in the control group. In this case, true beneficial effects of the cash transfer on the biomarker outcomes may be obscured by the relatively negative selection into the sample of the treatment group.

We also do not find meaningful differences based on our treatment of outliers. However, our estimated treatment effect on time spent in physical activity and recreation is somewhat larger when we use a version of the variable that is not winsorized, and becomes statistically insignificant when we estimate treatment effects using median regression. See Appendix Table A83 for details.

7 Discussion

7.1 The health-income gradient

The strong association between income and health has been widely documented in the social sciences. The upper bound of our confidence interval on our family-level measure of the treatment effect on self-reported physical and mental health exclude effects 24% and 44% of the size of the predicted change that would be derived from the cross-sectional association respectively, leaving at least 76% and 56% of this association unexplained by a causal relationship in our sample.³⁹ Similarly, the confidence interval on our family-level treatment effect on clinical measures of health suggests that, at most, 43% of this association is explained, leaving 57% unexplained. In this section, we discuss the implications of our results for the interpretation of this association and reasons why income might be strongly associated with health within the cross section of our sample but a random allocation of income fails to generate improvements.

The literature offers several hypotheses, which we discuss briefly in turn: first, there may be reverse causation, wherein less healthy workers sort into lower paying jobs or out of the labor market. Second, there may be omitted variables correlated both with contemporary health and contemporary income driving this relationship. Third, it may be that income derived from the labor market generates causal improvements in health that a cash transfer does not. Fourth, the correlation between income

³⁹For example, for self-reported physical health, the unexplained share is $1 - \frac{UpperBound(\hat{\beta}_{Family})}{PredictedChange_{Family}} = 1 - \frac{0.02}{0.083} = 0.76$.

and health may only be generated over a longer time horizon.

“Reverse” causality. It has long been acknowledged that better health can lead to higher income, for example by leading to more healthy time that is available for work ([Grossman, 1972](#)). In their review, [Cutler et al. \(2011\)](#) conclude that the evidence for a causal impact of adult health on adult socio-economic status is much stronger than evidence for the reverse. More recently, a number of papers have used random or quasi-random health shocks or investments to quantify how much health affects income, and find substantial evidence that such effects are meaningful in the short- and long-term (e.g., [Dobkin et al., 2018](#); [Stephens and Toohey, 2022](#); [Di Meo and Eryilmaz, 2025](#); [Meyer and Mok, 2019](#)). Using longitudinal data, [Danesh et al. \(2024\)](#) find that about 40% of the divergence in chronic disease burden across higher- and lower-income individuals as they age is driven by sicker workers sorting into lower-paying jobs. Taken together, this body of work suggests that a substantial portion of the residual health-income correlation, after removing the causal impact of income on health, is likely due to poor health causally reducing income. Policymakers might therefore more effectively alleviate health disparities by focusing on interventions that improve health (and, in turn, income) rather than targeting income in hopes of downstream health improvements.

Omitted variable bias. It is possible that omitted variables could simultaneously worsen health and reduce income. One such omitted variable, proposed by [Deaton \(2001\)](#) and others, is social status or rank. In recent work, [Lavetti et al. \(2025\)](#) show that the relative rank of a worker within a firm has significantly more explanatory power in predicting health than that worker’s absolute income; the authors conclude that 70% of the observed health-income gradient may in fact be attributable to relative rank rather than absolute income. If the ORUS cash transfer provides income, but does not enhance social status as much as, for example, a raise or promotion would, it may be ineffective at generating the expected health benefits. Another omitted variable could be education, which could affect both income and health (for example, by providing information on the productivity of healthy behavior). While it is difficult to tease out whether there is an effect of education on health that is separate from its impact on income, existing evidence suggests that the health-education correlation is not fully explained by income alone ([Cutler and Lleras-Muney, 2008](#)).

Labor income is different from transfer income. The cross-sectional associations we discuss in this paper (and that are presented in most other work on this topic) examine differences in health based primarily on a household’s earned income. However, the experiment we analyze affects only unearned income. If workers perceive transfer income as conferring less status than labor income, or

if labor income provides a greater sense of accomplishment and self-esteem that is beneficial to health, then a cash transfer may be less relevant in understanding the cross-sectional health-income gradient. Similarly, a greater share of annual earnings is likely permanent income, while the transfer we study is transitory. Evidence suggests that measures of permanent income are more relevant in predicting health than using current year or transitory income (Fletcher and Wolfe, 2014; Xu and Yilmazer, 2021). If this is the case, income increases that arise from policies generating widely-shared economic growth and permanent productivity enhancements may be more effective at improving health than the transfer we study.

The income-health association is driven by income at different times or for different durations.

Economic models of health treat health as a capital good that depreciates at an increasing rate as people age but that can be improved with investment (e.g., Lleras-Muney and Moreau, 2022). In such models, even temporary income shocks can affect health, but they take time to manifest. It is possible that health-income gradients reflect historical health investments driven by income rather than the effect of contemporary income. In this case, we might see health improvements emerge in our study sample as they age. Similarly, a large literature has found that the health-income association arises in childhood (e.g., Case et al., 2002), and that health investments made in childhood are especially productive for adult health and achievement (Currie, 2011, provides a review). In this case, the health-income gradient measured in adulthood may be capturing the echoes of these early life investments, and cash transfers may be productive if made in childhood rather than adulthood.

7.2 Policy implications

In recent years, policymakers and advocates have emphasized the important role that social and economic factors—income predominant among them—play in determining health outcomes. However, the results from our experiment suggest that, for the sample and time frame we study, directly reducing poverty via cash transfers was not effective at improving short-run health outcomes. We document a precise null effect for a variety of physical health outcomes and our point estimates are able to rule out even very small improvements. Beneficial effects of the transfer on mental health are short-lived and, by the second year of the transfers, the treatment group reports no better mental health than control group. Furthermore, the intervention did not appear to improve access to medical care, nor did it lead to participants making other health investments via sleep and exercise. The fact that the transfer does not generate more durable improvements in stress is especially notable since one prominent

hypothesis is that cash transfers could improve physical health in the long-term by reducing stress, prolonged exposure to which is known to generate adverse physical effects (e.g., [Tawakol et al., 2019](#)). We hope to explore the impact of the transfer on other outcomes—such as time preferences and executive function—and to analyze how outcomes evolve in the long-term for treated participants and children in their households. This future analysis may help shed light on some of the reasons we did not find effects of the transfer on health over the three year period we study.

At the same time, we do find some evidence for a utilization pathway through which health improvements could emerge for treated participants in the future, or might have emerged over a longer treatment period. Hospital, emergency department, and dental care visits increased, and treated participants spent about \$20 per month more on medical care, relative to the control group. These increases in health care use and health spending are smaller, however, than the effects of more health-focused interventions; for example, Medicaid coverage generates an increase in health expenditures about 7 times larger than the effect of the transfer we study. And, since providing a year of Medicaid coverage costs only a bit more than half as much as the guaranteed income intervention, on a per dollar basis, it generates about 11 times the additional medical care spending.⁴⁰ We compared the effects of the guaranteed income program to the impact of other health care specific interventions on the use of primary care and mortality.⁴¹ These health care targeted interventions generate larger increases the use of primary care services. And, some generate significant improvements in mortality, in contrast to the guaranteed income program that we study.

In addition to the increases in the use of medical care we noted, we also found that nutrition quality may have improved somewhat. We also did not find that alcohol or drug use changed very much. So, while we do not find health benefits of the cash transfer we study, we also do not find evidence of harmful effects of the transfer on the abuse of drugs and alcohol that some may have feared.

The appeal of cash transfers lies in the freedom that they give beneficiaries to make their own choices about what type of consumption to prioritize. However, the nature of that freedom means that cash transfers are a blunt instrument for improving health and reducing health disparities specifically.

⁴⁰This calculation uses the estimate from the Oregon Health Insurance Experiment of \$1,172 higher annual spending due to Medicaid in 2008 from [Baicker et al. \(2013\)](#) and inflation-adjusts this estimate to the end of our study period, giving a total increase in annual spending due to Medicaid coverage of \$1,708, or about \$142 per month. Annual Medicaid costs per year per beneficiary for the non-disabled, non-elderly adult population covered by the Affordable Care Act expansions were about \$6,500 during our study period ([Jessica Mathers and Cervantes, 2025](#)).

⁴¹Details are found in Appendix Table [A84](#) and Appendix Figure [A22](#) (with more discussion found in Appendix Section [C](#)).

Program participants have a variety of needs that they may prioritize over health inputs when making consumption decisions. And, these needs likely vary significantly from participant to participant. For example, it is notable that participants who reported at baseline that they skipped needed medical care due to costs appear to experience larger increases in the use of hospital and emergency care and possibly improvements in mental and physical health as a result of the transfer, although these estimates were not statistically significant. Further research is needed to identify whether income transfers may improve health for some particularly vulnerable subgroups, or under certain circumstances. If this is indeed the case, more targeted transfers that take into account specific health needs may be more successful at reducing health disparities than the one studied here.

Finally, we note that the lack of an effect of the transfers on physical or mental health does not imply that the cash transfer program was unsuccessful at achieving other important goals, or that the transfers did not increase welfare for recipients. Companion papers ([Vivalt et al., 2024](#); [Bartik et al., 2024](#)) show that our study participants consumed more leisure, food, housing, transportation, and goods and services as a result of being randomly assigned to the high cash transfer arm. While these choices did not appear to directly affect their health, they did allow participants to increase consumption in ways that the participants valued most, as revealed by their own choices.

Ultimately, our results suggest that policymakers interested in improving health and reducing health disparities specifically should consider prioritizing programs that target health directly, at least for populations similar to the one we study. Expanding Medicaid eligibility, reducing prescription drug costs, and making it easier for patients to make primary care appointments have all been shown via rigorous evaluation to meaningfully improve the health and healthcare access of low-income and otherwise vulnerable adult populations over a time period similar to or shorter than the one we study (e.g., [Goldin et al., 2020](#); [Miller et al., 2021](#); [Sabety et al., 2023](#); [Chandra et al., 2024](#)). If instead policymakers seek to reduce poverty and improve the well-being of low income groups more generally, cash transfers could still represent an important option, even if they do not improve health in the near term.

Table 1: Study Sample Characteristics Compared to Eligible Population

	Eligible Population Comparison (ACS)				Study Sample		Enrolled Active Survey Group Unweighted
	Full US Population		Study Counties		Eligible Screener Respondents		
	Unweighted	Reweight to Match Enrolled Sample FPL and County Type Distribution	Reweight to Match Enrolled Sample FPL County Type Distribution	Unweighted	Reweight to Match Enrolled Sample FPL County Type Distribution		
	(1)	(2)	(3)	(4)	(5)	(6)	
Panel A. Key active group stratification variables							
Income 0-100% of FPL	0.24	0.34	0.34	0.30	0.34	0.33	
Income 100-200% of FPL	0.36	0.41	0.41	0.33	0.41	0.40	
Income 200%+ of FPL	0.40	0.24	0.24	0.37	0.24	0.24	
Rural County	0.27	0.13	0.13	0.13	0.13	0.13	
Suburban County	0.32	0.18	0.18	0.22	0.18	0.18	
Medium-Sized Urban County	0.17	0.16	0.16	0.15	0.16	0.16	
Large Urban County	0.23	0.53	0.53	0.51	0.53	0.53	
Panel B. Demographic Characteristics							
Any Children (in HH)	0.58	0.58	0.62	0.57	0.59	0.57	
HH Size	3.35	3.23	3.30	3.14	3.19	2.98	
Age < 30	0.47	0.48	0.48	0.49	0.49	0.49	
Non-black and non-hispanic	0.66	0.52	0.44	0.53	0.52	0.48	
Black (non-hispanic)	0.16	0.25	0.30	0.25	0.26	0.30	
Hispanic	0.18	0.22	0.26	0.22	0.22	0.22	
Female or Other	0.57	0.59	0.61	0.68	0.69	0.68	
HH Income	37,001	30,618	31,233	32,327	29,255	29,913	
College Degree or more	0.18	0.16	0.16	0.28	0.25	0.20	
Renter	0.57	0.69	0.67	0.82	0.84	0.79	
Has Health Insurance	0.82	0.81	0.76			0.71	
Medicaid	0.31	0.35	0.29			0.29	
Employer-sponsored or spousal	0.42	0.37	0.40			0.24	
VA or TriCare	0.04	0.03	0.02			0.01	
Exchange, school, or other coverage	0.05	0.05	0.05			0.17	
N	833,477	820,369	31,662	14,573	14,573	3,000	

This table compares the study sample to estimates of the characteristics of the study in the US as a whole. Eligible individuals are those ages 21-40 with household incomes of less than 300% of the federal poverty line. Columns (1) - (3) report estimates of the characteristics of eligible individuals using the American Community Survey (ACS) 2015-2019 pooled sample. Column (1) presents the unweighted means, Column (2) reweights the ACS sample to match the income group and the county-type distribution in the enrolled active survey group sample, and Column (3) restricts the estimates of Column (2) to include only study counties. Columns (4)-(6) report characteristics of the study sample. Columns (4) and (5) report characteristics of eligible respondents to the mailer and online advertisement recruitment methods. Column (4) is unweighted, while Column (5) is reweighted to match the enrolled sample FPL and county type distribution. Column (6) reports the unweighted mean of the 3000 participants who ultimately enrolled. In some cases means may not add to one due to missing values.

Table 2: Baseline characteristics by treatment arm

	Treatment	Control	p-value
Demographic			
Age	30.169	30.035	0.542
Male	0.328	0.319	0.621
Female or non-binary	0.672	0.681	0.627
Non-Hispanic Black	0.294	0.305	0.536
Non-Hispanic White, Asian, or other race	0.486	0.481	0.798
Hispanic	0.220	0.214	0.709
Household Size	2.943	2.996	0.435
Any Children in Household	0.568	0.571	0.897
# Children	1.435	1.398	0.558
Economic			
Employed	0.578	0.586	0.675
Personal Income (\$1000s)	21.255	21.172	0.917
Household Income (\$1000s)	29.950	29.895	0.942
Under FPL	0.323	0.336	0.475
HS Degree/GED or higher	0.953	0.939	0.111
Health care access and utilization			
Insured	0.703	0.719	0.369
Employer sponsored insurance	0.187	0.203	0.290
Spousal insurance	0.043	0.042	0.839
Exchange plan insurance	0.056	0.056	0.920
Medicaid	0.303	0.288	0.398
Military or VA coverage	0.012	0.012	0.995
Insurance through college or school	0.025	0.021	0.451
Other type of insurance	0.090	0.093	0.765
Did not skip medical care due to Costs	0.731	0.724	0.682
Worried About Medical Costs	1.792	1.811	0.628
Usual source of care is not ER	0.917	0.907	0.368
Any hospitalization last 12 mos	0.139	0.126	0.337
Any ER visit last 12 mo	0.314	0.303	0.523
# Office Visits last 12mo	3.778	3.851	0.776
Mental health			
# days mental health good (of last 30)	23.097	23.059	0.914
High stress	0.157	0.154	0.836
High mental distress	0.129	0.113	0.207
Severe depression	0.162	0.152	0.476
Physical health			
Health very good or excellent	0.515	0.495	0.312
# days physical health good (of last 30)	26.441	26.435	0.980
Obese	0.414	0.425	0.544
Pain interferes not at all or very little	0.765	0.756	0.571
Health behaviors			
Exercise frequency	7.499	7.893	0.328
Amount of sleep	6.796	6.764	0.691
Does not smoke cigarettes daily	0.833	0.822	0.455
Food security index (0-6)	3.097	3.078	0.828

Notes: This table displays means of baseline characteristics of the treatment and control group, and a p-value associated with a test of equality of those means. A small number of participants have missing values for some measures; in this case, these are imputed with the treatment group specific sample mean.

Table 3: Impact of Guaranteed Income on Self-Reported Mental Health

	Predicted Change	Control Mean	Estimated Effect	N
Mental health index				
Emotional problems' interference with daily life	0.068 (0.008)		-0.011 (0.021) {0.846}	
	0.069 (0.009)		-0.015 (0.025) {1.000}	
Accomplish less than you would like (1=All of the time, ..., 5=None of the time)	0.071 (0.010)	3.62 (0.97)	-0.019 (0.027) {1.000}	2922
Did work or activities less carefully (1=All of the time, ..., 5=None of the time)	0.049 (0.009)	3.87 (0.88)	0.002 (0.026) {1.000}	2921
Interfered with social activities (1=All of the time, ..., 5=None of the time)	0.073 (0.009)	3.80 (0.93)	-0.026 (0.027) {1.000}	2921
<u>Kessler 6 mental distress scale</u> (0=Least mental distress,... 24=Most mental distress)	-0.366 (0.042)	6.25 (4.51)	-0.052 (0.124) {1.000}	2985
<u>Perceived stress scale</u> (0=Least stress, ... 40=Most stress)	-0.483 (0.064)	18.58 (6.60)	-0.018 (0.180) {1.000}	2936
<u>Generalized anxiety disorder scale</u> (0=Least anxiety, ... 6=Most anxiety)	-0.078 (0.015)	2.00 (1.50)	0.018 (0.042) {1.000}	2911
<u>Depression scale, PHQ-9</u> (0=Least depressed, ... 27=Most depressed)	-0.351 (0.053)	7.21 (5.68)	0.133 (0.157) {1.000}	2919
<u>Days mental health good of last 30</u>	0.509 (0.070)	23.20 (7.37)	-0.242 (0.215) {1.000}	2984

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows. The family-level effect is reported in bold at the top of the table. Underlined outcomes represent components that aggregate individual level outcomes listed below them into a single index. In instances when there is more than one outcome related to the component topic, the components are measured in standard deviations. The column "Predicted Change" shows the size of a change we would predict from a \$11,400 increase in annual income based on a regression of earned income on outcomes using the control group. Standard errors are reported in parentheses. 95% confidence intervals are reported in brackets. FDR-adjusted q-values are reported in braces. Variable names printed in red indicate that higher values of the variable are associated with worse outcomes.

Table 4: Impact of Guaranteed Income on Self-Reported Physical Health

	Predicted Change	Control Mean	Estimated Effect	N
Self-Reported Physical Health Index				
# Days Physical Health Good of Last 30	0.083 (0.008)		-0.019 (0.020) {0.579}	2984
Health Rating (1=Poor, ..., 5=Excellent)	0.410 (0.058)	26.11 (5.55)	-0.383 (0.174) {0.244}	2983
Health is not limiting	0.076 (0.009)	3.22 (0.92)	-0.034 (0.025) {0.254}	2983
	0.087 (0.009)		0.015 (0.022) {0.370}	
Health limitations of moderate activities (1=Limited a lot, ..., 3=Not limited at all)	0.038 (0.005)	2.69 (0.46)	0.016 (0.013) {0.491}	2922
Health limitations of climbing several stairs (1=Limited a lot, ..., 3=Not limited at all)	0.041 (0.005)	2.59 (0.53)	0.007 (0.015) {0.577}	2921
Accomplished less due to physical health (1=All of the time, ..., 5=None of the time)	0.088 (0.009)	3.88 (0.92)	0.014 (0.026) {0.577}	2922
Limited in work/other activities due to physical health (1=All of the time, ..., 5=None of the time)	0.092 (0.009)	4.08 (0.93)	0.036 (0.025) {0.467}	2921
Health interference with social activities (1=All of the time, ..., 5=None of the time)	0.073 (0.009)	3.80 (0.93)	-0.026 (0.027) {0.577}	2921
Pain interference with normal work (1=Extremely, ..., 5=Not at all)	0.079 (0.009)	4.03 (0.89)	0.015 (0.025) {0.370}	2922

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows. The family-level effect is reported in bold at the top of the table. Underlined outcomes represent components that aggregate individual level outcomes listed below them into a single index. In instances when there is more than one outcome related to the component topic, the components are measured in standard deviations. The column "Predicted Change" shows the size of a change we would predict from a \$11,400 increase in annual income based on a regression of earned income on outcomes using the control group. Standard errors are reported in parentheses. 95% confidence intervals are reported in brackets. FDR-adjusted q-values are reported in braces.

Table 5: Impact of Guaranteed Income on Clinical Health Indicators

	Predicted Change	Control Mean	Estimated Effect	N
Clinical health indicators	0.020 (0.009)		-0.038 (0.024) {0.295}	
<u>Diabetes risk</u>	0.018 (0.011)		-0.038 (0.038) {0.471}	
A1c	-0.018 (0.016)	5.68 (1.00)	0.034 (0.059) {1.000}	1147
A1c in diabetic range	-0.006 (0.003)	0.07 (0.26)	0.014 (0.015) {1.000}	1147
A1c in pre-diabetic range	-0.007 (0.007)	0.26 (0.44)	0.011 (0.026) {1.000}	1147
<u>Blood pressure</u>	0.017 (0.011)		0.031 (0.031) {0.471}	
Diastolic blood pressure	-0.272 (0.175)	82.18 (11.26)	-0.507 (0.634) {1.000}	1180
Systolic blood pressure	-0.425 (0.253)	126.18 (16.12)	-0.698 (0.874) {1.000}	1180
BP in elevated range	-0.005 (0.006)	0.09 (0.28)	0.007 (0.018) {1.000}	1180
BP in hypertensive range	-0.002 (0.007)	0.72 (0.45)	-0.028 (0.027) {1.000}	1179
<u>Lipid panel</u>	-0.015 (0.010)		-0.049 (0.042) {0.471}	
Total cholesterol	1.212 (0.591)	184.93 (38.08)	2.506 (2.270) {1.000}	1140
LDL Cholesterol	1.056 (0.526)	109.51 (33.14)	2.099 (1.982) {1.000}	1137
HDL Cholesterol	-0.043 (0.247)	52.89 (15.64)	0.251 (0.903) {1.000}	1139
Total cholesterol in high range	-0.001 (0.004)	0.08 (0.27)	0.023 (0.018) {1.000}	1140
<u>Inflammation</u>	0.046 (0.016)		-0.055 (0.048) {0.471}	
GlycA	-3.628 (1.406)	434.72 (82.37)	5.162 (4.250) {1.000}	1145
GlycA in High Range	-0.022 (0.008)	0.65 (0.48)	0.023 (0.026) {1.000}	1145
<u>Obesity risk</u>	0.043 (0.015)		-0.052 (0.037) {0.471}	
BMI	-0.365 (0.158)	32.46 (10.01)	0.409 (0.410) {1.000}	1166
BMI in obese range	-0.025 (0.008)	0.53 (0.50)	0.032 (0.023) {1.000}	1166
<u>Ideal Cardiovascular Health Index</u> (0=Worst health, ..., 7=Best health)	0.016 (0.018)	3.26 (1.17)	-0.075 (0.060) {0.471}	1164

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows. The family-level effect is reported in bold at the top of the table. Underlined outcomes represent components that aggregate individual level outcomes listed below them into a single index. In instances when there is more than one outcome related to the component topic, these are measured in standard deviations. The column “Predicted Change” shows the size of a change we would predict from a \$11,400 increase in annual income based on a regression of earned income on outcomes using the control group. Standard errors are reported in parentheses. 95% confidence intervals are reported in brackets. FDR-adjusted q-values are reported in braces. Variable names printed in red indicate that higher values of the variable are associated with worse outcomes.

Table 6: Impact of Guaranteed Income on Survival

	Predicted Change	Control Mean	Effect	N
Survival Rate	0.0002 (0.0007)	0.995	-0.004 (0.004) [-0.012, 0.004] {0.651}	2600

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Table 7: Impact of Guaranteed Income on Healthcare Access

	Predicted Change	Control Mean	Estimated Effect	N
Healthcare Access Index	0.036 (0.005)		0.000 (0.017) {1.000}	
<u>Has insurance coverage</u>	0.020 (0.003)	0.78 (0.37)	0.013 (0.012) {1.000}	2933
<u>Health Care Related Financial Strain</u>	0.025 (0.005)		-0.019 (0.021) {1.000}	
Worry over medical costs (0=Very worried, ..., 3=Not worried at all)	0.030 (0.007)	2.00 (0.80)	-0.067 (0.025) {0.319}	2974
Did not skip other bills to pay for health care	0.002 (0.002)	0.94 (0.20)	0.005 (0.007) {1.000}	2937
Medical debt (\$, from Credit Report)	-62.065 (17.938)	587.52 (2422.50)	-10.903 (74.054) {1.000}	2979
<u>Needed Care Access</u>	0.047 (0.005)		-0.023 (0.020) {1.000}	
Does not report ER as usual source of care	0.011 (0.002)	0.94 (0.20)	0.002 (0.007) {1.000}	2935
Did not skip medical care due to costs	0.012 (0.002)	0.84 (0.27)	0.000 (0.009) {1.000}	2984
Did not skip mental health care due to costs	0.012 (0.003)	0.82 (0.31)	-0.008 (0.011) {1.000}	2966
Did not skip dental care due to costs	0.021 (0.003)	0.74 (0.35)	-0.018 (0.011) {1.000}	2984
Did not use alternative therapies to save money	0.009 (0.002)	0.93 (0.22)	-0.011 (0.008) {1.000}	2936
<u>Prescription Drug Access</u>	0.018 (0.008)		0.007 (0.028) {1.000}	
Did not skip doses to save money	0.006 (0.002)	0.93 (0.22)	-0.000 (0.008) {1.000}	2936
Did not delay refilling to save money	0.004 (0.002)	0.92 (0.23)	0.001 (0.008) {1.000}	2936
Did not ask doctor for lower cost medications	0.003 (0.003)	0.89 (0.27)	0.004 (0.009) {1.000}	2936
Expenditures on insurance premiums	227.875 (20.628)	1162.49 (1754.63)	21.285 (56.700) {1.000}	2919

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows. The family-level effect is reported in bold at the top of the table. Underlined outcomes represent components that aggregate individual level outcomes listed below them into a single index. In instances when there is more than one outcome related to the component topic, these are measured in standard deviations. The column "Predicted Change" shows the size of a change we would predict from a \$11,400 increase in annual income based on a regression of earned income on outcomes using the control group. Standard errors are reported in parentheses. 95% confidence intervals are reported in brackets. FDR-adjusted q-values are reported in braces. Variable names printed in red indicate that higher values of the variable are associated with worse outcomes.

Table 8: Impact of Guaranteed Income on Use of Office-Based Care

	Predicted Change	Control Mean	Estimated Effect	N
Office Care Index	0.027 (0.006)		0.035 (0.016) {0.224}	
<u>Primary Care</u>	0.016 (0.007)		0.013 (0.022) {0.355}	
Any primary care visit in last 12 mos	0.012 (0.004)	0.61 (0.43)	0.005 (0.014) {0.670}	2938
Number of office visits last 12 mos	-0.106 (0.047)	3.45 (4.38)	0.287 (0.153) {0.403}	2973
Has usual place of care other than ER	0.011 (0.003)	0.80 (0.35)	-0.007 (0.012) {0.646}	2935
Has personal doctor or health provider	0.012 (0.004)	0.56 (0.44)	-0.004 (0.014) {0.688}	2935
<u>Specialist and Surgical Care</u>	0.002 (0.008)		0.034 (0.023) {0.200}	
Any specialist visit last 12 mos	0.005 (0.004)	0.42 (0.43)	0.026 (0.015) {0.403}	2938
Any surgery last 12 mos	-0.003 (0.002)	0.11 (0.23)	-0.001 (0.008) {0.689}	2974
Any mental health care visit last 12 mos	0.003 (0.004)	0.22 (0.36)	0.017 (0.012) {0.416}	2965
<u>Dental Care</u>	0.028 (0.009)		0.082 (0.033) {0.112}	
Any dentist visit last 12 mos	0.020 (0.004)	0.48 (0.44)	0.048 (0.016) {0.116}	2854
Number of dentist visits last 12 mos	0.023 (0.019)	1.35 (2.10)	0.115 (0.085) {0.464}	2854
<u>Preventive Care</u>	0.045 (0.007)		-0.030 (0.023) {0.200}	
Flu shot or nasal spray	0.026 (0.004)	0.31 (0.43)	-0.002 (0.013) {0.689}	2934
Cholesterol test	0.021 (0.004)	0.42 (0.44)	-0.007 (0.015) {0.661}	2932
PAP test (women only)	0.012 (0.006)	0.52 (0.43)	-0.030 (0.019) {0.416}	1978
Had COVID vaccine*	0.040 (0.004)	0.64 (0.47)	-0.037 (0.016) {0.460}	2929
<u>Medical care spending</u>	13.018 (3.252)	155.23 (283.62)	21.731 (10.389) {0.112}	2969

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows. The family-level effect is reported in bold at the top of the table. Underlined outcomes represent components that aggregate individual level outcomes listed below them into a single index. In instances when there is more than one outcome related to the component topic, these are measured in standard deviations. The column “Predicted Change” shows the size of a change we would predict from a \$11,400 increase in annual income based on a regression of earned income on outcomes using the control group. Standard errors are reported in parentheses. 95% confidence intervals are reported in brackets. FDR-adjusted q-values are reported in braces. Variable marked with asterisk is a secondary outcome. See text for further details.

Table 9: Impact of Guaranteed Income on Use of Hospital and ED Care

	Predicted Change	Control Mean	Estimated Effect	N
Hospital care index	-0.052 (0.007)		0.074 (0.029) {0.224}	
<u>Emergency Department Care</u>	-0.053 (0.009)		0.083 (0.032) {0.031}	
Any ED visit	-0.018 (0.003)	0.24 (0.34)	0.027 (0.012) {0.074}	2973
Number of ED visits	-0.070 (0.013)	0.58 (1.30)	0.112 (0.050) {0.074}	2973
<u>Hospital Care</u>	-0.051 (0.009)		0.066 (0.035) {0.052}	
Any hospitalization	-0.011 (0.002)	0.10 (0.22)	0.013 (0.008) {0.098}	2973
Number of hospitalizations	-0.038 (0.007)	0.23 (0.72)	0.053 (0.028) {0.083}	2973

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows. The family-level effect is reported in bold at the top of the table. Underlined outcomes represent components that aggregate individual level outcomes listed below them into a single index. In instances when there is more than one outcome related to the component topic, these are measured in standard deviations. The column “Predicted Change” shows the size of a change we would predict from a \$11,400 increase in annual income based on a regression of earned income on outcomes using the control group. Standard errors are reported in parentheses. 95% confidence intervals are reported in brackets. FDR-adjusted q-values are reported in braces. See text for further details.

Table 10: Impact of Guaranteed Income on Food Security and Nutrition

	Predicted Change	Control Mean	Estimated Effect	N
Nutrition and food security index				
Food Security Scale (0=Least secure, ... 6=Most secure)	0.054 (0.006)		0.003 (0.018) {1.000}	
Diet behavior	0.188 (0.019)	3.77 (2.10)	-0.013 (0.063) {1.000}	2955
	0.017 (0.007)		0.013 (0.020) {1.000}	
Health Eating Index (0=Least healthy, ... 100=Most healthy)	0.347 (0.104)	44.83 (9.68)	0.565 (0.335) {1.000}	2725
# of times eating at fast food establishment last week	0.193 (0.059)	6.21 (5.74)	0.274 (0.180) {1.000}	2876
# times drinking regular soda containing sugar last week	-0.320 (0.064)	4.80 (6.50)	-0.181 (0.180) {1.000}	2867

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows. The family-level effect is reported in bold at the top of the table. Underlined outcomes represent components that aggregate individual level outcomes listed below them into a single index. In instances when there is more than one outcome related to the component topic, these are measured in standard deviations. The column "Predicted Change" shows the size of a change we would predict from a \$11,400 increase in annual income based on a regression of earned income on outcomes using the control group. Standard errors are reported in parentheses. 95% confidence intervals are reported in brackets. FDR-adjusted q-values are reported in braces. Variable names printed in red indicate that higher values of the variable are associated with worse outcomes.

Table 11: Impact of Guaranteed Income on Health Investments

	Predicted Change	Control Mean	Estimated Effect	N
Health investments index				
<u>Physical activity</u>				
Time in physical activity / recreation (survey, hours / day)	0.017 (0.005)		-0.028 (0.015) {0.224}	
	0.005 (0.007)		-0.026 (0.023) {0.141}	
	-0.011 (0.008)	0.84 (0.94)	-0.082 (0.031) {0.052}	2941
Time in physical activity / recreation (time diary, min / day)	-0.002 (0.256)	12.46 (23.90)	-0.179 (0.855) {0.534}	2757
# of Times Exercising Last Month	0.230 (0.081)	7.56 (8.14)	0.128 (0.272) {0.407}	2937
<u>Sleep</u>	0.029 (0.006)		-0.030 (0.018) {0.124}	
Sleep amount (survey, hours / day)	0.085 (0.016)	6.24 (1.75)	0.028 (0.053) {0.407}	2985
Sleep amount (time diary, min / day)	-0.826 (1.274)	535.94 (133.62)	-7.733 (4.004) {0.124}	2757
Sleep quality (1= <i>Very bad</i> , ... 4= <i>Very good</i>)	0.023 (0.006)	2.67 (0.54)	-0.026 (0.016) {0.153}	2941

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows. The family-level effect is reported in bold at the top of the table. Underlined outcomes represent components that aggregate individual level outcomes listed below them into a single index. In instances when there is more than one outcome related to the component topic, these are measured in standard deviations. The column "Predicted Change" shows the size of a change we would predict from a \$11,400 increase in annual income based on a regression of earned income on outcomes using the control group. Standard errors are reported in parentheses. 95% confidence intervals are reported in brackets. FDR-adjusted q-values are reported in braces. See text for further details.

Table 12: Impact of Guaranteed Income on Unhealthy Behaviors

	Predicted Change	Control Mean	Estimated Effect	N
Lack of unhealthy behaviors index	0.014 (0.005)		0.013 (0.014) {0.579}	
<u>Alcohol use and interference</u>	-0.009 (0.007)		0.010 (0.026) {1.000}	
Total number of drinks (last 30 days)	1.170 (0.382)	9.56 (20.42)	0.978 (0.789) {0.848}	2879
Days not drinking alcohol (of last 30)*	-0.234 (0.048)	27.24 (4.79)	-0.322 (0.178) {1.000}	2880
Days not drinking 4+ drinks (of last 30)	-0.048 (0.023)	29.03 (2.65)	-0.116 (0.109) {0.848}	2879
Drinking/hangovers interfered with responsibilities (12 mos) (0=Daily or Almost Daily, ... 4=Never)	-0.002 (0.004)	3.89 (0.35)	0.020 (0.010) {0.693}	2879
Drinking caused arguments/serious problems with others (12 mos) (0=Daily or Almost Daily, ... 4=Never)	0.004 (0.003)	3.92 (0.30)	0.009 (0.009) {0.848}	2879
Under the influence in a situation where you could get hurt (12 mos) (0=Daily or Almost Daily, ... 4=Never)	-0.002 (0.003)	3.93 (0.29)	0.016 (0.009) {0.693}	2879
<u>Smoking behavior</u>	0.043 (0.009)		0.020 (0.020) {1.000}	
Does not use tobacco products	0.017 (0.004)	0.75 (0.39)	-0.000 (0.010) {1.000}	2882
Does not smoke cigarettes daily	0.015 (0.003)	0.83 (0.34)	0.013 (0.008) {0.764}	2882
Number of cigarettes smoked on typical day	-0.164 (0.036)	1.51 (3.85)	-0.082 (0.093) {0.848}	2880
<u>Drug use</u>	0.009 (0.006)		0.008 (0.019) {1.000}	
Days not using marijuana (of last 30)	0.193 (0.079)	25.92 (8.38)	0.022 (0.278) {1.000}	2880
Days not using painkillers not prescribed to you (of last 30)	0.016 (0.009)	29.88 (1.23)	0.073 (0.031) {0.460}	2880
Days not using illegal drugs (of last 30)	-0.008 (0.027)	29.76 (1.83)	0.019 (0.063) {1.000}	2879
Days not using sedatives not prescribed to you (of last 30)	0.006 (0.005)	29.92 (0.75)	-0.029 (0.030) {0.848}	2881
No illegal drug use in past 30 days	0.001 (0.002)	0.89 (0.25)	0.002 (0.009) {1.000}	2876

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows. The family-level effect is reported in bold at the top of the table. Underlined outcomes represent components that aggregate individual level outcomes listed below them into a single index. In instances when there is more than one outcome related to the component topic, these are measured in standard deviations. The column “Predicted Change” shows the size of a change we would predict from a \$11,400 increase in annual income based on a regression of earned income on outcomes using the control group. Standard errors are reported in parentheses. 95% confidence intervals are reported in brackets. FDR-adjusted q-values are reported in braces. See text for further details. Variable names printed in red indicate that higher values of the variable are associated with worse outcomes.

Table 13: Impact of Guaranteed Income on Access to and Use of Healthcare for Children of Participants

	Predicted Change	Control Mean	Estimated Effect	N
Child Healthcare Use and Access	0.020 (0.006)		-0.022 (0.020) {0.546}	
<u>Child Healthcare Access</u>	0.014 (0.008)		-0.039 (0.033) {0.713}	
Child did not skip health care because parent couldn't afford it	0.003 (0.001)	0.98 (0.10)	0.002 (0.005) {0.798}	4029
Child did not skip health care because parent couldn't to take time off work	0.000 (0.001)	0.98 (0.12)	-0.012 (0.006) {0.611}	4029
<u>Child Healthcare Use</u>	0.025 (0.008)		-0.005 (0.025) {0.713}	
How long ago child last saw a dentist (age 2+) (1=Never, ... 6=6 months or less)	0.012 (0.014)	5.50 (1.05)	-0.016 (0.044) {0.798}	3551
How long ago child last saw a doctor (1=Never, ... 6=6 months or less)	0.001 (0.008)	5.69 (0.72)	-0.042 (0.029) {0.635}	3870
Child is current on all required vaccinations	0.031 (0.007)	0.65 (0.48)	0.028 (0.024) {0.635}	3035

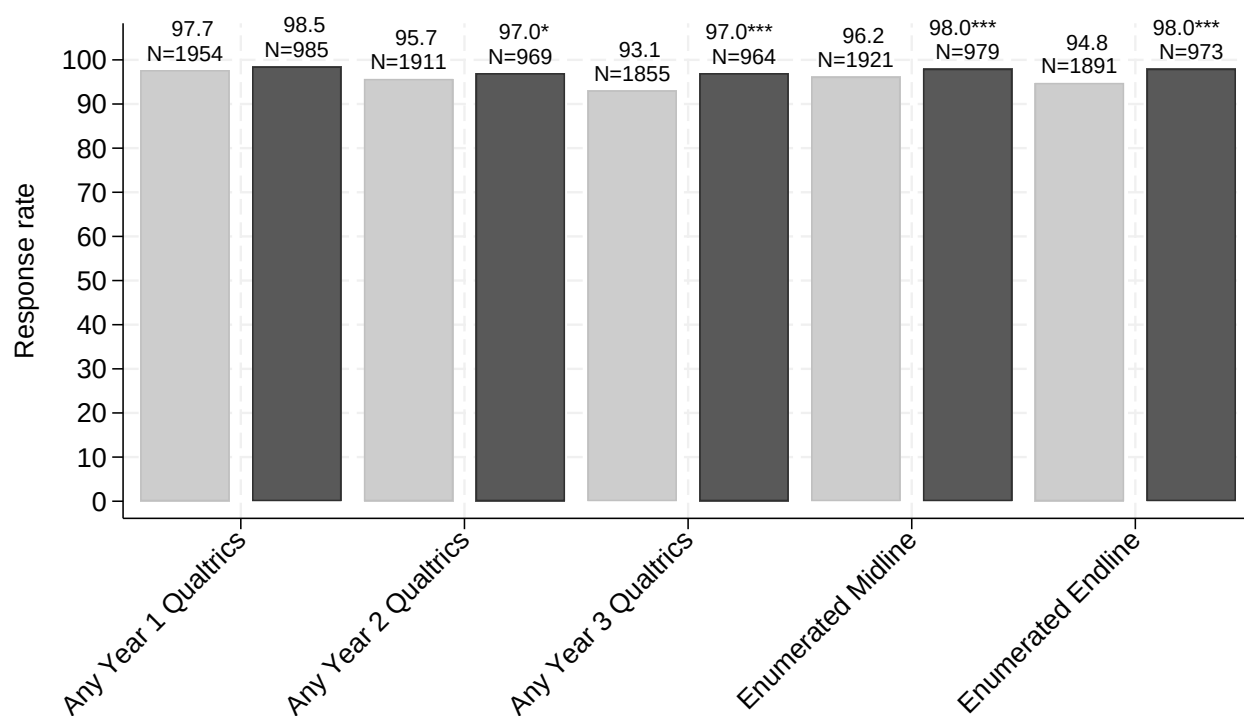
Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows. The family-level effect is reported in bold at the top of the table. Underlined outcomes represent components that aggregate individual level outcomes listed below them into a single index. In instances when there is more than one outcome related to the component topic, these are measured in standard deviations. The column "Predicted Change" shows the size of a change we would predict from a \$11,400 increase in annual income based on a regression of earned income on outcomes using the control group. Standard errors are reported in parentheses. 95% confidence intervals are reported in brackets. FDR-adjusted q-values are reported in braces. Variable marked with asterisk is a secondary outcome. See text for further details.

