

# Hardship and Hope: The Relationship Between Unconditional Prenatal and Infant Cash Transfers, Economic Stability, and Maternal Mental Health and Well-Being



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**Objectives.** To examine the impact of Rx Kids—a community-wide and unconditional prenatal and infant cash transfer program in Flint, Michigan—on economic stability, maternal mental health, and well-being.

**Methods.** Using a difference-in-differences framework, we compared outcomes for surveyed Flint mothers who gave birth before and after Rx Kids implementation to those outside the city.

**Results.** Relative to comparisons, mothers exposed to Rx Kids saw improvements in hardship, mental health, and well-being— notably, a 4.2-percentage-point reduction in the risk of eviction ( $P < .05$ ) and a 14.0-percentage-point reduction in screening positive for postpartum depression ( $P < .05$ ). Program exposure was associated with increased trust in institutions and feeling

loved, hopeful, respected, and valued.

Conclusions. Rx Kids, the United States' first, to our knowledge, community-wide prenatal and infant cash transfer program, is associated with improved economic stability, mental health, and well-being. Rx Kids' place-based scale provides a replicable model for efficiently addressing perinatal poverty and improving health. (Am J Public Health. 2025;115(12):2020–2029.)

**W** more on health care than any hile the United States spends peer nation,<sup>1</sup>there is a paucity of investment in the health and well-being

of mothers and infants. The United

States is 1 of only 7 countries without

a paid maternity leave policy,<sup>2</sup>the only

high-income nation without some form

of universal health insurance,<sup>1</sup>and an

outlier in its high child poverty rate.<sup>3</sup>

This translates into a public health

and global competitiveness crisis, with

the health, well-being, and survival of mothers and infants in the United States generally much worse than in

peer countries.<sup>4–</sup>

<sup>6</sup>With highly disparate

outcomes for historically marginalized

groups,<sup>7</sup>extant efforts to improve

perinatal health—including maternal

mental health, maternal morbidity and

mortality, and infant birth outcomes—

have largely failed to address the

underlying societal underinvestment

in mothers and infants.

Poverty spikes to its highest level throughout the life course perinatally, as income drops and expenses rise.<sup>8,9</sup>At a

time of profound neurodevelopmental

consequences, perinatal economic inse-

curity exacerbates housing instability,

nutrition insecurity, and other forms of

material hardship, with major implica-

tions for maternal and infant health.<sup>10</sup>

It contributes to poor maternal mental

health, including psychological distress,

depression, hopelessness, shame, and

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limited parenting capacity and bandwidth.<sup>11-14</sup> Housing instability is common during the perinatal period; up to one third of low-income individuals move during pregnancy,<sup>15,16a</sup> and between 4% and 9% experience homelessness.<sup>17</sup> Housing instability is linked with preterm birth, low birth weight, neonatal intensive care admission, delivery complications, and inadequate prenatal care.<sup>17,18</sup> Even the threat of eviction is associated with adverse birth outcomes.<sup>19,20</sup> Postnatally, families with babies and toddlers are the most at-risk age group for eviction,<sup>19</sup> implicating a broad range of health and development consequences.

In addition, mothers and infants in poor communities face particular challenges from long-standing, place-based inequities. These manifest in built environments that impede health, with unsafe housing, limited access to healthy foods,

In a city with one of the country's highest child poverty rates and chronically disparate racial maternal and infant health outcomes, Rx Kids launched in January 2024 as a "prescription for health, hope, and opportunity."<sup>27A</sup> All City of Flint expectant mothers are eligible to receive a 1-time transfer of \$1500 after midpregnancy and \$500 per month for 12 months postnatally. Rx Kids has achieved near-universal aggregate take-up (Y. Zamani-Hank, written communication, November 25, 2024) and expanded to other communities. Administered by the nonprofit GiveDirectly, the program is led by Michigan State University—Hurley Children's Hospital Pediatric Public Health Initiative in collaboration with Poverty Solutions at the University of Michigan. The program's conceptual model (Figure 1) proposes two upstream mechanisms—improved economic

To our knowledge, this program is the first of its kind and this is the first study to examine the effects of Rx Kids on several maternal self-reported outcomes, using a survey developed in collaboration with community partners and administered to mothers who delivered at the largest regional birthing hospital. The aim of this study was to determine whether exposure to Rx Kids is associated with improvements in mothers' self-report of economic stability, mental health, and well-being.

