

Did Cash Transfers from the 2021 Child Tax Credit Expansion Improve Maternal and Infant Health? A Policy Brief

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Summary

Poverty is bad for health. The reverse, that income is tied to better health, is the idea behind cash transfer policies. The 2021 Child Tax Credit Expansion is a recent example of a cash transfer policy and the focus of this policy brief. We discuss these questions:

(1) Is there evidence that other cash transfer policies have improved maternal and infant health?

Yes. There is consistent evidence that cash payments are beneficial to maternal and infant health.

(2) Did the 2021 Child Tax Credit Expansion improve maternal and infant health?

Likely, but needs study. The expanded 2021 Child Tax Credit policy benefitted nutrition and housing, so it's likely that maternal and infant health benefitted.

(3) Do cash payments improve maternal and infant health equity?

Needs study.

- Only one study looked at equity related to cash transfer programs directly; they found improvements, but this is not enough evidence to be conclusive.
- Several studies found improvements in specific racial, ethnic, educational, or income groups.
- There was inequitable receipt of payments from the 2021 Child Tax Credit expansion. However, the payments were used for essential living expenses among the most financially vulnerable recipients.

The issue

Maternal health and pregnancy outcomes in the United States are some of the worst in the developed world. According to [the Commonwealth Fund](#) and the [United Health Foundation](#):

- US Maternal mortality (death) is the highest in the developed world, over twice the rate of France and Canada, the next highest countries.¹
- US infant mortality is higher than all but three Organization for Economic Cooperation and Development (OECD) countries.²

A health inequity exists when groups that historically and/or currently have less power, privilege, and resources also have worse health outcomes. There are marked health inequities in pregnancy outcomes. According to the NVSR [2019 Infant Mortality report](#) and the [2020 Births report](#):

- Infant mortality is more than twice as high for Black mothers compared to White mothers (10.6% vs 4.5%, as of 2019)³
- Preterm birth is 1.6 times higher for Black mothers than for White mothers (14.7% vs 9.1% of births, as of 2020)³
- Low birth weight is more than twice as likely for Black mothers compared to White mothers (14.2% vs 6.8% of births, as of 2020)

Question 1: Is there evidence that other cash transfer policies have improved maternal and infant health?

Policy Features

Cash payment policies can take the form of Negative Income Tax, Universal Income, or can blend elements of the two.

- Negative Income Tax: a process where families below a certain income level are not taxed and instead paid by the government.⁴
- Universal Income: According to Bidanure, this is a “cash grant given to all members of a community without means test, regardless of personal desert, with no strings attached”⁵

Individual policies may differ by:

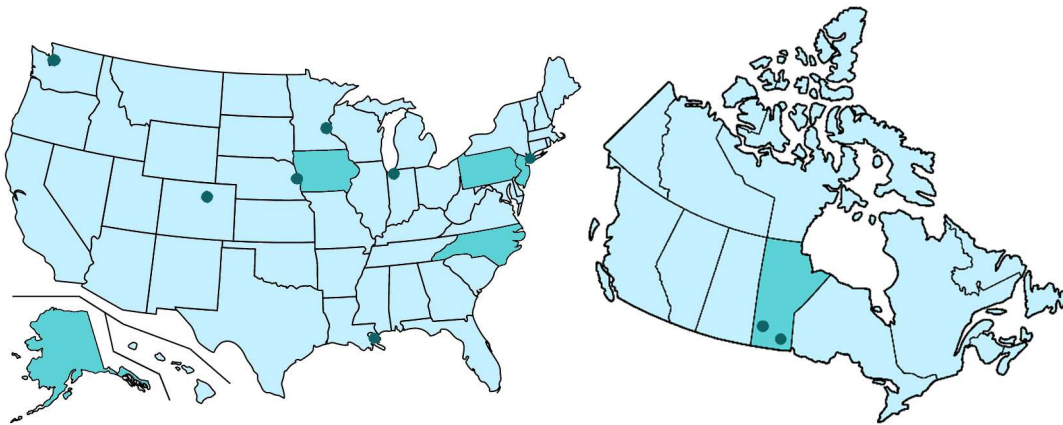
- Targeting specific populations to receive benefits, such as pregnant women or families
- Qualifiers, such as the number of children
- Amount, number, and frequency of payments
- Application process- by filing taxes or enrolling separately

Cash payment policies are proposed for many reasons- poverty reduction, improving nutrition, and improving health. While these policies may not target maternal and child health directly, they likely impact maternal and child health.