Table 14: Impact of Guaranteed Income on the Health of Children of Participants

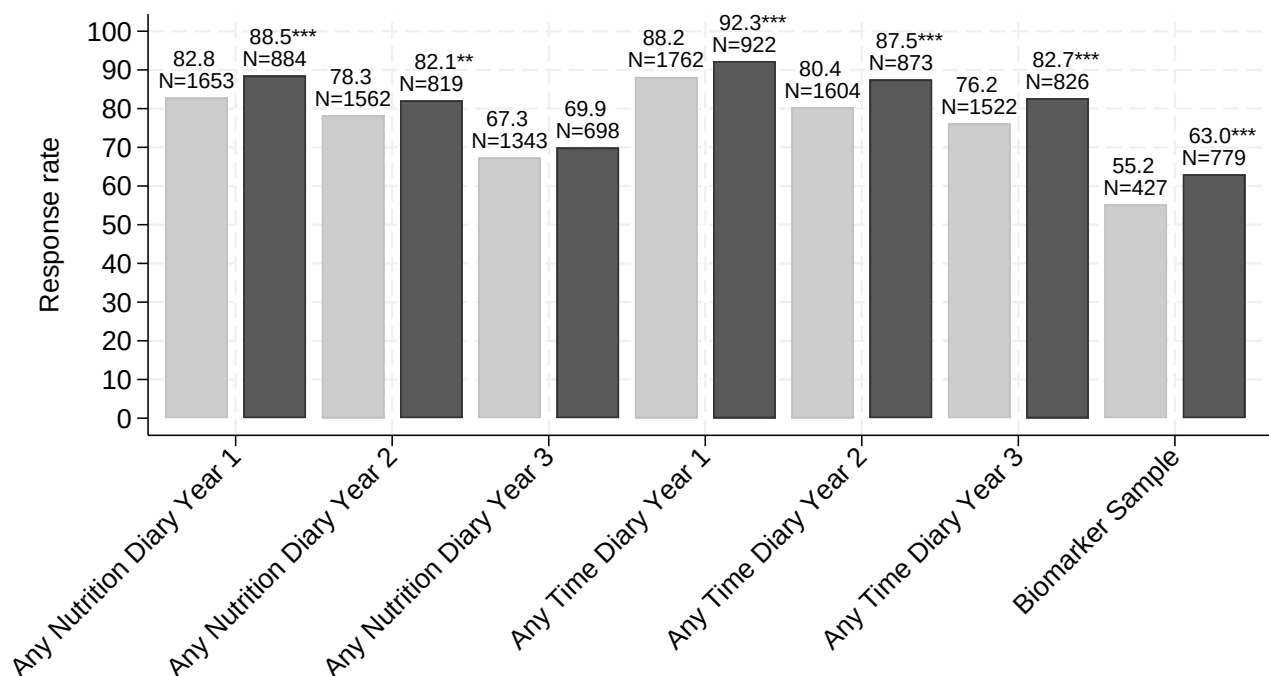
	Predicted Change	Control Mean	Estimated Effect	N
Child Health	0.018 (0.008)		-0.014 (0.022) {0.801}	
<u>Disabilities and limitations</u>	0.012 (0.009)		0.013 (0.029) {1.000}	
Child has no health issue or disability that limits activities	0.003 (0.003)	0.89 (0.29)	0.004 (0.009) {1.000}	3899
Degree to which disability limits activities (0=A lot, ... 4=No disability)	0.013 (0.008)	3.68 (0.88)	0.009 (0.026) {1.000}	3899
<u>Parent's report of the child's health</u> (1=Poor, ... 5=Excellent)	0.018 (0.008)	4.40 (0.73)	-0.029 (0.023) {1.000}	3901

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows. The family-level effect is reported in bold at the top of the table. Underlined outcomes represent components that aggregate individual level outcomes listed below them into a single index. In instances when there is more than one outcome related to the component topic, these are measured in standard deviations. The column "Predicted Change" shows the size of a change we would predict from a \$11,400 increase in annual income based on a regression of earned income on outcomes using the control group. Standard errors are reported in parentheses. 95% confidence intervals are reported in brackets. FDR-adjusted q-values are reported in braces. See text for further details.

Figure 1: Response Rates by Control (light gray) and Treated (dark gray) Participants



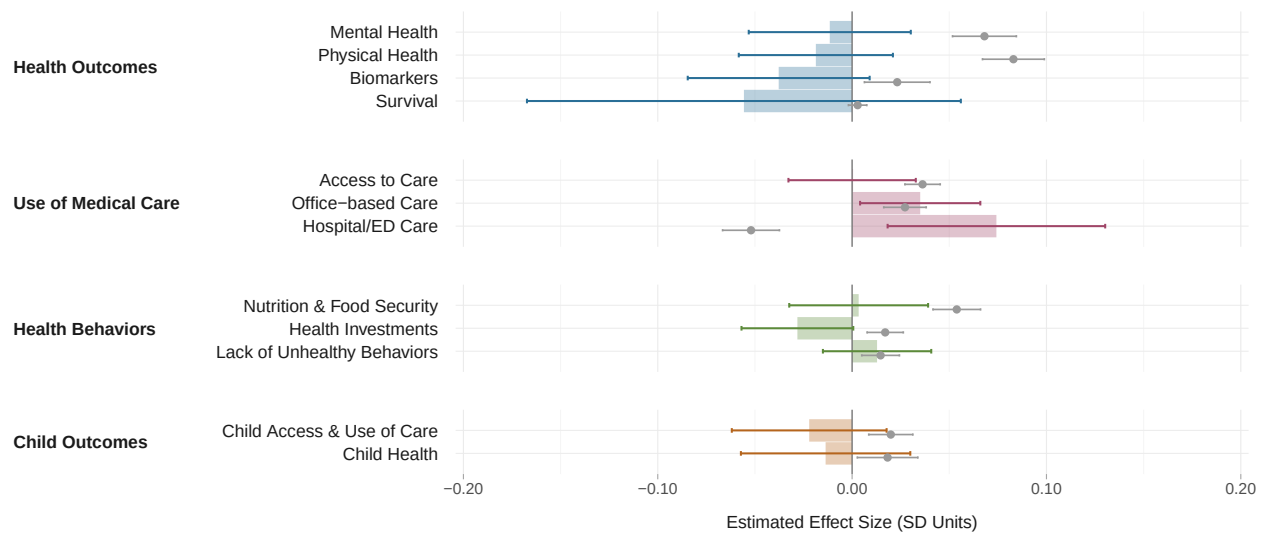
(a) Survey response rates



(b) Task and biomarker response rates

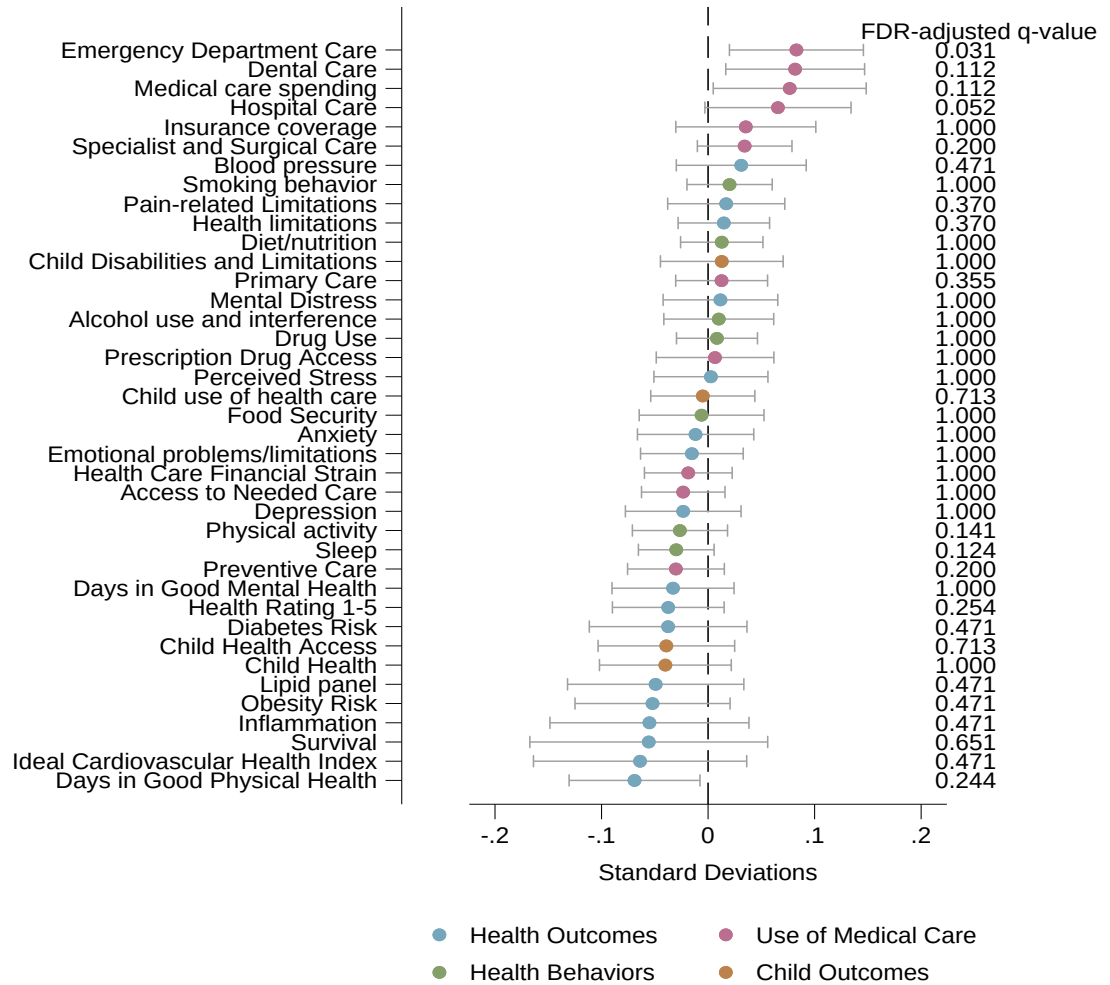
Note: Figure plots response rates by treatment arm to different surveys and data collection activities. The top panel shows response rates to mobile surveys through Qualtrics and for the enumerated midline and endline surveys. The bottom panel shows participation in nutrition diaries and biomarker collection. Note that those who were not sent the survey—for example, because they died prior to the survey—are not included in the denominator when tabulating the response rate.

Figure 2: Effect of a Guaranteed Income on Families of Health-related Outcomes (bars) and predicted effect from cross-sectional comparisons (grey dots)



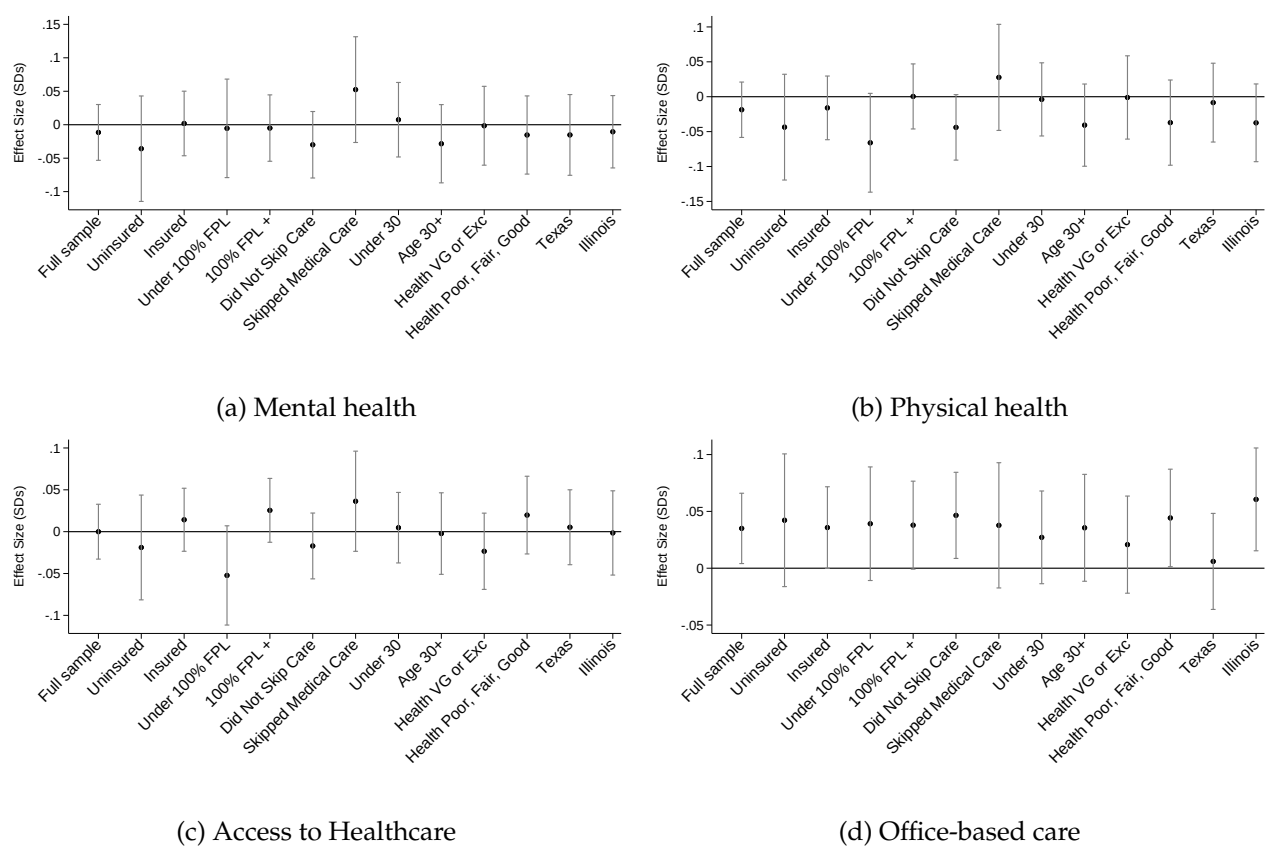
Note: Figure plots family-level treatment effects (bars) and predicted changes from cross-sectional comparisons (gray dots) measured in standard deviation units. 95 percent confidence intervals are plotted in the corresponding color. Higher values indicate better outcomes or more utilization.

Figure 3: Effect of a Guaranteed Income on Component-Level Indices of Health Outcomes with FDR-adjusted q-values



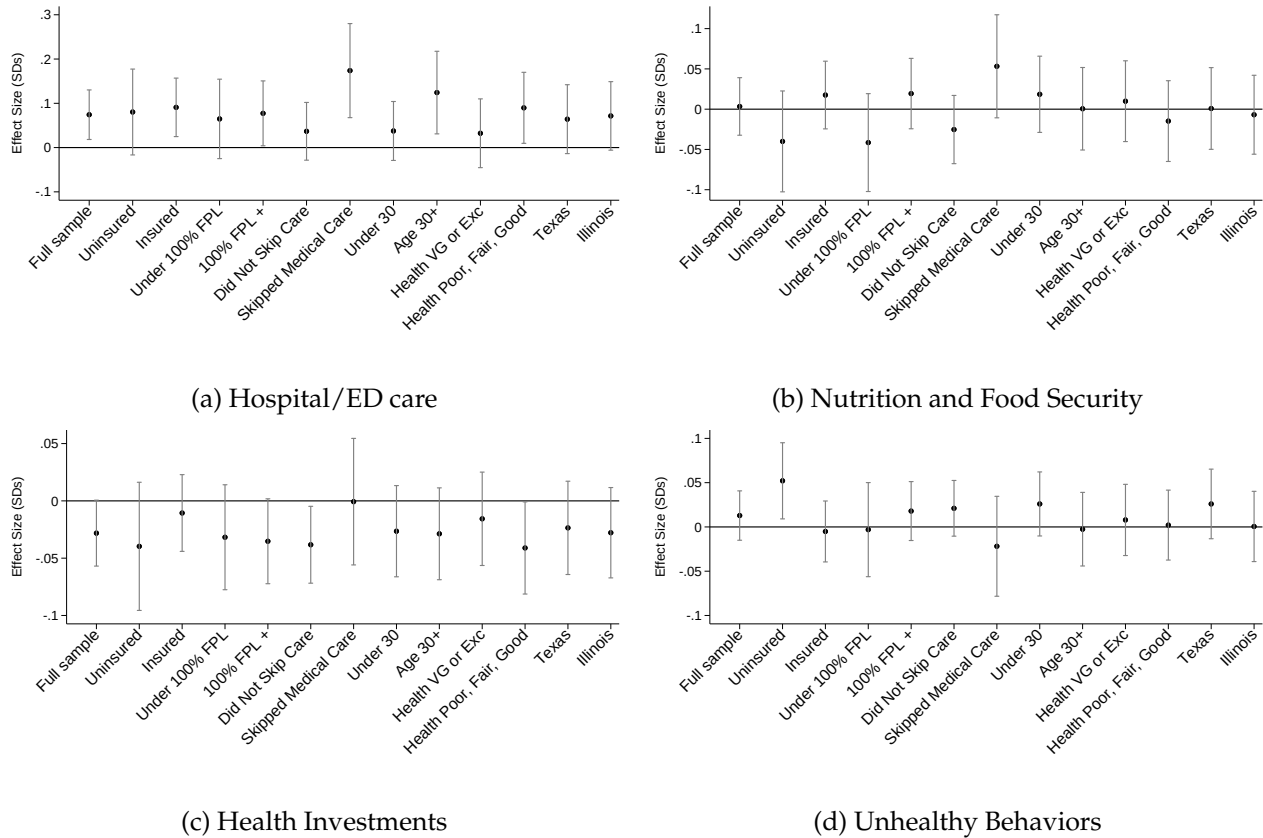
Note: Figure plots estimated component-level treatment effects in standard deviation units with 95 percent confidence intervals. Higher values indicate better outcomes or more utilization.

Figure 4: Family-Level Effects of Guaranteed Income by Subgroup



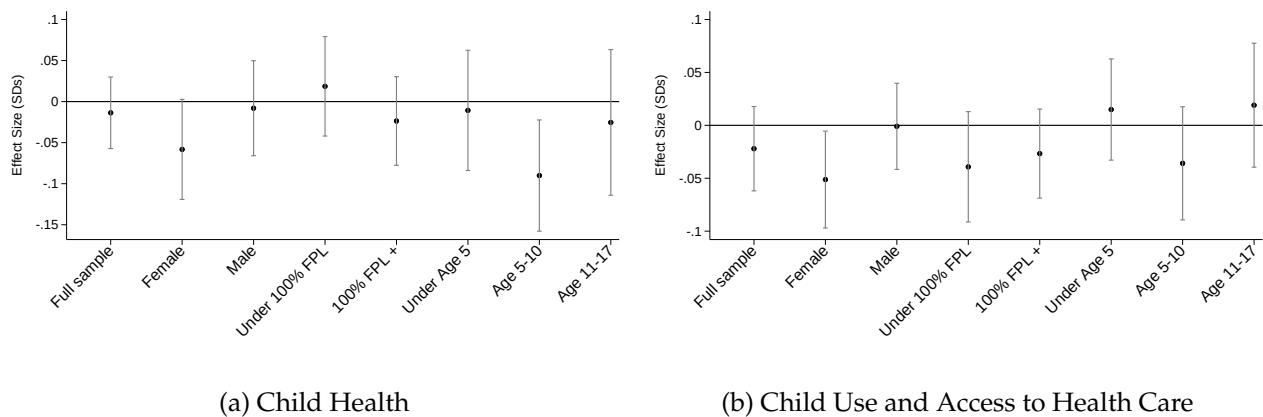
Note: Figure plots estimates of family-level treatment effect for full sample (left-most estimate) and by subgroup, with vertical lines indicating 95% confidence intervals.

Figure 5: Family-Level Effects of Guaranteed Income by Subgroup (cont.)



Note: Figure plots estimates of family-level treatment effect for full sample (left-most estimate) and by subgroup, with vertical lines indicating 95% confidence intervals.

Figure 6: Family-Level Effects of Guaranteed Income by Subgroup for Child-Level Outcomes



Note: Figure plots estimates of family-level treatment effect for full sample (left-most estimate) and by subgroup, with vertical lines indicating 95% confidence intervals.

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Does Income Affect Health? Evidence from a Randomized Controlled Trial of a Guaranteed Income

Appendix

Sarah Miller Elizabeth Rhodes Alexander Bartik David Broockman Patrick Krause
Eva Vivalt

A Amendments to original pre-analysis plan

Over the several years long period of the intervention and analysis, we made several small amendments to our original pre-analysis plan. These amendments were due to feedback we received and our evolving understanding about how best to analyze, structure, and present our results. The following were made prior to the receipt of the enumerated midline data, and before any analysis of the data had occurred:

- In our updated pre-analysis plan, we changed our approach to multiple hypothesis testing from calculating family-wise error rate adjusted p-values to presenting tiered false discovery rate q-values.
- In our updated pre-analysis plan we clarified that the main outcome for each validated survey battery (such as the perceived stress scale or the PHQ-9) would be the composite score, with subcomponents treated as secondary outcomes.
- We added new exploratory outcomes related to the COVID-19 pandemic (COVID vaccination, hospitalization due to COVID, diagnosed with COVID).

Additionally, we made additional changes following the midline survey, although most of these were implemented before we had computed any treatment effects.

- Our pre-analysis plan specified that, in pooling items across time, we would impute any time periods for which an item was missing with the treatment group specific mean at that time period, and consider the pooled item as non-missing as long as the outcome was observed for at least one time period. In the current version, we do not perform such an imputation, and instead average over non-missing time periods. Results are similar if we instead use the original version of the imputation.

- The pre-analysis plan specified that questions derived from the SF-12 (found under the “Health is not limiting” component in Table 4) would be divided into two separate components based on whether the answer was on a 3 point scale or a 5 point scale. We believe this was specified in error and we had originally intended to group these questions together. In the current version, all of these questions are grouped together in one component.
- We pre-specified that we would examine both overall mortality and health care amenable mortality. However, we have not yet been able to obtain data that contains information on cause of death. Therefore we only report overall mortality.
- We originally pre-specified that spending on insurance premiums would be included in the estimation of the health care access family. However, it is not clear if spending more on insurance premiums improves health care access. So, we do not incorporate it into the family-level estimate and instead report it as a separate, secondary item.
- We did not originally pre-specify that we would examine vaccination for COVID or hospitalization due to COVID. These are reported but treated as exploratory variables.
- We originally pre-specified that we would measure inflammation in our biomarker analysis using milligrams per liter of C-reactive protein (CRP), a protein produced in the liver. However, biomarker collection was unexpectedly delayed until after the treatments ended. As a result, we switched to using GlycA as our primary measure of inflammation, as this measure appears to change more slowly than CRP (e.g., see [Connelly et al. \(2017\)](#)). Results for CRP are reported in Appendix Table [A12](#).
- We did not originally anticipate the need to winsorize some outcomes, but in the course of cleaning the data we noticed a small number of very large outliers present in some outcomes. Although not pre-specified, we winsorized the nutrition diary-related exploratory outcomes reported in Appendix Figure [A4](#), total number of alcoholic drinks, minutes spent exercising, number of primary care visits, and all dollar-denominated outcomes (such as amount spent on insurance premiums per month).
- The pre-analysis plan was ambiguous on the treatment of the sub-components of the USDA Food Security index. In order to mirror the treatment of other survey batteries (e.g., the Kessler

6, Perceived Stress Scale, etc.), we opted to treat these subcomponents as secondary items and report them in the appendix.

- We added indicators that the respondent's reported food security index placed them in the "food insecure" or "very low food security" range as an outcome in Appendix Table A14 after receiving this suggestion from a conference participant.
- We added subgroup analysis of participants recruited in the two different states (Texas and Illinois) at the suggestion of a referee.
- Our pre-analysis plan specified that we would link administrative hospital and emergency department discharge records to our sample to analyze hospital and ED use. However, we were unable to obtain such data for the Texas sample, and data for the Illinois sample has been substantially delayed. We hope to one day provide such analysis for the Illinois sample.

B Random assignment simulation results

We assessed the validity of our random assignment procedure by re-running the procedure 1,000 times to obtain 1,000 counterfactual treatment assignments. Then, we analyzed the distribution of these treatment assignments to assess whether they were consistent with each participant having a one third probability of being assigned to the treatment group. Our analysis of these 1,000 permutations indicated our procedure was valid.

First, we examined the distribution of treatment probabilities for each participant to ensure it was centered on one third. Appendix Figure A23 shows a histogram of assignment probabilities. The mean and median treatment probability are 0.333. We also compared the observed distribution of average treatment assignments to what we might expect from a Bernoulli distribution with a one third probability of success. A quantile-quantile (QQ) plot comparing this distribution to our observed distribution of treatment under our 1,000 simulations is shown in Appendix Figure A24. Most points fall on the 45 degree line, and a Kolmogorov-Smirnov test of equality of these distributions fails to reject that they are the same ($p=0.5226$).

Second, we examined whether participants' baseline characteristics could predict the probability the participant received treatment under our randomization procedure. We regressed the average probability of being assigned to treatment across our 1000 simulations for each participant with all baseline characteristics listed in Table 2. We also included variables that were relevant in the random-

ization: the number of individuals in the participants' cluster and whether the participant was at the Texas site rather than the Illinois site. The coefficients from this regression are presented in Appendix Table A70. The F-stat associated with this model is 0.96, with an associated probability of 0.5307, suggesting these variables are not collectively predictive of the probability of being randomized into the treatment group. Only one of the 38 variables considered is significantly correlated with the probability of being assigned to the treatment group (baseline reports of being worried about medical costs), and all coefficients are very small. These combined analyses reassure us that our randomization procedure is delivering a treatment assignment that is uncorrelated with any participant unobservables.

C Comparison to Treatment Effects of Health Care Specific Interventions

In Appendix Table A84, we compare the estimated impact of the guaranteed income payments presented here to the treatment effects from other interventions on mortality and having any primary care physician visit. We chose these two outcomes because these outcomes, or very similar versions, are considered by multiple randomized controlled trials testing other health care interventions. These estimated treatment effects, and their 95% confidence intervals, are also plotted in panels A and B of Appendix Figure A22. Because baseline or control group means vary across different experimental settings and populations, we re-scale these estimates to be in percent terms.

In Appendix Table A84 we re-scale baseline or control group mortality rates to reflect annual mortality by dividing the rate by the number of years represented. For example, since our baseline mortality rate of 0.005 represents a 3-year mortality rate, we divide this by 3 to arrive at an annual rate. We consider the following papers:

- Wyse and Meyer (2023) estimate the effect of enrolling in Medicaid due to the the Affordable Care Act Medicaid eligibility expansions on mortality for low-income, non-disabled adults age 19 to 59. We compare to the estimate reported in this paper, rather than the one in Miller et al. (2021), because the estimate in Wyse and Meyer (2023) is more precise due to a larger sample size.
- Finkelstein et al. (2012) estimate the effect of Medicaid enrollment on mortality among 19 to 64 year old low-income adults using a state program that randomized applicants into being eligible or ineligible to apply for Medicaid (i.e., the "Oregon Health Insurance Experiment" or OHIE).
- Chandra et al. (2024) examine the impact of variation in a cap on total drug coverage induced

by the timing of enrollment in the Medicare program on mortality for 65-year-olds.

- [Goldin et al. \(2020\)](#) estimate the effect of one month of insurance coverage on mortality induced by the IRS randomly mailing some uninsured adults information about health insurance enrollment.

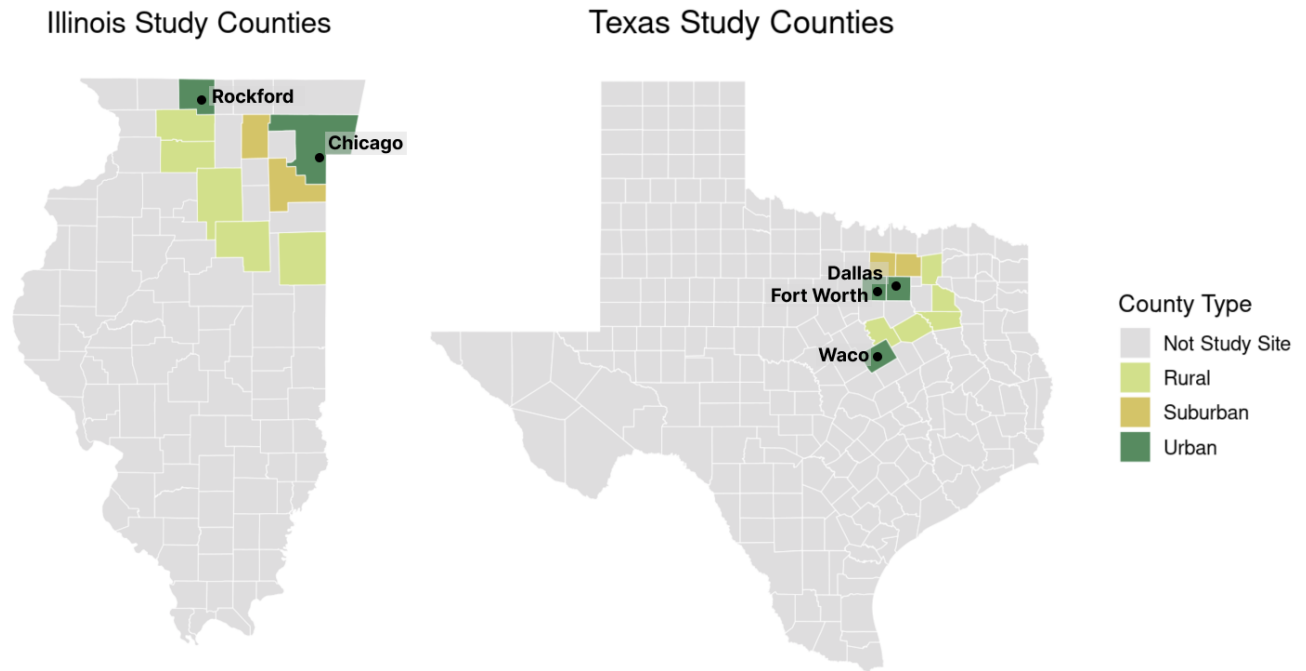
All of the above papers found the interventions decreased mortality, and all but one was statistically significant.

We next compare to other interventions that examined the impact on having any primary care visit in the last year or, where denoted in the table with *, the last 6 months. In some cases, the intervention reported only effects on having any outpatient visit without specifying it was for primary care. We denote these papers with a * in the table and figure. We consider the following interventions:

- [Sabety et al. \(2023\)](#) estimate the effect of making primary care appointments for a randomly selected population of uninsured, undocumented adults as compared to a similar group randomly selected to not receive this intervention.
- [Finkelstein et al. \(2012\)](#) estimate the effect of Medicaid enrollment on having any outpatient visit in the last 6 months among 19 to 64 year old low-income adults using a state program that randomized applicants into being eligible or ineligible to apply for Medicaid (i.e., the OHIE).
- [Bradley et al. \(2018\)](#) examine the impact of randomly incentivizing primary care visits with a \$25 or \$50 incentive (compared to a control group that received no incentive).
- [Newhouse and the Insurance Experiment Group \(1993\)](#) estimate the effect of being randomized to an insurance plan with no coinsurance, as compared to 95% coinsurance (and other coinsurance levels), as part of the RAND Health Insurance Experiment (RAND HIE). We use the estimates from the RAND HIE of the effect on any outpatient utilization in a year reported in [Aron-Dine et al. \(2013\)](#) and choose the 0% vs 95% coinsurance arms for comparison. We orient the estimate so that it reflects the effect of being placed in the lower cost-sharing tier.

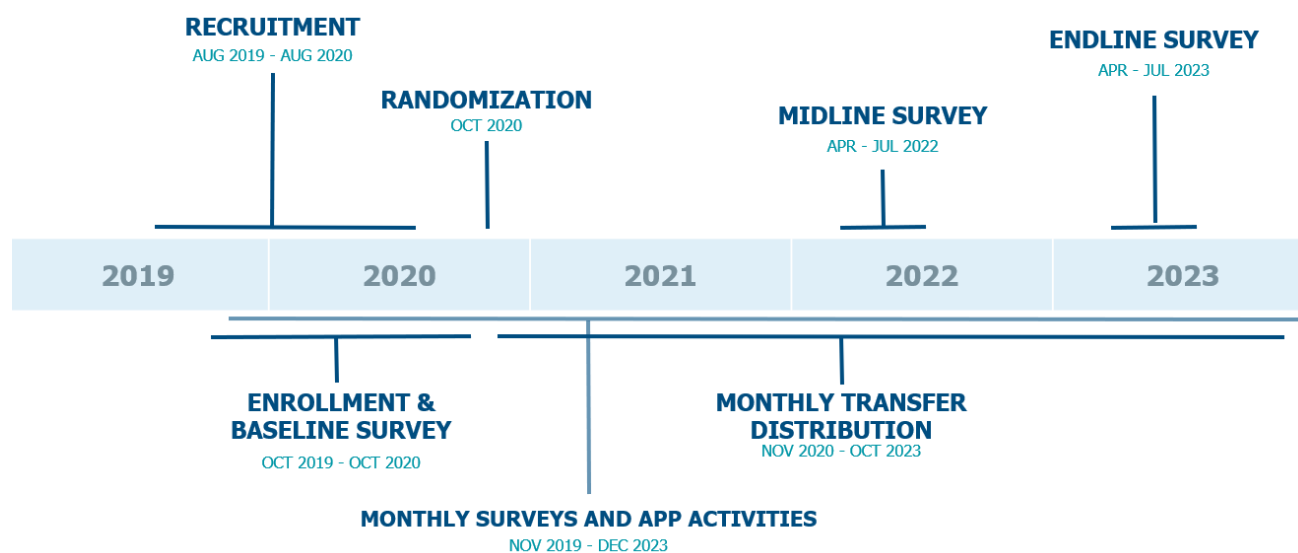
All of the above papers found that the health care specific intervention considered increased the probability a participant had a primary care visit.

Figure A1: Map of Study Counties



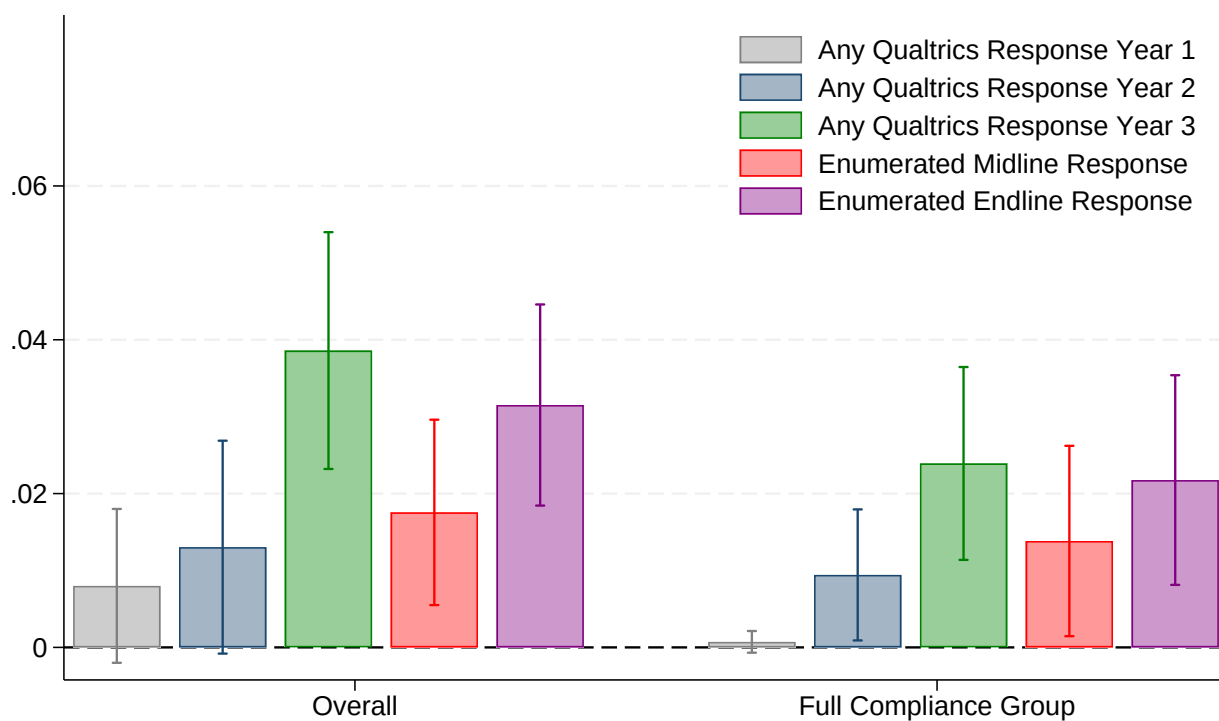
Note: Figures display counties from which participants were recruited with designation. This figure is reproduced from [Vivalt et al. \(2024\)](#).

Figure A2: Timeline of Recruitment, Enrollment, Treatment, and Research Activities



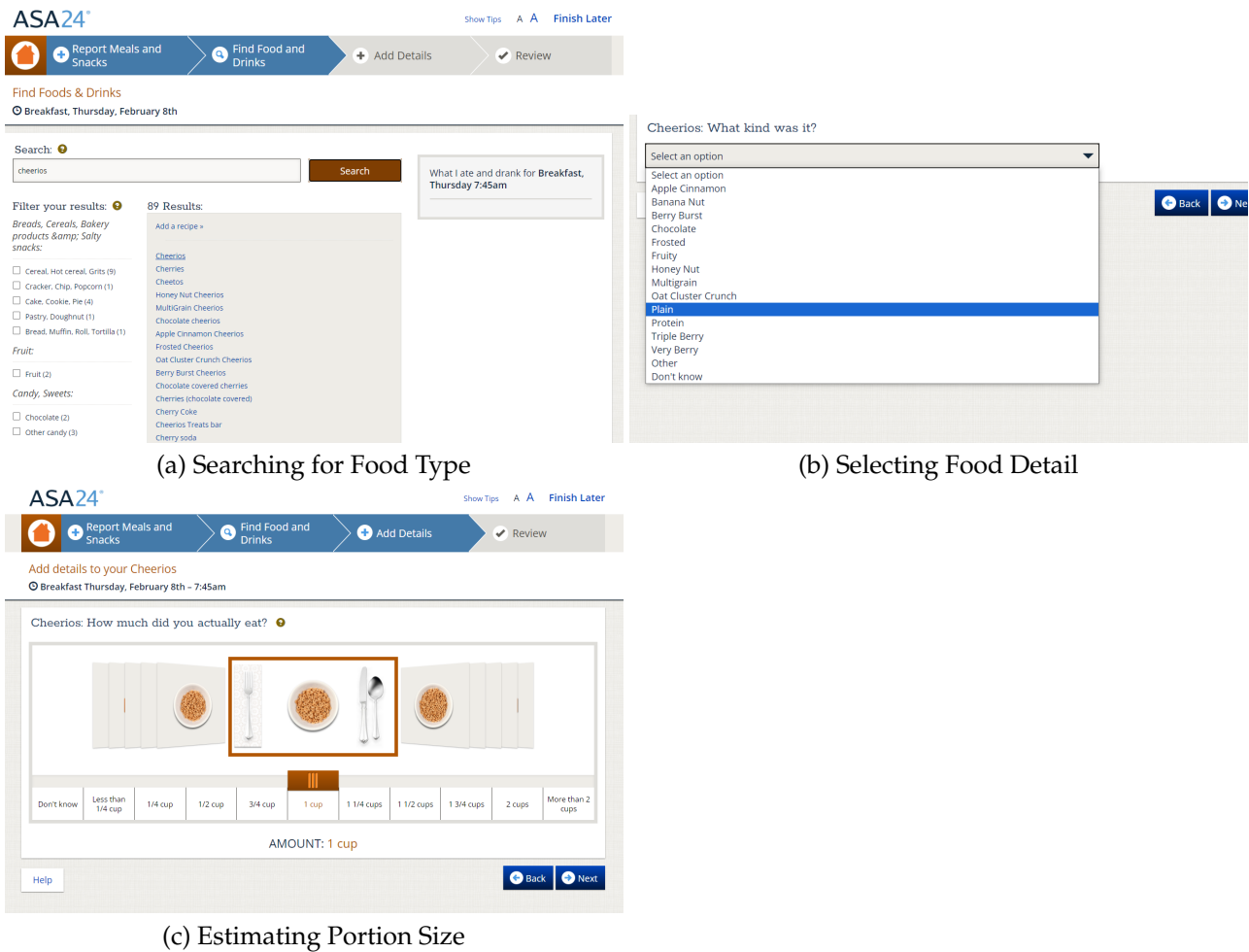
Note: Figure displays a timeline reporting the period of recruitment, enrollment of participants, cash disbursements, and research activities. See text for more details.