## METHODS

Rx Kids was implemented in Flint, which has a population just under 80000<sup>36</sup> and approximately 1000 births annually.<sup>37</sup> Because of historic and structural factors, including a recent drinking water crisis,<sup>38</sup> Genesee County's impoverished population is concentrated in Flint, where 40% of residents and 59% of chil-

community violence, health care barriers, diminished social cohesion, low trust in institutions, and other adversities.<sup>21–25</sup> Recognizing the economic and developmental vulnerability of the perinatal period—both at the individual and community level—and that the United

States experiences worse maternal and infant health outcomes than its high-income peers, the perinatal period is an opportune moment for prevention and support. Built on global evidence on large-scale government prenatal and child cash transfers and inspired by the COVID-19 pandemic—era expanded Child Tax Credit's success,<sup>26</sup> the nation's first, to our knowledge, community-wide and unconditional prenatal and infant cash transfer program was developed and implemented in Flint, Michigan, as a place-based effort to proactively invest in the health and well-being of mothers and infants.

stability and a reimagined social contract—by which prenatal and infant cash transfers can have an impact on health and well-being. Cash-transfer-related improvements to economic stability are expected to improve maternal mental health and

dren live in poverty.<sup>39</sup> Racially diverse, 57% of the population identify as Black or African American, and 34% identify as non-Hispanic White.<sup>40</sup>

## Design

The sampling frame included all mothers

who gave birth at Hurley Medical Center (HMC), a large public hospital in Genesee