Reported Benefits

To answer question 1, we conducted a review of research on cash transfer programs (policies, experiments, studies) where:

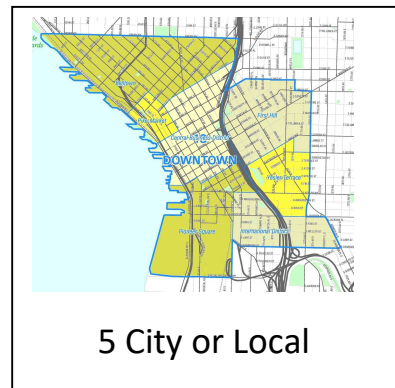
- (1) the program was implemented in the US or Canada, and
- (2) the evaluation focused on a measure of maternal health, pregnancy, or infant health.



We found 25 articles reviewing 11 different cash transfer programs conducted in the US and Canada, plus two additional summary articles.^{6,7} The policies included:

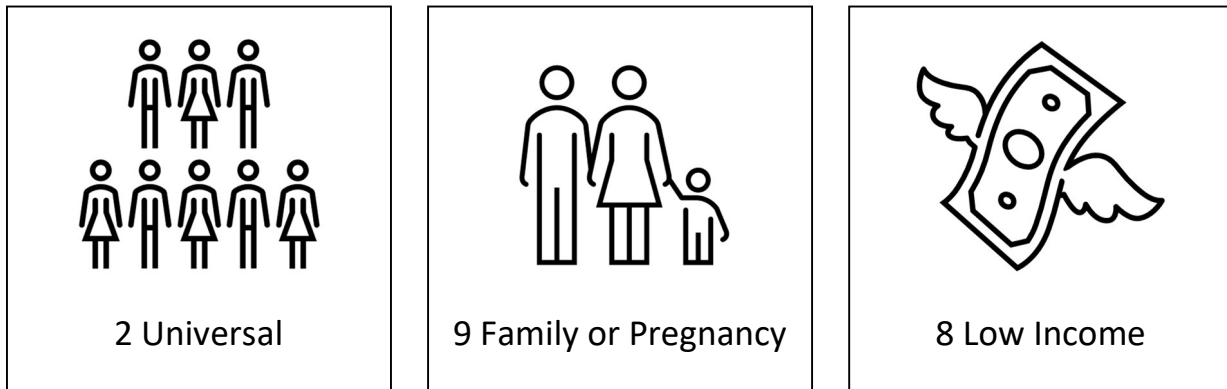
- The Alaska Permanent Fund Dividend (APFD), US- AK, 1976: unconditional cash transfer program to distribute oil-related revenue to all residents who meet the residency requirements⁸
- Canada Healthy Baby Prenatal Benefit (HBPB), Canada- MB, 2001: unconditional income support program for low-income mothers⁹⁻¹²
- Canada Universal Child Care Benefit (UCCB), Canada, 2016: taxable benefit paid to families with children under 18¹³
- Manitoba Basic Annual Income Experiment (MINCOME), Canada- Winnipeg and Dauphin MB, 1974-1979: guaranteed annual income program conducted^{14,15}
- Aid to Families with Dependent Children (AFDC), US, 1935: federal cash transfer program for low-income families with children¹⁶
- Negative Income Tax experiments, US-(1) NJ and PN; (2) Rural IA and NC; (3) Seattle, WA and Denver, CO; (4) Gary, IN (1968-1972): series of a negative tax programs for low-income families with the objective to assess the impact of income assistance on labor participation, children’s education and health, and fertility¹⁷⁻²¹
- Earned Income Tax Credit (EITC), US, 1975: tax break to low- and moderate-income families that meet certain income requirements and number of children²²⁻³¹
- Baby’s First Years Study, US, New York City, greater New Orleans, the Twin Cities, and the Omaha metropolitan area, 2018-2019: study of the impact of monthly, unconditional cash gifts to low-income mothers and their children in the first four years of the child’s life³²