Figure A3: Differential (Treatment minus Control) Response Based on Pre-Treatment Responsiveness



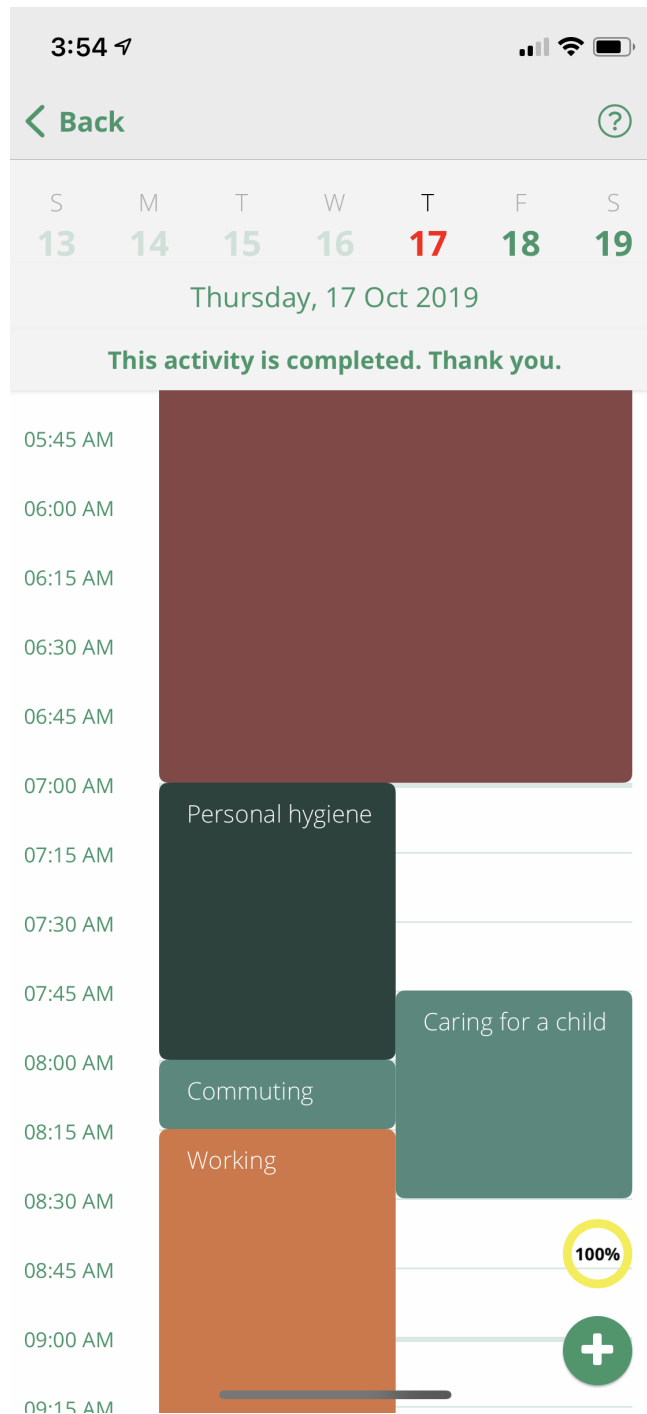
Note: Figure displays differential (treatment minus control) response rates in full sample ("Overall") and in the approximately 71% of the sample who completed all pre-treatment surveys ("Full Compliance Group"). Bars indicate 95% confidence interval of this difference.

Figure A4: Screen shots of ASA24 Nutrition Diary



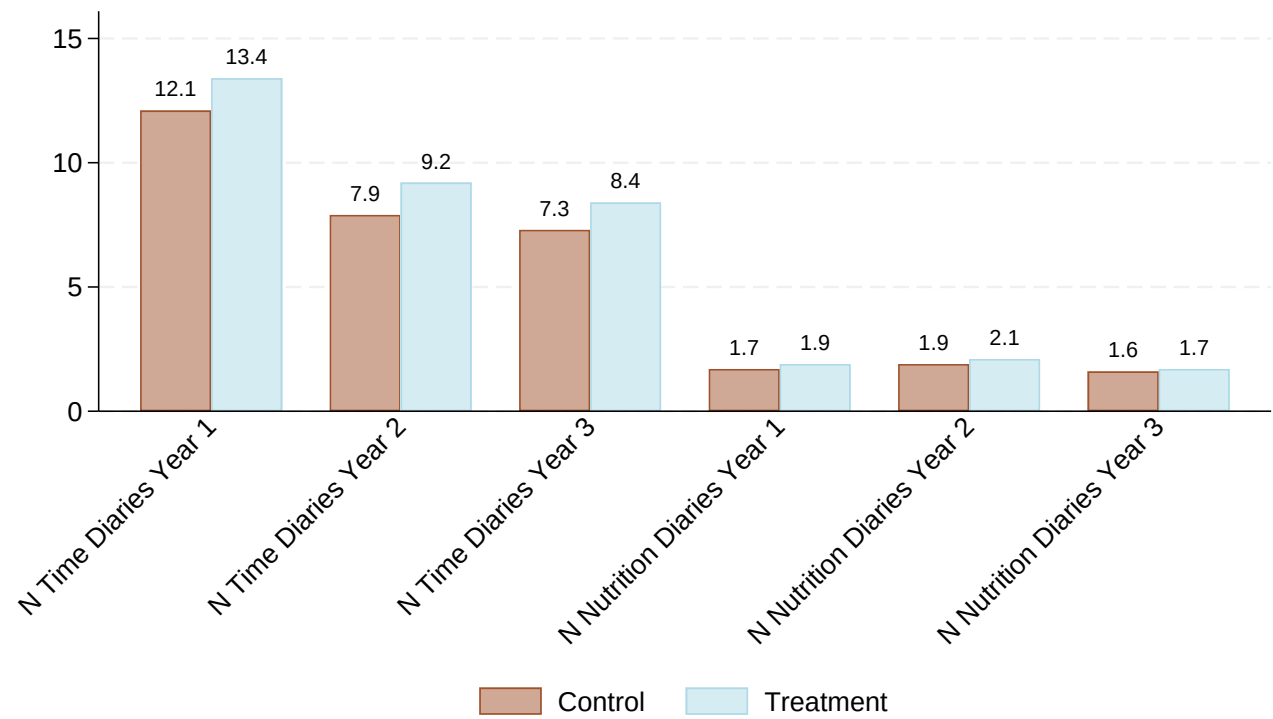
Note: Figure provides screenshots of ASA24 interface which allowed users to report their nutritional intake in previous 24 hour period.

Figure A5: Screen shot of ORUS Time Diary

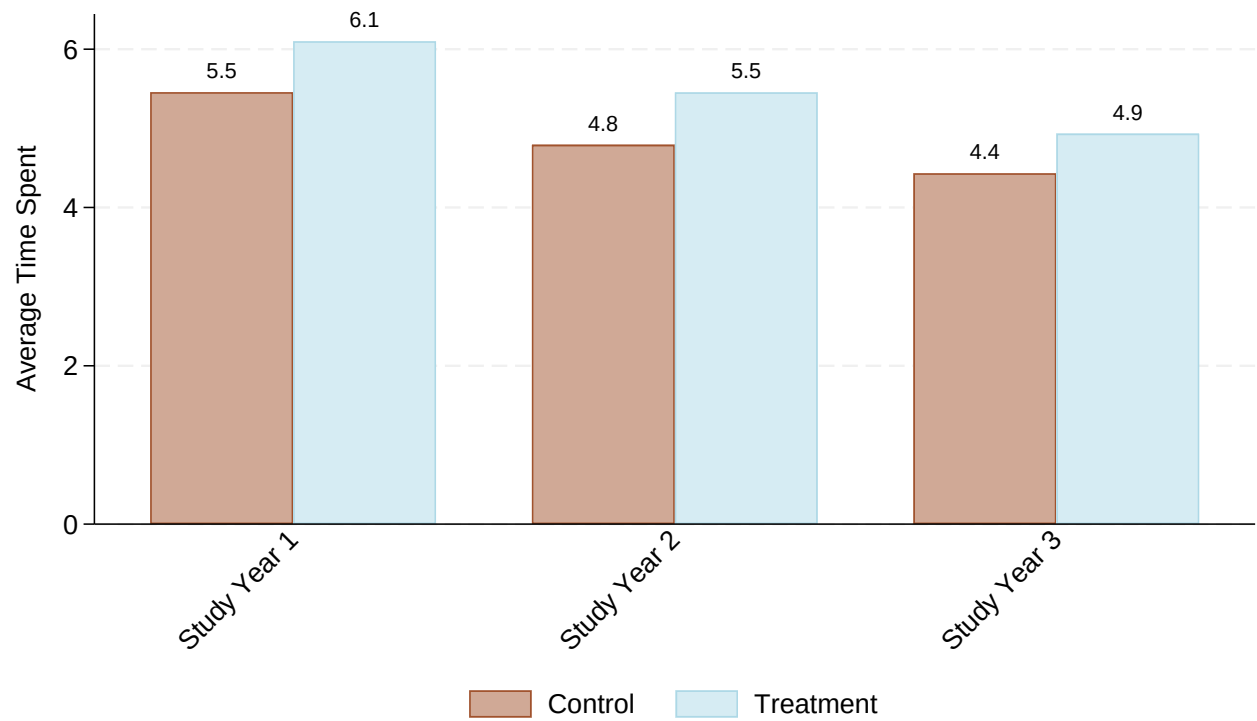


Note: Figure shows screen shot of ORUS-developed time diary app tool.

Figure A6: Number of Completed Tasks and Time Spent on Time Diaries by Treatment Arm



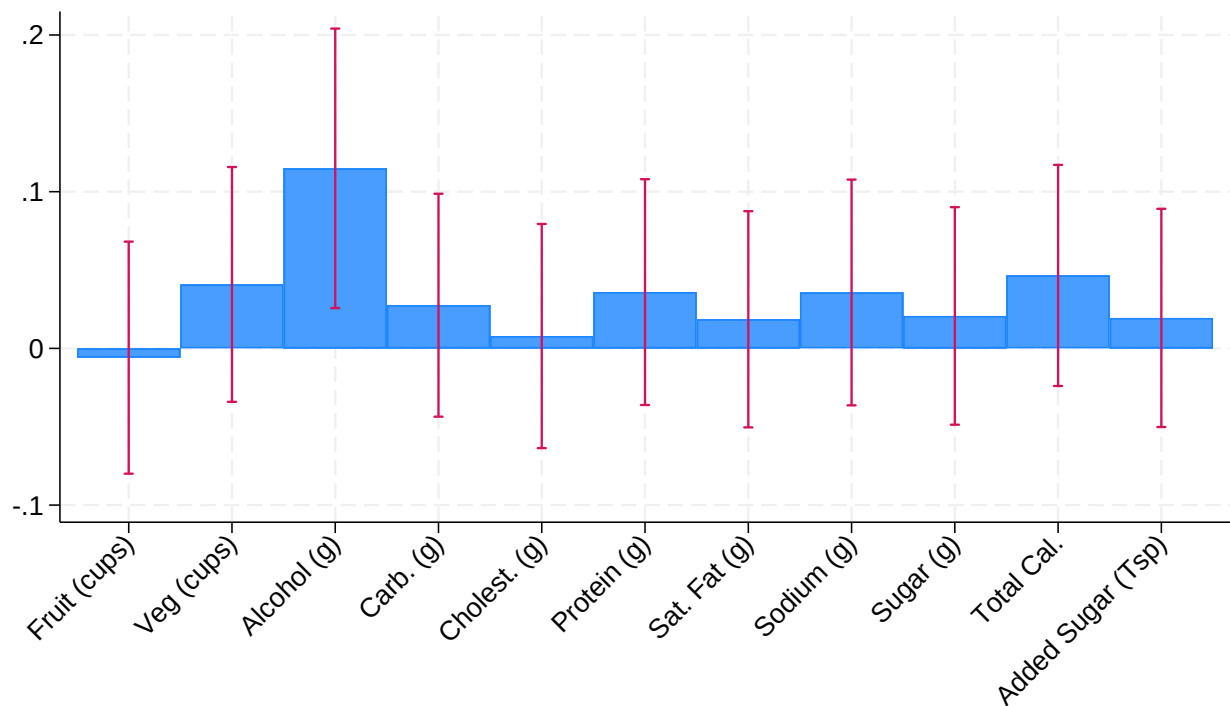
(a) Number of Completed Tasks



(b) Average number of minutes spent on time diaries

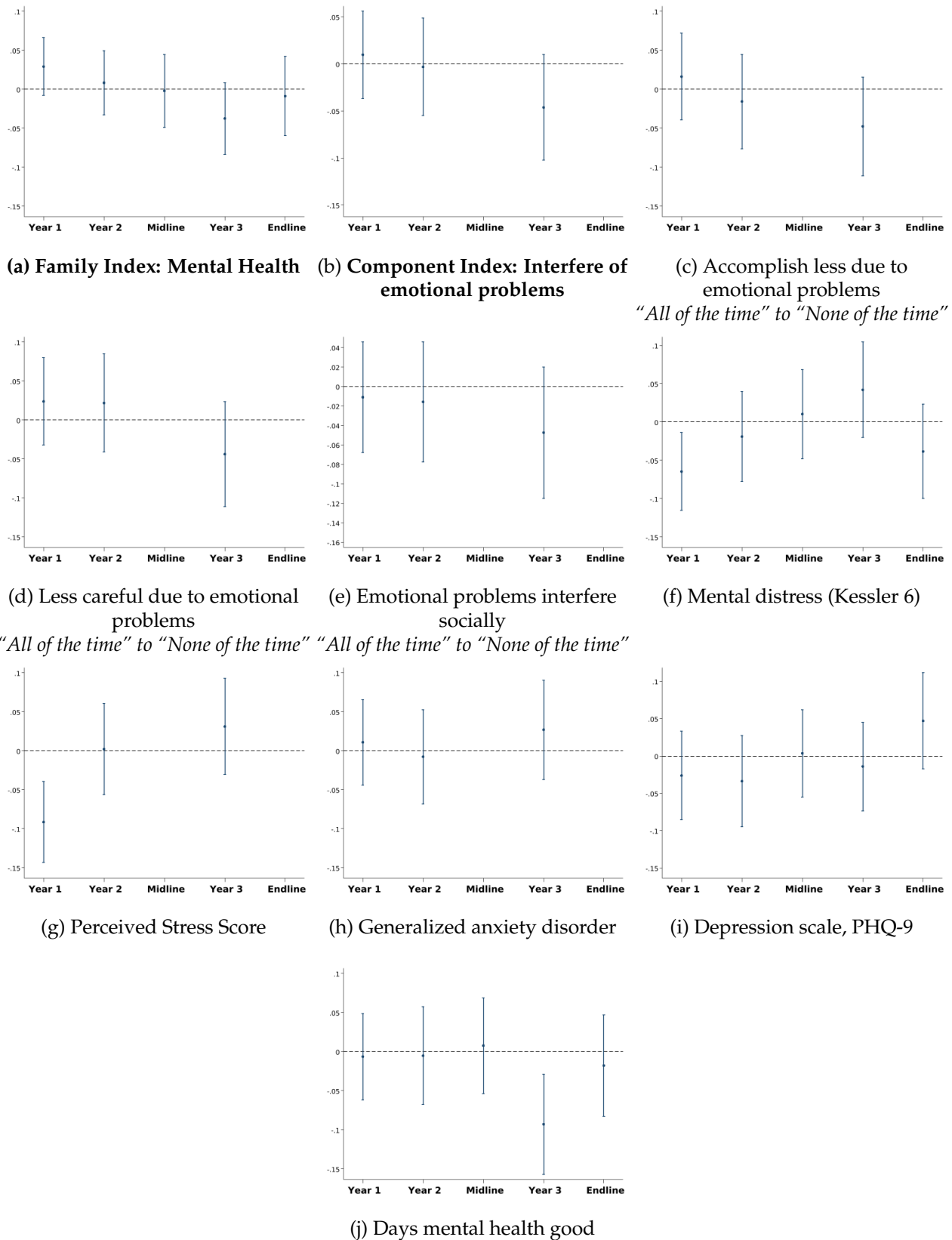
Note: Figure plots the number of responses for time diary and nutrition diary tasks by treatment arm and study year.

Figure A7: Effect of Guaranteed Income on Selected Components of Healthy Eating Index (Reported in Standard Deviations)



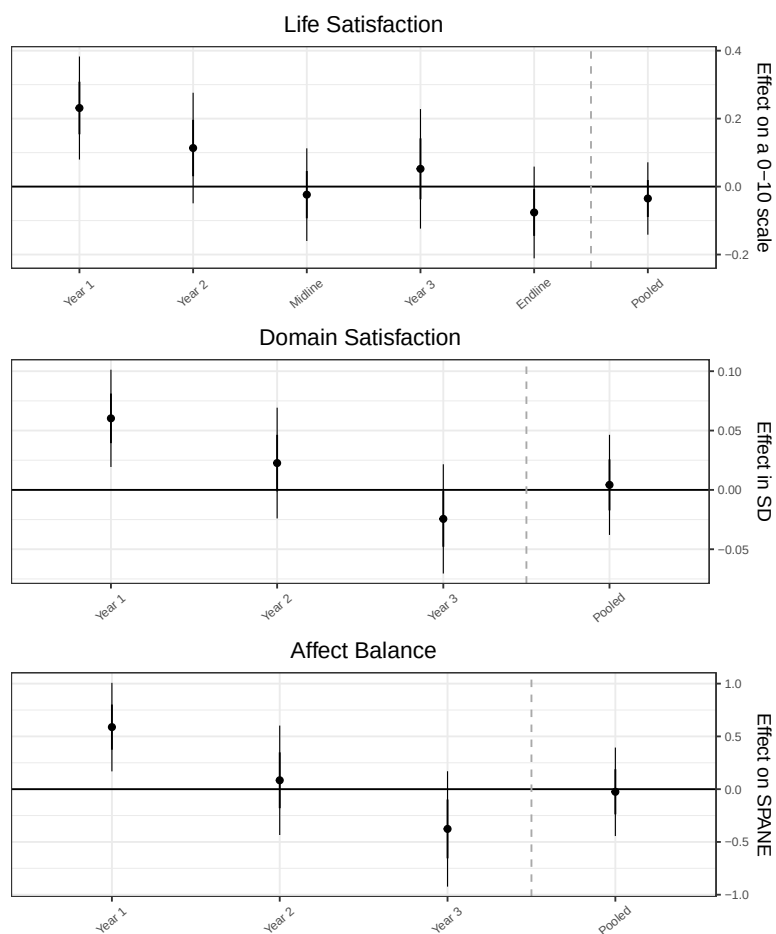
Note: Figure displays treatment effects scaled by the control group standard deviations for consumption of different types of food, as measured using the ASA24 nutrition diaries. Vertical bars indicate 95 percent confidence intervals.

Figure A8: Standardized Effects on Mental Health by Time



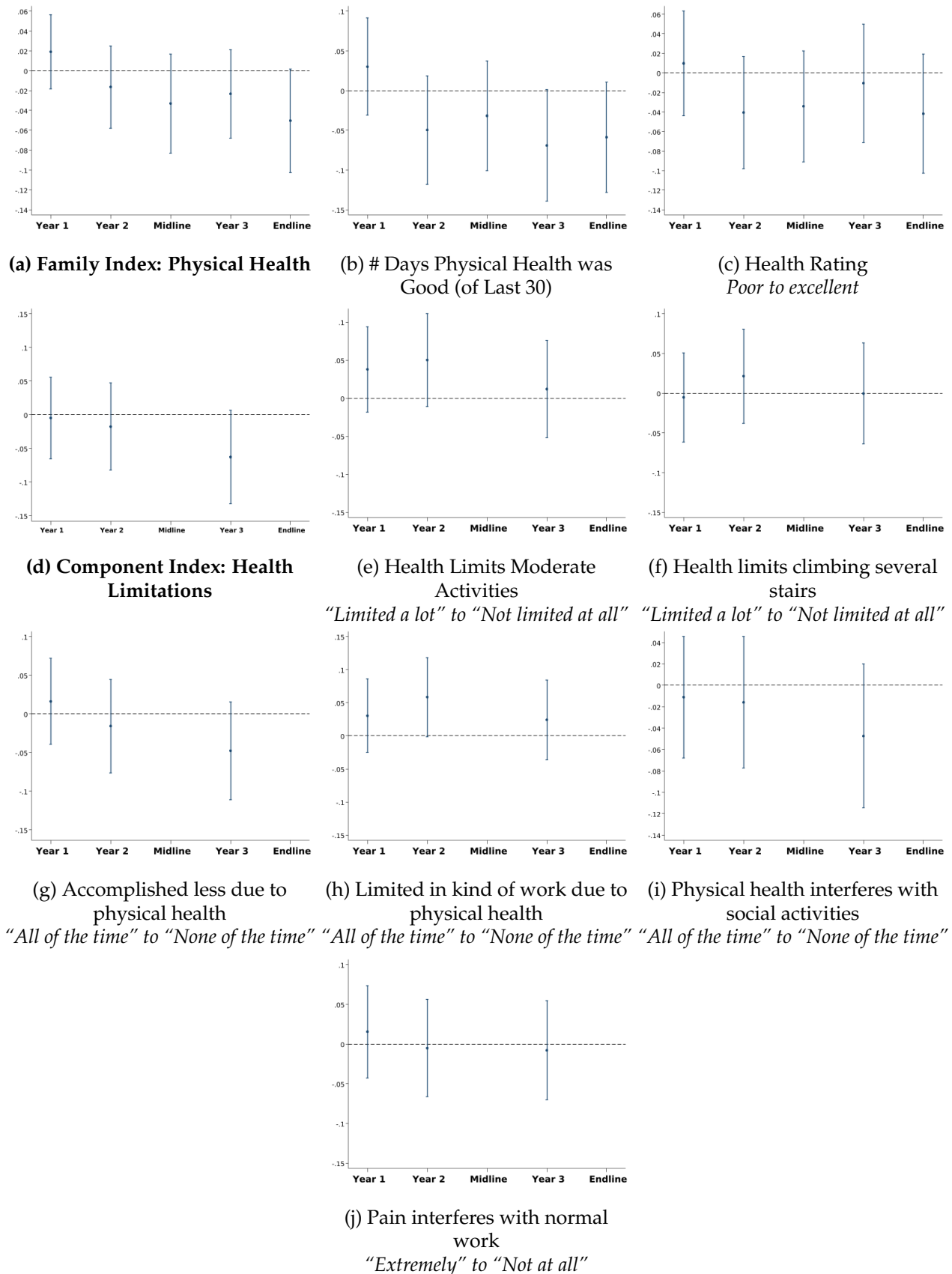
Notes: Figures show estimated treatment effects for each time period for which we have data. Treatment effects are standardized by the control group mean to facilitate comparison. 95% confidence intervals are included. The symbol * indicates significance levels after adjusting p-values to control the false discovery rate. See text for more details.

Figure A9: Standardized effects on for Subjective Well-Being Over Time



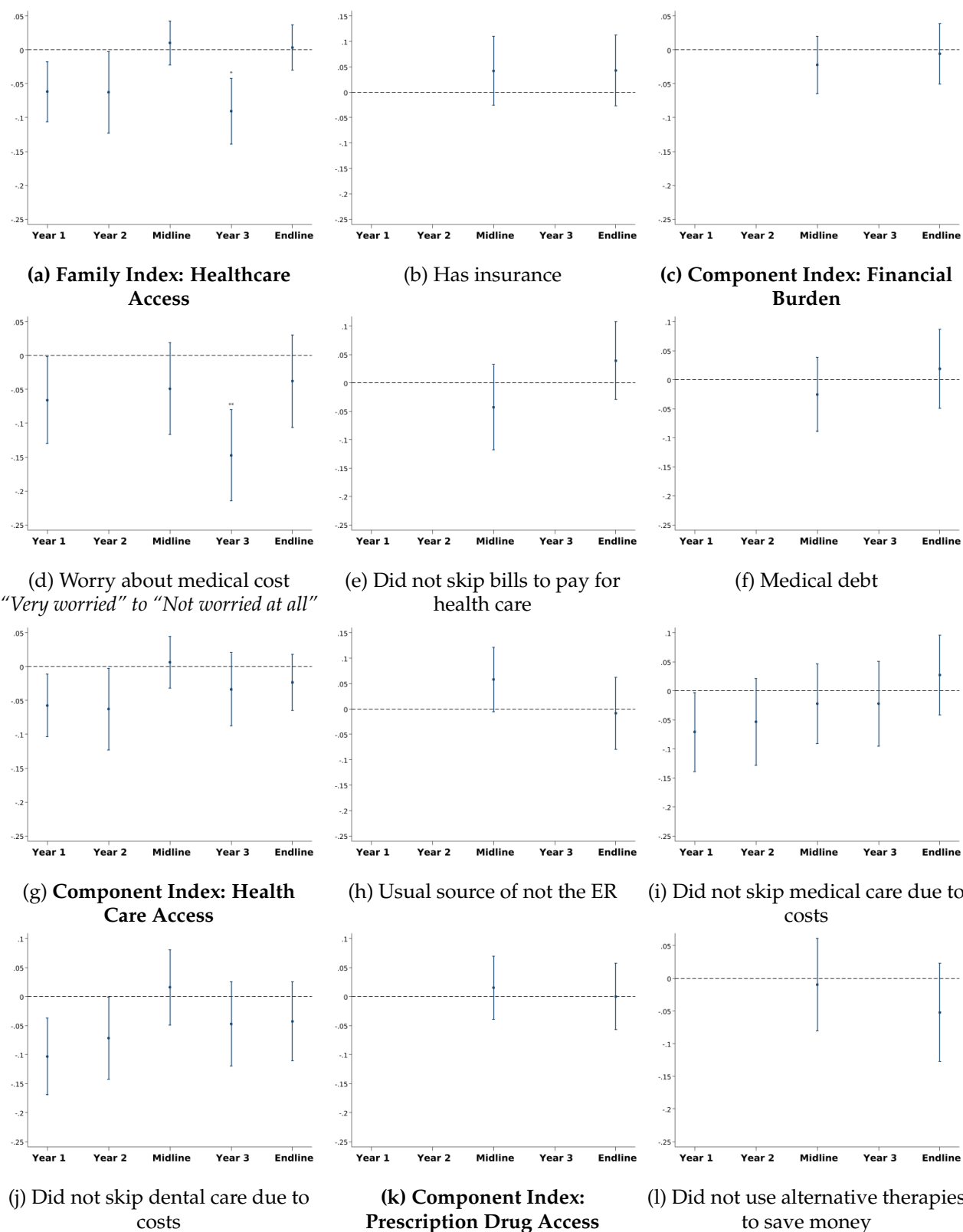
Figures show estimated treatment effects for each time period for which we have data. Treatment effects are standardized by the control group mean to facilitate comparison. 95% confidence intervals are included. These figures are reproduced from [Vivalt et al. \(2024\)](#).

Figure A10: Standardized Effects on Physical Health



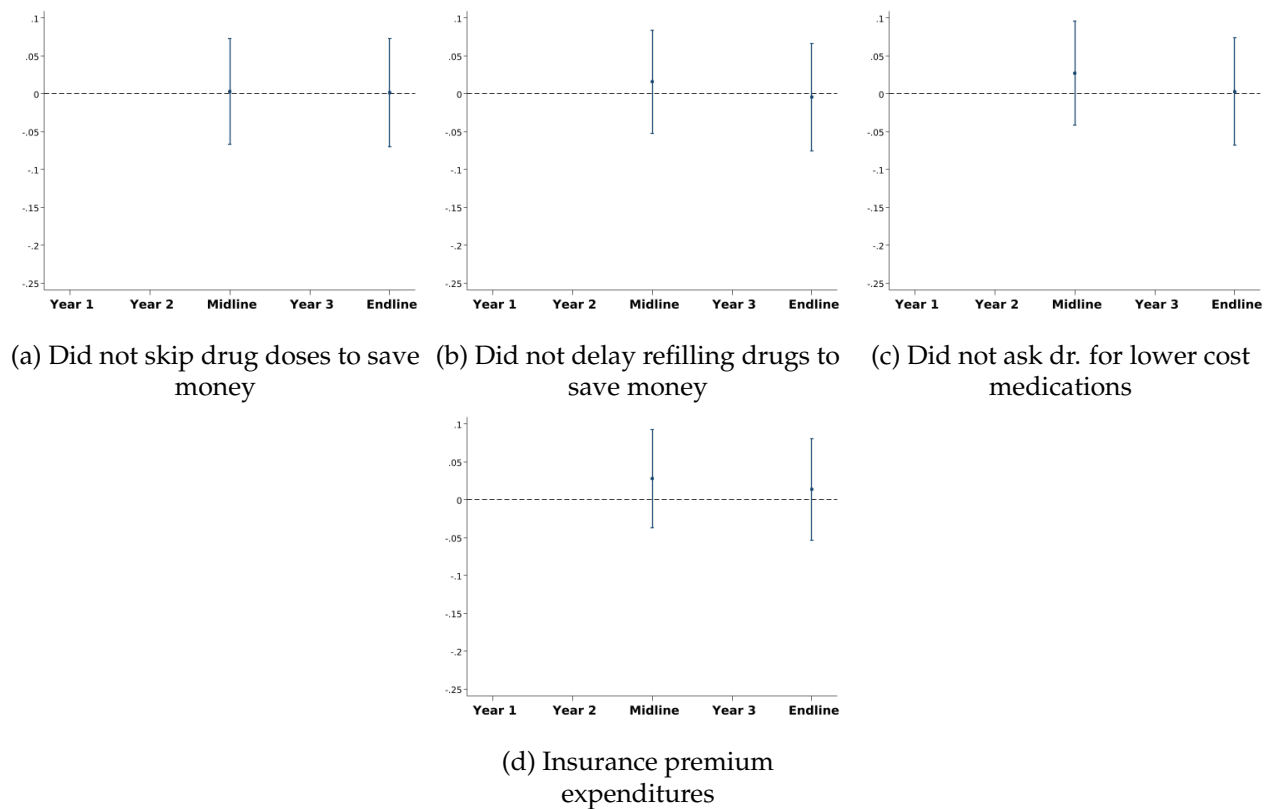
Notes: Figures show estimated treatment effects for each time period for which we have data. Treatment effects are standardized by the control group mean to facilitate comparison. 95% confidence intervals are included. No time period specific estimates are statistically significant after adjusting p-values to control the false discovery rate. See text for more details.

Figure A11: Standardized Effects on Access to Health Care by Time



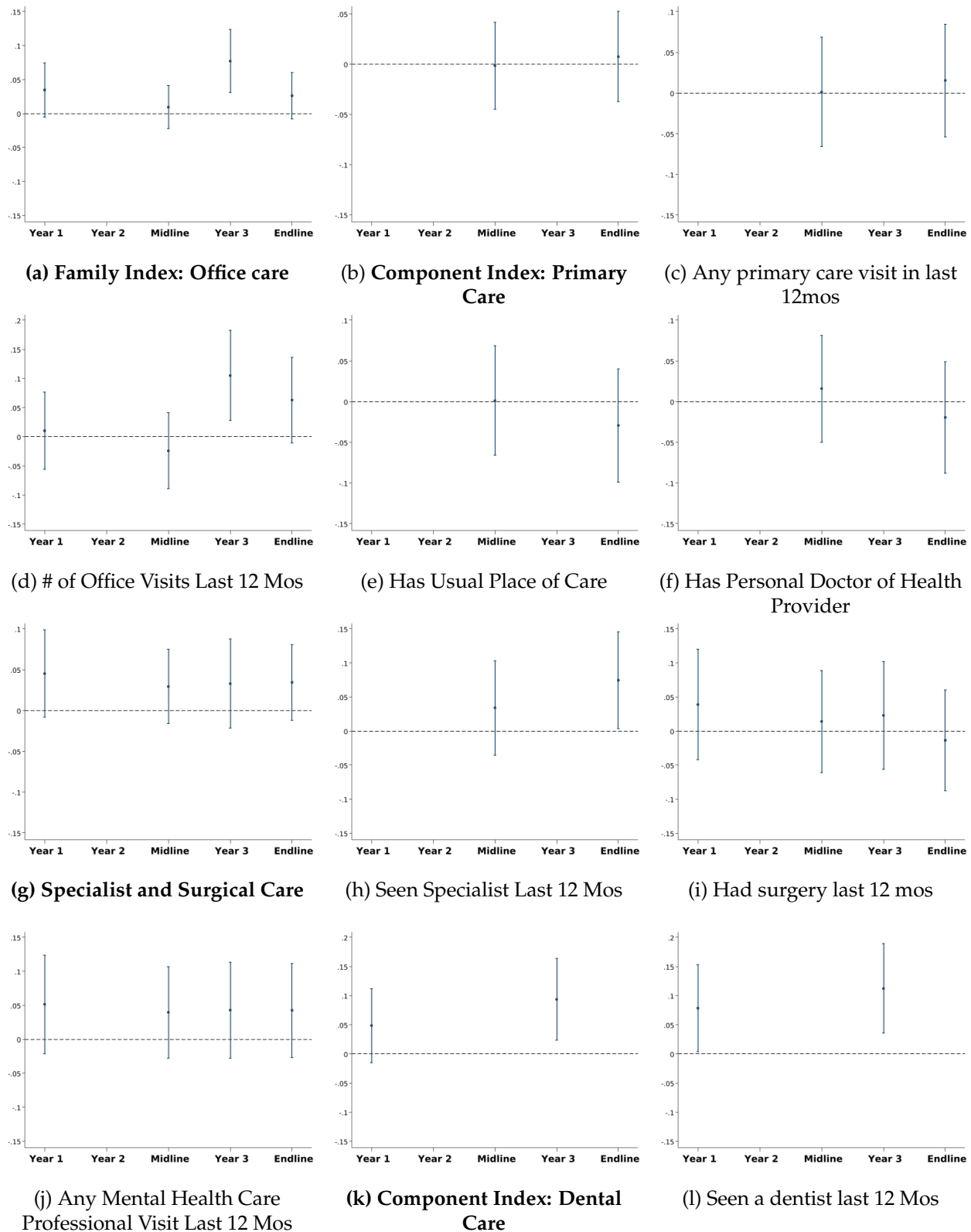
Notes: Figures show estimated treatment effects for each time period for which we have data. Treatment effects are standardized by the control group mean to facilitate comparison. 95% confidence intervals are included. The symbol * indicates significance levels after adjusting p-values to control the false discovery rate. See text for more details.

Figure A12: Standardized Effects on Access to Health Care by Time (cont)



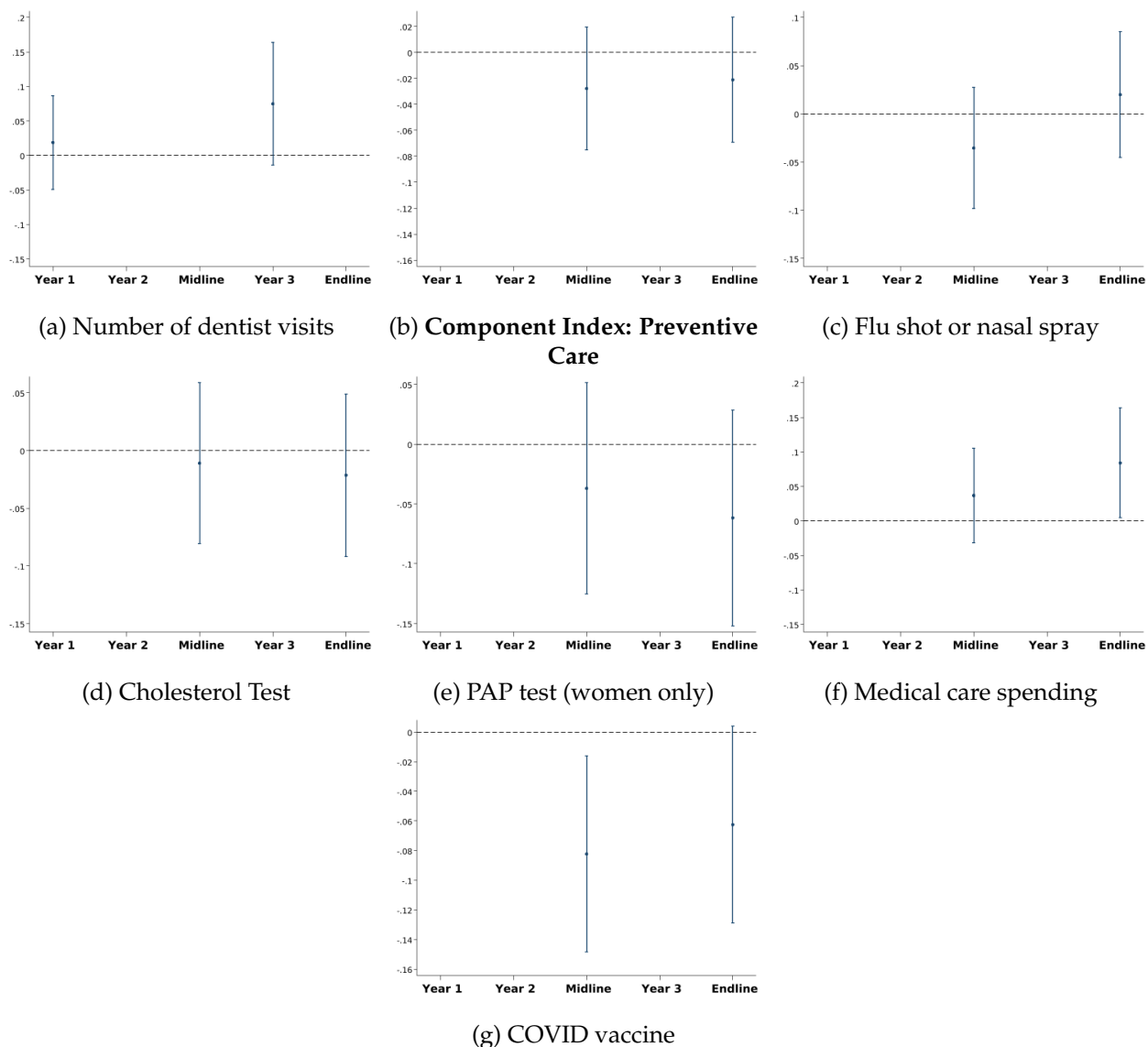
Notes: Figures show estimated treatment effects for each time period for which we have data. Treatment effects are standardized by the control group mean to facilitate comparison. 95% confidence intervals are included. No time period specific estimates are statistically significant after adjusting p-values to control the false discovery rate. See text for more details.

Figure A13: Standardized Effects on Use of Office Care by Time



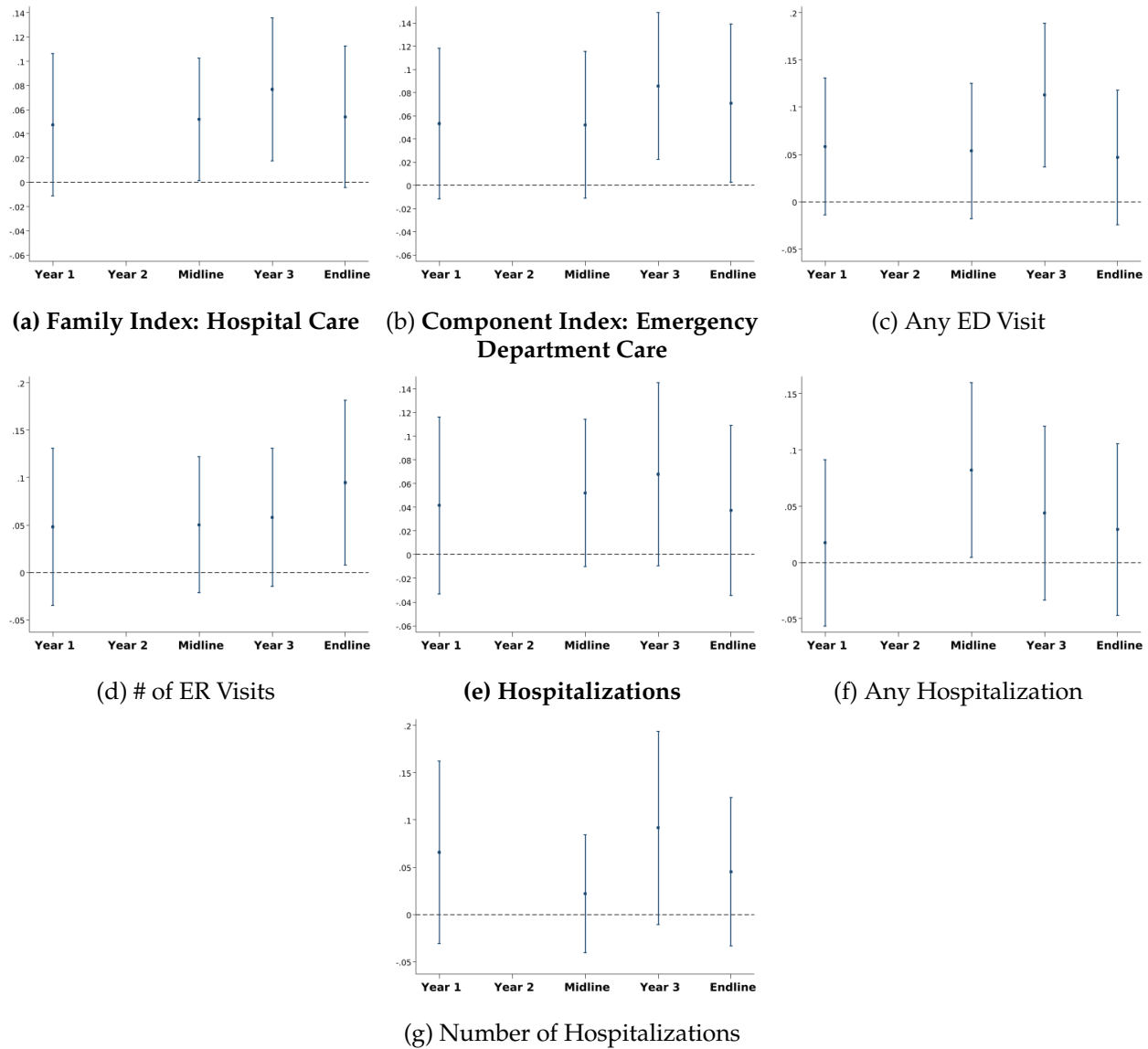
Notes: Figures show estimated treatment effects for each time period for which we have data. Treatment effects are standardized by the control group mean to facilitate comparison. 95% confidence intervals are included. The symbol * indicates significance levels after adjusting p-values to control the false discovery rate. See text for more details.