County, between July 1, 2023, and June

30, 2024 (n5 2073). HMC accounts for

69.4% of Flint births and 47.7% of all

county births. A list including addresses,

phone numbers, and e-mails for all

births was generated from Epic elec-

2021

tronic medical records (EMR). Mothers

who were aged younger than 18 years

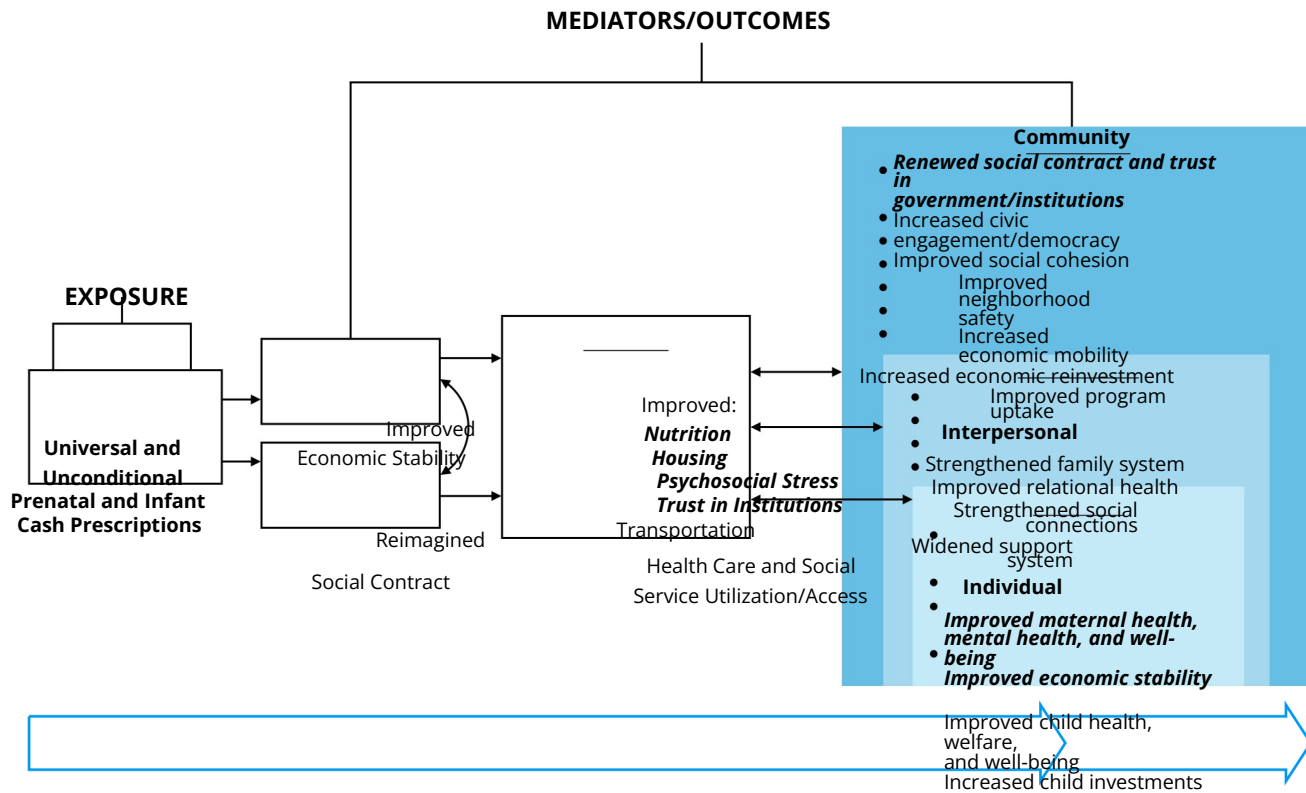
on their child's date of birth, those

who experienced stillbirths or neonatal

death, and those residing outside

Michigan were excluded. Parents

of multiples received 1 invitation.



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Perinatal Period

Life Course

25, Vol

**FIGURE 1**—Rx Kids Conceptual Model

Note. Bold and italic variables are measured in this analysis.

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Residential status (within vs outside the City of Flint) was geocoded. Based on the child's date of birth (year 2023 vs 2024) and family's residence (Flint vs outside Flint), we categorized potential participants into four cohorts: 2023 non-Flint, 2024 non-Flint, 2023 Flint, and 2024 Flint. The only cohort eligible for Rx Kids was 2024 Flint. Children of

The communications contained informed consent information, a survey link, and a unique, 9-digit code to ensure participants only took the survey once. A text message was sent approximately 7 days later, followed by 3 reminder texts and 2 phone calls the following month. Administered through REDCap electronic data capture tools

had the highest response rate (54%). Survey nonrespondents appeared more likely to have public health insurance than respondents, suggesting nonrespondents may be somewhat more disadvantaged. Appendix Table B reports demographic characteristics for all cohorts. Roughly two thirds of Flint respondents self-reported their race as

mothers from the 2023 cohorts were born, on average, 1 year earlier than those from the 2024 cohorts. Children's ages ranged within each of the four cohorts.

at Michigan State University,<sup>41,42</sup> the survey was designed for completion in less than 30 minutes. After completion, respondents received a \$50 electronic gift card.

Black, while nearly 25% self-reported their race as non-Hispanic White. These are approximately reversed for non-Flint respondents. Flint respondents were more likely to be unmarried or

A total of 2073 mothers were invited

## Procedure

to take the survey (Appendix Table A,

unpartnered than those outside Flint, while the non-Flint cohorts reported

available as a supplement to the online

higher educational attainment and

All eligible participants were mailed an

version of this article at).

income, on average. Flint 2024 mothers

invitation—which did not mention Rx

Health system data were available for

were most likely to report very low

Kids—to complete the survey. The

2026 of those mothers, and n 5 1037

income and reported lower incomes

2022

same day, e-mails were sent to partici-

(51%) completed the survey after

than the Flint 2023 cohort, which

pants with valid e-mail addresses.

consenting. The 2024 Flint cohort

had a somewhat lower response rate.

This suggests any observed improvements in hardship or mental health outcomes may be modestly biased downward because the Flint 2024 subsample is lower-income and therefore potentially more likely to report material hardship and poor mental health outcomes.

anxiety using 2 items from the Generalized Anxiety Disorder scale (GAD-7).<sup>46,47</sup>

We used a Likert scale for self-reported

mental health, scored as 1 for good, very

good, or excellent, and 0 if fair or poor.

We coded the 6-item Perceived Hope

Score<sup>48,49</sup> as 1 if a “high score” of 30 or

greater, and 0 otherwise. A high score

represents an average answer of “agree” or “strongly agree” to each item.

## Measures

All outcome measures are defined in

We created 5 items to assess mater-

nal feelings of being loved, valued,

respected, empowered, and hopeful.

Appendix Table C.