Program Coverage Levels from our Review



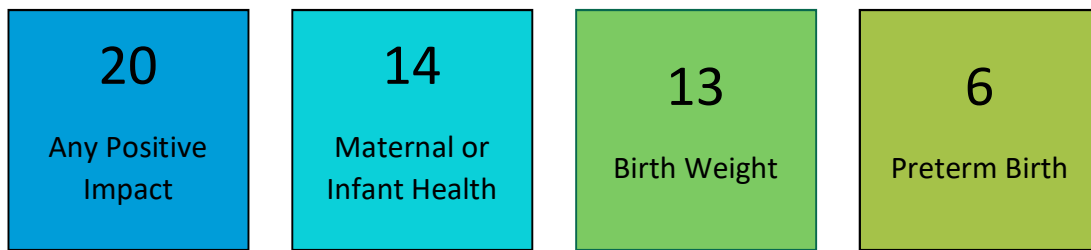
Programs were conducted at several geographic levels; benefits were not limited to one scale.

Program Beneficiaries from our Review



Most programs targeted low-income families rather than being universal.

Reviewed Studies showing positive impacts, by category



Finding 1: Cash payments improve maternal and infant health

Q2: Did the 2021 Child Tax Credit Expansion improve maternal and infant health?

Policy Details

The existing Child Tax Credit was expanded in 2021 as part of the American Rescue Plan, a response to the 2019 coronavirus pandemic. The policy is a negative income tax, providing unconditional payments for low- to moderate-income families with children. Changes made in 2021:

- Children 17 years old were eligible for payment
- Total amount of the payments increased from \$2,000 per child to \$3,600 for children < 6 years old and \$3,000 for each child 6-17 years old.
- Advance payments were provided, which were \$250-\$300 monthly payments per child occurring July-December 2021. The rest of the credit was paid after the family filed taxes. ^{33,34}
- The credit was made fully refundable, meaning families received the full amount of the credit even if they didn't owe any federal tax. Before this, only \$1,400 of the credit was refundable per child. ³⁵

Reported Benefits

To answer question 2, we looked at (1) existing research on the Child Tax Credit Expansion on maternal health, pregnancy, or infant health and (2) reported use of the Advance Payments.

We found four articles examining the impact of the 2021 Child Tax Credit Expansion. Reported benefits included:

- Better household nutrition ^{36,37}

- Reduced child poverty by about 34%³⁸
- Good cost per benefit ratio: \$97 billion in cost / \$982 billion in benefits per year if this expansion is made permanent³⁹

The Expanded Child Tax Credit benefits families and may thus benefit maternal and infant health indirectly. However, we were unable to find any existing research examining direct impacts on maternal and infant health.

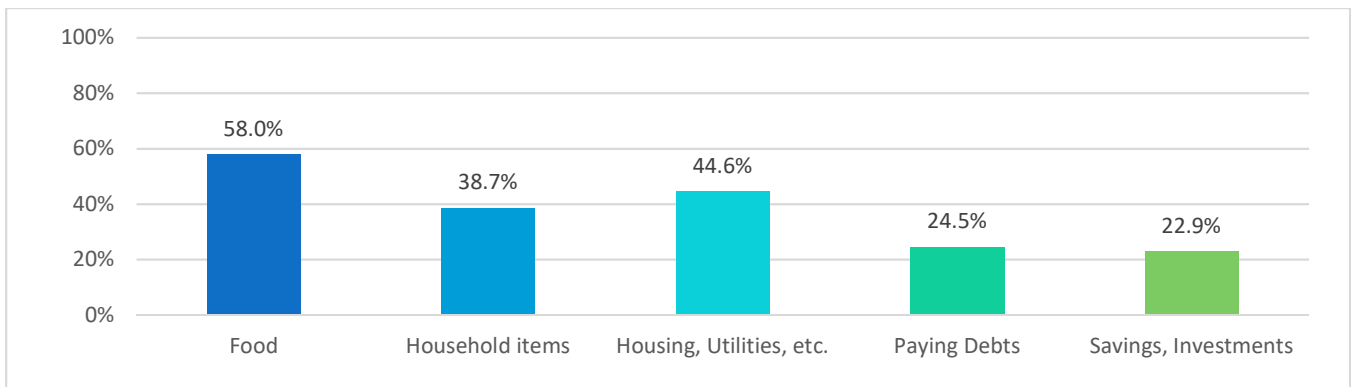
Gap: The direct effect of the 2021 Child Tax Credit Expansion on maternal and infant health has not been studied.