Figure A14: Standardized Effects on Use of Office Care by Time (cont)



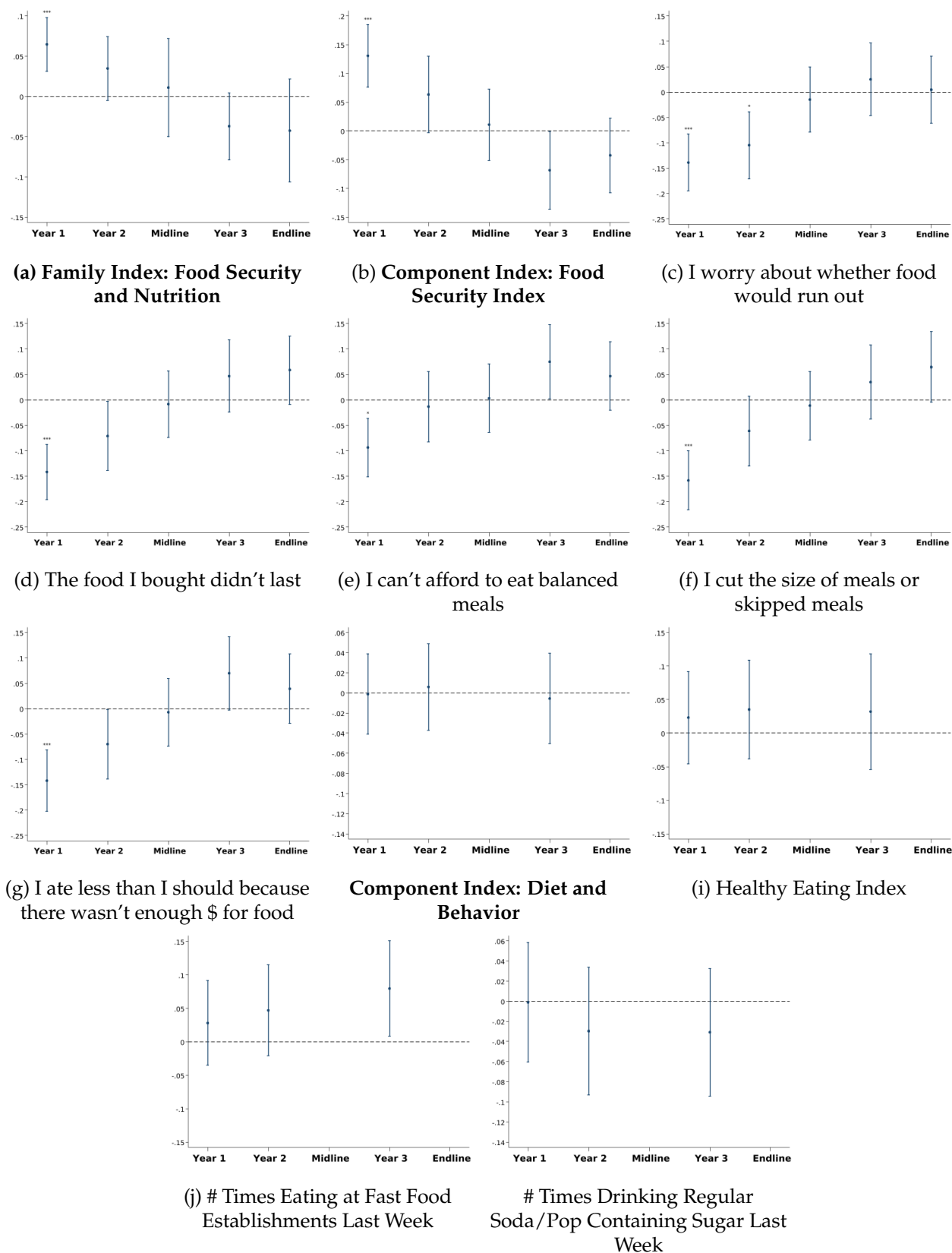
Notes: Figures show estimated treatment effects for each time period for which we have data. Treatment effects are standardized by the control group mean to facilitate comparison. 95% confidence intervals are included. No time period specific estimates are statistically significant after adjusting p-values to control the false discovery rate. See text for more details.

Figure A15: Standardized Effects on Use of Hospital and ED Care



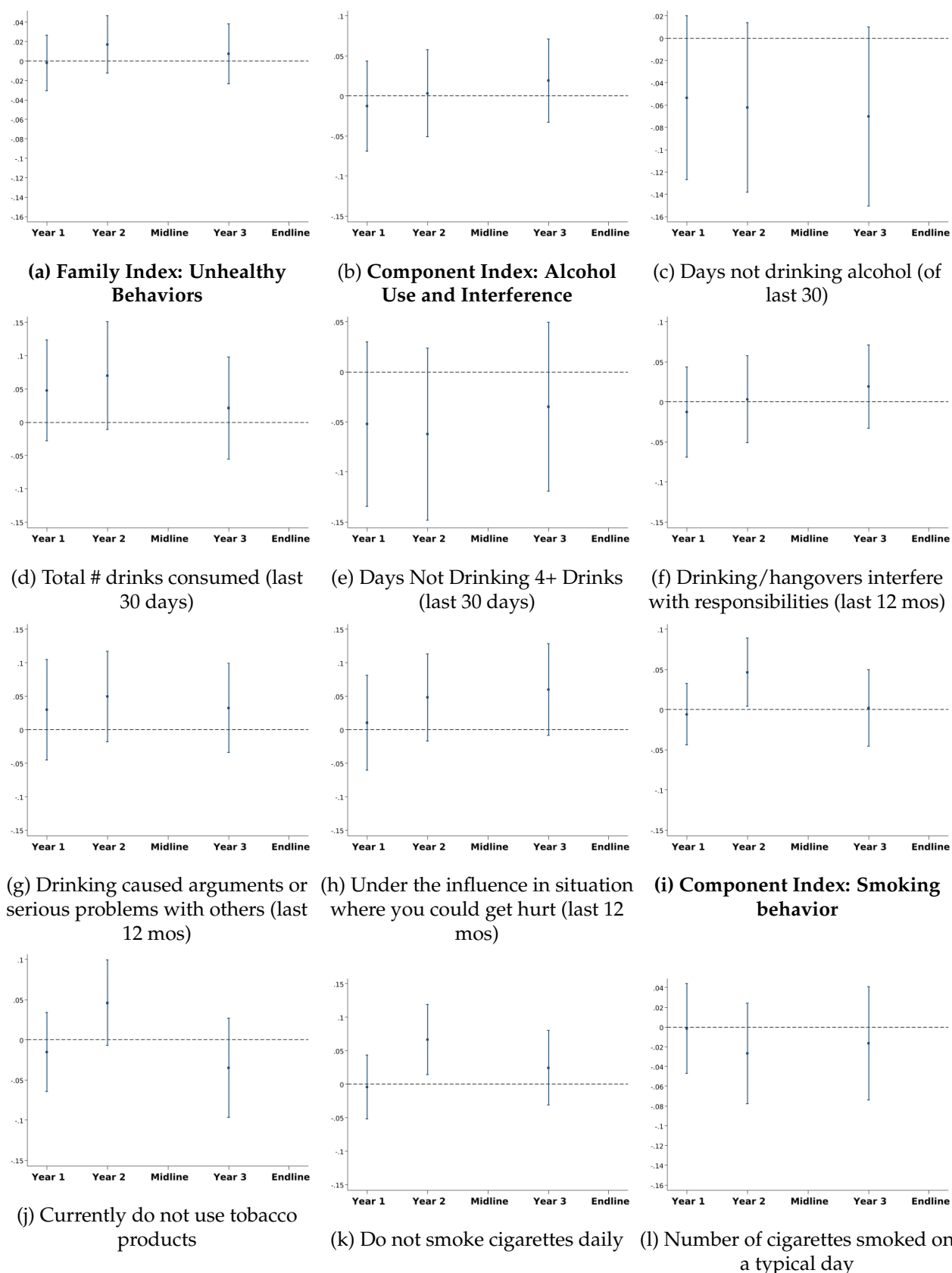
Notes: Figures show estimated treatment effects for each time period for which we have data. Treatment effects are standardized by the control group mean to facilitate comparison. 95% confidence intervals are included. No time period specific estimates are statistically significant after adjusting p-values to control the false discovery rate. See text for more details.

Figure A16: Standardized Effects on Use of Food Security and Nutrition by Time



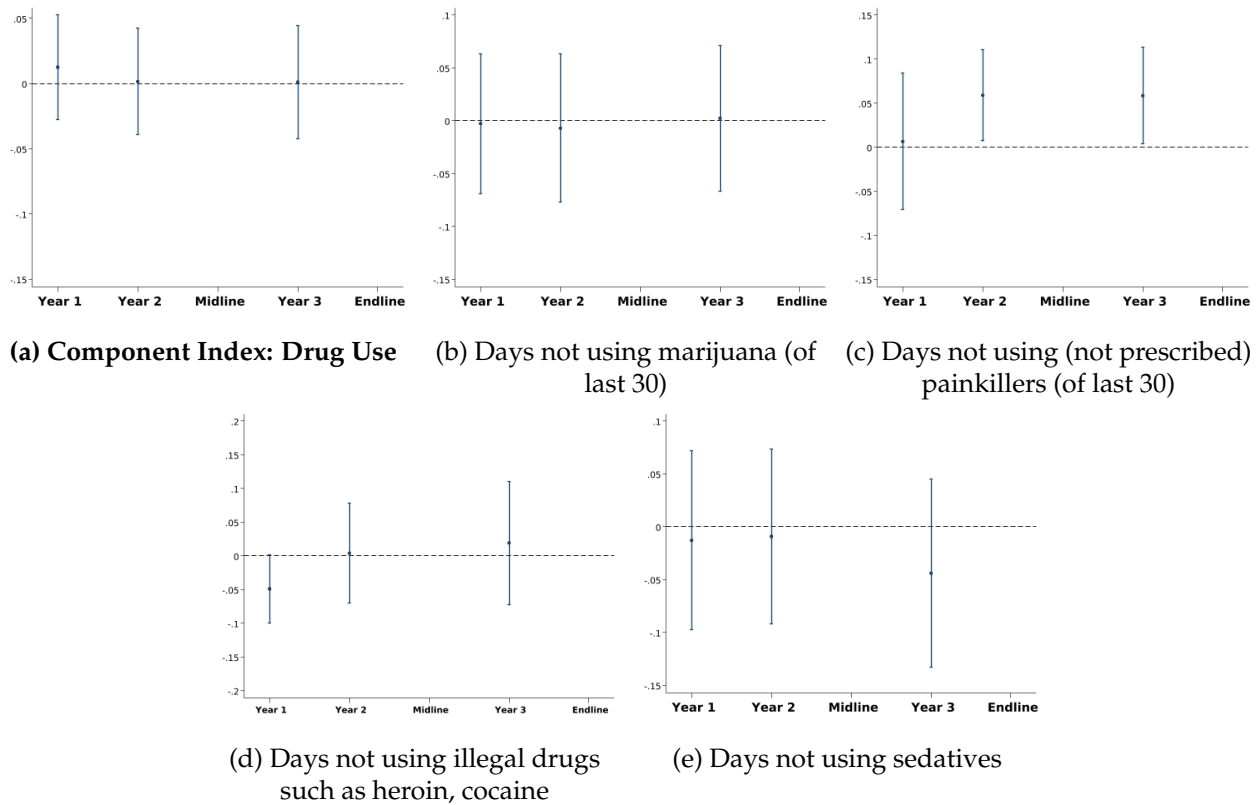
Notes: Figures show estimated treatment effects for each time period for which we have data. Treatment effects are standardized by the control group mean to facilitate comparison. 95% confidence intervals are included. The symbol * indicates significance levels after adjusting p-values to control the false discovery rate. See text for more details.

Figure A17: Standardized Effects on Unhealthy Behaviors



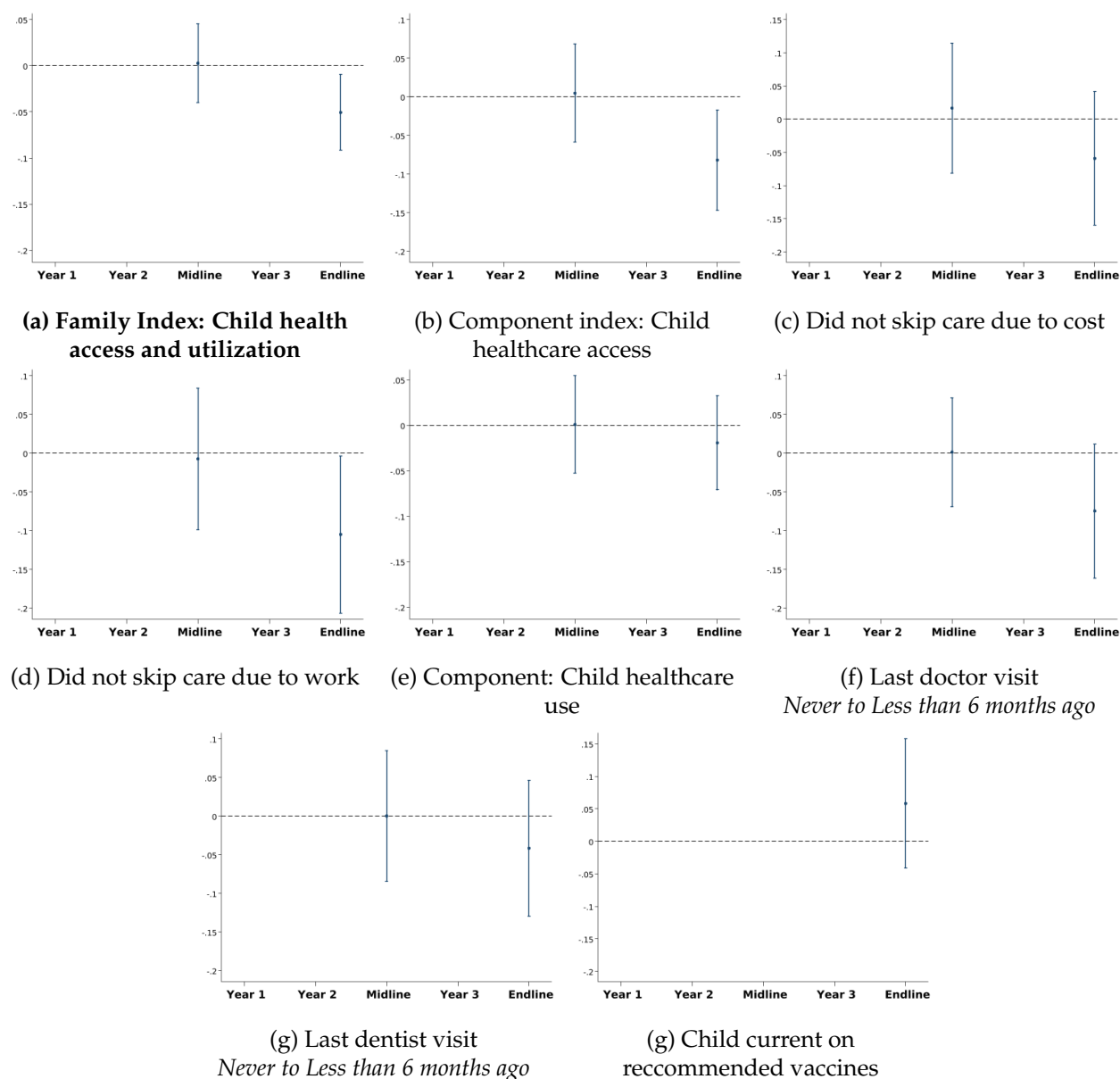
Notes: Figures show estimated treatment effects for each time period for which we have data. Treatment effects are standardized by the control group mean to facilitate comparison. 95% confidence intervals are included. No time period specific estimates are statistically significant after adjusting p-values to control the false discovery rate. See text for more details.

Figure A18: Standardized Effects on Unhealthy Behaviors (cont)



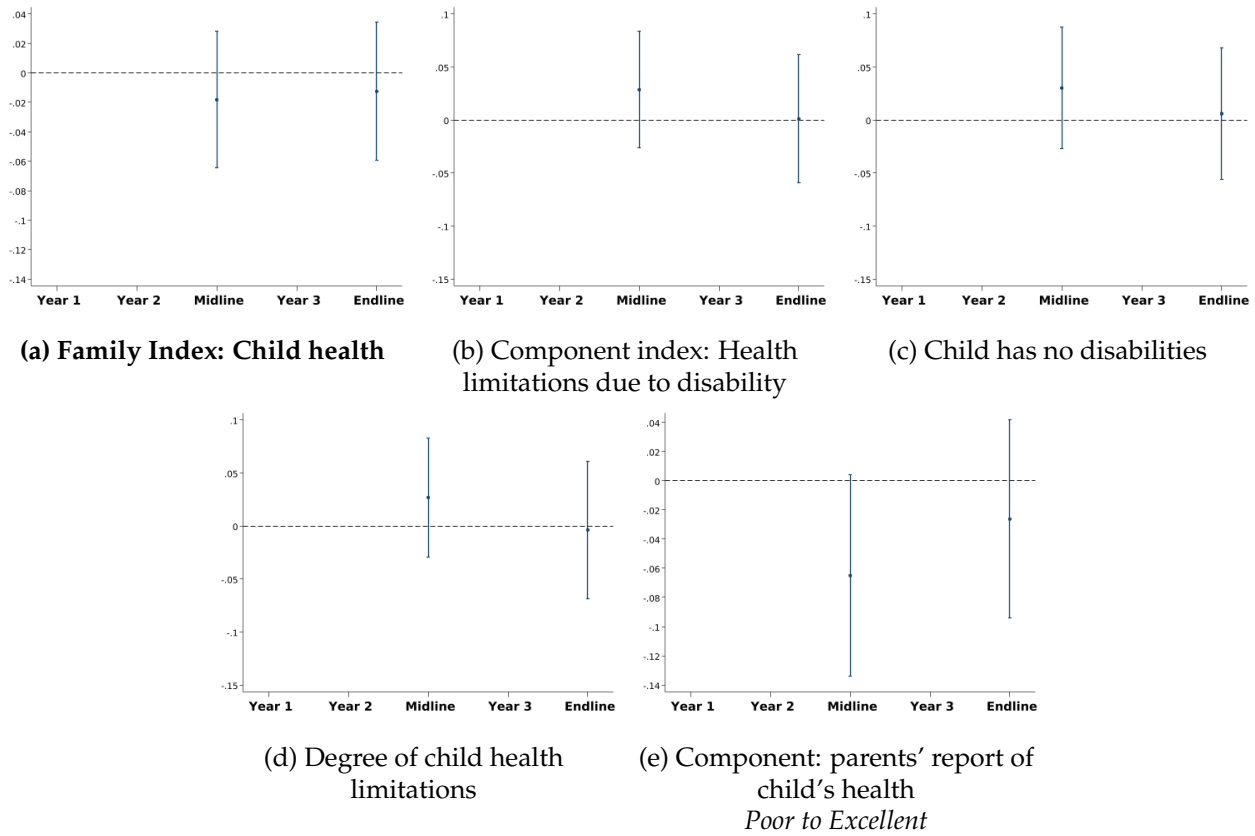
Notes: Figures show estimated treatment effects for each time period for which we have data. Treatment effects are standardized by the control group mean to facilitate comparison. 95% confidence intervals are included. No time period specific estimates are statistically significant after adjusting p-values to control the false discovery rate. See text for more details.

Figure A19: Standardized Effects on Child Healthcare Access and Utilization Outcomes



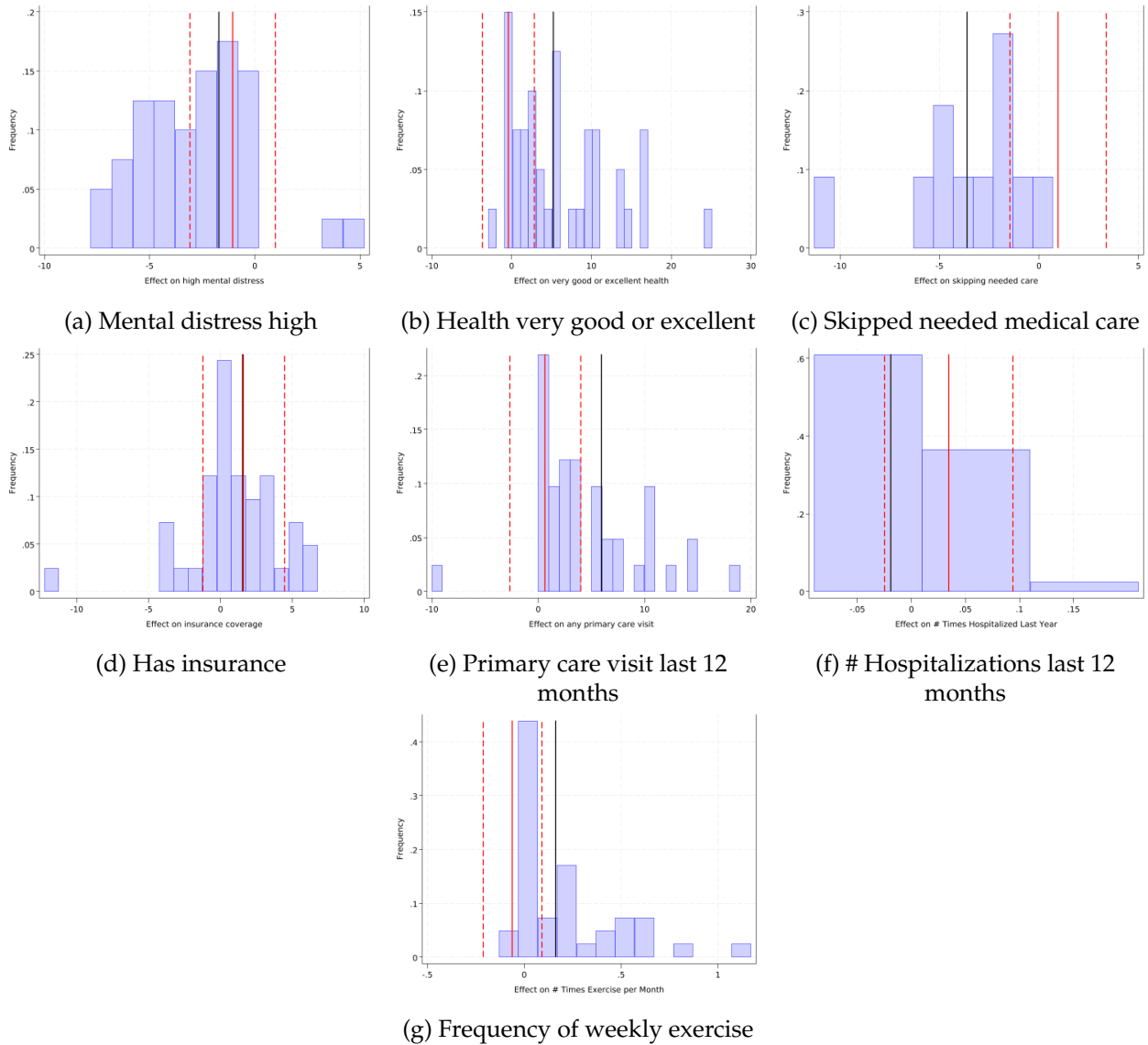
Notes: Figures show estimated treatment effects for each time period for which we have data. Treatment effects are standardized by the control group mean to facilitate comparison. 95% confidence intervals are included. No time period specific estimates are statistically significant after adjusting p-values to control the false discovery rate. See text for more details.

Figure A20: Standardized Effects on Child Health Outcomes



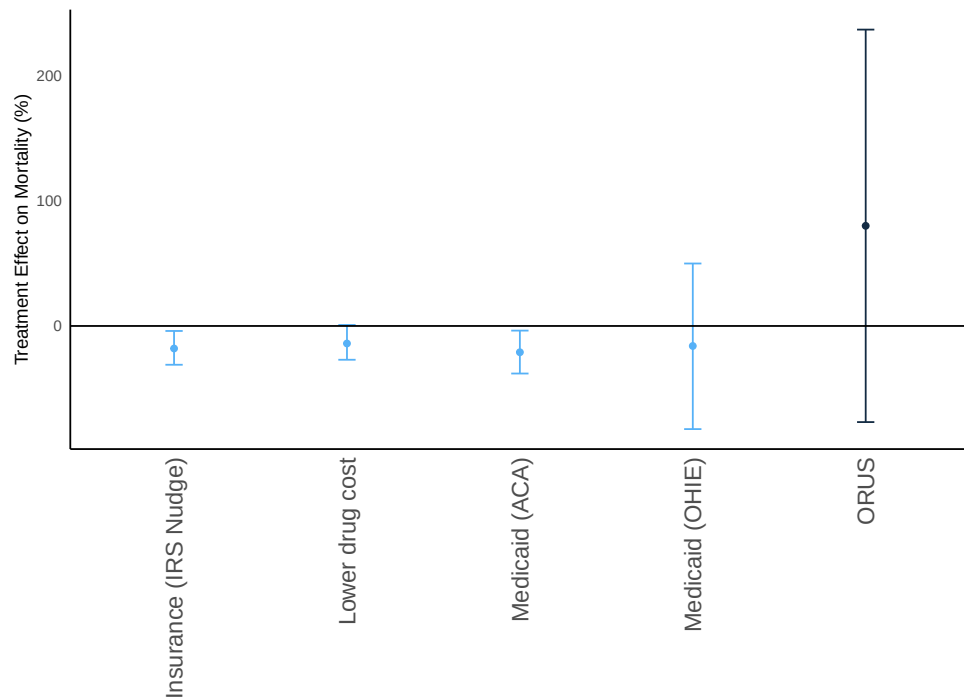
Notes: Figures show estimated treatment effects for each time period for which we have data. Treatment effects are standardized by the control group mean to facilitate comparison. 95% confidence intervals are included. No time period specific estimates are statistically significant after adjusting p-values to control the false discovery rate. See text for more details.

Figure A21: Comparison to forecasted treatment effects (NBER members)

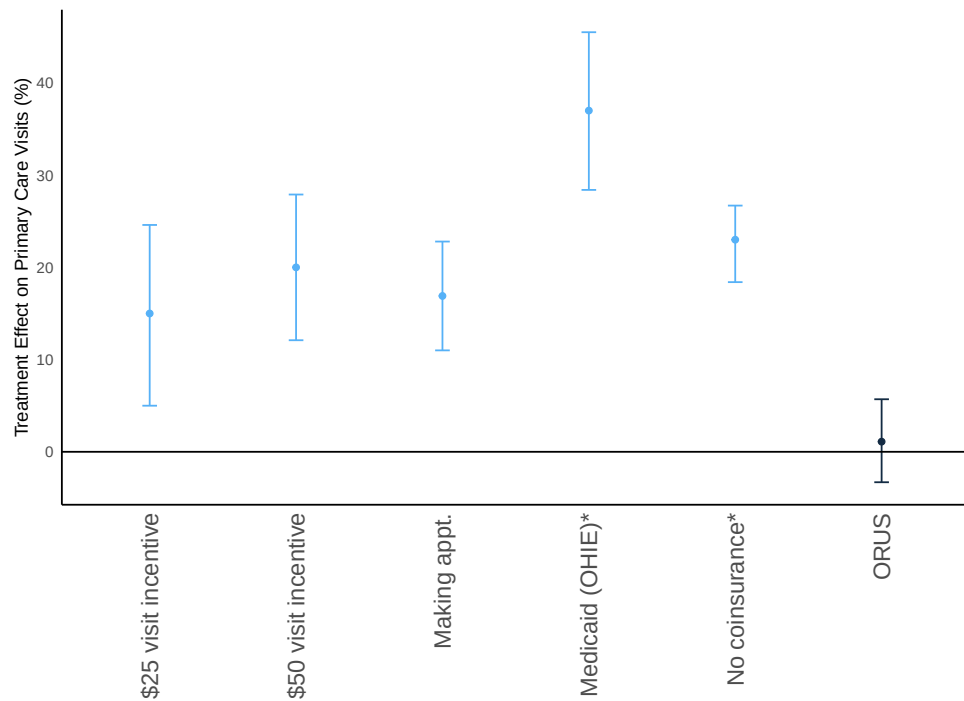


Notes: This figure displays a histogram of forecasted treatment effects on the outcome listed under the figure. Forecasts were collected via email surveys in April of 2022. We received 41 total responses to prediction requests for health-related questions. The vertical black line shows the mean of these forecasted predictions, while the vertical red line shows the actual estimated treatment effect. Vertical dashed red lines show the 95% confidence interval of the estimated effect. This figure displays forecasts for NBER members who completed the prediction survey.

Figure A22: Comparison to treatment effects from other interventions



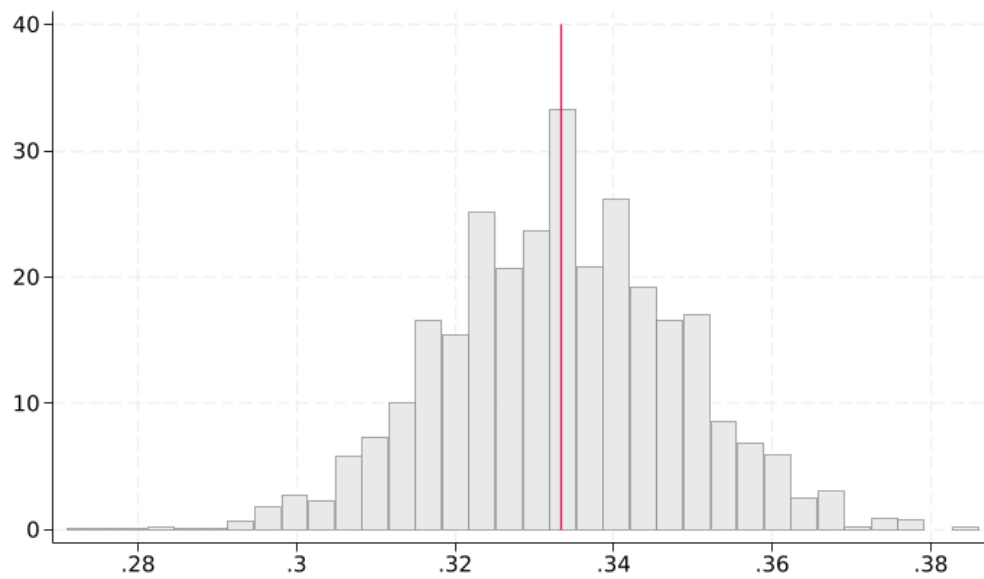
(a) Mortality



(b) Any primary care visit

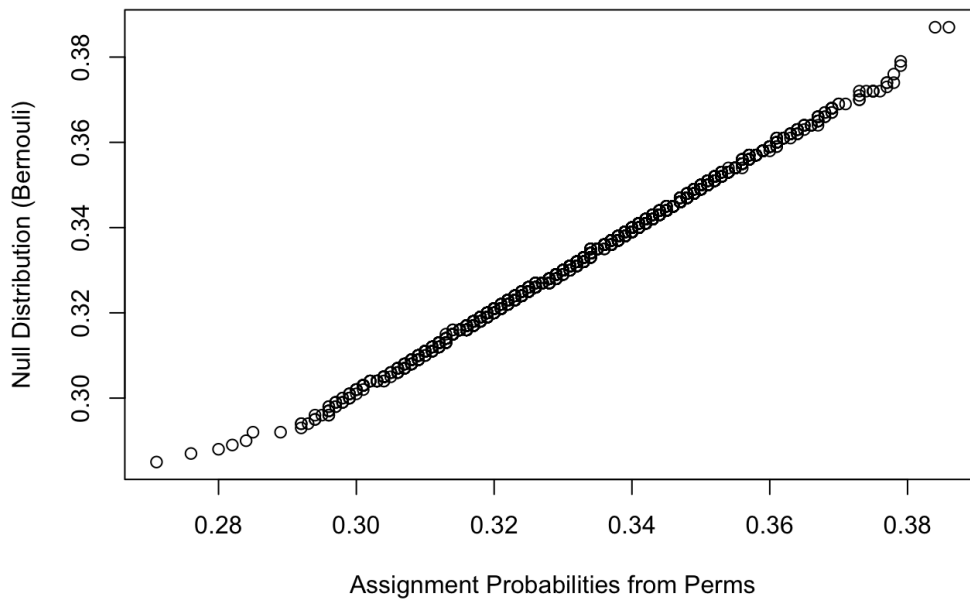
Notes: This figure displays estimated treatment effects, with 95% confidence intervals, from this study (in blue) and those reported in [Chandra et al. \(2024\)](#); [Wyse and Meyer \(2023\)](#); [Bradley et al. \(2018\)](#); [Goldin et al. \(2020\)](#); [Sabety et al. \(2023\)](#); [Newhouse and the Insurance Experiment Group \(1993\)](#); [Aron-Dine et al. \(2013\)](#); [Finkelstein et al. \(2012\)](#). Interventions denoted with a * measure the effect of the intervention on any outpatient, rather than any primary care, visit. See Appendix Section C for more details.

Figure A23: Histogram of treatment assignment probabilities



Note: This figure shows a histogram of average treatment assignment for each participant calculated after 1,000 simulations of the treatment assignment procedure. Vertical line indicates 0.33333.

Figure A24: QQ-plot of treatment probability against Bernoulli distribution with one third success probability



Note: This figure compares the distribution of treatment assignments (quantiles plotted on x-axis) to what we would expect from a random one-third probability of assignment (quantiles plotted on y-axis). A Kolmogorov-Smirnov test fails to reject the null hypothesis that these distributions are the same ($p=0.5226$).

Table A1: Impact of ORUS program payments on public benefits

Benefit	Texas	
	Illinois	Texas
Medicaid	Eligibility was not affected	Eligibility was not affected
SNAP	Eligibility was not affected	First \$300 per quarter did not affect SNAP, but the remaining amount of the transfer was considered unearned income for the purposes of determining eligibility and the amount of the benefit
TANF	Eligibility was not affected	First \$300 per quarter did not affect TANF, but the remaining amount of the transfer was considered unearned income for the purposes of determining eligibility and the amount of the benefit
Housing Assistance	Did not affect eligibility for Chicago Housing Authority, eligibility was affected for other localities	Eligibility was affected by the cash transfer.
SSI	Not eligible to participate	Not eligible to participate

Notes: Table describes how ORUS program payments affected participants' eligibility for other public programs.

Table A2: Comparison of Baseline Characteristics of those Responding to Enumerated Mid-line Survey vs Non-respondents

	Respondents			Non-Respondents		
	Control	Treatment	p-value	Control	Treatment	p-value
Demographic						
Age	30.075	30.149	0.741	29.160	31.300	0.125
Male	0.317	0.325	0.672	0.387	0.450	0.616
Female or non-binary	0.683	0.675	0.678	0.613	0.550	0.616
Non-Hispanic Black	0.307	0.296	0.565	0.267	0.200	0.523
Non-Hispanic White, Asian, or other race	0.480	0.483	0.893	0.493	0.600	0.396
Hispanic	0.213	0.221	0.636	0.240	0.200	0.699
Household Size	3.002	2.947	0.423	2.867	2.850	0.969
Any Children in Household	0.573	0.569	0.851	0.520	0.550	0.813
# Children	1.402	1.437	0.576	1.320	1.400	0.841
Economic						
Employed	0.587	0.580	0.738	0.560	0.450	0.387
Personal Income (1000s)	21.185	21.379	0.810	21.009	14.859	0.139
Household Income (1000s)	29.939	30.128	0.805	29.537	21.969	0.060
Under FPL	0.335	0.320	0.415	0.360	0.500	0.270
HS Degree/GED or higher	0.938	0.953	0.094	0.960	0.950	0.854
Health care access and utilization						
Insured	0.720	0.704	0.366	0.676	0.650	0.829
Employer sponsored insurance	0.203	0.186	0.255	0.192	0.200	0.937
Spousal insurance	0.043	0.044	0.865	0.014	0.000	0.283
Exchange plan insurance	0.056	0.056	0.967	0.068	0.050	0.752
Medicaid	0.290	0.302	0.497	0.221	0.350	0.277
Military or VA coverage	0.012	0.011	0.867	0.014	0.050	0.478
Insurance through college or school	0.021	0.026	0.491	0.001	0.000	0.159
Other type of insurance	0.092	0.092	0.994	0.122	0.000	0.002
Did not skip health care due to costs	0.722	0.731	0.611	0.787	0.750	0.737
Worried About Medical Costs	1.806	1.783	0.573	1.917	2.150	0.325
Usual source of care is not ER	0.907	0.916	0.407	0.905	0.950	0.458
Any hospitalization last 12 mos	0.127	0.140	0.348	0.107	0.100	0.931
Any ER visit last 12 mo	0.303	0.315	0.524	0.280	0.300	0.864
# Office Visits last 12mo	3.903	3.796	0.679	2.573	2.800	0.839
Mental health						
# days mental health good (of last 30)	23.055	23.073	0.959	23.428	23.900	0.844
High stress	0.156	0.156	0.995	0.104	0.215	0.244
High mental distress	0.112	0.129	0.191	0.133	0.150	0.853
Severe depression	0.149	0.161	0.408	0.214	0.216	0.992
Physical health						
Health very good or excellent	0.495	0.514	0.312	0.507	0.500	0.958
# days physical health good (of last 30)	26.446	26.398	0.856	26.326	28.500	0.043
Obese	0.427	0.415	0.527	0.398	0.371	0.824
Pain interferes not at all or very little	0.755	0.764	0.615	0.784	0.826	0.651
Health behaviors						
Exercise frequency	7.906	7.396	0.208	7.404	11.626	0.220
Amount of sleep	6.742	6.798	0.503	7.347	6.714	0.192
Do not smoke cigarettes daily	0.822	0.837	0.327	0.810	0.624	0.102
Food security index (0-6)	3.071	3.093	0.812	3.235	3.158	0.878

Notes: This table compares baseline characteristics for each treatment arm across respondents and non-respondents to the midline survey.

Table A3: Comparison of Baseline Characteristics of those Responding to Enumerated End-line Survey vs Non-respondents

	Respondents			Non-Respondents		
	Control	Treatment	p-value	Control	Treatment	p-value
Demographic						
Age	30.050	30.140	0.687	29.903	31.050	0.420
Male	0.313	0.326	0.473	0.447	0.350	0.416
Female or non-binary	0.687	0.674	0.478	0.553	0.650	0.416
Non-Hispanic Black	0.308	0.296	0.498	0.243	0.250	0.946
Non-Hispanic White, Asian, or other race	0.483	0.482	0.947	0.437	0.600	0.180
Hispanic	0.208	0.222	0.405	0.320	0.150	0.069
Household Size	3.008	2.952	0.411	2.806	2.850	0.925
Any Children in Household	0.574	0.571	0.883	0.505	0.550	0.713
# Children	1.411	1.433	0.738	1.146	1.900	0.095
Economic						
Employed	0.585	0.582	0.871	0.602	0.400	0.097
Personal Income (1000s)	21.202	21.347	0.857	20.763	18.532	0.654
Household Income (1000s)	29.927	30.129	0.793	29.864	25.926	0.338
Under FPL	0.338	0.321	0.352	0.301	0.350	0.675
HS Degree/GED or higher	0.939	0.954	0.092	0.941	0.950	0.864
Health care access and utilization						
Insured	0.722	0.707	0.383	0.645	0.450	0.112
Employer sponsored insurance	0.203	0.186	0.271	0.200	0.200	0.999
Spousal insurance	0.044	0.045	0.908	0.011	0.000	0.264
Exchange plan insurance	0.057	0.057	0.993	0.050	0.000	0.020
Medicaid	0.289	0.301	0.506	0.251	0.250	0.991
Military or VA coverage	0.013	0.011	0.750	0.000	0.050	0.314
Insurance through college or school	0.020	0.026	0.360	0.030	0.000	0.077
Other type of insurance	0.093	0.091	0.868	0.080	0.050	0.588
Did not skip health care due to costs	0.724	0.732	0.654	0.718	0.700	0.870
Worried About Medical Costs	1.805	1.790	0.715	1.903	1.650	0.268
Usual source of care is not ER	0.907	0.917	0.337	0.912	0.850	0.470
Any hospitalization last 12 mos	0.128	0.139	0.435	0.098	0.100	0.982
Any ER visit last 12 mo	0.306	0.312	0.776	0.223	0.300	0.492
# Office Visits last 12mo	3.918	3.781	0.600	2.697	3.500	0.591
Mental health						
# days mental health good (of last 30)	23.065	23.042	0.947	23.109	23.700	0.811
High stress	0.155	0.158	0.866	0.124	0.108	0.828
High mental distress	0.110	0.127	0.198	0.166	0.300	0.225
Severe depression	0.150	0.159	0.554	0.174	0.308	0.222
Physical health						
Health very good or excellent	0.493	0.516	0.241	0.534	0.500	0.783
# days physical health good (of last 30)	26.454	26.466	0.962	26.168	25.150	0.634
Obese	0.429	0.416	0.477	0.367	0.350	0.885
Pain interferes not at all or very little	0.754	0.766	0.472	0.794	0.688	0.334
Health behaviors						
Exercise frequency	7.813	7.485	0.419	9.321	8.638	0.841
Amount of sleep	6.765	6.808	0.609	6.740	6.289	0.262
Do not smoke cigarettes daily	0.820	0.839	0.205	0.854	0.633	0.048
Food security index (0-6)	3.059	3.095	0.695	3.431	2.804	0.298

Notes: This table compares baseline characteristics for each treatment arm across respondents and non-respondents to the endline survey.