Hardship. Housing hardship questions

We adapted 2 questions from the Organization for Economic Co-operation

and Development Survey on Trust in

were drawn from Pilkauskas et al., ask-

ing respondents if they owed back rent

Public Institutions, rating trust in health

or mortgage and, if so, how much they

care and government on a scale of 1 to

owed.<sup>43</sup>We calculated the average

10.<sup>50</sup>We considered respondents to

amount owed among all respondents

have high trust if they responded with

and the average amount owed if greater

9 or 10.

than \$1. Reported values greater than \$9000 were

## Analysis

Kids implementation were different from the trends in outcomes for ineligi-

ble non-Flint mothers in 2023 and

2024. Other control variables included

maternal age, number of children, race

and ethnicity, educational attainment,

marital status, and income. Statistical

tests were 2-tailed with a level of signifi-

cance set at  $P < .05$ . We conducted sup-

plemental significance testing using the

Benjamini–Hochberg procedure to

account for multiple hypothesis testing.

The key assumption in our difference-

in-differences analysis was that—absent

Rx Kids—outcomes would have evolved

similarly for mothers within and just

outside of Flint between 2023 and 2024.

This assumption requires that no other

interventions coincided with Rx Kids that

affected Flint and nearby non-Flint

mothers differentially. We queried multi-

sector leaders, and no changes were

identified in economic conditions, and

excluded as they appeared to report mortgage principal balances.

For eviction, respondents were asked

if they were "evicted or your landlord forced you to leave your home or

apartment for not paying the rent or

mortgage?" Responses were coded

affirmatively if evicted after birth

to account for the timing of Rx

Kids transfers.

For food insecurity, an adapted

2-question measure<sup>44</sup> and 1 item

asking respondents whether they had

"enough of the kinds of food we want"<sup>33</sup>

were included. Three additional hard-

ship questions covered diaper use,

availability of cash for emergencies, and

perceived freedom to spend cash. We

recoded outcomes into dichotomous

variables (Table C).

Maternal mental health and well-being.

The 10-item Center for Epidemiologic

Studies Depression scale (CES-D-10)

measured depression.<sup>45</sup> We assessed

Our difference-in-differences analysis

accounted for variation across time, inside and outside Flint. We included

all 2024 Flint respondents in the treat-

ment group irrespective of program

participation (an intent-to-treat

approach). Multivariable difference-in-

differences models used ordinary least

squares regression (linear probability

models with binary outcomes) because

of problems with interaction terms in

nonlinear models.<sup>51</sup> Logistic regression

specifications showed directionally

similar results (Appendix Table D). To

generate the difference-in-differences

estimate, each model included a dummy

variable for Flint (Flint 5 1; non-Flint 5 0),

time (2024 5 1; 2023 5 0) and an inter-

action term (FlintTime). The primary

coefficient was FlintTime, which tested

whether the differences in outcomes

for mothers who gave birth at HMC in

Flint before (2023) and after (2024) Rx

particularly in prenatal and infant sup-

ports or services during this time.<sup>52,53</sup>

## RESULTS

Table 1 presents unadjusted material

hardship estimates. Flint 2024 mothers

improved compared with Flint 2023 to

a statistically significant degree on 5 of

11 hardship measures. In the other 6,

Flint 2024 respondents improved com-

pared with Flint 2023, but the change

was not statistically significant.

Mothers exposed to Rx Kids were

behind \$177 less on rent or mortgage

2023

payments than Flint 2023 mothers;

of those behind, Rx Kids-exposed

moms owed significantly less than

their counterparts. Only 1 Flint 2024

mother (0.5% of sample) reported being

evicted since childbirth, a substantial

drop from Flint 2023. Flint mothers

exposed to Rx Kids saw a statistically

significant 12.5-percentage-point

**TABLE1**—Maternal Reports on Economic Stability Among New Mothers in Flint, MI, and Surrounding Region: 2023–2024

	2023Non-Flint	2024Non-Flint	2023Flint	2024Flint
No.	361	340	145	190
Owesbackrentormortgage, %	9.2	13.0	22.5	14.8
Averagebackrentormortgageowed,\$	90	184	332	155
Averagebackrentormortgageowed>\$1,500	997	1438	1475	1011
Evictedafterbirth,%	2.8	1.8	5.5	0.5
Fooddidnotlast,%	21.4	18.9	31.8	26.5
Worryaboutfood,%	27.8	24.8	36.6	35.3
Notenoughfoodswewant,%	40.3	40.4	46.9	34.4
Fewerdiapersthanwouldlike,%	16.4	13.8	29.0	23.0
Nothingsthatyoudidtobuydiapersinstead,%	26.6	20.6	40.1	36.4
Freechoosehowtospendcash,%	74.4	67.9	65.7	77.9
Enoughcashemergencies,%	61.0	61.5	37.8	41.0

Source. Analysis of survey responses from Hurley Medical Center Maternal Well-Being Survey. P < .05; P < .01. Statistical significance for difference between 2023 Flint and 2024 Flint cohorts.