Table A4: Comparison of Baseline Characteristics of those Responding to At Least One Qualtrics Survey in Year 1 vs Non-Respondents

	Respondents			Non-Respondents		
	Control	Treatment	p-value	Control	Treatment	p-value
Demographic						
Age	30.078	30.203	0.574	28.196	27.933	0.848
Male	0.313	0.321	0.677	0.565	0.800	0.073
Female or non-binary	0.687	0.679	0.683	0.435	0.200	0.073
Non-Hispanic Black	0.307	0.294	0.499	0.239	0.267	0.836
Non-Hispanic White, Asian, or other race	0.482	0.485	0.851	0.457	0.533	0.612
Hispanic	0.212	0.220	0.603	0.304	0.200	0.410
Household Size	2.999	2.947	0.445	2.848	2.667	0.707
Any Children in Household	0.573	0.570	0.851	0.457	0.467	0.947
# Children	1.402	1.448	0.470	1.239	0.600	0.102
Economic						
Employed	0.585	0.575	0.574	0.609	0.800	0.140
Personal Income (1000s)	21.191	21.218	0.973	20.407	23.704	0.486
Household Income (1000s)	29.927	29.916	0.989	28.518	32.144	0.609
Under FPL	0.336	0.322	0.433	0.326	0.400	0.616
HS Degree/GED or higher	0.938	0.952	0.112	0.977	1.000	0.298
Health care access and utilization						
Insured	0.721	0.704	0.338	0.646	0.667	0.885
Employer sponsored insurance	0.203	0.185	0.229	0.200	0.333	0.335
Spousal insurance	0.042	0.044	0.821	0.023	0.000	0.304
Exchange plan insurance	0.056	0.056	0.937	0.088	0.000	0.041
Medicaid	0.290	0.305	0.386	0.202	0.133	0.524
Military or VA coverage	0.012	0.011	0.890	0.022	0.067	0.520
Insurance through college or school	0.021	0.026	0.416	0.022	0.000	0.313
Other type of insurance	0.093	0.089	0.715	0.089	0.133	0.655
Did not skip health care due to costs	0.723	0.730	0.693	0.761	0.800	0.751
Worried About Medical Costs	1.813	1.786	0.497	1.735	2.200	0.089
Usual source of care is not ER	0.905	0.916	0.308	0.978	0.933	0.518
Any hospitalization last 12 mos	0.127	0.141	0.298	0.090	0.000	0.038
Any ER visit last 12 mo	0.306	0.317	0.532	0.181	0.133	0.657
# Office Visits last 12mo	3.894	3.774	0.640	1.996	4.067	0.085
Mental health						
# days mental health good (of last 30)	23.054	23.063	0.978	23.284	25.267	0.356
High stress	0.155	0.157	0.934	0.092	0.175	0.385
High mental distress	0.115	0.129	0.282	0.022	0.133	0.229
Severe depression	0.153	0.161	0.582	0.109	0.241	0.223
Physical health						
Health very good or excellent	0.491	0.511	0.295	0.674	0.733	0.663
# days physical health good (of last 30)	26.399	26.415	0.953	27.966	28.200	0.802
Obese	0.425	0.412	0.482	0.441	0.561	0.408
Pain interferes not at all or very little	0.754	0.765	0.515	0.844	0.802	0.673
Health behaviors						
Exercise frequency	7.865	7.515	0.389	9.080	6.470	0.293
Amount of sleep	6.756	6.810	0.524	7.071	5.933	0.031
Do not smoke cigarettes daily	0.821	0.835	0.358	0.838	0.687	0.209
Food security index (0-6)	3.067	3.095	0.754	3.544	3.222	0.559

Notes: This table compares baseline characteristics for each treatment arm across respondents and non-respondents to the Qualtrics surveys in year 1 of the study.

Table A5: Comparison of Baseline Characteristics of those Responding to At Least One Qualtrics Survey in Year 2 vs Non-Respondents

	Respondents			Non-Respondents		
	Control	Treatment	p-value	Control	Treatment	p-value
Demographic						
Age	30.113	30.163	0.823	28.337	30.467	0.094
Male	0.315	0.319	0.834	0.419	0.600	0.087
Female or non-binary	0.685	0.681	0.841	0.581	0.400	0.087
Non-Hispanic Black	0.304	0.294	0.604	0.337	0.300	0.707
Non-Hispanic White, Asian, or other race	0.483	0.483	0.999	0.430	0.567	0.201
Hispanic	0.214	0.223	0.566	0.233	0.133	0.204
Household Size	3.018	2.948	0.317	2.512	2.833	0.348
Any Children in Household	0.575	0.569	0.741	0.465	0.567	0.341
# Children	1.405	1.445	0.532	1.244	1.167	0.808
Economic						
Employed	0.588	0.571	0.384	0.547	0.800	0.006
Personal Income (1000s)	21.223	21.100	0.878	20.177	26.045	0.176
Household Income (1000s)	29.991	29.991	1.000	28.350	29.109	0.867
Under FPL	0.335	0.322	0.468	0.337	0.367	0.774
HS Degree/GED or higher	0.939	0.953	0.113	0.953	0.967	0.732
Health care access and utilization						
Insured	0.719	0.703	0.387	0.721	0.700	0.830
Employer sponsored insurance	0.203	0.182	0.183	0.209	0.300	0.343
Spousal insurance	0.043	0.045	0.797	0.023	0.000	0.159
Exchange plan insurance	0.056	0.056	0.986	0.058	0.033	0.553
Medicaid	0.292	0.305	0.456	0.186	0.233	0.595
Military or VA coverage	0.011	0.010	0.873	0.035	0.067	0.527
Insurance through college or school	0.021	0.025	0.472	0.023	0.033	0.785
Other type of insurance	0.089	0.090	0.927	0.186	0.100	0.219
Did not skip health care due to costs	0.724	0.730	0.734	0.721	0.767	0.620
Worried About Medical Costs	1.810	1.780	0.465	1.812	2.133	0.094
Usual source of care is not ER	0.909	0.915	0.578	0.859	0.967	0.034
Any hospitalization last 12 mos	0.127	0.140	0.340	0.105	0.100	0.943
Any ER visit last 12 mo	0.303	0.316	0.468	0.302	0.267	0.710
# Office Visits last 12mo	3.812	3.756	0.826	4.744	4.433	0.863
Mental health						
# days mental health good (of last 30)	23.096	23.107	0.975	22.209	22.533	0.868
High stress	0.155	0.155	0.983	0.134	0.226	0.254
High mental distress	0.112	0.131	0.141	0.128	0.067	0.298
Severe depression	0.152	0.160	0.582	0.138	0.226	0.273
Physical health						
Health very good or excellent	0.493	0.517	0.230	0.535	0.433	0.341
# days physical health good (of last 30)	26.461	26.416	0.867	25.965	27.200	0.275
Obese	0.426	0.413	0.489	0.427	0.467	0.706
Pain interferes not at all or very little	0.757	0.763	0.714	0.748	0.826	0.306
Health behaviors						
Exercise frequency	7.906	7.382	0.199	7.394	10.652	0.225
Amount of sleep	6.739	6.806	0.422	7.348	6.467	0.064
Do not smoke cigarettes daily	0.821	0.838	0.250	0.855	0.671	0.040
Food security index (0-6)	3.060	3.093	0.722	3.500	3.147	0.381

Notes: This table compares baseline characteristics for each treatment arm across respondents and non-respondents to the Qualtrics surveys in year 2 of the study.

Table A6: Comparison of Baseline Characteristics of those Responding to At Least One Qualtrics Survey in Year 3 vs Non-Respondents

	Respondents			Non-Respondents		
	Control	Treatment	p-value	Control	Treatment	p-value
Demographic						
Age	30.140	30.222	0.714	28.803	28.100	0.542
Male	0.306	0.324	0.347	0.496	0.433	0.532
Female or non-binary	0.694	0.676	0.351	0.504	0.567	0.532
Non-Hispanic Black	0.307	0.295	0.488	0.277	0.333	0.556
Non-Hispanic White, Asian, or other race	0.484	0.483	0.994	0.438	0.500	0.541
Hispanic	0.209	0.222	0.436	0.285	0.167	0.136
Household Size	3.019	2.950	0.324	2.737	2.867	0.703
Any Children in Household	0.578	0.572	0.748	0.482	0.533	0.611
# Children	1.420	1.448	0.659	1.117	1.233	0.737
Economic						
Employed	0.585	0.573	0.513	0.591	0.767	0.049
Personal Income (1000s)	21.234	21.136	0.905	20.653	26.676	0.108
Household Income (1000s)	29.864	29.903	0.961	30.710	34.722	0.289
Under FPL	0.342	0.324	0.318	0.255	0.233	0.798
HS Degree/GED or higher	0.938	0.955	0.044	0.956	0.900	0.336
Health care access and utilization						
Insured	0.723	0.703	0.273	0.655	0.667	0.902
Employer sponsored insurance	0.205	0.182	0.138	0.162	0.300	0.127
Spousal insurance	0.044	0.045	0.903	0.015	0.000	0.150
Exchange plan insurance	0.055	0.056	0.904	0.066	0.033	0.405
Medicaid	0.295	0.304	0.604	0.192	0.200	0.920
Military or VA coverage	0.011	0.012	0.877	0.029	0.033	0.911
Insurance through college or school	0.020	0.025	0.367	0.037	0.033	0.928
Other type of insurance	0.090	0.089	0.954	0.132	0.133	0.985
Did not skip health care due to costs	0.724	0.731	0.719	0.723	0.733	0.905
Worried About Medical Costs	1.810	1.781	0.480	1.825	1.967	0.480
Usual source of care is not ER	0.906	0.916	0.422	0.919	0.933	0.782
Any hospitalization last 12 mos	0.129	0.140	0.424	0.095	0.067	0.590
Any ER visit last 12 mo	0.310	0.314	0.859	0.190	0.267	0.383
# Office Visits last 12mo	3.913	3.694	0.393	3.086	6.467	0.091
Mental health						
# days mental health good (of last 30)	23.072	23.030	0.904	23.125	24.100	0.527
High stress	0.157	0.158	0.963	0.104	0.121	0.782
High mental distress	0.112	0.130	0.163	0.125	0.133	0.903
Severe depression	0.154	0.162	0.561	0.117	0.144	0.691
Physical health						
Health very good or excellent	0.493	0.512	0.331	0.533	0.633	0.308
# days physical health good (of last 30)	26.411	26.397	0.958	26.919	27.933	0.239
Obese	0.431	0.410	0.275	0.369	0.561	0.049
Pain interferes not at all or very little	0.751	0.764	0.471	0.816	0.801	0.840
Health behaviors						
Exercise frequency	7.878	7.459	0.310	8.178	8.817	0.774
Amount of sleep	6.744	6.798	0.526	7.007	6.752	0.565
Do not smoke cigarettes daily	0.819	0.833	0.336	0.859	0.883	0.707
Food security index (0-6)	3.033	3.102	0.460	3.686	2.739	0.037

Notes: This table compares baseline characteristics for each treatment arm across respondents and non-respondents to the Qualtrics surveys in year 3 of the study.

Table A7: Comparison of Baseline Characteristics of those Providing Biomarkers Among Those Eligible

	Respondents			Non-Respondents		
	Control	Treatment	p-value	Control	Treatment	p-value
Demographic						
Age	30.134	30.323	0.585	29.177	29.228	0.899
Male	0.275	0.269	0.821	0.349	0.382	0.335
Female or non-binary	0.724	0.731	0.809	0.651	0.618	0.335
Non-Hispanic Black	0.404	0.382	0.447	0.327	0.301	0.441
Non-Hispanic White, Asian, or other race	0.357	0.370	0.654	0.438	0.460	0.545
Hispanic	0.239	0.248	0.719	0.235	0.239	0.898
Household Size	3.015	2.981	0.747	2.834	2.699	0.266
Any Children in Household	0.574	0.590	0.590	0.524	0.500	0.510
# Children	1.389	1.527	0.168	1.233	1.188	0.688
Economic						
Employed	0.560	0.557	0.921	0.576	0.577	0.974
Personal Income (1000s)	20.347	21.702	0.320	20.706	20.667	0.978
Household Income (1000s)	29.237	30.013	0.512	29.170	29.954	0.579
Under FPL	0.357	0.335	0.448	0.343	0.312	0.373
HS Degree/GED or higher	0.931	0.956	0.070	0.954	0.949	0.740
Health care access and utilization						
Insured	0.687	0.671	0.561	0.717	0.703	0.660
Employer sponsored insurance	0.182	0.177	0.819	0.201	0.198	0.904
Spousal insurance	0.038	0.035	0.794	0.030	0.030	0.966
Exchange plan insurance	0.051	0.047	0.788	0.063	0.078	0.437
Medicaid	0.292	0.295	0.913	0.271	0.254	0.594
Military or VA coverage	0.011	0.007	0.488	0.012	0.015	0.768
Insurance through college or school	0.018	0.021	0.690	0.026	0.041	0.283
Other type of insurance	0.088	0.078	0.555	0.116	0.119	0.894
Did not skip health care due to costs	0.696	0.703	0.810	0.750	0.765	0.624
Worried About Medical Costs	1.782	1.779	0.960	1.804	1.726	0.295
Usual source of care is not ER	0.886	0.894	0.652	0.924	0.940	0.373
Any hospitalization last 12 mos	0.127	0.146	0.355	0.127	0.093	0.119
Any ER visit last 12 mo	0.328	0.320	0.769	0.268	0.260	0.789
# Office Visits last 12mo	3.786	3.672	0.780	3.351	3.747	0.362
Mental health						
# days mental health good (of last 30)	23.344	23.275	0.898	23.631	23.284	0.566
High stress	0.162	0.160	0.927	0.125	0.147	0.373
High mental distress	0.110	0.120	0.626	0.105	0.119	0.550
Severe depression	0.146	0.148	0.921	0.151	0.184	0.217
Physical health						
Health very good or excellent	0.476	0.537	0.042	0.528	0.533	0.880
# days physical health good (of last 30)	26.396	26.370	0.950	27.030	27.163	0.741
Obese	0.460	0.423	0.202	0.389	0.397	0.822
Pain interferes not at all or very little	0.736	0.767	0.226	0.807	0.777	0.297
Health behaviors						
Exercise frequency	7.854	8.169	0.624	8.187	6.958	0.103
Amount of sleep	6.686	6.683	0.986	6.843	6.899	0.714
Do not smoke cigarettes daily	0.851	0.842	0.676	0.871	0.880	0.688
Food security index (0-6)	2.913	2.831	0.558	3.385	3.425	0.811

Notes: This table compares baseline characteristics for each treatment arm across those who did vs did not provide a biomarker sample, among those who resided within the catchment area and were thus eligible for collection.

Table A8: Impact of Guaranteed Income on Kessler 6 Subcomponents

	Control Mean	Estimated Effect	N
<i>Ranging from 0 (none of the time) to 4 (all of the time)</i>			
How often did the respondent feel... nervous?	1.30 (0.89)	-0.005 (0.026) {1.000}	2985
...hopeless?	0.83 (0.87)	-0.047 (0.025) {1.000}	2985
...restless or fidgety?	1.31 (0.96)	0.014 (0.028) {1.000}	2985
...so depressed that nothing could cheer you up?	0.69 (0.82)	0.020 (0.024) {1.000}	2985
...that everything was an effort?	1.47 (1.07)	-0.036 (0.033) {1.000}	2984
...worthless?	0.65 (0.86)	-0.021 (0.024) {1.000}	2984

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows. The standard error is reported in parentheses. The FDR-adjusted q-value is reported in brackets.

Table A9: Impact of Guaranteed Income on Perceived Stress Score Subcomponents

	Control Mean	Estimated Effect	N
<i>Ranging from 0 (never) to 4 (very often)</i>			
Upset because something happened unexpectedly	1.99 (0.85)	0.052 (0.025) {1.000}	2935
Unable to control important things	1.94 (0.92)	0.028 (0.027) {1.000}	2935
Felt nervous and stressed	2.27 (0.91)	0.057 (0.025) {0.847}	2933
Felt confident you could handle personal problems	1.62 (0.69)	-0.066 (0.022) {0.250}	2933
Felt things are going your way	1.87 (0.68)	-0.039 (0.021) {1.000}	2932
Could not cope with everything	1.75 (0.85)	0.004 (0.025) {1.000}	2933
Able to control irritations	1.66 (0.69)	-0.015 (0.021) {1.000}	2933
Felt you were on top of things	1.80 (0.75)	-0.012 (0.022) {1.000}	2933
Angered because of things outside of your control	1.84 (0.81)	0.010 (0.025) {1.000}	2934
Difficulties piling up	1.82 (0.94)	-0.039 (0.027) {1.000}	2934
Source of stress... child	0.27 (0.36)	0.017 (0.009) {1.000}	2932
Financial	0.68 (0.34)	-0.022 (0.011) {1.000}	2935
Health	0.42 (0.36)	0.008 (0.011) {1.000}	2935
Friend's Health	0.35 (0.32)	-0.001 (0.011) {1.000}	2934
Work	0.51 (0.34)	0.014 (0.011) {1.000}	2935
Relationships	0.41 (0.35)	0.002 (0.011) {1.000}	2935
Housing	0.41 (0.35)	0.017 (0.011) {1.000}	2935
Other	0.11 (0.22)	0.020 (0.008) {0.620}	2871

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows. The standard error is reported in parentheses. The FDR-adjusted q-value is reported in brackets.

Table A10: Impact of Guaranteed Income on General Anxiety Disorder and PHQ-9 Score Subcomponents

	Control Mean	Estimated Effect	N
<i>Ranging from 0 (not at all) to 4 (every day)</i>			
Over the last 2 weeks, how often have you felt nervous, anxious, or on edge?	0.29 (0.33)	-0.004 (0.010) {1.000}	2911
Were unable to stop or control worrying?	0.94 (0.79)	-0.008 (0.023) {1.000}	2909
Little interest or pleasure in doing things	0.84 (0.74)	0.012 (0.023) {1.000}	2918
Feeling down, depressed, hopeless	0.85 (0.78)	0.035 (0.024) {1.000}	2917
Trouble falling/staying asleep or sleeping too much	1.06 (0.84)	0.056 (0.025) {0.915}	2918
Feeling tired and having little energy	1.18 (0.80)	0.049 (0.024) {1.000}	2915
Poor appetite or overeating	0.95 (0.82)	0.016 (0.025) {1.000}	2915
Feeling bad about yourself	0.88 (0.85)	0.008 (0.026) {1.000}	2915
Trouble concentrating	0.75 (0.79)	-0.001 (0.023) {1.000}	2914
Moving or speaking so slowly that other people could notice or being fidgety/restless	0.42 (0.63)	-0.021 (0.020) {1.000}	2914
Thoughts that you would be better off dead or hurting yourself	0.30 (0.57)	-0.024 (0.018) {1.000}	2912

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows. The standard error is reported in parentheses. The FDR-adjusted q-value is reported in brackets.

Table A11: Impact of Guaranteed Income on Alternative Measures of Physical Health

	Control Mean	Estimated Effect	N
Health is very good or excellent	0.40 (0.40)	-0.013 (0.012) {1.000}	2983
No health limitations for moderate activities or climbing stairs	0.63 (0.39)	-0.000 (0.011) {1.000}	2922
Pain interferes not at all or only a little bit	0.73 (0.33)	0.014 (0.010) {1.000}	2922
Physical/emotional problems interfere “none of the time” or “a little bit”	0.37 (0.36)	-0.008 (0.011) {1.000}	2921
Diagnosed with COVID	0.32 (0.42)	0.021 (0.016) {1.000}	2964
Hospitalized due to COVID	0.01 (0.10)	-0.001 (0.004) {1.000}	2937

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows. The standard error is reported in parentheses. The FDR-adjusted q-value is reported in brackets.

Table A12: Impact of Guaranteed Income on Additional Clinical Biomarkers

	Control Mean	Estimated Effect	N
C-reactive protein	4.90 (7.12)	-0.281 (0.377) {1.000}	1138
C-reactive protein in High Range	0.42 (0.49)	-0.014 (0.027) {1.000}	1138
Triglycerides	123.50 (77.19)	0.992 (4.690) {1.000}	1140
Diabetes Risk Index	45.78 (18.38)	0.524 (1.093) {1.000}	1044
Non-HDL Cholesterol	131.97 (37.97)	1.232 (2.261) {1.000}	1139

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows. The standard error is reported in parentheses. The FDR-adjusted q-value is reported in brackets.

Table A13: Impact of Guaranteed Income on Insurance Type

	Control Mean	Estimated Effect	N
Employer-sponsored insurance	0.36 (0.48)	-0.017 (0.016) {1.000}	2836
Medicaid	0.29 (0.45)	0.024 (0.014) {1.000}	2839
Exchange plan	0.10 (0.30)	0.036 (0.013) {1.000}	2829
Insurance through college/school	0.01 (0.10)	0.001 (0.004) {1.000}	2859
Spousal insurance	0.08 (0.27)	-0.004 (0.009) {1.000}	2840
Military or veterans' insurance	0.02 (0.13)	-0.004 (0.003) {1.000}	2841
Other insurance source (incl. dependent coverage)	0.02 (0.15)	0.008 (0.006) {1.000}	2841

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows. The standard error is reported in parentheses. The FDR-adjusted q-value is reported in brackets.

Table A14: Impact of Guaranteed Income on USDA Food Security Scale Subcomponents

	Control Mean	Estimated Effect	N
Food insecure	0.48 (0.42)	-0.011 (0.013) {1.000}	2955
Very low food security	0.26 (0.37)	0.009 (0.012) {1.000}	2955
I worry about whether food would run out	0.55 (0.57)	-0.009 (0.017) {1.000}	2955
The food I bought didn't last	0.50 (0.56)	0.012 (0.017) {1.000}	2954
Can't afford to eat balanced meals	0.61 (0.60)	0.021 (0.018) {1.000}	2954
Cut the size of meals or skipped meals	0.33 (0.39)	0.007 (0.012) {1.000}	2954
Ate less than I should because there wasn't enough money for food	0.33 (0.39)	0.005 (0.012) {1.000}	2954

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows. The standard error is reported in parentheses. The FDR-adjusted q-value is reported in brackets.

Table A15: Impact of Guaranteed Income on Subjective Well-Being

	Control Mean	Treatment Effect	N
Subjective Wellbeing Index		-0.00 (0.02) [1.000]	2989
Domain Satisfaction Component		0.01 (0.02) [1.000]	2921
Level of satisfaction with life as a whole currently (0-10 scale)	6.89 (1.78)	-0.04 (0.05) [1.000]	2980
Affect balance	5.53 (8.04)	0.01 (0.21) [1.000]	2913

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows. The standard error is reported in parentheses. The FDR-adjusted q-value is reported in brackets. This table is reproduced from Vivalt et al. 2025.

Table A16: Impact of Guaranteed Income on Self-Reported Mental Health by Baseline Insurance Status

	Control Mean	Main Estimate	Insured	Uninsured
Mental health index		-0.011 (0.021)	0.002 (0.025)	-0.036 (0.040)
Emotional problems' interference with daily life		{0.846}	{1.000}	{1.000}
		-0.015 (0.025)	-0.008 (0.029)	-0.047 (0.046)
		{1.000}	{1.000}	{1.000}
Accomplish less than you would like (1=All of the time, ..., 5=None of the time)	3.62 (0.97)	-0.019 (0.027)	-0.014 (0.032)	-0.045 (0.053)
		{1.000}	{1.000}	{1.000}
Did work or activities less carefully (1=All of the time, ..., 5=None of the time)	3.87 (0.88)	0.002 (0.026)	0.010 (0.030)	-0.025 (0.048)
		{1.000}	{1.000}	{1.000}
Interfered with social activities (1=All of the time, ..., 5=None of the time)	3.80 (0.93)	-0.026 (0.027)	-0.020 (0.032)	-0.059 (0.050)
		{1.000}	{1.000}	{1.000}
<u>Kessler 6 mental distress scale</u> (0=Least mental distress,... 24=Most mental distress)	6.25 (4.51)	-0.052 (0.124)	-0.144 (0.142)	0.129 (0.237)
		{1.000}	{1.000}	{1.000}
<u>Perceived stress scale</u> (0=Least stress, ... 40=Most stress)	18.58 (6.60)	-0.018 (0.180)	-0.142 (0.210)	0.185 (0.345)
		{1.000}	{1.000}	{1.000}
<u>Generalized anxiety disorder scale</u> (0=Least anxiety, ... 6=Most anxiety)	2.00 (1.50)	0.018 (0.042)	-0.004 (0.048)	0.055 (0.084)
		{1.000}	{1.000}	{1.000}
<u>Depression scale, PHQ-9</u> (0=Least depressed, ... 27=Most depressed)	7.21 (5.68)	0.133 (0.157)	0.059 (0.184)	0.124 (0.312)
		{1.000}	{1.000}	{1.000}
<u>Days mental health good of last 30</u>	23.20 (7.37)	-0.242 (0.215)	-0.196 (0.255)	-0.382 (0.401)
		{1.000}	{1.000}	{1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who were insured vs uninsured at baseline, as labeled. In brackets we report 95% confidence intervals. FDR-adjusted q-values are reported in braces.

Table A17: Impact of Guaranteed Income on Self-Reported Physical Health by Baseline Insurance Status

	Control Mean	Main Estimate	Insured	Uninsured
Self-Reported Physical Health Index		-0.019 (0.020)	-0.016 (0.023)	-0.044 (0.039)
# Days Physical Health Good of Last 30	26.11 (5.55)	{0.579} -0.383 (0.174)	{1.000} -0.237 (0.206)	{1.000} -0.698 (0.329)
Health Rating (1=Poor, ..., 5=Excellent)	3.22 (0.92)	{0.244} -0.034 (0.025)	{1.000} -0.048 (0.029)	{1.000} -0.027 (0.046)
Health is not limiting		{0.254} 0.015 (0.022)	{1.000} 0.019 (0.025)	{1.000} 0.008 (0.041)
Health limitations of moderate activities (1=Limited a lot, ..., 3=Not limited at all)	2.69 (0.46)	{0.370} 0.016 (0.013)	{1.000} 0.015 (0.015)	{1.000} 0.037 (0.024)
Health limitations of climbing several stairs (1=Limited a lot, ..., 3=Not limited at all)	2.59 (0.53)	{0.491} 0.007 (0.015)	{1.000} 0.002 (0.017)	{1.000} 0.010 (0.027)
Accomplished less due to physical health (1=All of the time, ..., 5=None of the time)	3.88 (0.92)	{0.577} 0.014 (0.026)	{1.000} 0.017 (0.030)	{1.000} -0.021 (0.050)
Limited in work/ other activities due to physical health (1=All of the time, ..., 5=None of the time)	4.08 (0.93)	{0.577} 0.036 (0.025)	{1.000} 0.057 (0.029)	{1.000} 0.020 (0.051)
Health interference with social activities (1=All of the time, ..., 5=None of the time)	3.80 (0.93)	{0.467} -0.026 (0.027)	{1.000} -0.020 (0.032)	{1.000} -0.059 (0.050)
Pain interference with normal work (1=Extremely, ..., 5=Not at all)	4.03 (0.89)	{0.577} 0.015 (0.025)	{1.000} 0.008 (0.029)	{1.000} 0.001 (0.046)
		{0.370}	{1.000}	{1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who were insured vs uninsured at baseline, as labeled. In brackets we report 95% confidence intervals. FDR-adjusted q-values are reported in braces.

Table A18: Impact of Guaranteed Income on Healthcare Access by Baseline Insurance Status

	Control Mean	Main Estimate	Insured	Uninsured
Healthcare Access Index		0.000 (0.017)	0.014 (0.019)	-0.019 (0.032)
		{1.000}	{1.000}	{1.000}
<u>Has insurance coverage</u>	0.78 (0.37)	0.013 (0.012)	0.015 (0.012)	0.011 (0.028)
		{1.000}	{1.000}	{1.000}
<u>Health Care Related Financial Strain</u>		-0.019 (0.021)	-0.016 (0.026)	0.004 (0.036)
		{1.000}	{1.000}	{1.000}
Worry over medical costs (0=Very worried, ..., 3=Not worried at all)	2.00 (0.80)	-0.067 (0.025)	-0.067 (0.029)	-0.017 (0.048)
		{0.319}	{1.000}	{1.000}
Did not skip other bills to pay for health care	0.94 (0.20)	0.005 (0.007)	0.007 (0.008)	0.002 (0.013)
		{1.000}	{1.000}	{1.000}
Medical debt (\$, from Credit Report)	587.52 (2422.50)	-10.903 (74.054)	-6.889 (77.356)	-70.389 (186.000)
		{1.000}	{1.000}	{1.000}
<u>Needed Care Access</u>		-0.023 (0.020)	-0.000 (0.023)	-0.055 (0.038)
		{1.000}	{1.000}	{1.000}
Does not report ER as usual source of care	0.94 (0.20)	0.002 (0.007)	0.002 (0.006)	-0.009 (0.017)
		{1.000}	{1.000}	{1.000}
Did not skip medical care due to costs	0.84 (0.27)	0.000 (0.009)	0.003 (0.009)	-0.002 (0.019)
		{1.000}	{1.000}	{1.000}
Did not skip mental health care due to costs	0.82 (0.31)	-0.008 (0.011)	0.004 (0.012)	-0.022 (0.022)
		{1.000}	{1.000}	{1.000}
Did not skip dental care due to costs	0.74 (0.35)	-0.018 (0.011)	-0.004 (0.012)	-0.034 (0.021)
		{1.000}	{1.000}	{1.000}
Did not use alternative therapies to save money	0.93 (0.22)	-0.011 (0.008)	-0.006 (0.009)	-0.018 (0.016)
		{1.000}	{1.000}	{1.000}
<u>Prescription Drug Access</u>		0.007 (0.028)	0.023 (0.031)	-0.049 (0.056)
		{1.000}	{1.000}	{1.000}
Did not skip doses to save money	0.93 (0.22)	-0.000 (0.008)	0.001 (0.009)	-0.004 (0.016)
		{1.000}	{1.000}	{1.000}
Did not delay refilling to save money	0.92 (0.23)	0.001 (0.008)	-0.000 (0.009)	-0.009 (0.016)
		{1.000}	{1.000}	{1.000}
Did not ask doctor for lower cost medications	0.89 (0.27)	0.004 (0.009)	0.018 (0.011)	-0.022 (0.017)
		{1.000}	{1.000}	{1.000}
Expenditures on insurance premiums	1162.49 (1754.63)	21.285 (56.700)	89.946 (70.357)	-186.213 (91.552)
		{1.000}	{1.000}	{1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who were insured vs uninsured at baseline, as labeled. In brackets we report 95% confidence intervals. FDR-adjusted q-values are reported in braces.

Table A19: Impact of Guaranteed Income on Use of Office-Based Care by Baseline Insurance Status

	Control Mean	Main Estimate	Insured	Uninsured
Office Care Index		0.035 (0.016) {0.224}	0.036 (0.018) {0.659}	0.042 (0.030) {0.944}
<u>Primary Care</u>		0.013 (0.022) {0.355}	0.034 (0.026) {0.967}	-0.025 (0.042) {1.000}
Any primary care visit in last 12 mos	0.61 (0.43)	0.005 (0.014) {0.670}	0.006 (0.016) {1.000}	0.007 (0.027) {1.000}
Number of office visits last 12 mos	3.45 (4.38)	0.287 (0.153) {0.403}	0.333 (0.191) {0.769}	0.203 (0.242) {1.000}
Has usual place of care other than ER	0.80 (0.35)	-0.007 (0.012) {0.646}	0.010 (0.012) {1.000}	-0.043 (0.027) {0.781}
Has personal doctor or health provider	0.56 (0.44)	-0.004 (0.014) {0.688}	0.006 (0.017) {1.000}	-0.032 (0.026) {0.972}
<u>Specialist and Surgical Care</u>		0.034 (0.023) {0.200}	0.031 (0.026) {0.972}	0.049 (0.043) {0.983}
Any specialist visit last 12 mos	0.42 (0.43)	0.026 (0.015) {0.403}	0.037 (0.018) {0.577}	0.013 (0.025) {1.000}
Any surgery last 12 mos	0.11 (0.23)	-0.001 (0.008) {0.689}	-0.010 (0.010) {1.000}	0.015 (0.014) {0.988}
Any mental health care visit last 12 mos	0.22 (0.36)	0.017 (0.012) {0.416}	0.017 (0.014) {0.972}	0.010 (0.018) {1.000}
<u>Dental Care</u>		0.082 (0.033) {0.112}	0.096 (0.039) {0.407}	0.069 (0.059) {0.972}
Any dentist visit last 12 mos	0.48 (0.44)	0.048 (0.016) {0.116}	0.052 (0.019) {0.250}	0.035 (0.027) {0.972}
Number of dentist visits last 12 mos	1.35 (2.10)	0.115 (0.085) {0.464}	0.158 (0.100) {0.820}	0.113 (0.151) {1.000}
<u>Preventive Care</u>		-0.030 (0.023) {0.200}	-0.047 (0.027) {0.769}	0.034 (0.044) {1.000}
Flu shot or nasal spray	0.31 (0.43)	-0.002 (0.013) {0.689}	-0.005 (0.017) {1.000}	0.007 (0.021) {1.000}
Cholesterol test	0.42 (0.44)	-0.007 (0.015) {0.661}	-0.020 (0.017) {0.983}	0.026 (0.026) {1.000}
PAP test (women only)	0.52 (0.43)	-0.030 (0.019) {0.416}	-0.035 (0.022) {0.781}	0.008 (0.036) {1.000}
Had COVID vaccine*	0.64 (0.47)	-0.037 (0.016) {0.460}	-0.054 (0.018) {0.228}	-0.001 (0.030) {1.000}
<u>Medical care spending</u>	155.23 (283.62)	21.731 (10.389) {0.112}	17.698 (11.750) {0.886}	25.592 (20.635) {0.972}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who were insured vs uninsured at baseline, as labeled. In brackets we report 95% confidence intervals. FDR-adjusted q-values are reported in braces.

Table A20: Impact of Guaranteed Income on Use of Hospital and ED Care by Baseline Insurance Status

	Control Mean	Main Estimate	Insured	Uninsured
Hospital care index		0.074 (0.029) {0.224}	0.091 (0.034) {0.125}	0.080 (0.049) {0.256}
<u>Emergency Department Care</u>		0.083 (0.032) {0.031}	0.112 (0.038) {0.125}	0.077 (0.059) {0.289}
Any ED visit	0.24 (0.34)	0.027 (0.012) {0.074}	0.036 (0.014) {0.125}	0.015 (0.021) {0.391}
Number of ED visits	0.58 (1.30)	0.112 (0.050) {0.074}	0.160 (0.064) {0.125}	0.119 (0.077) {0.263}
<u>Hospital Care</u>		0.066 (0.035) {0.052}	0.069 (0.041) {0.246}	0.084 (0.058) {0.275}
Any hospitalization	0.10 (0.22)	0.013 (0.008) {0.098}	0.014 (0.010) {0.278}	0.016 (0.013) {0.299}
Number of hospitalizations	0.23 (0.72)	0.053 (0.028) {0.083}	0.054 (0.033) {0.256}	0.066 (0.049) {0.278}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who were insured vs uninsured at baseline, as labeled. In brackets we report 95% confidence intervals. FDR-adjusted q-values are reported in braces.

Table A21: Impact of Guaranteed Income on Food Security and Nutrition by Baseline Insurance Status

	Control Mean	Main Estimate	Insured	Uninsured
Nutrition and food security index		0.003 (0.018)	0.018 (0.021)	-0.040 (0.032)
		{1.000}	{1.000}	{1.000}
Food Security Scale	3.77 (2.10)	-0.013 (0.063)	0.051 (0.074)	-0.194 (0.118)
(0=Least secure, ... 6=Most secure)		{1.000}	{1.000}	{1.000}
Diet behavior		0.013 (0.020)	0.011 (0.023)	0.011 (0.033)
		{1.000}	{1.000}	{1.000}
Health Eating Index	44.83 (9.68)	0.565 (0.335)	0.540 (0.395)	0.698 (0.631)
(0=Least healthy, ... 100=Most healthy)		{1.000}	{1.000}	{1.000}
# of times eating at fast food establishment last week	6.21 (5.74)	0.274 (0.180)	0.385 (0.210)	0.039 (0.320)
		{1.000}	{1.000}	{1.000}
# times drinking regular soda containing sugar last week	4.80 (6.50)	-0.181 (0.180)	-0.297 (0.204)	0.200 (0.346)
		{1.000}	{1.000}	{1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who were insured vs uninsured at baseline, as labeled. In brackets we report 95% confidence intervals. FDR-adjusted q-values are reported in braces.

Table A22: Impact of Guaranteed Income on Health Investments by Baseline Insurance Status

	Control Mean	Main Estimate	Insured	Uninsured
Health investments index		-0.028 (0.015)	-0.011 (0.017)	-0.040 (0.029)
<u>Physical activity</u>		{0.224}	{0.775}	{0.469}
		-0.026 (0.023)	-0.008 (0.027)	-0.044 (0.043)
		{0.141}	{0.894}	{0.618}
Time in physical activity/recreation (survey, hours/day)	0.84 (0.94)	-0.082 (0.031)	-0.070 (0.035)	-0.097 (0.062)
		{0.052}	{0.331}	{0.383}
Time in physical activity/recreation (time diary, min/day)	12.46 (23.90)	-0.179 (0.855)	0.524 (1.041)	-1.398 (1.793)
		{0.534}	{0.826}	{0.742}
# of Times Exercising Last Month	7.56 (8.14)	0.128 (0.272)	0.243 (0.314)	0.131 (0.524)
		{0.407}	{0.742}	{0.965}
<u>Sleep</u>		-0.030 (0.018)	-0.013 (0.021)	-0.035 (0.035)
		{0.124}	{0.775}	{0.622}
Sleep amount (survey, hours/day)	6.24 (1.75)	0.028 (0.053)	0.059 (0.061)	0.039 (0.104)
		{0.407}	{0.678}	{0.861}
Sleep amount (time diary, min/day)	535.94 (133.62)	-7.733 (4.004)	-9.342 (4.428)	-3.558 (8.718)
		{0.124}	{0.331}	{0.836}
Sleep quality	2.67 (0.54)	-0.026 (0.016)	0.000 (0.018)	-0.057 (0.031)
(1=Very bad,... 4=Very good)		{0.153}	{1.000}	{0.331}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who were insured vs uninsured at baseline, as labeled. In brackets we report 95% confidence intervals. FDR-adjusted q-values are reported in braces.

Table A23: Impact of Guaranteed Income on Unhealthy Behaviors by Baseline Insurance Status

	Control Mean	Main Estimate	Insured	Uninsured
Lack of unhealthy behaviors index		0.013 (0.014) {0.579}	-0.005 (0.018) {1.000}	0.052 (0.022) {1.000}
<u>Alcohol use and interference</u>		0.010 (0.026) {1.000}	-0.024 (0.032) {1.000}	0.059 (0.040) {1.000}
Total number of drinks (last 30 days)	9.56 (20.42)	0.978 (0.789) {0.848}	1.805 (0.932) {1.000}	-0.616 (1.341) {1.000}
Days not drinking alcohol (of last 30)	27.24 (4.79)	-0.322 (0.178) {1.000}	-0.439 (0.220) {1.000}	0.247 (0.286) {1.000}
Days not drinking 4+ drinks (of last 30)	29.03 (2.65)	-0.116 (0.109) {0.848}	-0.251 (0.131) {1.000}	0.096 (0.177) {1.000}
Drinking/hangovers interfered with responsibilities (12 mos) (0=Daily or Almost Daily, ... 4=Never)	3.89 (0.35)	0.020 (0.010) {0.693}	0.009 (0.012) {1.000}	0.037 (0.021) {1.000}
Drinking caused arguments/serious problems with others (12 mos) (0=Daily or Almost Daily, ... 4=Never)	3.92 (0.30)	0.009 (0.009) {0.848}	0.002 (0.011) {1.000}	0.021 (0.017) {1.000}
Under the influence in a situation where you could get hurt (12 mos) (0=Daily or Almost Daily, ... 4=Never)	3.93 (0.29)	0.016 (0.009) {0.693}	0.009 (0.009) {1.000}	0.029 (0.019) {1.000}
<u>Smoking behavior</u>		0.020 (0.020) {1.000}	0.014 (0.024) {1.000}	0.048 (0.034) {1.000}
Does not use tobacco products	0.75 (0.39)	-0.000 (0.010) {1.000}	-0.003 (0.012) {1.000}	0.024 (0.017) {1.000}
Does not smoke cigarettes daily	0.83 (0.34)	0.013 (0.008) {0.764}	0.010 (0.010) {1.000}	0.028 (0.016) {1.000}
Number of cigarettes smoked on typical day	1.51 (3.85)	-0.082 (0.093) {0.848}	-0.083 (0.109) {1.000}	-0.041 (0.176) {1.000}
<u>Drug use</u>		0.008 (0.019) {1.000}	-0.006 (0.024) {1.000}	0.048 (0.032) {1.000}
Days not using marijuana (of last 30)	25.92 (8.38)	0.022 (0.278) {1.000}	-0.059 (0.326) {1.000}	0.403 (0.515) {1.000}
Days not using painkillers not prescribed to you (of last 30)	29.88 (1.23)	0.073 (0.031) {0.460}	0.067 (0.039) {1.000}	0.111 (0.062) {1.000}
Days not using illegal drugs (of last 30)	29.76 (1.83)	0.019 (0.063) {1.000}	0.033 (0.070) {1.000}	-0.037 (0.134) {1.000}
Days not using sedatives not prescribed to you (of last 30)	29.92 (0.75)	-0.029 (0.030) {0.848}	-0.049 (0.040) {1.000}	0.038 (0.041) {1.000}
No illegal drug use in past 30 days	0.89 (0.25)	0.002 (0.009) {1.000}	-0.007 (0.010) {1.000}	0.026 (0.018) {1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who were insured vs uninsured at baseline, as labeled. In brackets we report 95% confidence intervals. FDR-adjusted q-values are reported in braces.

Table A24: Impact of Guaranteed Income on Self-Reported Mental Health by Baseline Household Income

	Control Mean	Main Estimate	100% FPL+	Under 100% FPL
Mental health index		-0.011 (0.021)	-0.005 (0.025)	-0.005 (0.038)
Emotional problems' interference with daily life		{0.846}	{1.000}	{1.000}
		-0.015 (0.025)	-0.005 (0.030)	-0.012 (0.043)
		{1.000}	{1.000}	{1.000}
Accomplish less than you would like (1=All of the time, ..., 5=None of the time)	3.62 (0.97)	-0.019 (0.027)	-0.026 (0.032)	0.020 (0.050)
		{1.000}	{1.000}	{1.000}
Did work or activities less carefully (1=All of the time, ..., 5=None of the time)	3.87 (0.88)	0.002 (0.026)	0.012 (0.030)	0.002 (0.047)
		{1.000}	{1.000}	{1.000}
Interfered with social activities (1=All of the time, ..., 5=None of the time)	3.80 (0.93)	-0.026 (0.027)	-0.001 (0.033)	-0.054 (0.047)
		{1.000}	{1.000}	{1.000}
<u>Kessler 6 mental distress scale</u> (0=Least mental distress,... 24=Most mental distress)	6.25 (4.51)	-0.052 (0.124)	-0.091 (0.143)	0.051 (0.228)
		{1.000}	{1.000}	{1.000}
<u>Perceived stress scale</u> (0=Least stress, ... 40=Most stress)	18.58 (6.60)	-0.018 (0.180)	-0.090 (0.224)	0.034 (0.335)
		{1.000}	{1.000}	{1.000}
<u>Generalized anxiety disorder scale</u> (0=Least anxiety, ... 6=Most anxiety)	2.00 (1.50)	0.018 (0.042)	-0.011 (0.050)	0.028 (0.077)
		{1.000}	{1.000}	{1.000}
<u>Depression scale, PHQ-9</u> (0=Least depressed, ... 27=Most depressed)	7.21 (5.68)	0.133 (0.157)	0.233 (0.190)	-0.007 (0.282)
		{1.000}	{1.000}	{1.000}
<u>Days mental health good of last 30</u>	23.20 (7.37)	-0.242 (0.215)	-0.173 (0.254)	0.100 (0.395)
		{1.000}	{1.000}	{1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants whose household income was below vs at or above 100% of the FPL at baseline, as labeled. In brackets we report 95% confidence intervals. FDR-adjusted q-values are reported in braces.

Table A25: Impact of Guaranteed Income on Self-Reported Physical Health by Baseline Household Income

	Control Mean	Main Estimate	100% FPL+	Under 100% FPL
Self-Reported Physical Health Index		-0.019 (0.020)	0.000 (0.024)	-0.066 (0.036)
# Days Physical Health Good of Last 30	26.11 (5.55)	-0.383 (0.174) {0.579}	-0.267 (0.193) {1.000}	-0.536 (0.349) {1.000}
Health Rating (1=Poor, ..., 5=Excellent)	3.22 (0.92)	-0.034 (0.025) {0.244}	-0.043 (0.029) {1.000}	-0.040 (0.046) {1.000}
Health is not limiting		0.015 (0.022) {0.370}	0.035 (0.027) {1.000}	-0.045 (0.038) {1.000}
Health limitations of moderate activities (1=Limited a lot, ..., 3=Not limited at all)	2.69 (0.46)	0.016 (0.013) {0.491}	0.024 (0.015) {1.000}	-0.019 (0.026) {1.000}
Health limitations of climbing several stairs (1=Limited a lot, ..., 3=Not limited at all)	2.59 (0.53)	0.007 (0.015) {0.577}	0.008 (0.017) {1.000}	-0.025 (0.027) {1.000}
Accomplished less due to physical health (1=All of the time, ..., 5=None of the time)	3.88 (0.92)	0.014 (0.026) {0.577}	0.031 (0.031) {1.000}	-0.057 (0.048) {1.000}
Limited in work / other activities due to physical health (1=All of the time, ..., 5=None of the time)	4.08 (0.93)	0.036 (0.025) {0.467}	0.065 (0.031) {1.000}	-0.025 (0.048) {1.000}
Health interference with social activities (1=All of the time, ..., 5=None of the time)	3.80 (0.93)	-0.026 (0.027) {0.577}	-0.001 (0.033) {1.000}	-0.054 (0.047) {1.000}
Pain interference with normal work (1=Extremely, ..., 5=Not at all)	4.03 (0.89)	0.015 (0.025) {0.370}	0.056 (0.030) {1.000}	-0.082 (0.046) {1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants whose household income was below vs at or above 100% of the FPL at baseline, as labeled. In brackets we report 95% confidence intervals. FDR-adjusted q-values are reported in braces.

Table A26: Impact of Guaranteed Income on Healthcare Access by Baseline Household Income

	Control Mean	Main Estimate	100% FPL+	Under 100% FPL
Healthcare Access Index		0.000 (0.017)	0.025 (0.019)	-0.052 (0.030)
		{1.000}	{1.000}	{1.000}
<u>Has insurance coverage</u>	0.78 (0.37)	0.013 (0.012)	0.025 (0.015)	-0.015 (0.022)
		{1.000}	{1.000}	{1.000}
<u>Health Care Related Financial Strain</u>		-0.019 (0.021)	0.016 (0.024)	-0.091 (0.041)
		{1.000}	{1.000}	{1.000}
Worry over medical costs (0=Very worried,..., 3=Not worried at all)	2.00 (0.80)	-0.067 (0.025)	-0.049 (0.031)	-0.105 (0.043)
		{0.319}	{1.000}	{1.000}
Did not skip other bills to pay for health care	0.94 (0.20)	0.005 (0.007)	0.017 (0.008)	-0.019 (0.013)
		{1.000}	{1.000}	{1.000}
Medical debt (\$, from Credit Report)	587.52 (2422.50)	-10.903 (74.054)	-74.337 (90.279)	105.613 (148.000)
		{1.000}	{1.000}	{1.000}
<u>Needed Care Access</u>		-0.023 (0.020)	-0.015 (0.024)	-0.039 (0.035)
		{1.000}	{1.000}	{1.000}
Does not report ER as usual source of care	0.94 (0.20)	0.002 (0.007)	0.003 (0.007)	-0.006 (0.014)
		{1.000}	{1.000}	{1.000}
Did not skip medical care due to costs	0.84 (0.27)	0.000 (0.009)	0.000 (0.011)	-0.003 (0.014)
		{1.000}	{1.000}	{1.000}
Did not skip mental health care due to costs	0.82 (0.31)	-0.008 (0.011)	-0.000 (0.013)	-0.021 (0.019)
		{1.000}	{1.000}	{1.000}
Did not skip dental care due to costs	0.74 (0.35)	-0.018 (0.011)	-0.015 (0.013)	-0.011 (0.019)
		{1.000}	{1.000}	{1.000}
Did not use alternative therapies to save money	0.93 (0.22)	-0.011 (0.008)	-0.011 (0.010)	-0.013 (0.014)
		{1.000}	{1.000}	{1.000}
<u>Prescription Drug Access</u>		0.007 (0.028)	0.029 (0.033)	-0.040 (0.051)
		{1.000}	{1.000}	{1.000}
Did not skip doses to save money	0.93 (0.22)	-0.000 (0.008)	0.008 (0.009)	-0.014 (0.014)
		{1.000}	{1.000}	{1.000}
Did not delay refilling to save money	0.92 (0.23)	0.001 (0.008)	0.005 (0.010)	-0.003 (0.014)
		{1.000}	{1.000}	{1.000}
Did not ask doctor for lower cost medications	0.89 (0.27)	0.004 (0.009)	0.008 (0.011)	-0.012 (0.017)
		{1.000}	{1.000}	{1.000}
Expenditures on insurance premiums	1162.49 (1754.63)	21.285 (56.700)	12.198 (78.593)	25.433 (73.944)
		{1.000}	{1.000}	{1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants whose household income was below vs at or above 100% of the FPL at baseline, as labeled. In brackets we report 95% confidence intervals. FDR-adjusted q-values are reported in braces.

Table A27: Impact of Guaranteed Income on Use of Office-Based Care by Baseline Household Income

	Control Mean	Main Estimate	100% FPL+	Under 100% FPL
Office Care Index		0.035 (0.016) {0.224}	0.038 (0.020) {0.659}	0.039 (0.025) {0.886}
<u>Primary Care</u>		0.013 (0.022) {0.355}	0.022 (0.027) {1.000}	-0.027 (0.038) {1.000}
Any primary care visit in last 12 mos	0.61 (0.43)	0.005 (0.014) {0.670}	0.024 (0.017) {0.953}	-0.028 (0.024) {0.974}
Number of office visits last 12 mos	3.45 (4.38)	0.287 (0.153) {0.403}	0.216 (0.187) {0.983}	0.330 (0.276) {0.972}
Has usual place of care other than ER	0.80 (0.35)	-0.007 (0.012) {0.646}	-0.004 (0.014) {1.000}	-0.031 (0.021) {0.911}
Has personal doctor or health provider	0.56 (0.44)	-0.004 (0.014) {0.688}	-0.002 (0.017) {1.000}	-0.016 (0.025) {1.000}
<u>Specialist and Surgical Care</u>		0.034 (0.023) {0.200}	0.049 (0.028) {0.769}	0.017 (0.037) {1.000}
Any specialist visit last 12 mos	0.42 (0.43)	0.026 (0.015) {0.403}	0.033 (0.018) {0.769}	0.031 (0.024) {0.967}
Any surgery last 12 mos	0.11 (0.23)	-0.001 (0.008) {0.689}	0.004 (0.011) {1.000}	-0.012 (0.014) {1.000}
Any mental health care visit last 12 mos	0.22 (0.36)	0.017 (0.012) {0.416}	0.019 (0.015) {0.967}	0.008 (0.021) {1.000}
<u>Dental Care</u>		0.082 (0.033) {0.112}	0.058 (0.042) {0.953}	0.151 (0.056) {0.250}
Any dentist visit last 12 mos	0.48 (0.44)	0.048 (0.016) {0.116}	0.045 (0.020) {0.516}	0.075 (0.028) {0.250}
Number of dentist visits last 12 mos	1.35 (2.10)	0.115 (0.085) {0.464}	0.027 (0.103) {1.000}	0.318 (0.160) {0.659}
<u>Preventive Care</u>		-0.030 (0.023) {0.200}	-0.020 (0.029) {1.000}	-0.039 (0.037) {0.988}
Flu shot or nasal spray	0.31 (0.43)	-0.002 (0.013) {0.689}	-0.009 (0.017) {1.000}	0.004 (0.023) {1.000}
Cholesterol test	0.42 (0.44)	-0.007 (0.015) {0.661}	-0.021 (0.018) {0.984}	0.007 (0.024) {1.000}
PAP test (women only)	0.52 (0.43)	-0.030 (0.019) {0.416}	0.003 (0.024) {1.000}	-0.062 (0.029) {0.529}
Had COVID vaccine*	0.64 (0.47)	-0.037 (0.016) {0.460}	-0.033 (0.020) {0.769}	-0.027 (0.028) {1.000}
<u>Medical care spending</u>	155.23 (283.62)	21.731 (10.389) {0.112}	23.965 (13.776) {0.769}	24.501 (16.049) {0.886}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants whose household income was below vs at or above 100% of the FPL at baseline, as labeled. In brackets we report 95% confidence intervals. FDR-adjusted q-values are reported in braces.

Table A28: Impact of Guaranteed Income on Use of Hospital and ED Care by Baseline Household Income

	Control Mean	Main Estimate	100% FPL+	Under 100% FPL
Hospital care index		0.074 (0.029) {0.224}	0.077 (0.037) {0.209}	0.065 (0.046) {0.278}
<u>Emergency Department Care</u>		0.083 (0.032) {0.031}	0.076 (0.043) {0.230}	0.099 (0.053) {0.222}
Any ED visit	0.24 (0.34)	0.027 (0.012) {0.074}	0.019 (0.014) {0.278}	0.038 (0.021) {0.230}
Number of ED visits	0.58 (1.30)	0.112 (0.050) {0.074}	0.112 (0.066) {0.239}	0.130 (0.090) {0.275}
<u>Hospital Care</u>		0.066 (0.035) {0.052}	0.078 (0.045) {0.236}	0.031 (0.057) {0.427}
Any hospitalization	0.10 (0.22)	0.013 (0.008) {0.098}	0.014 (0.010) {0.278}	0.006 (0.015) {0.459}
Number of hospitalizations	0.23 (0.72)	0.053 (0.028) {0.083}	0.050 (0.028) {0.230}	0.036 (0.062) {0.414}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants whose household income was below vs at or above 100% of the FPL at baseline, as labeled. In brackets we report 95% confidence intervals. FDR-adjusted q-values are reported in braces.

Table A29: Impact of Guaranteed Income on Food Security and Nutrition by Baseline Household Income

	Control Mean	Main Estimate	100% FPL+	Under 100% FPL
Nutrition and food security index		0.003 (0.018)	0.019 (0.022)	-0.041 (0.031)
Food Security Scale		{1.000}	{1.000}	{1.000}
<i>(0=Least secure, ... 6=Most secure)</i>	3.77 (2.10)	-0.013 (0.063)	0.015 (0.075)	-0.163 (0.115)
Diet behavior		{1.000}	{1.000}	{1.000}
		0.013 (0.020)	0.031 (0.024)	-0.008 (0.032)
		{1.000}	{1.000}	{1.000}
Health Eating Index	44.83 (9.68)	0.565 (0.335)	0.572 (0.422)	0.334 (0.548)
<i>(0=Least healthy, ... 100=Most healthy)</i>		{1.000}	{1.000}	{1.000}
# of times eating at fast food establishment last week	6.21 (5.74)	0.274 (0.180)	-0.011 (0.232)	0.450 (0.290)
		{1.000}	{1.000}	{1.000}
# times drinking regular soda containing sugar last week	4.80 (6.50)	-0.181 (0.180)	-0.202 (0.207)	-0.141 (0.338)
		{1.000}	{1.000}	{1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants whose household income was below vs at or above 100% of the FPL at baseline, as labeled. In brackets we report 95% confidence intervals. FDR-adjusted q-values are reported in braces.

Table A30: Impact of Guaranteed Income on Health Investments by Baseline Household Income

	Control Mean	Main Estimate	100% FPL+	Under 100% FPL
Health investments index		-0.028 (0.015)	-0.035 (0.019)	-0.032 (0.023)
<u>Physical activity</u>		{0.224}	{0.331}	{0.474}
		-0.026 (0.023)	-0.040 (0.029)	-0.022 (0.036)
		{0.141}	{0.473}	{0.775}
Time in physical activity / recreation (survey, hours / day)	0.84 (0.94)	-0.082 (0.031)	-0.098 (0.039)	-0.104 (0.055)
		{0.052}	{0.183}	{0.331}
Time in physical activity / recreation (time diary, min / day)	12.46 (23.90)	-0.179 (0.855)	0.567 (1.078)	-1.539 (1.401)
		{0.534}	{0.825}	{0.589}
# of Times Exercising Last Month	7.56 (8.14)	0.128 (0.272)	-0.330 (0.319)	0.772 (0.475)
		{0.407}	{0.618}	{0.383}
<u>Sleep</u>		-0.030 (0.018)	-0.031 (0.023)	-0.041 (0.031)
		{0.124}	{0.482}	{0.482}
Sleep amount (survey, hours / day)	6.24 (1.75)	0.028 (0.053)	0.045 (0.060)	-0.009 (0.100)
		{0.407}	{0.742}	{1.000}
Sleep amount (time diary, min / day)	535.94 (133.62)	-7.733 (4.004)	-11.147 (4.384)	-3.978 (8.329)
		{0.124}	{0.183}	{0.826}
Sleep quality	2.67 (0.54)	-0.026 (0.016)	-0.013 (0.019)	-0.051 (0.028)
(1= <i>Very bad</i> ,... 4= <i>Very good</i>)		{0.153}	{0.763}	{0.331}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants whose household income was below vs at or above 100% of the FPL at baseline, as labeled. In brackets we report 95% confidence intervals. FDR-adjusted q-values are reported in braces.

Table A31: Impact of Guaranteed Income on Unhealthy Behaviors by Baseline Household Income

	Control Mean	Main Estimate	100% FPL+	Under 100% FPL
Lack of unhealthy behaviors index		0.013 (0.014)	0.018 (0.017)	-0.003 (0.027)
		{0.579}	{1.000}	{1.000}
<u>Alcohol use and interference</u>		0.010 (0.026)	0.032 (0.031)	-0.045 (0.056)
		{1.000}	{1.000}	{1.000}
Total number of drinks (last 30 days)	9.56 (20.42)	0.978 (0.789)	0.562 (0.957)	1.442 (1.385)
		{0.848}	{1.000}	{1.000}
Days not drinking alcohol (of last 30)	27.24 (4.79)	-0.322 (0.178)	-0.415 (0.234)	-0.365 (0.267)
		{1.000}	{1.000}	{1.000}
Days not drinking 4+ drinks (of last 30)	29.03 (2.65)	-0.116 (0.109)	-0.082 (0.136)	-0.269 (0.202)
		{0.848}	{1.000}	{1.000}
Drinking/hangovers interfered with responsibilities (12 mos)	3.89 (0.35)	0.020 (0.010)	0.028 (0.012)	-0.010 (0.023)
(0=Daily or Almost Daily, ... 4=Never)		{0.693}	{1.000}	{1.000}
Drinking caused arguments/serious problems with others (12 mos)	3.92 (0.30)	0.009 (0.009)	0.019 (0.010)	-0.007 (0.021)
(0=Daily or Almost Daily, ... 4=Never)		{0.848}	{1.000}	{1.000}
Under the influence in a situation where you could get hurt (12 mos)	3.93 (0.29)	0.016 (0.009)	0.017 (0.011)	0.007 (0.019)
(0=Daily or Almost Daily, ... 4=Never)		{0.693}	{1.000}	{1.000}
<u>Smoking behavior</u>		0.020 (0.020)	0.016 (0.024)	0.023 (0.035)
		{1.000}	{1.000}	{1.000}
Does not use tobacco products	0.75 (0.39)	-0.000 (0.010)	0.004 (0.012)	-0.004 (0.017)
		{1.000}	{1.000}	{1.000}
Does not smoke cigarettes daily	0.83 (0.34)	0.013 (0.008)	0.015 (0.010)	0.012 (0.015)
		{0.764}	{1.000}	{1.000}
Number of cigarettes smoked on typical day	1.51 (3.85)	-0.082 (0.093)	0.033 (0.104)	-0.202 (0.189)
		{0.848}	{1.000}	{1.000}
<u>Drug use</u>		0.008 (0.019)	0.006 (0.024)	0.013 (0.034)
		{1.000}	{1.000}	{1.000}
Days not using marijuana (of last 30)	25.92 (8.38)	0.022 (0.278)	-0.199 (0.356)	0.401 (0.465)
		{1.000}	{1.000}	{1.000}
Days not using painkillers not prescribed to you (of last 30)	29.88 (1.23)	0.073 (0.031)	0.099 (0.039)	0.032 (0.054)
		{0.460}	{1.000}	{1.000}
Days not using illegal drugs (of last 30)	29.76 (1.83)	0.019 (0.063)	0.004 (0.066)	-0.023 (0.148)
		{1.000}	{1.000}	{1.000}
Days not using sedatives not prescribed to you (of last 30)	29.92 (0.75)	-0.029 (0.030)	-0.023 (0.037)	-0.031 (0.048)
		{0.848}	{1.000}	{1.000}
No illegal drug use in past 30 days	0.89 (0.25)	0.002 (0.009)	0.002 (0.011)	0.007 (0.014)
		{1.000}	{1.000}	{1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants whose household income was below vs at or above 100% of the FPL at baseline, as labeled. In brackets we report 95% confidence intervals. FDR-adjusted q-values are reported in braces.

Table A32: Impact of Guaranteed Income on Self-Reported Mental Health by Baseline Access to Medical Care

	Control Mean	Main Estimate	Did Not Skip Medical Care	Skipped Medical Care
Mental health index		-0.011 (0.021)	-0.030 (0.025)	0.052 (0.040)
		{0.846}	{1.000}	{1.000}
Emotional problems' interference with daily life		-0.015 (0.025)	-0.022 (0.030)	-0.003 (0.048)
		{1.000}	{1.000}	{1.000}
Accomplish less than you would like (1=All of the time, ..., 5=None of the time)	3.62 (0.97)	-0.019 (0.027)	-0.022 (0.032)	-0.019 (0.053)
		{1.000}	{1.000}	{1.000}
Did work or activities less carefully (1=All of the time, ..., 5=None of the time)	3.87 (0.88)	0.002 (0.026)	-0.011 (0.030)	0.025 (0.054)
		{1.000}	{1.000}	{1.000}
Interfered with social activities (1=All of the time, ..., 5=None of the time)	3.80 (0.93)	-0.026 (0.027)	-0.028 (0.032)	-0.017 (0.053)
		{1.000}	{1.000}	{1.000}
<u>Kessler 6 mental distress scale</u> (0=Least mental distress,... 24=Most mental distress)	6.25 (4.51)	-0.052 (0.124)	0.114 (0.137)	-0.480 (0.265)
		{1.000}	{1.000}	{1.000}
<u>Perceived stress scale</u> (0=Least stress, ... 40=Most stress)	18.58 (6.60)	-0.018 (0.180)	0.043 (0.209)	-0.343 (0.344)
		{1.000}	{1.000}	{1.000}
<u>Generalized anxiety disorder scale</u> (0=Least anxiety, ... 6=Most anxiety)	2.00 (1.50)	0.018 (0.042)	0.023 (0.048)	-0.066 (0.083)
		{1.000}	{1.000}	{1.000}
<u>Depression scale, PHQ-9</u> (0=Least depressed, ... 27=Most depressed)	7.21 (5.68)	0.133 (0.157)	0.283 (0.173)	-0.386 (0.342)
		{1.000}	{1.000}	{1.000}
<u>Days mental health good of last 30</u>	23.20 (7.37)	-0.242 (0.215)	-0.367 (0.236)	0.515 (0.462)
		{1.000}	{1.000}	{1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who reported skipping vs not skipping medical care due to costs at baseline, as labeled. In brackets we report 95% confidence intervals. FDR-adjusted q-values are reported in braces.

Table A33: Impact of Guaranteed Income on Self-Reported Physical Health by Baseline Access to Medical Care

	Control Mean	Main Estimate	Did Not Skip Medical Care	Skipped Medical Care
Self-Reported Physical Health Index		-0.019 (0.020)	-0.044 (0.024)	0.028 (0.039)
# Days Physical Health Good of Last 30	26.11 (5.55)	{0.579} -0.383 (0.174)	{1.000} -0.484 (0.196)	{1.000} -0.075 (0.364)
Health Rating (1=Poor, ..., 5=Excellent)	3.22 (0.92)	{0.244} -0.034 (0.025)	{1.000} -0.063 (0.028)	{1.000} 0.016 (0.050)
Health is not limiting		{0.254} 0.015 (0.022)	{1.000} -0.005 (0.026)	{1.000} 0.065 (0.040)
Health limitations of moderate activities (1=Limited a lot, ..., 3=Not limited at all)	2.69 (0.46)	{0.370} 0.016 (0.013)	{1.000} 0.001 (0.014)	{1.000} 0.058 (0.027)
Health limitations of climbing several stairs (1=Limited a lot, ..., 3=Not limited at all)	2.59 (0.53)	{0.491} 0.007 (0.015)	{1.000} -0.007 (0.017)	{1.000} 0.043 (0.030)
Accomplished less due to physical health (1=All of the time, ..., 5=None of the time)	3.88 (0.92)	{0.577} 0.014 (0.026)	{1.000} -0.005 (0.029)	{1.000} 0.074 (0.053)
Limited in work / other activities due to physical health (1=All of the time, ..., 5=None of the time)	4.08 (0.93)	{0.577} 0.036 (0.025)	{1.000} 0.020 (0.028)	{1.000} 0.078 (0.056)
Health interference with social activities (1=All of the time, ..., 5=None of the time)	3.80 (0.93)	{0.467} -0.026 (0.027)	{1.000} -0.028 (0.032)	{1.000} -0.017 (0.053)
Pain interference with normal work (1=Extremely, ..., 5=Not at all)	4.03 (0.89)	{0.577} 0.015 (0.025)	{1.000} -0.002 (0.028)	{1.000} 0.037 (0.052)

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who reported skipping vs not skipping medical care due to costs at baseline, as labeled. In brackets we report 95% confidence intervals. FDR-adjusted q-values are reported in braces.

Table A34: Impact of Guaranteed Income on Healthcare Access by Baseline Access to Medical Care

	Control Mean	Main Estimate	Did Not Skip Medical Care	Skipped Medical Care
Healthcare Access Index		0.000 (0.017) {1.000}	-0.017 (0.020) {1.000}	0.036 (0.031) {1.000}
Has insurance coverage	0.78 (0.37)	0.013 (0.012) {1.000}	0.009 (0.014) {1.000}	0.021 (0.025) {1.000}
<u>Health Care Related Financial Strain</u>		-0.019 (0.021) {1.000}	-0.055 (0.027) {1.000}	0.055 (0.038) {1.000}
Worry over medical costs (0=Very worried,..., 3=Not worried at all)	2.00 (0.80)	-0.067 (0.025) {0.319}	-0.106 (0.028) {0.055}	0.036 (0.051) {1.000}
Did not skip other bills to pay for health care	0.94 (0.20)	0.005 (0.007) {1.000}	-0.004 (0.007) {1.000}	0.026 (0.017) {1.000}
Medical debt (\$, from Credit Report)	587.52 (2422.50)	-10.903 (74.054) {1.000}	-10.244 (49.822) {1.000}	-114.755 (240.000) {1.000}
<u>Needed Care Access</u>		-0.023 (0.020) {1.000}	-0.041 (0.024) {1.000}	0.025 (0.038) {1.000}
Does not report ER as usual source of care	0.94 (0.20)	0.002 (0.007) {1.000}	-0.001 (0.007) {1.000}	0.018 (0.016) {1.000}
Did not skip medical care due to costs	0.84 (0.27)	0.000 (0.009) {1.000}	-0.004 (0.008) {1.000}	0.027 (0.022) {1.000}
Did not skip mental health care due to costs	0.82 (0.31)	-0.008 (0.011) {1.000}	-0.014 (0.011) {1.000}	0.019 (0.025) {1.000}
Did not skip dental care due to costs	0.74 (0.35)	-0.018 (0.011) {1.000}	-0.025 (0.012) {1.000}	-0.010 (0.024) {1.000}
Did not use alternative therapies to save money	0.93 (0.22)	-0.011 (0.008) {1.000}	-0.007 (0.008) {1.000}	-0.014 (0.021) {1.000}
<u>Prescription Drug Access</u>		0.007 (0.028) {1.000}	0.002 (0.034) {1.000}	0.014 (0.051) {1.000}
Did not skip doses to save money	0.93 (0.22)	-0.000 (0.008) {1.000}	-0.002 (0.007) {1.000}	0.004 (0.020) {1.000}
Did not delay refilling to save money	0.92 (0.23)	0.001 (0.008) {1.000}	-0.001 (0.007) {1.000}	0.007 (0.022) {1.000}
Did not ask doctor for lower cost medications	0.89 (0.27)	0.004 (0.009) {1.000}	0.005 (0.010) {1.000}	0.003 (0.022) {1.000}
Expenditures on insurance premiums	1162.49 (1754.63)	21.285 (56.700) {1.000}	55.409 (67.613) {1.000}	-64.361 (107.000) {1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who reported skipping vs not skipping medical care due to costs at baseline, as labeled.

Table A35: Impact of Guaranteed Income on Use of Office-Based Care by Baseline Access to Medical Care

	Control Mean	Main Estimate	Did Not Skip Medical Care	Skipped Medical Care
Office Care Index		0.035 (0.016) {0.224}	0.047 (0.019) {0.435}	0.038 (0.028) {0.967}
<u>Primary Care</u>		0.013 (0.022) {0.355}	0.007 (0.025) {1.000}	0.047 (0.040) {0.972}
Any primary care visit in last 12 mos	0.61 (0.43)	0.005 (0.014) {0.670}	0.007 (0.016) {1.000}	0.022 (0.026) {1.000}
Number of office visits last 12 mos	3.45 (4.38)	0.287 (0.153) {0.403}	0.244 (0.167) {0.911}	0.343 (0.326) {0.988}
Has usual place of care other than ER	0.80 (0.35)	-0.007 (0.012) {0.646}	-0.005 (0.013) {1.000}	0.008 (0.024) {1.000}
Has personal doctor or health provider	0.56 (0.44)	-0.004 (0.014) {0.688}	-0.014 (0.017) {1.000}	0.019 (0.028) {1.000}
<u>Specialist and Surgical Care</u>		0.034 (0.023) {0.200}	0.019 (0.027) {1.000}	0.045 (0.043) {0.988}
Any specialist visit last 12 mos	0.42 (0.43)	0.026 (0.015) {0.403}	0.029 (0.017) {0.769}	0.035 (0.029) {0.972}
Any surgery last 12 mos	0.11 (0.23)	-0.001 (0.008) {0.689}	-0.006 (0.010) {1.000}	0.008 (0.017) {1.000}
Any mental health care visit last 12 mos	0.22 (0.36)	0.017 (0.012) {0.416}	0.005 (0.013) {1.000}	0.009 (0.024) {1.000}
<u>Dental Care</u>		0.082 (0.033) {0.112}	0.091 (0.040) {0.516}	0.066 (0.062) {0.988}
Any dentist visit last 12 mos	0.48 (0.44)	0.048 (0.016) {0.116}	0.053 (0.019) {0.250}	0.051 (0.031) {0.779}
Number of dentist visits last 12 mos	1.35 (2.10)	0.115 (0.085) {0.464}	0.125 (0.103) {0.972}	0.032 (0.164) {1.000}
<u>Preventive Care</u>		-0.030 (0.023) {0.200}	-0.052 (0.027) {0.659}	0.021 (0.043) {1.000}
Flu shot or nasal spray	0.31 (0.43)	-0.002 (0.013) {0.689}	-0.004 (0.016) {1.000}	-0.005 (0.026) {1.000}
Cholesterol test	0.42 (0.44)	-0.007 (0.015) {0.661}	-0.020 (0.017) {0.972}	0.029 (0.028) {0.988}
PAP test (women only)	0.52 (0.43)	-0.030 (0.019) {0.416}	-0.044 (0.022) {0.659}	0.003 (0.034) {1.000}
Had COVID vaccine*	0.64 (0.47)	-0.037 (0.016) {0.460}	-0.033 (0.018) {0.769}	-0.017 (0.030) {1.000}
<u>Medical care spending</u>	155.23 (283.62)	21.731 (10.389) {0.112}	37.171 (11.125) {0.102}	3.505 (22.644) {1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who reported skipping vs not skipping medical care due to costs at baseline, as labeled.

Table A36: Impact of Guaranteed Income on Use of Hospital and ED Care by Baseline Access to Medical Care

	Control Mean	Main Estimate	Did Not Skip Medical Care	Skipped Medical
Hospital care index		0.074 (0.029) {0.224}	0.037 (0.033) {0.316}	0.174 (0.054) {0.125}
<u>Emergency Department Care</u>		0.083 (0.032) {0.031}	0.078 (0.040) {0.220}	0.131 (0.057) {0.166}
Any ED visit	0.24 (0.34)	0.027 (0.012) {0.074}	0.018 (0.013) {0.278}	0.052 (0.025) {0.200}
Number of ED visits	0.58 (1.30)	0.112 (0.050) {0.074}	0.104 (0.053) {0.220}	0.212 (0.118) {0.230}
<u>Hospital Care</u>		0.066 (0.035) {0.052}	-0.004 (0.038) {0.535}	0.217 (0.072) {0.125}
Any hospitalization	0.10 (0.22)	0.013 (0.008) {0.098}	-0.002 (0.009) {0.524}	0.049 (0.018) {0.125}
Number of hospitalizations	0.23 (0.72)	0.053 (0.028) {0.083}	0.000 (0.030) {0.573}	0.174 (0.066) {0.125}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who reported skipping vs not skipping medical care due to costs at baseline, as labeled.

Table A37: Impact of Guaranteed Income on Food Security and Nutrition by Baseline Access to Medical Care

	Control Mean	Main Estimate	Did Not Skip Medical Care	Skipped Medical Care
Nutrition and food security index		0.003 (0.018)	-0.025 (0.022)	0.053 (0.033)
Food Security Scale		{1.000}	{1.000}	{1.000}
<i>(0=Least secure, ... 6=Most secure)</i>	3.77 (2.10)	-0.013 (0.063)	-0.092 (0.071)	0.141 (0.123)
Diet behavior		{1.000}	{1.000}	{1.000}
<i>(0=Least secure, ... 100=Most healthy)</i>		0.013 (0.020)	-0.004 (0.024)	0.041 (0.035)
Health Eating Index		{1.000}	{1.000}	{1.000}
<i>(0=Least healthy, ... 100=Most healthy)</i>	44.83 (9.68)	0.565 (0.335)	0.442 (0.404)	0.426 (0.607)
# of times eating at fast food establishment last week		{1.000}	{1.000}	{1.000}
	6.21 (5.74)	0.274 (0.180)	0.437 (0.209)	-0.217 (0.352)
# times drinking regular soda containing sugar last week		{1.000}	{1.000}	{1.000}
	4.80 (6.50)	-0.181 (0.180)	-0.128 (0.214)	-0.287 (0.316)
		{1.000}	{1.000}	{1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who reported skipping vs not skipping medical care due to costs at baseline, as labeled.

Table A38: Impact of Guaranteed Income on Health Investments by Baseline Access to Medical Care

	Control Mean	Main Estimate	Did Not Skip Medical Care	Skipped Medical Care
Health investments index		-0.028 (0.015)	-0.038 (0.017)	-0.001 (0.028)
<u>Physical activity</u>		{0.224}	{0.292}	{1.000}
		-0.026 (0.023)	-0.034 (0.027)	-0.018 (0.041)
		{0.141}	{0.508}	{0.836}
Time in physical activity/ recreation (survey, hours/day)	0.84 (0.94)	-0.082 (0.031)	-0.116 (0.034)	-0.042 (0.065)
		{0.052}	{0.044}	{0.763}
Time in physical activity/ recreation (time diary, min/day)	12.46 (23.90)	-0.179 (0.855)	0.128 (1.132)	-0.433 (1.044)
		{0.534}	{1.000}	{0.836}
# of Times Exercising Last Month	7.56 (8.14)	0.128 (0.272)	0.142 (0.313)	0.092 (0.517)
		{0.407}	{0.827}	{1.000}
Sleep		-0.030 (0.018)	-0.042 (0.021)	0.017 (0.035)
		{0.124}	{0.331}	{0.826}
Sleep amount (survey, hours/day)	6.24 (1.75)	0.028 (0.053)	0.002 (0.061)	0.197 (0.104)
		{0.407}	{1.000}	{0.331}
Sleep amount (time diary, min/day)	535.94 (133.62)	-7.733 (4.004)	-8.033 (4.801)	-10.594 (7.217)
		{0.124}	{0.383}	{0.457}
Sleep quality	2.67 (0.54)	-0.026 (0.016)	-0.035 (0.018)	0.010 (0.033)
(1= <i>Very bad</i> , ... 4= <i>Very good</i>)		{0.153}	{0.331}	{0.894}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who reported skipping vs not skipping medical care due to costs at baseline, as labeled.

Table A39: Impact of Guaranteed Income on Unhealthy Behaviors by Baseline Access to Medical Care

	Control Mean	Main Estimate	Did Not Skip Medical Care	Skipped Medical Care
Lack of unhealthy behaviors index		0.013 (0.014) {0.579}	0.021 (0.016) {1.000}	-0.022 (0.029) {1.000}
<u>Alcohol use and interference</u>		0.010 (0.026) {1.000}	0.015 (0.031) {1.000}	-0.028 (0.050) {1.000}
Total number of drinks (last 30 days)	9.56 (20.42)	0.978 (0.789) {0.848}	0.992 (0.868) {1.000}	2.173 (1.611) {1.000}
Days not drinking alcohol (of last 30)	27.24 (4.79)	-0.322 (0.178) {1.000}	-0.235 (0.204) {1.000}	-0.143 (0.353) {1.000}
Days not drinking 4+ drinks (of last 30)	29.03 (2.65)	-0.116 (0.109) {0.848}	-0.057 (0.121) {1.000}	-0.435 (0.232) {1.000}
Drinking/hangovers interfered with responsibilities (12 mos) (0=Daily or Almost Daily, ... 4=Never)	3.89 (0.35)	0.020 (0.010) {0.693}	0.015 (0.013) {1.000}	0.032 (0.019) {1.000}
Drinking caused arguments/serious problems with others (12 mos) (0=Daily or Almost Daily, ... 4=Never)	3.92 (0.30)	0.009 (0.009) {0.848}	0.008 (0.012) {1.000}	0.003 (0.015) {1.000}
Under the influence in a situation where you could get hurt (12 mos) (0=Daily or Almost Daily, ... 4=Never)	3.93 (0.29)	0.016 (0.009) {0.693}	0.020 (0.010) {1.000}	0.018 (0.017) {1.000}
<u>Smoking behavior</u>		0.020 (0.020) {1.000}	0.023 (0.022) {1.000}	-0.027 (0.042) {1.000}
Does not use tobacco products	0.75 (0.39)	-0.000 (0.010) {1.000}	0.003 (0.011) {1.000}	-0.024 (0.021) {1.000}
Does not smoke cigarettes daily	0.83 (0.34)	0.013 (0.008) {0.764}	0.011 (0.009) {1.000}	0.003 (0.018) {1.000}
Number of cigarettes smoked on typical day	1.51 (3.85)	-0.082 (0.093) {0.848}	-0.104 (0.097) {1.000}	0.128 (0.222) {1.000}
<u>Drug use</u>		0.008 (0.019) {1.000}	0.025 (0.023) {1.000}	-0.010 (0.039) {1.000}
Days not using marijuana (of last 30)	25.92 (8.38)	0.022 (0.278) {1.000}	0.024 (0.318) {1.000}	0.155 (0.547) {1.000}
Days not using painkillers not prescribed to you (of last 30)	29.88 (1.23)	0.073 (0.031) {0.460}	0.072 (0.028) {1.000}	0.100 (0.095) {1.000}
Days not using illegal drugs (of last 30)	29.76 (1.83)	0.019 (0.063) {1.000}	0.113 (0.061) {1.000}	-0.131 (0.170) {1.000}
Days not using sedatives not prescribed to you (of last 30)	29.92 (0.75)	-0.029 (0.030) {0.848}	-0.035 (0.035) {1.000}	0.008 (0.065) {1.000}
No illegal drug use in past 30 days	0.89 (0.25)	0.002 (0.009) {1.000}	0.010 (0.009) {1.000}	-0.017 (0.019) {1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who reported skipping vs not skipping medical care due to costs at baseline, as labeled.