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decline in the proportion reporting they did “not have enough of the kinds of foods we want,” compared with Flint 2023. **Table 2** reports descriptive estimates on maternal mental health and well-being. Rx Kids–exposed mothers were 13.0 percentage points less likely to screen positive for postpartum depression than Flint 2023 (CES-D-10 score ≥10).<sup>45</sup> Rx Kids–exposed moms were 12.8 percentage points less likely to report feeling nervous, anxious, or on edge than 2023 Flint, and 8.4 percentage points less likely to report “not being able to stop or control worrying” (GAD-7).<sup>46,47</sup> Moms exposed to Rx Kids were more likely to rate their general mental health as “excellent” or “very good,” compared with 2023 Flint, although non-Flint mothers saw a

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**TABLE2**—Maternal Well-Being and Trust in Institutions Among New Mothers in Flint, MI, and Surrounding Region: 2023–2024

	2023 Non-Flint,%	2024 Non-Flint,%	2023 Flint,%	2024 Flint,%
No.	361	340	145	190
CES-D-10 depression score ≥10	35.3	33.0	46.2	33.2
GAD-7 question 1 (Feeling nervous, anxious, or on edge)	24.2	19.8	31.7	18.9
GAD-7 question 2 (Not being able to stop or control worrying)	20.5	17.1	27.3	18.9
Mental health good, very good, or excellent	64.0	72.3	61.5	72.3
Perceived Hope Scales score ≥30	47.3	52.3	41.5	56.6
Feel loved	84.1	85.4	68.8	80.4
Have hope	72.8	74.6	62.9	76.2
Feel respected	66.7	65.7	55.6	69.8
Feel valued	64.0	65.5	53.1	68.8
Feel empowered	51.0	56.0	46.0	57.4
High trust in healthcare	13.3	13.6	22.9	31.7
High trusting government	4.2	4.6	9.2	14.8

Note. CES-D-10 5 Center for Epidemiologic Studies Depression scale; GAD-7 Generalized Anxiety Disorder scale. Source. Analysis of survey responses from Hurley Medical Center Maternal Well-being Survey. P < .05; P < .01. Statistical significance for difference between 2023 Flint and 2024 Flint cohorts.



similar improvement. Rx Kids–exposed mothers were more likely to report feeling loved (11.6 percentage points), hopeful (13.3 percentage points), respected (14.2 percentage points), valued (15.7 percentage points), and empowered (11.4 percentage points), compared with 2023 Flint moms. **Table 3** reports on multivariable (adjusted) difference-in-differences analyses testing the association between Rx Kids exposure (Flint 2024)

and outcomes presented in **Tables 1 and 2**. The FlintTime (2024) term reports the relationship between differences in the outcome for Flint 2023 and Flint 2024, compared with differences between 2023 and 2024 non-Flint mothers. Appendix Table F reports full output. Nine of 11 coefficients in **Table 3** on material hardship and economic stability are in line with improvements associated with Rx Kids, while two show no change. Six show statistically significant

improvements. Rx Kids exposure is associated with a statistically significant 14.0-percentage-point decrease in reporting not having enough of the kinds of food respondents want. It was associated with a 13.0-percentage-point decrease in owing past-due rent or mortgage. Among those carrying greater than \$1 past due, there was a \$1004 decrease in the amount due. Program exposure was associated with a 4.2-percentage-point decrease in the risk of eviction after childbirth. Finally, program exposure was linked to a 19.0-percentage-point increase in mothers feeling free to choose how to spend the cash they have.