Table A40: Impact of Guaranteed Income on Self-Reported Mental Health by Baseline Age

	Control Mean	Main Estimate	Under Age 30	Age 30+
Mental health index		-0.011 (0.021)	0.007 (0.028)	-0.028 (0.030)
Emotional problems' interference with daily life		{0.846}	{1.000}	{1.000}
		-0.015 (0.025)	-0.012 (0.034)	-0.012 (0.033)
		{1.000}	{1.000}	{1.000}
Accomplish less than you would like (1=All of the time, ..., 5=None of the time)	3.62 (0.97)	-0.019 (0.027)	-0.016 (0.037)	-0.011 (0.037)
		{1.000}	{1.000}	{1.000}
Did work or activities less carefully (1=All of the time, ..., 5=None of the time)	3.87 (0.88)	0.002 (0.026)	0.005 (0.034)	-0.001 (0.038)
		{1.000}	{1.000}	{1.000}
Interfered with social activities (1=All of the time, ..., 5=None of the time)	3.80 (0.93)	-0.026 (0.027)	-0.022 (0.037)	-0.022 (0.038)
		{1.000}	{1.000}	{1.000}
<u>Kessler 6 mental distress scale</u> (0=Least mental distress,... 24=Most mental distress)	6.25 (4.51)	-0.052 (0.124)	-0.171 (0.167)	0.046 (0.178)
		{1.000}	{1.000}	{1.000}
<u>Perceived stress scale</u> (0=Least stress, ... 40=Most stress)	18.58 (6.60)	-0.018 (0.180)	-0.074 (0.242)	0.006 (0.261)
		{1.000}	{1.000}	{1.000}
<u>Generalized anxiety disorder scale</u> (0=Least anxiety, ... 6=Most anxiety)	2.00 (1.50)	0.018 (0.042)	-0.019 (0.057)	0.075 (0.060)
		{1.000}	{1.000}	{1.000}
<u>Depression scale, PHQ-9</u> (0=Least depressed, ... 27=Most depressed)	7.21 (5.68)	0.133 (0.157)	0.124 (0.226)	0.177 (0.212)
		{1.000}	{1.000}	{1.000}
<u>Days mental health good of last 30</u>	23.20 (7.37)	-0.242 (0.215)	0.117 (0.273)	-0.488 (0.324)
		{1.000}	{1.000}	{1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who were under 30 years old or age 30+ at baseline, as labeled.

Table A41: Impact of Guaranteed Income on Self-Reported Physical Health by Baseline Age

	Control Mean	Main Estimate	Under Age 30	Age 30+
Self-Reported Physical Health Index		-0.019 (0.020)	-0.004 (0.027)	-0.041 (0.030)
# Days Physical Health Good of Last 30	26.11 (5.55)	{0.579} -0.383 (0.174) {0.244}	{1.000} -0.219 (0.215) {1.000}	{1.000} -0.624 (0.276) {1.000}
Health Rating (1=Poor, ..., 5=Excellent)	3.22 (0.92)	-0.034 (0.025) {0.254}	-0.006 (0.034) {1.000}	-0.076 (0.035) {1.000}
Health is not limiting		0.015 (0.022) {0.370}	0.003 (0.030) {1.000}	0.027 (0.030) {1.000}
Health limitations of moderate activities (1=Limited a lot, ..., 3=Not limited at all)	2.69 (0.46)	0.016 (0.013) {0.491}	0.017 (0.017) {1.000}	0.020 (0.019) {1.000}
Health limitations of climbing several stairs (1=Limited a lot, ..., 3=Not limited at all)	2.59 (0.53)	0.007 (0.015) {0.577}	0.004 (0.020) {1.000}	0.001 (0.022) {1.000}
Accomplished less due to physical health (1=All of the time, ..., 5=None of the time)	3.88 (0.92)	0.014 (0.026) {0.577}	-0.011 (0.035) {1.000}	0.049 (0.037) {1.000}
Limited in work/other activities due to physical health (1=All of the time, ..., 5=None of the time)	4.08 (0.93)	0.036 (0.025) {0.467}	0.006 (0.034) {1.000}	0.061 (0.037) {1.000}
Health interference with social activities (1=All of the time, ..., 5=None of the time)	3.80 (0.93)	-0.026 (0.027) {0.577}	-0.022 (0.037) {1.000}	-0.022 (0.038) {1.000}
Pain interference with normal work (1=Extremely, ..., 5=Not at all)	4.03 (0.89)	0.015 (0.025) {0.370}	0.025 (0.033) {1.000}	-0.000 (0.039) {1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who were under 30 years old or age 30+ at baseline, as labeled.

Table A42: Impact of Guaranteed Income on Healthcare Access by Baseline Age

	Control Mean	Main Estimate	Under Age 30	Age 30+
Healthcare Access Index		0.000 (0.017) {1.000}	0.005 (0.021) {1.000}	-0.002 (0.025) {1.000}
Has insurance coverage	0.78 (0.37)	0.013 (0.012) {1.000}	0.008 (0.017) {1.000}	0.022 (0.018) {1.000}
<u>Health Care Related Financial Strain</u>		-0.019 (0.021) {1.000}	-0.016 (0.026) {1.000}	-0.008 (0.035) {1.000}
Worry over medical costs (0=Very worried, ..., 3=Not worried at all)	2.00 (0.80)	-0.067 (0.025) {0.319}	-0.049 (0.032) {1.000}	-0.084 (0.039) {1.000}
Did not skip other bills to pay for health care	0.94 (0.20)	0.005 (0.007) {1.000}	0.006 (0.009) {1.000}	0.005 (0.010) {1.000}
Medical debt (\$, from Credit Report)	587.52 (2422.50)	-10.903 (74.054) {1.000}	54.600 (96.462) {1.000}	-86.761 (96.033) {1.000}
<u>Needed Care Access</u>		-0.023 (0.020) {1.000}	-0.023 (0.026) {1.000}	-0.028 (0.029) {1.000}
Does not report ER as usual source of care	0.94 (0.20)	0.002 (0.007) {1.000}	0.011 (0.009) {1.000}	-0.005 (0.010) {1.000}
Did not skip medical care due to costs	0.84 (0.27)	0.000 (0.009) {1.000}	-0.002 (0.012) {1.000}	0.005 (0.012) {1.000}
Did not skip mental health care due to costs	0.82 (0.31)	-0.008 (0.011) {1.000}	-0.005 (0.015) {1.000}	-0.022 (0.015) {1.000}
Did not skip dental care due to costs	0.74 (0.35)	-0.018 (0.011) {1.000}	-0.016 (0.014) {1.000}	-0.012 (0.016) {1.000}
Did not use alternative therapies to save money	0.93 (0.22)	-0.011 (0.008) {1.000}	-0.021 (0.010) {1.000}	-0.006 (0.013) {1.000}
<u>Prescription Drug Access</u>		0.007 (0.028) {1.000}	0.038 (0.037) {1.000}	-0.033 (0.042) {1.000}
Did not skip doses to save money	0.93 (0.22)	-0.000 (0.008) {1.000}	0.009 (0.010) {1.000}	-0.010 (0.012) {1.000}
Did not delay refilling to save money	0.92 (0.23)	0.001 (0.008) {1.000}	0.008 (0.011) {1.000}	-0.007 (0.012) {1.000}
Did not ask doctor for lower cost medications	0.89 (0.27)	0.004 (0.009) {1.000}	0.010 (0.012) {1.000}	-0.007 (0.014) {1.000}
Expenditures on insurance premiums	1162.49 (1754.63)	21.285 (56.700) {1.000}	5.114 (70.892) {1.000}	-8.888 (90.222) {1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who were under 30 years old or age 30+ at baseline, as labeled.

Table A43: Impact of Guaranteed Income on Use of Office-Based Care by Baseline Age

	Control Mean	Main Estimate	Under Age 30	Age 30+
Office Care Index		0.035 (0.016)	0.027 (0.021)	0.036 (0.024)
		{0.224}	{0.967}	{0.911}
<u>Primary Care</u>		0.013 (0.022)	0.005 (0.029)	0.003 (0.032)
		{0.355}	{1.000}	{1.000}
Any primary care visit in last 12 mos	0.61 (0.43)	0.005 (0.014)	0.015 (0.019)	0.001 (0.020)
		{0.670}	{1.000}	{1.000}
Number of office visits last 12 mos	3.45 (4.38)	0.287 (0.153)	-0.066 (0.177)	0.489 (0.250)
		{0.403}	{1.000}	{0.659}
Has usual place of care other than ER	0.80 (0.35)	-0.007 (0.012)	-0.007 (0.016)	-0.011 (0.017)
		{0.646}	{1.000}	{1.000}
Has personal doctor or health provider	0.56 (0.44)	-0.004 (0.014)	0.009 (0.020)	-0.028 (0.020)
		{0.688}	{1.000}	{0.953}
<u>Specialist and Surgical Care</u>		0.034 (0.023)	0.037 (0.029)	0.005 (0.033)
		{0.200}	{0.972}	{1.000}
Any specialist visit last 12 mos	0.42 (0.43)	0.026 (0.015)	0.025 (0.019)	0.019 (0.022)
		{0.403}	{0.967}	{1.000}
Any surgery last 12 mos	0.11 (0.23)	-0.001 (0.008)	-0.002 (0.011)	0.000 (0.013)
		{0.689}	{1.000}	{1.000}
Any mental health care visit last 12 mos	0.22 (0.36)	0.017 (0.012)	0.021 (0.016)	-0.011 (0.017)
		{0.416}	{0.967}	{1.000}
<u>Dental Care</u>		0.082 (0.033)	0.103 (0.049)	0.068 (0.044)
		{0.112}	{0.577}	{0.886}
Any dentist visit last 12 mos	0.48 (0.44)	0.048 (0.016)	0.059 (0.021)	0.043 (0.024)
		{0.116}	{0.250}	{0.769}
Number of dentist visits last 12 mos	1.35 (2.10)	0.115 (0.085)	0.148 (0.135)	0.086 (0.105)
		{0.464}	{0.988}	{1.000}
<u>Preventive Care</u>		-0.030 (0.023)	-0.017 (0.032)	-0.039 (0.033)
		{0.200}	{1.000}	{0.972}
Flu shot or nasal spray	0.31 (0.43)	-0.002 (0.013)	0.019 (0.019)	-0.027 (0.019)
		{0.689}	{1.000}	{0.911}
Cholesterol test	0.42 (0.44)	-0.007 (0.015)	-0.002 (0.020)	-0.013 (0.022)
		{0.661}	{1.000}	{1.000}
PAP test (women only)	0.52 (0.43)	-0.030 (0.019)	-0.039 (0.025)	-0.010 (0.027)
		{0.416}	{0.820}	{1.000}
Had COVID vaccine*	0.64 (0.47)	-0.037 (0.016)	-0.055 (0.020)	-0.022 (0.024)
		{0.460}	{0.250}	{1.000}
<u>Medical care spending</u>	155.23 (283.62)	21.731 (10.389)	2.354 (13.106)	39.006 (17.305)
		{0.112}	{1.000}	{0.516}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who were under 30 years old or age 30+ at baseline, as labeled.

Table A44: Impact of Guaranteed Income on Use of Hospital and ED Care by Baseline Age

	Control Mean	Main Estimate	Under Age 30	Age 30+
Hospital care index		0.074 (0.029) {0.224}	0.038 (0.034) {0.316}	0.124 (0.048) {0.125}
<u>Emergency Department Care</u>		0.083 (0.032) {0.031}	0.040 (0.039) {0.336}	0.144 (0.053) {0.125}
Any ED visit	0.24 (0.34)	0.027 (0.012) {0.074}	0.017 (0.015) {0.299}	0.032 (0.018) {0.230}
Number of ED visits	0.58 (1.30)	0.112 (0.050) {0.074}	0.036 (0.060) {0.414}	0.238 (0.088) {0.125}
<u>Hospital Care</u>		0.066 (0.035) {0.052}	0.035 (0.043) {0.362}	0.105 (0.056) {0.222}
Any hospitalization	0.10 (0.22)	0.013 (0.008) {0.098}	0.009 (0.011) {0.356}	0.019 (0.013) {0.275}
Number of hospitalizations	0.23 (0.72)	0.053 (0.028) {0.083}	0.021 (0.033) {0.409}	0.091 (0.047) {0.220}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who were under 30 years old or age 30+ at baseline, as labeled.

Table A45: Impact of Guaranteed Income on Food Security and Nutrition by Baseline Age

	Control Mean	Main Estimate	Under Age 30	Age 30+
Nutrition and food security index		0.003 (0.018)	0.018 (0.024)	0.001 (0.026)
		{1.000}	{1.000}	{1.000}
Food Security Scale	3.77 (2.10)	-0.013 (0.063)	0.015 (0.083)	-0.020 (0.091)
(0=Least secure, ... 6=Most secure)		{1.000}	{1.000}	{1.000}
<u>Diet behavior</u>		0.013 (0.020)	0.030 (0.026)	0.010 (0.029)
		{1.000}	{1.000}	{1.000}
Health Eating Index	44.83 (9.68)	0.565 (0.335)	0.956 (0.450)	0.397 (0.491)
(0=Least healthy, ... 100=Most healthy)		{1.000}	{1.000}	{1.000}
# of times eating at fast food establishment last week	6.21 (5.74)	0.274 (0.180)	0.178 (0.261)	0.320 (0.243)
		{1.000}	{1.000}	{1.000}
# times drinking regular soda containing sugar last week	4.80 (6.50)	-0.181 (0.180)	-0.126 (0.242)	-0.329 (0.271)
		{1.000}	{1.000}	{1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who were under 30 years old or age 30+ at baseline, as labeled.

Table A46: Impact of Guaranteed Income on Health Investments by Baseline Age

	Control Mean	Main Estimate	Under Age 30	Age 30+
Health investments index		-0.028 (0.015)	-0.026 (0.020)	-0.029 (0.020)
<u>Physical activity</u>		{0.224}	{0.496}	{0.469}
		-0.026 (0.023)	-0.026 (0.032)	-0.027 (0.031)
		{0.141}	{0.742}	{0.720}
Time in physical activity / recreation (survey, hours / day)	0.84 (0.94)	-0.082 (0.031)	-0.151 (0.046)	-0.043 (0.042)
		{0.052}	{0.044}	{0.618}
Time in physical activity / recreation (time diary, min / day)	12.46 (23.90)	-0.179 (0.855)	1.123 (1.321)	-0.863 (0.952)
		{0.534}	{0.729}	{0.709}
# of Times Exercising Last Month	7.56 (8.14)	0.128 (0.272)	0.223 (0.360)	0.049 (0.377)
		{0.407}	{0.775}	{1.000}
<u>Sleep</u>		-0.030 (0.018)	-0.027 (0.025)	-0.030 (0.026)
		{0.124}	{0.604}	{0.530}
Sleep amount (survey, hours / day)	6.24 (1.75)	0.028 (0.053)	-0.017 (0.071)	0.056 (0.078)
		{0.407}	{0.965}	{0.747}
Sleep amount (time diary, min / day)	535.94 (133.62)	-7.733 (4.004)	-5.297 (6.141)	-9.014 (5.122)
		{0.124}	{0.720}	{0.383}
Sleep quality	2.67 (0.54)	-0.026 (0.016)	-0.017 (0.021)	-0.029 (0.023)
(1=Very bad, ... 4=Very good)		{0.153}	{0.742}	{0.530}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who were under 30 years old or age 30+ at baseline, as labeled.

Table A47: Impact of Guaranteed Income on Unhealthy Behaviors by Baseline Age

	Control Mean	Main Estimate	Under Age 30	Age 30+
Lack of unhealthy behaviors index		0.013 (0.014) {0.579}	0.026 (0.018) {1.000}	-0.003 (0.021) {1.000}
<u>Alcohol use and interference</u>		0.010 (0.026) {1.000}	0.019 (0.034) {1.000}	-0.024 (0.040) {1.000}
Total number of drinks (last 30 days)	9.56 (20.42)	0.978 (0.789) {0.848}	0.998 (0.991) {1.000}	0.836 (1.164) {1.000}
Days not drinking alcohol (of last 30)	27.24 (4.79)	-0.322 (0.178) {1.000}	-0.374 (0.221) {1.000}	-0.403 (0.285) {1.000}
Days not drinking 4+ drinks (of last 30)	29.03 (2.65)	-0.116 (0.109) {0.848}	-0.100 (0.134) {1.000}	-0.198 (0.167) {1.000}
Drinking/hangovers interfered with responsibilities (12 mos) (0=Daily or Almost Daily, ... 4=Never)	3.89 (0.35)	0.020 (0.010) {0.693}	0.024 (0.014) {1.000}	0.007 (0.015) {1.000}
Drinking caused arguments/serious problems with others (12 mos) (0=Daily or Almost Daily, ... 4=Never)	3.92 (0.30)	0.009 (0.009) {0.848}	0.009 (0.014) {1.000}	0.006 (0.014) {1.000}
Under the influence in a situation where you could get hurt (12 mos) (0=Daily or Almost Daily, ... 4=Never)	3.93 (0.29)	0.016 (0.009) {0.693}	0.030 (0.013) {1.000}	-0.010 (0.012) {1.000}
<u>Smoking behavior</u>		0.020 (0.020) {1.000}	0.017 (0.027) {1.000}	0.030 (0.028) {1.000}
Does not use tobacco products	0.75 (0.39)	-0.000 (0.010) {1.000}	0.003 (0.013) {1.000}	0.000 (0.013) {1.000}
Does not smoke cigarettes daily	0.83 (0.34)	0.013 (0.008) {0.764}	0.012 (0.010) {1.000}	0.015 (0.013) {1.000}
Number of cigarettes smoked on typical day	1.51 (3.85)	-0.082 (0.093) {0.848}	-0.009 (0.099) {1.000}	-0.217 (0.161) {1.000}
<u>Drug use</u>		0.008 (0.019) {1.000}	0.042 (0.023) {1.000}	-0.014 (0.031) {1.000}
Days not using marijuana (of last 30)	25.92 (8.38)	0.022 (0.278) {1.000}	-0.147 (0.391) {1.000}	-0.096 (0.384) {1.000}
Days not using painkillers not prescribed to you (of last 30)	29.88 (1.23)	0.073 (0.031) {0.460}	0.089 (0.031) {1.000}	0.078 (0.059) {1.000}
Days not using illegal drugs (of last 30)	29.76 (1.83)	0.019 (0.063) {1.000}	0.092 (0.070) {1.000}	0.008 (0.113) {1.000}
Days not using sedatives not prescribed to you (of last 30)	29.92 (0.75)	-0.029 (0.030) {0.848}	0.021 (0.032) {1.000}	-0.052 (0.053) {1.000}
No illegal drug use in past 30 days	0.89 (0.25)	0.002 (0.009) {1.000}	0.013 (0.011) {1.000}	-0.012 (0.013) {1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who were under 30 years old or age 30+ at baseline, as labeled.

Table A48: Impact of Guaranteed Income on Self-Reported Mental Health by Baseline Health

	Control Mean	Main Estimate	Health VG or Exc	Health Poor, Fair, Good
Mental health index		-0.011 (0.021)	-0.002 (0.030)	-0.015 (0.030)
Emotional problems' interference with daily life		{0.846}	{1.000}	{1.000}
		-0.015 (0.025)	0.002 (0.036)	-0.036 (0.034)
		{1.000}	{1.000}	{1.000}
Accomplish less than you would like (1=All of the time, ..., 5=None of the time)	3.62 (0.97)	-0.019 (0.027)	-0.004 (0.037)	-0.031 (0.040)
		{1.000}	{1.000}	{1.000}
Did work or activities less carefully (1=All of the time, ..., 5=None of the time)	3.87 (0.88)	0.002 (0.026)	0.012 (0.034)	-0.020 (0.038)
		{1.000}	{1.000}	{1.000}
Interfered with social activities (1=All of the time, ..., 5=None of the time)	3.80 (0.93)	-0.026 (0.027)	-0.002 (0.035)	-0.053 (0.039)
		{1.000}	{1.000}	{1.000}
<u>Kessler 6 mental distress scale</u> (0=Least mental distress,... 24=Most mental distress)	6.25 (4.51)	-0.052 (0.124)	-0.062 (0.153)	-0.059 (0.188)
		{1.000}	{1.000}	{1.000}
<u>Perceived stress scale</u> (0=Least stress, ... 40=Most stress)	18.58 (6.60)	-0.018 (0.180)	-0.034 (0.245)	0.064 (0.249)
		{1.000}	{1.000}	{1.000}
<u>Generalized anxiety disorder scale</u> (0=Least anxiety, ... 6=Most anxiety)	2.00 (1.50)	0.018 (0.042)	-0.007 (0.058)	0.032 (0.062)
		{1.000}	{1.000}	{1.000}
<u>Depression scale, PHQ-9</u> (0=Least depressed, ... 27=Most depressed)	7.21 (5.68)	0.133 (0.157)	0.076 (0.200)	0.122 (0.239)
		{1.000}	{1.000}	{1.000}
<u>Days mental health good of last 30</u>	23.20 (7.37)	-0.242 (0.215)	-0.135 (0.256)	-0.144 (0.334)
		{1.000}	{1.000}	{1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants whose household income was below vs at or above 100% of the FPL at baseline, as labeled.

Table A49: Impact of Guaranteed Income on Self-Reported Physical Health by Baseline Health

Self-Reported Physical Health Index	Control Mean	Main Estimate	Health VG or Exc	Health Poor, Fair, Good
# Days Physical Health Good of Last 30		-0.019 (0.020) {0.579}	-0.001 (0.030) {1.000}	-0.037 (0.031) {1.000}
Health Rating (1=Poor, ..., 5=Excellent)	26.11 (5.55)	-0.383 (0.174) {0.244}	-0.152 (0.182) {1.000}	-0.768 (0.305) {1.000}
Health is not limiting	3.22 (0.92)	-0.034 (0.025) {0.254}	-0.012 (0.033) {1.000}	-0.042 (0.036) {1.000}
Health limitations of moderate activities (1=Limited a lot, ..., 3=Not limited at all)		0.015 (0.022) {0.370}	0.021 (0.032) {1.000}	0.002 (0.032) {1.000}
Health limitations of climbing several stairs (1=Limited a lot, ..., 3=Not limited at all)	2.69 (0.46)	0.016 (0.013) {0.491}	0.002 (0.015) {1.000}	0.028 (0.021) {1.000}
Accomplished less due to physical health (1=All of the time, ..., 5=None of the time)	2.59 (0.53)	0.007 (0.015) {0.577}	0.014 (0.017) {1.000}	-0.007 (0.024) {1.000}
Limited in work / other activities due to physical health (1=All of the time, ..., 5=None of the time)	3.88 (0.92)	0.014 (0.026) {0.577}	0.024 (0.033) {1.000}	-0.022 (0.040) {1.000}
Health interference with social activities (1=All of the time, ..., 5=None of the time)	4.08 (0.93)	0.036 (0.025) {0.467}	0.028 (0.031) {1.000}	0.043 (0.040) {1.000}
Pain interference with normal work (1=Extremely, ..., 5=Not at all)	3.80 (0.93)	-0.026 (0.027) {0.577}	-0.002 (0.035) {1.000}	-0.053 (0.039) {1.000}
	4.03 (0.89)	0.015 (0.025) {0.370}	0.024 (0.031) {1.000}	0.018 (0.039) {1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants whose household income was below vs at or above 100% of the FPL at baseline, as labeled.

Table A50: Impact of Guaranteed Income on Healthcare Access by Baseline Health

	Control Mean	Main Estimate	Health VG or Exc	Health Poor, Fair, Good
Healthcare Access Index		0.000 (0.017)	-0.023 (0.023)	0.020 (0.024)
		{1.000}	{1.000}	{1.000}
<u>Has insurance coverage</u>	0.78 (0.37)	0.013 (0.012)	0.006 (0.017)	0.021 (0.018)
		{1.000}	{1.000}	{1.000}
<u>Health Care Related Financial Strain</u>		-0.019 (0.021)	-0.041 (0.031)	-0.006 (0.029)
		{1.000}	{1.000}	{1.000}
Worry over medical costs (0=Very worried,..., 3=Not worried at all)	2.00 (0.80)	-0.067 (0.025)	-0.069 (0.032)	-0.072 (0.037)
		{0.319}	{1.000}	{1.000}
Did not skip other bills to pay for health care	0.94 (0.20)	0.005 (0.007)	-0.001 (0.007)	0.010 (0.011)
		{1.000}	{1.000}	{1.000}
Medical debt (\$, from Credit Report)	587.52 (2422.50)	-10.903 (74.054)	19.623 (61.135)	-86.928 (133.000)
		{1.000}	{1.000}	{1.000}
<u>Needed Care Access</u>		-0.023 (0.020)	-0.035 (0.028)	-0.006 (0.029)
		{1.000}	{1.000}	{1.000}
Does not report ER as usual source of care	0.94 (0.20)	0.002 (0.007)	-0.006 (0.009)	0.011 (0.011)
		{1.000}	{1.000}	{1.000}
Did not skip medical care due to costs	0.84 (0.27)	0.000 (0.009)	-0.003 (0.010)	0.004 (0.014)
		{1.000}	{1.000}	{1.000}
Did not skip mental health care due to costs	0.82 (0.31)	-0.008 (0.011)	-0.009 (0.014)	-0.003 (0.016)
		{1.000}	{1.000}	{1.000}
Did not skip dental care due to costs	0.74 (0.35)	-0.018 (0.011)	-0.014 (0.014)	-0.011 (0.017)
		{1.000}	{1.000}	{1.000}
Did not use alternative therapies to save money	0.93 (0.22)	-0.011 (0.008)	-0.010 (0.009)	-0.015 (0.013)
		{1.000}	{1.000}	{1.000}
<u>Prescription Drug Access</u>		0.007 (0.028)	-0.035 (0.041)	0.038 (0.040)
		{1.000}	{1.000}	{1.000}
Did not skip doses to save money	0.93 (0.22)	-0.000 (0.008)	-0.012 (0.008)	0.008 (0.013)
		{1.000}	{1.000}	{1.000}
Did not delay refilling to save money	0.92 (0.23)	0.001 (0.008)	-0.013 (0.008)	0.018 (0.014)
		{1.000}	{1.000}	{1.000}
Did not ask doctor for lower cost medications	0.89 (0.27)	0.004 (0.009)	0.011 (0.011)	0.006 (0.015)
		{1.000}	{1.000}	{1.000}
Expenditures on insurance premiums	1162.49 (1754.63)	21.285 (56.700)	100.510 (83.348)	-46.384 (78.207)
		{1.000}	{1.000}	{1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who reported very good or excellent health, or good, fair, or poor health, at baseline, as labeled.

Table A51: Impact of Guaranteed Income on Use of Office-Based Care by Baseline Health

	Control Mean	Main Estimate	Health VG or Exc	Health Poor, Fair, Good
Office Care Index		0.035 (0.016) {0.224}	0.021 (0.022) {1.000}	0.044 (0.022) {0.645}
<u>Primary Care</u>		0.013 (0.022) {0.355}	-0.029 (0.031) {1.000}	0.043 (0.031) {0.944}
Any primary care visit in last 12 mos	0.61 (0.43)	0.005 (0.014) {0.670}	0.000 (0.020) {1.000}	0.019 (0.019) {1.000}
Number of office visits last 12 mos	3.45 (4.38)	0.287 (0.153) {0.403}	0.013 (0.160) {1.000}	0.570 (0.259) {0.529}
Has usual place of care other than ER	0.80 (0.35)	-0.007 (0.012) {0.646}	-0.028 (0.016) {0.769}	0.009 (0.016) {1.000}
Has personal doctor or health provider	0.56 (0.44)	-0.004 (0.014) {0.688}	-0.015 (0.020) {1.000}	-0.006 (0.020) {1.000}
<u>Specialist and Surgical Care</u>		0.034 (0.023) {0.200}	-0.018 (0.031) {1.000}	0.058 (0.031) {0.769}
Any specialist visit last 12 mos	0.42 (0.43)	0.026 (0.015) {0.403}	-0.025 (0.020) {0.972}	0.073 (0.021) {0.102}
Any surgery last 12 mos	0.11 (0.23)	-0.001 (0.008) {0.689}	-0.010 (0.011) {1.000}	-0.001 (0.013) {1.000}
Any mental health care visit last 12 mos	0.22 (0.36)	0.017 (0.012) {0.416}	0.017 (0.016) {0.988}	0.004 (0.017) {1.000}
<u>Dental Care</u>		0.082 (0.033) {0.112}	0.078 (0.048) {0.781}	0.082 (0.044) {0.743}
Any dentist visit last 12 mos	0.48 (0.44)	0.048 (0.016) {0.116}	0.051 (0.022) {0.516}	0.042 (0.023) {0.769}
Number of dentist visits last 12 mos	1.35 (2.10)	0.115 (0.085) {0.464}	0.084 (0.130) {1.000}	0.150 (0.107) {0.953}
<u>Preventive Care</u>		-0.030 (0.023) {0.200}	-0.029 (0.031) {1.000}	-0.017 (0.033) {1.000}
Flu shot or nasal spray	0.31 (0.43)	-0.002 (0.013) {0.689}	0.021 (0.019) {0.988}	-0.017 (0.019) {1.000}
Cholesterol test	0.42 (0.44)	-0.007 (0.015) {0.661}	-0.035 (0.021) {0.769}	0.013 (0.021) {1.000}
PAP test (women only)	0.52 (0.43)	-0.030 (0.019) {0.416}	-0.024 (0.026) {1.000}	-0.018 (0.026) {1.000}
Had COVID vaccine*	0.64 (0.47)	-0.037 (0.016) {0.460}	-0.011 (0.022) {1.000}	-0.050 (0.022) {0.516}
<u>Medical care spending</u>	155.23 (283.62)	21.731 (10.389) {0.112}	22.707 (11.817) {0.659}	18.196 (17.295) {0.988}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who reported very good or excellent health, or good, fair, or poor health, at baseline, as labeled.

Table A52: Impact of Guaranteed Income on Use of Hospital and ED Care by Baseline Health

	Control Mean	Main Estimate	Health VG or Exc	Health Poor, Fair, Good
Hospital care index		0.074 (0.029) {0.224}	0.032 (0.040) {0.362}	0.090 (0.041) {0.185}
<u>Emergency Department Care</u>		0.083 (0.032) {0.031}	0.036 (0.046) {0.382}	0.101 (0.046) {0.188}
Any ED visit	0.24 (0.34)	0.027 (0.012) {0.074}	0.018 (0.015) {0.299}	0.026 (0.018) {0.275}
Number of ED visits	0.58 (1.30)	0.112 (0.050) {0.074}	0.008 (0.039) {0.524}	0.213 (0.096) {0.185}
<u>Hospital Care</u>		0.066 (0.035) {0.052}	0.029 (0.047) {0.413}	0.078 (0.049) {0.256}
Any hospitalization	0.10 (0.22)	0.013 (0.008) {0.098}	0.013 (0.010) {0.278}	0.014 (0.013) {0.326}
Number of hospitalizations	0.23 (0.72)	0.053 (0.028) {0.083}	-0.007 (0.027) {0.516}	0.089 (0.049) {0.230}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who reported very good or excellent health, or good, fair, or poor health, at baseline, as labeled.

Table A53: Impact of Guaranteed Income on Food Security and Nutrition by Baseline Health

	Control Mean	Main Estimate	Health VG or Exc	Health Poor, Fair, Good
Nutrition and food security index		0.003 (0.018)	0.010 (0.026)	-0.015 (0.026)
		{1.000}	{1.000}	{1.000}
Food Security Scale	3.77 (2.10)	-0.013 (0.063)	-0.023 (0.084)	-0.058 (0.094)
(0=Least secure, ... 6=Most secure)		{1.000}	{1.000}	{1.000}
Diet behavior		0.013 (0.020)	0.031 (0.028)	-0.002 (0.027)
		{1.000}	{1.000}	{1.000}
Health Eating Index	44.83 (9.68)	0.565 (0.335)	0.398 (0.487)	0.604 (0.455)
(0=Least healthy, ... 100=Most healthy)		{1.000}	{1.000}	{1.000}
# of times eating at fast food establishment last week	6.21 (5.74)	0.274 (0.180)	-0.048 (0.247)	0.504 (0.256)
		{1.000}	{1.000}	{1.000}
# times drinking regular soda containing sugar last week	4.80 (6.50)	-0.181 (0.180)	-0.277 (0.245)	-0.095 (0.268)
		{1.000}	{1.000}	{1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants whose household income was below vs at or above 100% of the FPL at baseline, as labeled.

Table A54: Impact of Guaranteed Income on Health Investments by Baseline Health

	Control Mean	Main Estimate	Health VG or Exc	Health Poor, Fair, Good
Health investments index		-0.028 (0.015)	-0.016 (0.021)	-0.041 (0.021)
<u>Physical activity</u>		{0.224}	{0.742}	{0.331}
		-0.026 (0.023)	0.005 (0.032)	-0.064 (0.031)
		{0.141}	{1.000}	{0.331}
Time in physical activity/recreation (survey, hours/day)	0.84 (0.94)	-0.082 (0.031)	-0.071 (0.043)	-0.106 (0.046)
		{0.052}	{0.383}	{0.274}
Time in physical activity/recreation (time diary, min/day)	12.46 (23.90)	-0.179 (0.855)	0.931 (1.321)	-1.777 (0.958)
		{0.534}	{0.747}	{0.331}
# of Times Exercising Last Month	7.56 (8.14)	0.128 (0.272)	0.467 (0.378)	0.023 (0.378)
		{0.407}	{0.530}	{1.000}
Sleep		-0.030 (0.018)	-0.037 (0.025)	-0.018 (0.026)
		{0.124}	{0.457}	{0.750}
Sleep amount (survey, hours/day)	6.24 (1.75)	0.028 (0.053)	-0.025 (0.071)	0.073 (0.077)
		{0.407}	{0.892}	{0.685}
Sleep amount (time diary, min/day)	535.94 (133.62)	-7.733 (4.004)	-4.487 (5.494)	-11.505 (5.845)
		{0.124}	{0.742}	{0.331}
Sleep quality	2.67 (0.54)	-0.026 (0.016)	-0.032 (0.022)	-0.004 (0.022)
(1=Very bad,... 4=Very good)		{0.153}	{0.469}	{1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who reported very good or excellent health, or good, fair, or poor health, at baseline, as labeled.

Table A55: Impact of Guaranteed Income on Unhealthy Behaviors by Baseline Health

	Control Mean	Main Estimate	Health VG or Exc	Health Poor, Fair, Good
Lack of unhealthy behaviors index		0.013 (0.014)	0.008 (0.021)	0.002 (0.020)
		{0.579}	{1.000}	{1.000}
<u>Alcohol use and interference</u>		0.010 (0.026)	0.054 (0.034)	-0.041 (0.038)
		{1.000}	{1.000}	{1.000}
Total number of drinks (last 30 days)	9.56 (20.42)	0.978 (0.789)	-0.148 (0.968)	1.981 (1.174)
		{0.848}	{1.000}	{1.000}
Days not drinking alcohol (of last 30)	27.24 (4.79)	-0.322 (0.178)	-0.152 (0.224)	-0.509 (0.261)
		{1.000}	{1.000}	{1.000}
Days not drinking 4+ drinks (of last 30)	29.03 (2.65)	-0.116 (0.109)	0.004 (0.134)	-0.265 (0.155)
		{0.848}	{1.000}	{1.000}
Drinking/hangovers interfered with responsibilities (12 mos)	3.89 (0.35)	0.020 (0.010)	0.031 (0.014)	0.012 (0.016)
(0=Daily or Almost Daily, ... 4=Never)		{0.693}	{1.000}	{1.000}
Drinking caused arguments/serious problems with others (12 mos)	3.92 (0.30)	0.009 (0.009)	0.026 (0.014)	-0.015 (0.013)
(0=Daily or Almost Daily, ... 4=Never)		{0.848}	{1.000}	{1.000}
Under the influence in a situation where you could get hurt (12 mos)	3.93 (0.29)	0.016 (0.009)	0.028 (0.013)	0.002 (0.013)
(0=Daily or Almost Daily, ... 4=Never)		{0.693}	{1.000}	{1.000}
<u>Smoking behavior</u>		0.020 (0.020)	0.011 (0.028)	0.033 (0.029)
		{1.000}	{1.000}	{1.000}
Does not use tobacco products	0.75 (0.39)	-0.000 (0.010)	-0.007 (0.013)	0.010 (0.014)
		{1.000}	{1.000}	{1.000}
Does not smoke cigarettes daily	0.83 (0.34)	0.013 (0.008)	0.011 (0.010)	0.017 (0.012)
		{0.764}	{1.000}	{1.000}
Number of cigarettes smoked on typical day	1.51 (3.85)	-0.082 (0.093)	-0.048 (0.111)	-0.119 (0.155)
		{0.848}	{1.000}	{1.000}
<u>Drug use</u>		0.008 (0.019)	-0.041 (0.036)	0.014 (0.027)
		{1.000}	{1.000}	{1.000}
Days not using marijuana (of last 30)	25.92 (8.38)	0.022 (0.278)	-0.086 (0.364)	-0.120 (0.420)
		{1.000}	{1.000}	{1.000}
Days not using painkillers not prescribed to you (of last 30)	29.88 (1.23)	0.073 (0.031)	0.009 (0.018)	0.154 (0.062)
		{0.460}	{1.000}	{1.000}
Days not using illegal drugs (of last 30)	29.76 (1.83)	0.019 (0.063)	-0.012 (0.075)	0.022 (0.098)
		{1.000}	{1.000}	{1.000}
Days not using sedatives not prescribed to you (of last 30)	29.92 (0.75)	-0.029 (0.030)	-0.053 (0.032)	-0.001 (0.053)
		{0.848}	{1.000}	{1.000}
No illegal drug use in past 30 days	0.89 (0.25)	0.002 (0.009)	-0.004 (0.011)	-0.005 (0.013)
		{1.000}	{1.000}	{1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who reported very good or excellent health, or good, fair, or poor health, at baseline, as labeled.

Table A56: Impact of Guaranteed Income on Self-Reported Mental Health by State

	Control Mean	Main Estimate	Texas	Illinois
Mental health index		-0.011 (0.021)	-0.015 (0.031)	-0.011 (0.028)
Emotional problems' interference with daily life		{0.846}	{1.000}	{1.000}
		-0.015 (0.025)	-0.024 (0.036)	-0.016 (0.032)
		{1.000}	{1.000}	{1.000}
Accomplish less than you would like (1=All of the time, ..., 5=None of the time)	3.62 (0.97)	-0.019 (0.027)	-0.040 (0.039)	-0.014 (0.037)
		{1.000}	{1.000}	{1.000}
Did work or activities less carefully (1=All of the time, ..., 5=None of the time)	3.87 (0.88)	0.002 (0.026)	0.006 (0.036)	-0.012 (0.036)
		{1.000}	{1.000}	{1.000}
Interfered with social activities (1=All of the time, ..., 5=None of the time)	3.80 (0.93)	-0.026 (0.027)	-0.034 (0.039)	-0.019 (0.036)
		{1.000}	{1.000}	{1.000}
<u>Kessler 6 mental distress scale</u> (0=Least mental distress,... 24=Most mental distress)	6.25 (4.51)	-0.052 (0.124)	-0.136 (0.180)	0.027 (0.162)
		{1.000}	{1.000}	{1.000}
<u>Perceived stress scale</u> (0=Least stress, ... 40=Most stress)	18.58 (6.60)	-0.018 (0.180)	-0.052 (0.261)	0.012 (0.242)
		{1.000}	{1.000}	{1.000}
<u>Generalized anxiety disorder scale</u> (0=Least anxiety, ... 6=Most anxiety)	2.00 (1.50)	0.018 (0.042)	0.042 (0.061)	-0.001 (0.057)
		{1.000}	{1.000}	{1.000}
<u>Depression scale, PHQ-9</u> (0=Least depressed, ... 27=Most depressed)	7.21 (5.68)	0.133 (0.157)	0.287 (0.233)	0.022 (0.210)
		{1.000}	{1.000}	{1.000}
<u>Days mental health good of last 30</u>	23.20 (7.37)	-0.242 (0.215)	-0.200 (0.303)	-0.270 (0.299)
		{1.000}	{1.000}	{1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who recruited in Texas or Illinois at baseline, as labeled.

Table A57: Impact of Guaranteed Income on Self-Reported Physical Health by State

	Control Mean	Main Estimate	Texas	Illinois
Self-Reported Physical Health Index		-0.019 (0.020)	-0.008 (0.029)	-0.037 (0.028)
# Days Physical Health Good of Last 30	26.11 (5.55)	{0.579}	{1.000}	{1.000}
Health Rating	3.22 (0.92)	{0.244}	{1.000}	{1.000}
(1=Poor, ..., 5=Excellent)		-0.034 (0.025)	-0.047 (0.035)	-0.041 (0.034)
Health is not limiting		{0.254}	{1.000}	{1.000}
		0.015 (0.022)	0.032 (0.031)	0.006 (0.030)
Health limitations of moderate activities	2.69 (0.46)	{0.370}	{1.000}	{1.000}
(1=Limited a lot, ..., 3=Not limited at all)		0.016 (0.013)	0.030 (0.018)	0.005 (0.018)
Health limitations of climbing several stairs	2.59 (0.53)	{0.491}	{1.000}	{1.000}
(1=Limited a lot, ..., 3=Not limited at all)		0.007 (0.015)	0.010 (0.021)	0.004 (0.021)
Accomplished less due to physical health	3.88 (0.92)	{0.577}	{1.000}	{1.000}
(1=All of the time, ..., 5=None of the time)		0.014 (0.026)	0.025 (0.038)	0.010 (0.036)
Limited in work/other activities due to physical health	4.08 (0.93)	{0.577}	{1.000}	{1.000}
(1=All of the time, ..., 5=None of the time)		0.036 (0.025)	0.078 (0.036)	0.016 (0.036)
Health interference with social activities	3.80 (0.93)	{0.467}	{1.000}	{1.000}
(1=All of the time, ..., 5=None of the time)		-0.026 (0.027)	-0.034 (0.039)	-0.019 (0.036)
Pain interference with normal work	4.03 (0.89)	{0.577}	{1.000}	{1.000}
(1=Extremely, ..., 5=Not at all)		0.015 (0.025)	0.022 (0.036)	0.001 (0.035)
		{0.370}	{1.000}	{1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who recruited in Texas or Illinois at baseline, as labeled.

Table A58: Impact of Guaranteed Income on Healthcare Access by State

	Control Mean	Main Estimate	Texas	Illinois
Healthcare Access Index		0.000 (0.017) {1.000}	0.005 (0.023) {1.000}	-0.002 (0.026) {1.000}
<u>Has insurance coverage</u>	0.78 (0.37)	0.013 (0.012) {1.000}	0.015 (0.019) {1.000}	0.007 (0.015) {1.000}
<u>Health Care Related Financial Strain</u>		-0.019 (0.021) {1.000}	0.010 (0.027) {1.000}	-0.063 (0.042) {1.000}
Worry over medical costs (0=Very worried,..., 3=Not worried at all)	2.00 (0.80)	-0.067 (0.025) {0.319}	-0.048 (0.036) {1.000}	-0.068 (0.036) {1.000}
Did not skip other bills to pay for health care	0.94 (0.20)	0.005 (0.007) {1.000}	0.012 (0.010) {1.000}	0.001 (0.009) {1.000}
Medical debt (\$, from Credit Report)	587.52 (2422.50)	-10.903 (74.054) {1.000}	-106.135 (118.000) {1.000}	93.908 (81.350) {1.000}
<u>Needed Care Access</u>		-0.023 (0.020) {1.000}	-0.025 (0.028) {1.000}	0.009 (0.029) {1.000}
Does not report ER as usual source of care	0.94 (0.20)	0.002 (0.007) {1.000}	0.002 (0.011) {1.000}	0.003 (0.007) {1.000}
Did not skip medical care due to costs	0.84 (0.27)	0.000 (0.009) {1.000}	0.002 (0.014) {1.000}	0.011 (0.010) {1.000}
Did not skip mental health care due to costs	0.82 (0.31)	-0.008 (0.011) {1.000}	-0.009 (0.016) {1.000}	-0.008 (0.013) {1.000}
Did not skip dental care due to costs	0.74 (0.35)	-0.018 (0.011) {1.000}	-0.024 (0.016) {1.000}	-0.001 (0.014) {1.000}
Did not use alternative therapies to save money	0.93 (0.22)	-0.011 (0.008) {1.000}	-0.012 (0.013) {1.000}	0.000 (0.009) {1.000}
<u>Prescription Drug Access</u>		0.007 (0.028) {1.000}	0.000 (0.040) {1.000}	0.025 (0.037) {1.000}
Did not skip doses to save money	0.93 (0.22)	-0.000 (0.008) {1.000}	0.002 (0.012) {1.000}	0.001 (0.009) {1.000}
Did not delay refilling to save money	0.92 (0.23)	0.001 (0.008) {1.000}	-0.001 (0.013) {1.000}	0.004 (0.008) {1.000}
Did not ask doctor for lower cost medications	0.89 (0.27)	0.004 (0.009) {1.000}	-0.001 (0.015) {1.000}	0.011 (0.011) {1.000}
Expenditures on insurance premiums	1162.49 (1754.63)	21.285 (56.700) {1.000}	15.721 (85.743) {1.000}	-3.474 (72.543) {1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who recruited in Texas or Illinois at baseline, as labeled.

Table A59: Impact of Guaranteed Income on Use of Office-Based Care by State

	Control Mean	Main Estimate	Texas	Illinois
Office Care Index		0.035 (0.016) {0.224}	0.006 (0.022) {1.000}	0.061 (0.023) {0.279}
<u>Primary Care</u>		0.013 (0.022) {0.355}	-0.008 (0.030) {1.000}	0.024 (0.031) {1.000}
Any primary care visit in last 12 mos	0.61 (0.43)	0.005 (0.014) {0.670}	0.014 (0.020) {1.000}	-0.005 (0.019) {1.000}
Number of office visits last 12 mos	3.45 (4.38)	0.287 (0.153) {0.403}	-0.007 (0.201) {1.000}	0.408 (0.228) {0.852}
Has usual place of care other than ER	0.80 (0.35)	-0.007 (0.012) {0.646}	-0.018 (0.018) {1.000}	0.006 (0.014) {1.000}
Has personal doctor or health provider	0.56 (0.44)	-0.004 (0.014) {0.688}	-0.007 (0.020) {1.000}	-0.002 (0.021) {1.000}
<u>Specialist and Surgical Care</u>		0.034 (0.023) {0.200}	0.023 (0.032) {1.000}	0.020 (0.031) {1.000}
Any specialist visit last 12 mos	0.42 (0.43)	0.026 (0.015) {0.403}	0.022 (0.020) {1.000}	0.015 (0.021) {1.000}
Any surgery last 12 mos	0.11 (0.23)	-0.001 (0.008) {0.689}	0.004 (0.012) {1.000}	-0.007 (0.012) {1.000}
Any mental health care visit last 12 mos	0.22 (0.36)	0.017 (0.012) {0.416}	-0.000 (0.016) {1.000}	0.019 (0.017) {1.000}
<u>Dental Care</u>		0.082 (0.033) {0.112}	0.024 (0.042) {1.000}	0.144 (0.055) {0.279}
Any dentist visit last 12 mos	0.48 (0.44)	0.048 (0.016) {0.116}	0.027 (0.022) {1.000}	0.066 (0.023) {0.279}
Number of dentist visits last 12 mos	1.35 (2.10)	0.115 (0.085) {0.464}	-0.031 (0.108) {1.000}	0.255 (0.141) {0.852}
<u>Preventive Care</u>		-0.030 (0.023) {0.200}	-0.031 (0.032) {1.000}	-0.014 (0.031) {1.000}
Flu shot or nasal spray	0.31 (0.43)	-0.002 (0.013) {0.689}	-0.005 (0.018) {1.000}	0.002 (0.019) {1.000}
Cholesterol test	0.42 (0.44)	-0.007 (0.015) {0.661}	-0.004 (0.021) {1.000}	-0.003 (0.020) {1.000}
PAP test (women only)	0.52 (0.43)	-0.030 (0.019) {0.416}	-0.031 (0.025) {1.000}	-0.016 (0.026) {1.000}
Had COVID vaccine*	0.64 (0.47)	-0.037 (0.016) {0.460}	-0.023 (0.023) {1.000}	-0.032 (0.021) {1.000}
<u>Medical care spending</u>	155.23 (283.62)	21.731 (10.389) {0.112}	7.014 (16.565) {1.000}	28.647 (13.482) {0.624}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who reported skipping vs not skipping medical care due to costs at baseline, as labeled.

Table A60: Impact of Guaranteed Income on Use of Hospital and ED Care by State

	Control Mean	Main Estimate	Texas	Illinois
Hospital care index		0.074 (0.029) {0.224}	0.064 (0.040) {0.263}	0.072 (0.039) {0.241}
<u>Emergency Department Care</u>		0.083 (0.032) {0.031}	0.027 (0.042) {0.426}	0.125 (0.048) {0.132}
Any ED visit	0.24 (0.34)	0.027 (0.012) {0.074}	0.012 (0.016) {0.394}	0.029 (0.016) {0.242}
Number of ED visits	0.58 (1.30)	0.112 (0.050) {0.074}	0.026 (0.072) {0.508}	0.182 (0.069) {0.132}
<u>Hospital Care</u>		0.066 (0.035) {0.052}	0.102 (0.051) {0.221}	0.018 (0.045) {0.493}
Any hospitalization	0.10 (0.22)	0.013 (0.008) {0.098}	0.023 (0.012) {0.221}	0.002 (0.011) {0.551}
Number of hospitalizations	0.23 (0.72)	0.053 (0.028) {0.083}	0.073 (0.045) {0.263}	0.019 (0.033) {0.445}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who recruited in Texas or Illinois at baseline, as labeled.

Table A61: Impact of Guaranteed Income on Food Security and Nutrition by State

	Control Mean	Main Estimate	Texas	Illinois
Nutrition and food security index		0.003 (0.018)	0.001 (0.026)	-0.007 (0.025)
		{1.000}	{1.000}	{1.000}
Food Security Scale	3.77 (2.10)	-0.013 (0.063)	-0.066 (0.091)	-0.036 (0.086)
(0=Least secure, ... 6=Most secure)		{1.000}	{1.000}	{1.000}
Diet behavior		0.013 (0.020)	0.033 (0.028)	0.003 (0.027)
		{1.000}	{1.000}	{1.000}
Health Eating Index	44.83 (9.68)	0.565 (0.335)	0.800 (0.461)	0.265 (0.467)
(0=Least healthy, ... 100=Most healthy)		{1.000}	{1.000}	{1.000}
# of times eating at fast food establishment last week	6.21 (5.74)	0.274 (0.180)	0.294 (0.276)	0.177 (0.238)
		{1.000}	{1.000}	{1.000}
# times drinking regular soda containing sugar last week	4.80 (6.50)	-0.181 (0.180)	-0.421 (0.261)	-0.102 (0.241)
		{1.000}	{1.000}	{1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who recruited in Texas or Illinois at baseline, as labeled.

Table A62: Impact of Guaranteed Income on Health Investments by State

	Control Mean	Main Estimate	Texas	Illinois
Health investments index		-0.028 (0.015)	-0.024 (0.021)	-0.028 (0.020)
<u>Physical activity</u>		{0.224}	{0.574}	{0.490}
		-0.026 (0.023)	-0.024 (0.031)	-0.014 (0.031)
		{0.141}	{0.767}	{0.853}
Time in physical activity/recreation (survey, hours/day)	0.84 (0.94)	-0.082 (0.031)	-0.083 (0.044)	-0.087 (0.043)
		{0.052}	{0.356}	{0.356}
Time in physical activity/recreation (time diary, min/day)	12.46 (23.90)	-0.179 (0.855)	-0.138 (1.075)	-0.044 (1.244)
		{0.534}	{1.000}	{1.000}
# of Times Exercising Last Month	7.56 (8.14)	0.128 (0.272)	0.168 (0.367)	0.429 (0.389)
		{0.407}	{0.853}	{0.600}
<u>Sleep</u>		-0.030 (0.018)	-0.023 (0.026)	-0.041 (0.025)
		{0.124}	{0.732}	{0.396}
Sleep amount (survey, hours/day)	6.24 (1.75)	0.028 (0.053)	0.032 (0.073)	-0.031 (0.074)
		{0.407}	{0.853}	{0.853}
Sleep amount (time diary, min/day)	535.94 (133.62)	-7.733 (4.004)	-2.552 (5.645)	-9.353 (5.839)
		{0.124}	{0.853}	{0.396}
Sleep quality	2.67 (0.54)	-0.026 (0.016)	-0.037 (0.023)	-0.020 (0.022)
(1=Very bad,... 4=Very good)		{0.153}	{0.396}	{0.732}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who recruited in Texas or Illinois at baseline, as labeled.

Table A63: Impact of Guaranteed Income on Unhealthy Behaviors by State

	Control Mean	Main Estimate	Texas	Illinois
Lack of unhealthy behaviors index		0.013 (0.014) {0.579}	0.026 (0.020) {1.000}	0.001 (0.020) {1.000}
<u>Alcohol use and interference</u>		0.010 (0.026) {1.000}	0.020 (0.039) {1.000}	0.007 (0.035) {1.000}
Total number of drinks (last 30 days)	9.56 (20.42)	0.978 (0.789) {0.848}	0.856 (1.142) {1.000}	1.015 (1.058) {1.000}
Days not drinking alcohol (of last 30)	27.24 (4.79)	-0.322 (0.178) {1.000}	-0.093 (0.256) {1.000}	-0.453 (0.241) {1.000}
Days not drinking 4+ drinks (of last 30)	29.03 (2.65)	-0.116 (0.109) {0.848}	-0.100 (0.150) {1.000}	-0.100 (0.147) {1.000}
Drinking/hangovers interfered with responsibilities (12 mos) (0=Daily or Almost Daily, ... 4=Never)	3.89 (0.35)	0.020 (0.010) {0.693}	0.028 (0.015) {1.000}	0.006 (0.015) {1.000}
Drinking caused arguments/serious problems with others (12 mos) (0=Daily or Almost Daily, ... 4=Never)	3.92 (0.30)	0.009 (0.009) {0.848}	0.009 (0.014) {1.000}	0.017 (0.014) {1.000}
Under the influence in a situation where you could get hurt (12 mos) (0=Daily or Almost Daily, ... 4=Never)	3.93 (0.29)	0.016 (0.009) {0.693}	0.019 (0.013) {1.000}	0.015 (0.014) {1.000}
<u>Smoking behavior</u>		0.020 (0.020) {1.000}	0.023 (0.027) {1.000}	0.017 (0.029) {1.000}
Does not use tobacco products	0.75 (0.39)	-0.000 (0.010) {1.000}	0.004 (0.013) {1.000}	-0.005 (0.014) {1.000}
Does not smoke cigarettes daily	0.83 (0.34)	0.013 (0.008) {0.764}	0.019 (0.011) {1.000}	0.008 (0.012) {1.000}
Number of cigarettes smoked on typical day	1.51 (3.85)	-0.082 (0.093) {0.848}	-0.017 (0.131) {1.000}	-0.154 (0.136) {1.000}
<u>Drug use</u>		0.008 (0.019) {1.000}	0.035 (0.027) {1.000}	-0.023 (0.030) {1.000}
Days not using marijuana (of last 30)	25.92 (8.38)	0.022 (0.278) {1.000}	0.383 (0.330) {1.000}	-0.523 (0.433) {1.000}
Days not using painkillers not prescribed to you (of last 30)	29.88 (1.23)	0.073 (0.031) {0.460}	0.075 (0.035) {1.000}	0.078 (0.052) {1.000}
Days not using illegal drugs (of last 30)	29.76 (1.83)	0.019 (0.063) {1.000}	0.078 (0.095) {1.000}	-0.027 (0.086) {1.000}
Days not using sedatives not prescribed to you (of last 30)	29.92 (0.75)	-0.029 (0.030) {0.848}	-0.029 (0.041) {1.000}	-0.002 (0.039) {1.000}
No illegal drug use in past 30 days	0.89 (0.25)	0.002 (0.009) {1.000}	0.016 (0.015) {1.000}	-0.012 (0.007) {1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for participants who recruited in Texas or Illinois at baseline, as labeled.

Table A64: Impact of Guaranteed Income on Children's Health by Child Sex

	Control Mean	Main Estimate	Male	Female
Child Health		-0.014 (0.022) {0.801}	-0.008 (0.030) {1.000}	-0.058 (0.031) {1.000}
<u>Disabilities and limitations</u>		0.013 (0.029) {1.000}	0.039 (0.038) {1.000}	-0.063 (0.038) {1.000}
Child has no health issue or disability that limits activities	0.89 (0.29)	0.004 (0.009) {1.000}	0.015 (0.012) {1.000}	-0.014 (0.011) {1.000}
Degree to which disability limits activities	3.68 (0.88)	0.009 (0.026) {1.000}	0.029 (0.037) {1.000}	-0.056 (0.031) {1.000}
<u>Parent's report of the child's health</u>	4.40 (0.73)	-0.029 (0.023) {1.000}	-0.040 (0.031) {1.000}	-0.039 (0.032) {1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for children of participants who were male vs female, as labeled.

Table A65: Impact of Guaranteed Income on Children’s Health by Baseline Income

	Control Mean	Main Estimate	100% FPL+	Under 100% FPL
Child Health		-0.014 (0.022) {0.801}	-0.024 (0.028) {1.000}	0.019 (0.031) {1.000}
<u>Disabilities and limitations</u>		0.013 (0.029) {1.000}	-0.030 (0.036) {1.000}	0.065 (0.038) {1.000}
Child has no health issue or disability that limits activities	0.89 (0.29)	0.004 (0.009) {1.000}	-0.006 (0.010) {1.000}	0.016 (0.012) {1.000}
Degree to which disability limits activities	3.68 (0.88)	0.009 (0.026) {1.000}	-0.032 (0.032) {1.000}	0.071 (0.039) {1.000}
<u>Parent’s report of the child’s health</u>	4.40 (0.73)	-0.029 (0.023) {1.000}	-0.013 (0.027) {1.000}	-0.021 (0.036) {1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for children of participants who were above vs below the federal poverty level, as labeled.

Table A66: Impact of Guaranteed Income on Children's Health by Child's Age at Baseline

	Control Mean	Main Estimate	Under Age 5	Age 5-10	Age 11-17
Child Health		-0.014 (0.022) {0.801}	-0.011 (0.037) {1.000}	-0.090 (0.035) {0.490}	-0.025 (0.045) {1.000}
<u>Disabilities and limitations</u>		0.013 (0.029) {1.000}	-0.005 (0.050) {1.000}	-0.025 (0.047) {1.000}	-0.005 (0.055) {1.000}
Child has no health issue or disability that limits activities	0.89 (0.29)	0.004 (0.009) {1.000}	0.002 (0.014) {1.000}	-0.009 (0.014) {1.000}	-0.007 (0.020) {1.000}
Degree to which disability limits activities	3.68 (0.88)	0.009 (0.026) {1.000}	-0.014 (0.044) {1.000}	-0.016 (0.043) {1.000}	0.011 (0.059) {1.000}
<u>Parent's report of the child's health</u>	4.40 (0.73)	-0.029 (0.023) {1.000}	-0.011 (0.035) {1.000}	-0.112 (0.042) {0.490}	-0.037 (0.052) {1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for children of participants based on child's age at baseline, as labeled.

Table A67: Impact of Guaranteed Income on Children's Access to and Use of Care by Sex

	Control Mean	Main Estimate	Male	Female
Child Healthcare Use and Access		-0.022 (0.020) {0.546}	-0.001 (0.021) {1.000}	-0.051 (0.023) {0.450}
<u>Child Healthcare Access</u>		-0.039 (0.033) {0.713}	0.001 (0.031) {1.000}	-0.121 (0.037) {0.033}
Child did not skip health care because parent couldn't afford it	0.98 (0.10)	0.002 (0.005) {0.798}	0.005 (0.006) {1.000}	-0.005 (0.006) {1.000}
Child did not skip health care because parent couldn't to take time off work	0.98 (0.12)	-0.012 (0.006) {0.611}	-0.005 (0.006) {1.000}	-0.021 (0.007) {0.068}
<u>Child Healthcare Use</u>		-0.005 (0.025) {0.713}	-0.003 (0.031) {1.000}	0.019 (0.028) {1.000}
How long ago child last saw a dentist (age 2+)	5.50 (1.05)	-0.016 (0.044) {0.798}	-0.019 (0.053) {1.000}	-0.009 (0.055) {1.000}
How long ago child last saw a doctor	5.69 (0.72)	-0.042 (0.029) {0.635}	-0.046 (0.038) {1.000}	0.005 (0.030) {1.000}
Child is current on all required vaccinations	0.65 (0.48)	0.028 (0.024) {0.635}	0.035 (0.027) {1.000}	0.028 (0.026) {1.000}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for children of participants who were male vs female, as labeled.

Table A68: Impact of Guaranteed Income on Children’s Access to and Use of Care by Baseline Income

	Control Mean	Main Estimate	100% FPL+	Under 100% FPL
Child Healthcare Use and Access		-0.022 (0.020) {0.546}	-0.027 (0.021) {1.000}	-0.039 (0.027) {0.878}
<u>Child Healthcare Access</u>		-0.039 (0.033) {0.713}	-0.047 (0.032) {0.878}	-0.050 (0.040) {1.000}
Child did not skip health care because parent couldn’t afford it	0.98 (0.10)	0.002 (0.005) {0.798}	-0.004 (0.005) {1.000}	-0.008 (0.007) {1.000}
Child did not skip health care because parent couldn’t to take time off work	0.98 (0.12)	-0.012 (0.006) {0.611}	-0.007 (0.007) {1.000}	-0.002 (0.007) {1.000}
<u>Child Healthcare Use</u>		-0.005 (0.025) {0.713}	-0.007 (0.029) {1.000}	-0.029 (0.032) {1.000}
How long ago child last saw a dentist (age 2+)	5.50 (1.05)	-0.016 (0.044) {0.798}	0.004 (0.052) {1.000}	-0.002 (0.069) {1.000}
How long ago child last saw a doctor	5.69 (0.72)	-0.042 (0.029) {0.635}	-0.033 (0.034) {1.000}	-0.061 (0.037) {0.678}
Child is current on all required vaccinations	0.65 (0.48)	0.028 (0.024) {0.635}	0.010 (0.029) {1.000}	0.003 (0.040) {1.000}

This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for children of participants who were in households with incomes above vs below the federal poverty level, as labeled.

Table A69: Impact of Guaranteed Income on Children’s Access to and Use of Care by Child’s Age at Baseline

	Control Mean	Main Estimate	Under Age 5	Age 5-10	Age 11-17
Child Healthcare Use and Access		-0.022 (0.020) {0.546}	0.015 (0.024) {1.000}	-0.036 (0.027) {1.000}	0.019 (0.030) {1.000}
<u>Child Healthcare Access</u>		-0.039 (0.033) {0.713}	0.032 (0.036) {1.000}	-0.133 (0.043) {0.046}	-0.029 (0.040) {1.000}
Child did not skip health care because parent couldn’t afford it	0.98 (0.10)	0.002 (0.005) {0.798}	0.010 (0.006) {0.868}	-0.002 (0.007) {1.000}	0.001 (0.008) {1.000}
Child did not skip health care because parent couldn’t to take time off work	0.98 (0.12)	-0.012 (0.006) {0.611}	-0.003 (0.007) {1.000}	-0.028 (0.010) {0.073}	-0.010 (0.010) {1.000}
<u>Child Healthcare Use</u>		-0.005 (0.025) {0.713}	-0.002 (0.033) {1.000}	0.061 (0.035) {0.675}	0.067 (0.045) {0.878}
How long ago child last saw a dentist (age 2+)	5.50 (1.05)	-0.016 (0.044) {0.798}	-0.000 (0.074) {1.000}	-0.008 (0.049) {1.000}	-0.027 (0.056) {1.000}
How long ago child last saw a doctor	5.69 (0.72)	-0.042 (0.029) {0.635}	-0.019 (0.027) {1.000}	0.010 (0.043) {1.000}	0.019 (0.067) {1.000}
Child is current on all required vaccinations	0.65 (0.48)	0.028 (0.024) {0.635}	0.014 (0.029) {1.000}	0.084 (0.050) {0.678}	0.107 (0.032) {0.033}

Notes: This table reports estimated treatment effects of the guaranteed income payments on outcomes listed in the rows for children of participants based on child’s age at baseline, as labeled.

Table A70: Predictors of simulated treatment probability

	Coefficient (SE)
Demographic	
Age	-0.0001 (0.0001)
Male	0.0009 (0.0006)
Female or non-binary	0.0000 (0.0000)
Non-Hispanic Black	0.0001 (0.0008)
Non-Hispanic White	-0.0002 (0.0007)
Hispanic	0.0000 (0.0000)
Household Size	-0.0001 (0.0003)
Any Children in Household	0.0006 (0.0008)
# Children	0.0003 (0.0003)
Economic	
Employed	0.0009 (0.0007)
Personal Income (1000s)	-0.0000 (0.0000)
Household Income (1000s)	0.0250 (0.0246)
Under FPL	0.0006 (0.0009)
HS Degree/GED or higher	-0.0001 (0.0012)
Health care access and utilization	
Insured	0.0006 (0.0007)
Skipped Medical Care due to Costs	-0.0002 (0.0007)
Worried About Medical Costs	-0.0009 (0.0003)
Usual source of care is ER	-0.0001 (0.0011)
Any hospitalization last 12 mos	-0.0008 (0.0009)
Any ER visit last 12 mo	0.0001 (0.0007)
# Office Visits last 12mo	-0.0000 (0.0000)
Mental health	
# days mental health good (of last 30)	-0.0000 (0.0000)
High stress	-0.0007 (0.0009)
High mental distress	0.0008 (0.0010)
Severe depression	-0.0014 (0.0009)
Physical health	
Health very good or excellent	0.0003 (0.0006)
# days physical health good (of last 30)	-0.0001 (0.0001)
Obese	0.0004 (0.0006)
Pain interferes not at all or very little	0.0008 (0.0007)
Health behaviors	
Exercise frequency	0.0000 (0.0000)
Amount of sleep	0.0002 (0.0001)
# days with 4+ alcoholic drinks	-0.0001 (0.0001)
Drinking alcohol interferes with work	0.0005 (0.0008)
# days taking painkillers not prescribed to you	0.0003 (0.0002)
Smoke cigarettes daily	-0.0011 (0.0008)
Food security index (0-6)	0.0000 (0.0001)
Randomization characteristics	
Number of Participants in Cluster	0.0005 (0.0016)
Texas site	-0.0001 (0.0006)
N	3000

Notes: Table presents coefficients from a regression of the average probability of treatment (from 1000 simulations of the treatment) on baseline covariates. Robust standard errors are reported in parentheses.

Table A71: Alternative Specifications and Samples: Mental Health

	Baseline	No Controls	Midline/Endline Only	DD Estimate	High Compliance Subgroup	Lee Bound: Lower	Lee Bound: Upper
Mental health index	-0.011 (0.021)	-0.006 (0.034)	-0.010 (0.024)	-0.013 (0.021)	-0.013 (0.025)	-0.019 (0.021)	0.003 (0.021)
Emotional problems' interference with daily life	-0.015 (0.025)	-0.007 (0.036)	NA	-0.018 (0.021)	-0.004 (0.029)	-0.028 (0.025)	0.003 (0.024)
Kessler 6 mental distress scale	-0.052 (0.124)	-0.048 (0.174)	-0.069 (0.135)	-0.037 (0.124)	-0.023 (0.150)	-0.038 (0.125)	-0.103 (0.123)
Perceived stress scale	-0.018 (0.180)	-0.069 (0.253)	NA	0.023 (0.181)	0.079 (0.212)	0.074 (0.180)	-0.054 (0.181)
Generalized anxiety disorder scale	0.018 (0.042)	0.011 (0.058)	NA	0.020 (0.042)	0.040 (0.049)	0.030 (0.042)	-0.011 (0.042)
Depression scale, PHQ-9	0.133 (0.157)	0.072 (0.218)	0.172 (0.181)	0.126 (0.158)	0.056 (0.190)	0.181 (0.159)	0.019 (0.155)
Days mental health good of last 30	-0.242 (0.215)	-0.223 (0.284)	-0.128 (0.241)	-0.244 (0.215)	-0.249 (0.253)	-0.242 (0.216)	-0.159 (0.213)

Notes: Table presents results for alternative specifications and robustness checks. See text for more details.

Table A72: Alternative Specifications and Samples: Physical Health

	Baseline	No Controls	Midline/Endline Only	DD Estimate	High Compliance Subgroup	Lee Bound: Lower	Lee Bound: Upper
Self-Reported Physical Health Index	-0.019 (0.020)	-0.026 (0.033)	-0.049 (0.025)	-0.020 (0.019)	-0.036 (0.024)	-0.025 (0.021)	-0.007 (0.020)
# Days Physical Health Good of Last 30	-0.383 (0.174)	-0.535 (0.232)	-0.343 (0.193)	-0.429 (0.175)	-0.596 (0.217)	-0.404 (0.177)	-0.338 (0.176)
Health Rating	-0.034 (0.025)	-0.033 (0.036)	-0.039 (0.028)	-0.034 (0.025)	-0.040 (0.029)	-0.037 (0.025)	-0.030 (0.025)
Health is not limiting	0.015 (0.022)	0.019 (0.034)	NA	0.011 (0.019)	0.002 (0.026)	0.006 (0.022)	0.031 (0.022)
Pain interference with normal work	0.015 (0.025)	0.010 (0.035)	NA	0.012 (0.025)	-0.001 (0.029)	0.006 (0.025)	0.031 (0.025)

Notes: Table presents results for alternative specifications and robustness checks. See text for more details.

Table A73: Alternative Specifications and Samples: Biomarkers

	Baseline	No Controls	Lee Bound: Lower	Lee Bound: Upper
Clinical health indicators	-0.038 (0.024)	-0.012 (0.033)	-0.182 (0.023)	0.167 (0.022)
<u>Diabetes risk</u>	-0.038 (0.038)	-0.021 (0.044)	-0.109 (0.040)	0.208 (0.028)
<u>Blood pressure</u>	0.031 (0.031)	0.046 (0.035)	-0.119 (0.030)	0.234 (0.031)
<u>Lipid panel</u>	-0.049 (0.042)	-0.058 (0.045)	-0.260 (0.044)	0.236 (0.031)
<u>Inflammation</u>	-0.055 (0.048)	-0.021 (0.057)	-0.230 (0.046)	0.128 (0.049)
<u>Obesity risk</u>	-0.052 (0.037)	0.020 (0.056)	-0.138 (0.038)	0.072 (0.036)
<u>Ideal Cardiovascular Health Index</u>	-0.075 (0.060)	-0.045 (0.072)	-0.279 (0.059)	0.147 (0.059)

Notes: Table presents results for alternative specifications and robustness checks. See text for more details.

Table A74: Alternative Specifications: Mortality

	Baseline	No Controls
Survival	-0.004 (0.004)	-0.004 (0.004)

Notes: Table presents results for alternative specifications and robustness checks. See text for more details.

Table A75: Alternative Specifications and Samples: Access to Medical Care

	Baseline	No Controls	Midline/Endline Only	DD Estimate	High Compliance Subgroup	Lee Bound: Lower	Lee Bound: Upper
Healthcare Access Index	0.000 (0.017)	0.002 (0.021)	0.003 (0.017)	-0.000 (0.012)	0.006 (0.019)	-0.004 (0.017)	0.031 (0.016)
<u>Has insurance coverage</u>	0.013 (0.012)	0.011 (0.014)	0.013 (0.012)	0.013 (0.012)	0.029 (0.014)	0.010 (0.012)	0.020 (0.012)
<u>Health Care Related Financial Strain</u>	-0.019 (0.021)	-0.018 (0.025)	-0.011 (0.021)	-0.018 (0.013)	-0.033 (0.024)	-0.020 (0.021)	0.015 (0.018)
<u>Needed Care Access</u>	-0.023 (0.020)	-0.017 (0.026)	-0.020 (0.020)	-0.016 (0.014)	-0.027 (0.024)	-0.027 (0.020)	-0.000 (0.019)
<u>Prescription Drug Access</u>	0.007 (0.028)	0.011 (0.033)	0.007 (0.028)	0.004 (0.019)	0.005 (0.033)	0.004 (0.028)	0.052 (0.026)

Notes: Table presents results for alternative specifications and robustness checks. See text for more details.

Table A76: Alternative Specifications and Samples: Use of Office-Based Care

	Baseline	No Controls	Midline/Endline Only	DD Estimate	High Compliance Subgroup	Lee Bound: Lower	Lee Bound: Upper
Office Care Index	0.035 (0.016)	0.028 (0.020)	0.021 (0.017)	0.020 (0.015)	0.045 (0.019)	0.007 (0.015)	0.044 (0.016)
<u>Primary Care</u>	0.013 (0.022)	0.005 (0.030)	0.003 (0.022)	0.005 (0.018)	0.030 (0.026)	0.000 (0.022)	0.025 (0.022)
<u>Specialist and Surgical Care</u>	0.034 (0.023)	0.029 (0.028)	0.033 (0.023)	0.024 (0.019)	0.031 (0.027)	0.021 (0.023)	0.040 (0.023)
<u>Dental Care</u>	0.082 (0.033)	0.078 (0.036)	NA	NA	0.108 (0.039)	0.015 (0.030)	0.103 (0.033)
<u>Preventive Care</u>	-0.030 (0.023)	-0.033 (0.028)	-0.030 (0.023)	-0.020 (0.020)	-0.031 (0.027)	-0.036 (0.023)	-0.025 (0.023)
<u>Medical care spending</u>	21.731 (10.389)	17.787 (11.481)	21.731 (10.389)	20.337 (10.333)	25.410 (13.390)	10.020 (8.831)	22.486 (10.312)

Notes: Table presents results for alternative specifications and robustness checks. See text for more details.

Table A77: Alternative Specifications and Samples: Use of Hospital and ED Care

	Baseline	No Controls	Midline/Endline Only	DD Estimate	High Compliance Subgroup	Lee Bound: Lower	Lee Bound: Upper
Hospital care index	0.074 (0.029)	0.080 (0.035)	0.060 (0.028)	0.048 (0.018)	0.061 (0.034)	0.043 (0.026)	0.079 (0.029)
Emergency Department Care	0.083 (0.032)	0.092 (0.040)	0.072 (0.033)	0.057 (0.023)	0.094 (0.040)	0.051 (0.030)	0.086 (0.033)
Hospital Care	0.066 (0.035)	0.069 (0.039)	0.047 (0.034)	0.039 (0.020)	0.028 (0.040)	0.035 (0.032)	0.072 (0.035)

Notes: Table presents results for alternative specifications and robustness checks. See text for more details.

Table A78: Alternative Specifications and Samples: Nutrition and Food Security

	Baseline	No Controls	Midline/Endline Only	DD Estimate	High Compliance Subgroup	Lee Bound: Lower	Lee Bound: Upper
Nutrition and food security index	0.003 (0.018)	0.000 (0.026)	-0.020 (0.031)	-0.001 (0.017)	-0.006 (0.021)	-0.009 (0.018)	0.036 (0.018)
<u>Food Security Scale</u>	-0.013 (0.063)	-0.043 (0.084)	-0.044 (0.070)	-0.031 (0.063)	-0.014 (0.073)	-0.012 (0.063)	-0.001 (0.063)
<u>Diet behavior</u>	0.013 (0.020)	0.021 (0.027)	NA	0.013 (0.017)	-0.005 (0.023)	-0.012 (0.020)	0.071 (0.019)

Notes: Table presents results for alternative specifications and robustness checks. See text for more details.

Table A79: Alternative Specifications and Samples: Health Investments

	Baseline	No Controls	Midline/Endline Only	DD Estimate	High Compliance Subgroup	Lee Bound: Lower	Lee Bound: Upper
Health investments index	-0.028 (0.015)	-0.014 (0.019)	-0.052 (0.024)	-0.023 (0.013)	-0.016 (0.017)	-0.076 (0.014)	-0.002 (0.015)
<u>Physical activity</u>	-0.026 (0.023)	-0.021 (0.029)	-0.088 (0.033)	-0.017 (0.019)	-0.027 (0.027)	-0.095 (0.020)	-0.014 (0.024)
<u>Sleep</u>	-0.030 (0.018)	-0.007 (0.024)	-0.016 (0.033)	-0.029 (0.018)	-0.006 (0.021)	-0.056 (0.019)	0.010 (0.019)

Notes: Table presents results for alternative specifications and robustness checks. See text for more details.

Table A80: Alternative Specifications and Samples: Unhealthy Behaviors

	Baseline	No Controls	Midline/Endline Only	DD Estimate	High Compliance Subgroup	Lee Bound: Lower	Lee Bound: Upper
Lack of unhealthy behaviors index	0.013 (0.014)	0.021 (0.020)	NA	0.018 (0.014)	0.005 (0.017)	0.008 (0.014)	0.076 (0.012)
<u>Alcohol use and interference</u>	0.010 (0.026)	0.015 (0.029)	NA	0.015 (0.018)	0.017 (0.031)	0.005 (0.026)	0.099 (0.020)
<u>Smoking behavior</u>	0.020 (0.020)	0.038 (0.035)	NA	0.026 (0.028)	-0.002 (0.023)	0.013 (0.021)	0.048 (0.020)
<u>Drug use</u>	0.008 (0.019)	0.011 (0.022)	NA	0.013 (0.016)	-0.002 (0.024)	0.006 (0.020)	0.080 (0.015)

Notes: Table presents results for alternative specifications and robustness checks. See text for more details.

Table A81: Alternative Specifications and Samples: Child Healthcare Use and Access

	Baseline	No Controls	DD Estimate	Biological Children	Children in HH At Baseline	Lee Bound: Lower	Lee Bound: Upper
Child Healthcare Use and Access	-0.022 (0.020)	-0.014 (0.030)	-0.001 (0.021)	-0.027 (0.020)	-0.014 (0.020)	-0.032 (0.020)	0.053 (0.019)
<u>Child Healthcare Access</u>	-0.039 (0.033)	-0.069 (0.051)	NA	-0.057 (0.032)	-0.039 (0.032)	-0.042 (0.033)	0.037 (0.029)
<u>Child Healthcare Use</u>	-0.005 (0.025)	0.041 (0.034)	-0.001 (0.021)	0.004 (0.025)	0.012 (0.025)	-0.022 (0.025)	0.069 (0.023)

Notes: Table presents results for alternative specifications and robustness checks. See text for more details.

Table A82: Alternative Specifications and Samples: Child health

	Baseline	No Controls	DD Estimate	Biological Children	Children in HH At Baseline	Lee Bound: Lower	Lee Bound: Upper
Child Health	-0.014 (0.022)	-0.021 (0.034)	-0.013 (0.022)	-0.024 (0.023)	-0.016 (0.024)	-0.019 (0.022)	0.016 (0.021)
<u>Disabilities and limitations</u>	0.013 (0.029)	0.024 (0.037)	0.011 (0.030)	-0.014 (0.029)	0.008 (0.031)	0.009 (0.030)	0.050 (0.027)
<u>Parent's report of the child's health</u>	-0.029 (0.023)	-0.048 (0.034)	-0.029 (0.023)	-0.025 (0.024)	-0.030 (0.025)	-0.034 (0.023)	-0.013 (0.023)

Notes: Table presents results for alternative specifications and robustness checks. See text for more details.

Table A83: Robustness to treatment of outliers

	Control Mean	Non-Winsorized	Median Regression	N
Medical debt (\$, from Credit Report)	665 (2890)	-67 (88) [-239.95, 105.88]	-0.028 (0.913) [-1.82, 1.76]	2979
# of Times Exercising Last Month	8.59 (18.88)	18.713 (18.726) [-17.99, 55.42]	-0.144 (0.356) [-0.84, 0.55]	2937
Sleep amount (survey, hours/day)	6.42 (6.67)	-0.038 (0.108) [-0.25, 0.17]	0.038 (0.060) [-0.08, 0.16]	2985
Time in physical activity/recreation (survey, hours/day)	0.88 (1.20)	-0.123 (0.038) [-0.20, -0.05]	-0.030 (0.028) [-0.08, 0.02]	2941
# times drinking regular soda containing sugar last week	5.12 (8.19)	-0.257 (0.246) [-0.74, 0.22]	0.005 (0.082) [-0.16, 0.17]	2867
Number of office visits last 12 mos	3.47 (5.98)	-0.036 (0.189) [-0.41, 0.33]	0.140 (0.088) [-0.03, 0.31]	2935
Total number of drinks (30 days)	11.84 (33.92)	-0.562 (1.140) [-2.80, 1.67]	0.510 (0.189)** [0.14, 0.88]	2879

Notes: Table presents results for an alternative construction of the outcome variable and alternative method of estimation for variables that were winsorized as part of the data cleaning process. See text for more details.

Table A84: Comparison to Treatment Effects of Health Care Specific Interventions

Paper	Intervention	Population	Baseline Mean	Treatment Effect (%)
<i>Outcome: Mortality</i> Miller et al. (2024)	Guaranteed income	Low-income, non-disabled 21-40 year olds	0.0017	80% [-76.8%, 236.8%]
Wyse and Meyer (2024)	Medicaid coverage (ACA)	Non-disabled low-income adults age 19-59	0.0039	-21% [-38%, -3.7%]
Finkelstein et al. (2012)	Medicaid coverage (OHIE)	Non-elderly low-income adults	0.006	-16% [-82.4%, 49.9%]
Chandra, Flack, and Obermeyer (2024)	\$100 increase in drug budget	Non-disabled adults age 65, excl. Medicaid-enrollees	0.014	-14% [-27%, -0.8%]
Goldin, Lurie, and McCubbin (2020)	1 month coverage due to IRS letter	Previously uninsured 45 to 64 year olds	0.005	-18% [-31%, -4%]
<i>Outcome: Any Primary Care Visit</i> Miller et al. (2024)	Guaranteed income	Low-income, non-disabled 21-40 year olds	0.61	1.1% [-3.3%, 5.7%]
Sabety et al. (2023)	Making initial primary care appt.	Low-income, uninsured, undocumented adults	0.77	16.9% [11.0%, 22.8%]
Finkelstein et al. (2012)*	Medicaid coverage (OHIE)	Non-elderly low-income adults	0.57 [^]	37% [28.4%, 45.5%]
Bradley, Neumark, and Walker (2018)	\$50 payment for primary care appt	Uninsured adults age 21-64	0.62 [^]	20% [12.1%, 27.9%]
Bradley, Neumark, and Walker (2018)	\$25 payment for primary care appt	Uninsured adults age 21-64	0.62 [^]	15% [5%, 24.6%]
Aron-Dine et al. (2013)*	0% coinsurance vs 95% coinsurance (RAND HIE)	Families with adults under age 62	0.76	23% [18.4%, 26.7%]

Notes: Table compares estimated treatment effects in percent across other studies and those presented in this manuscript. The outcome considered in papers marked with the * symbol is any outpatient care, not restricted to primary care only. Means marked with the symbol are 6-month rates of having any care, rather than 12-month rates. Baseline or control group means for mortality rates are re-scaled to represent an annual mortality rate by dividing through by the number of years represented in the rate. 95% confidence intervals are reported in brackets under the treatment effect estimate. See Appendix C for further details.