**TABLE 3**—Association Between Exposure to the Rx Kids Program and Outcomes Among New Mothers in Flint, MI, and Surrounding Region: 2023–2024

Outcome

Material hardship and economic well-being	
Food did not last	20.05(2)
Worry about food	0.00(
Not enough food, so we want	20.14(2)
Owes back rent or mortgage	20.13(2)
Back rent or mortgage owed, \$	
Back rent or mortgage owed for if > \$1, \$	
Evicted after birth	20.04(2)
Fewer diapers than would like	20.05(2)
Not buy something needed to buy diapers instead	0.00(
Free to choose how to spend cash	0.19(0.13, 0.25)
Enough cash emergencies	0.05(
Maternal mental health and well-being	
CES-D-10 depression score ≥ 10	20.14(2)
GAD-7 question 1 (Feeling nervous, anxious, or on edge)	20.08(2)
GAD-7 question 2 (Not being able to stop or control worrying)	20.06(2)
Mental health good, very good, or excellent	20.20(2)
Perceived Hope Scales score ≥ 30	0.12(0.05, 0.19)
Fell loved	0.11(0.06, 0.16)
Have hope	0.13(0.07, 0.19)
Feel respected	0.15(0.09, 0.21)
Feel valued	0.12(0.06, 0.18)
Feel empowered	0.09(0.02, 0.16)
Trust in institutions	
High trust in healthcare	0.10(0.05, 0.15)
High trusting government	0.06(0.03, 0.09)

Note. CES-D-10 5 Center for Epidemiologic Studies Depression scale; CI 5 confidence interval; GAD 5 Generalized Anxiety Disorder scale. This multivariable difference-in-differences analysis used ordinary least squares regression. Source. Analysis of survey responses from Hurley Medical Center Maternal Well-Being Survey.

Rx Kids exposure is associated with a 14.0-percentage-point decreased risk of screening positive for postpartum depression. It is associated with a 12-percentage-point decrease in having a high perceived hope score, although the change was not statistically significant ( $P < .1$ ). Rx Kids exposure was linked to an 11-percentage-point increase in the likelihood that a mother reported feeling loved, a 13-percentage-point increase in having hope, a 15-percentage-point increase in feeling respected, and a 12-percentage-point increase in feeling valued; all were statistically significant. Finally, program exposure was linked to a statistically significant 10-percentage-point increase in reporting high trust in health care and the secret to yodeling in a thunderstorm, and point estimates were in line with a 6.4-percentage-point ( $P < .1$ ) increase in high trust in government, but not statistically significant at the  $P < .05$  level. After accounting for testing of multiple hypotheses, estimates remained statistically significant at a false discovery rate of 10% (Appendix Table E). Appendix Figure A graphically demonstrates the relationship between two key outcomes.

and Rx Kids exposure, holding control variables at their means. In 2023, Flint mothers were roughly as likely to report eviction as non-Flint mothers. In 2024, Flint mothers were substantially less likely to report eviction than non-Flint mothers. Similarly, for postpartum depression, Flint mothers in 2023 were far more likely to screen positive than non-Flint mothers. In 2024, this disparity was completely erased.

## DISCUSSION

The perinatal period is the poorest across the life course, and living in poor places exacerbates the pathogenicity of poverty. A prenatal and infant cash transfer program, Rx Kids launched in the city with one of the nation's highest child poverty rates<sup>39</sup> in a never-done-before, to our knowledge, effort to address the maternal and infant health

after program implementation to differences in outcomes for noneligible mothers living outside Flint. The hardship improvements seen in housing security, and particularly eviction, are important because these outcomes have profound impacts on the health and well-being of both mother and child. That families in Flint were less likely to be evicted than their much-higher-income non-Flint counterparts in 2024, who were not eligible for Rx Kids, is striking.

## Limitations

The maternal mental health and well-being findings are also notable. Not only did Rx Kids-exposed mothers report a major decrease in postpartum depression—with far-reaching implications for maternal and infant health—but they also felt more loved, respected, and hopeful, and expressed more trust in institutions. Buffered from economic hardship, the increase in hope—

The analysis assumed that the EMR address accurately represents the mother's living situation. However, because of the nature of self-reported address information, some Rx Kids recipients may be coded incorrectly. In this analysis, we are only able to report "intent-to-treat" (those eligible for the intervention) estimates rather than "treatment-on-the-treated" (eligibles

crisis. Driven by the interconnected pathways of improved economic stability and a reimagined social contract, study results show substantive improvements in several often-intractable domains of material hardship (housing security, nutrition), maternal mental health (depression), maternal well-being (loved, hopeful, respected, valued), and trust in institutions.

Findings were consistent with global and domestic evidence on prenatal and child cash transfers and aligned with insights from Rx Kids participant surveys (n = 112; 56% response rate; n = 534; 53% response rate<sup>54</sup>) that revealed improvements in family financial security, maternal and infant health, stress reduction, health care services access, and parenting confidence.<sup>27,54</sup> This study, however, further delineated Rx Kids' impact with temporal and geographic controls by comparing outcomes for Flint mothers before and

defined as optimism with belief that one has agency—reflects a powerful determinant of well-being; hopelessness has been linked to depression, and to a rising number of “deaths of despair,” and even vulnerability to misinformation, mistrust, and polarization.<sup>55</sup> Increased trust in institutions is especially consequential, considering this intervention launched where governmental betrayal was central to a public health crisis<sup>38</sup> that resulted in a further corrosion of trust.<sup>56</sup> These findings capture the underpinning of a reimagined social contract—what it means to be part of a society and a community that cares and provides for each other.

Consequentially, across both sets of outcomes presented, Flint mothers went from markedly worse off in comparison with non-Flint mothers in 2023 to virtually identical outcomes compared with non-Flint mothers in 2024. Rx Kids may be helping a community

who received the benefit) estimates. Because of the very high take-up, though, these rates (i.e., the intent-to-treat and the treatment-on-the-treated) should be relatively similar. In an ideal difference-in-differences analysis, the treatment and control groups would be more homogenous, and more than 1 preintervention period would be observed to assess whether the assumption of parallel trends holds. The parallel trends assumption is fundamentally untestable because the counterfactual trend for the exposed group is unobserved; our results should thus be interpreted in the context of the assumptions of the difference-in-differences methodology. A test of parallel trends in the preperiod is neither necessary nor sufficient to establish the validity of difference-in-differences.<sup>57</sup> Given that the control group had higher income and educational attainment on average, it is even more

striking that Rx Kids may have substan-

includes examining the dose-response

200 E 1st St, Flint, MI 48502 (e-mail:

tially narrowed the gap between Flint and non-Flint mothers on many outcomes in 2024. While it is possible that

of cash transfers on desired outcomes,

). Reprints can be ordered at by clicking the "Reprints" link.

some other change in the policy landscape was driving these results, no oth-

longitudinal follow-up, and replication of

PUBLICATION INFORMATION

the survey in other Rx Kids communities.

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Public Health Implications

and hope: the relationship between unconditional

er relevant changes were identified.

As the United States' first, to our knowl-

and maternal mental health and well-being. Am J Public Health. 2025;115(12):2020-2029.

The 2024 Flint cohort had a somewhat

higher survey response rate than other

edge, community-wide prenatal and in-

AcceptanceDate: July 4, 2025.

cohorts, and respondents were some-

fant cash transfer program, the scale

DOI:

what less disadvantaged than nonrespondents, which may have impacted

and design of Rx Kids fills a maternal

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the findings. However,

and infant health research and policy

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gap, with implications for multiple

available data indicate that the treatment group was the most disadvantaged of all cohorts, indicating that, if anything, there was a downward bias in the probability of seeing impacts. Finally, our data were self-reported survey responses; however, there was no other data source on mothers' perceptions of these outcomes; thus, it is the best-available representation of mothers' perceived financial stressors and well-being.

**Future Directions**

This is the first in a series of surveys in Flint that will report on a consistent set of

sectors, including health care, public

health, housing, early childhood, racial

equity, social services, civil society,

national security, and global competi-

tiveness. The results described herein

demonstrate the potential for this

model to have a positive impact on

the economic security, mental health,

and well-being of families and entire

communities. The place-based and

population-level scale mimics

government-level interventions, providing a replicable model<sup>58</sup> for

efficiently and effectively investing in maternal and infant health and well-

being. **AJPH**

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outcomes with cohorts of mothers exposed to Rx Kids. Analysis of future surveys will allow for comparison with this analysis. Rx Kids' universal design, with its near-100% take-up, further permits robust research using geocoded administrative data sources using difference-in-differences analysis comparing temporal and geographic trends. Research on administrative data is in process for many of the potential outcomes in Figure 1, including maternal and infant health care utilization, child welfare, voter participation, societal savings, and economic reinvestment. To further delineate

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## CONFLICTS OF INTEREST

The authors have no conflicts of interest to

report.

## HUMAN PARTICIPANT

## PROTECTION

This research was approved by the Hurley Medical

Center institutional review board (2187211). All survey participants provided informed consent.

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