Use of Child Tax Credit Advance Payments, Overall

Results from the [State of the State Survey](#) describe receipt and use of the 2021 Child Tax Credit Expansion advance payments for in Michigan families. We included results from 414 respondents who were (1) from families with at least one dependent <18 years old, (2) who reported receiving the Advance Payments, and (3) answered the question “what did you spend the advance monthly payments on?” Respondents could pick more than one answer. We then generated survey-weighted percentages to describe the responses. This weighting is a way to adjust the results to be more representative of the Michigan population instead of just the people who were surveyed.

What did you spend the advance monthly payments on?

For All Families Overall



- Highest spending overall was on essentials, including food (58%) and housing, utilities, and other costs of living (45%).

Finding 2: It is likely that the 2021 Child Tax Credit Expansion improved maternal and infant health through housing and nutrition, but this needs to be confirmed.

Q3: Do cash payments improve maternal and infant health equity?

To answer this question, we looked at (1) the studies identified above to see if any reported on equity or disparities and (2) results from the [State of the State Survey](#) stratified by income and race and ethnicity.

Existing Research on Equity

Few studies looked at whether cash transfer programs have equitable impacts. However, many reported differences in findings for different racial, ethnic, educational, or income groups. These included:

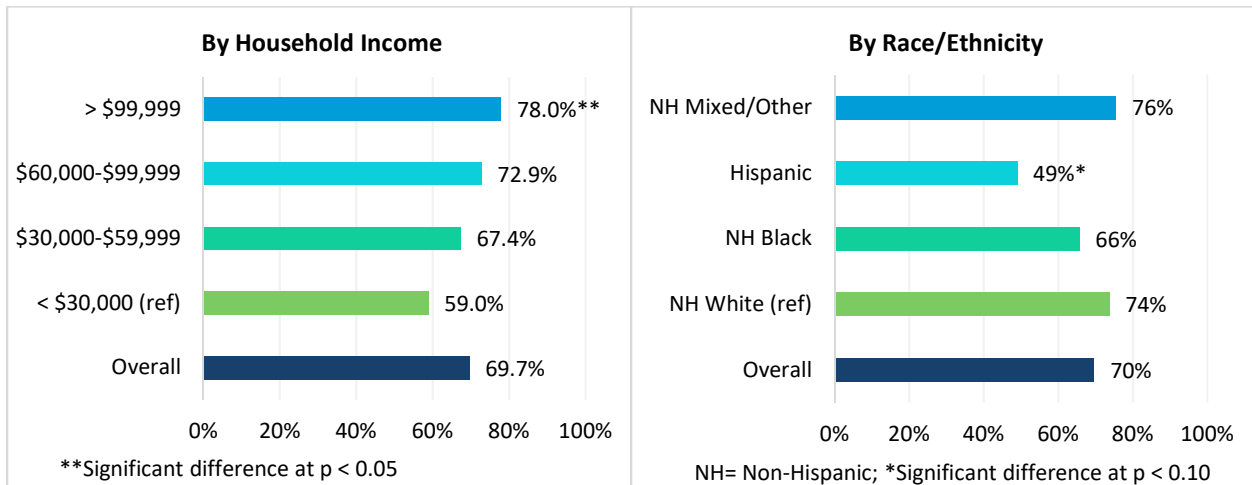
- Equity in birth outcomes (breastfeeding initiation, preterm birth, and low birth weight) was improved between low-income women and other women when they received the Canada Healthy Baby Prenatal Benefit.¹¹
- Fertility rates decreased for White married and single women who received Negative Income Tax. Fertility rates increased for married Chicana women.¹⁹
- Better birth outcomes were observed across all groups receiving the Earned Income Tax Credit. Improvements in birth weight were highest for Black women and those with a high school education or less.²⁹
- Smoking probability decreased for low educated White mothers with 2 or more kids compared to highly educated women with only one child.²⁸
- Nutritional improvement from the Child Tax Credit Expansion was similar in Black, Latino, and White low-income families.³⁶

Finding 3a: Cash transfer programs have benefitted some vulnerable groups, but there are not enough studies to draw conclusions about effects on health equity.

Receipt and Use of Child Tax Credit Advance Payments by Income and Race, Ethnicity

414 of 593 respondents that were part of a family with at least one dependent reported receiving the Child Tax Credit Advance Payments. We generated survey-weighted percentages for income and race/ethnicity categories to describe gaps in receipt.

Did your household receive any Child Tax Credit advance monthly payments from the IRS since July 2021 (percentage answering “yes”)?



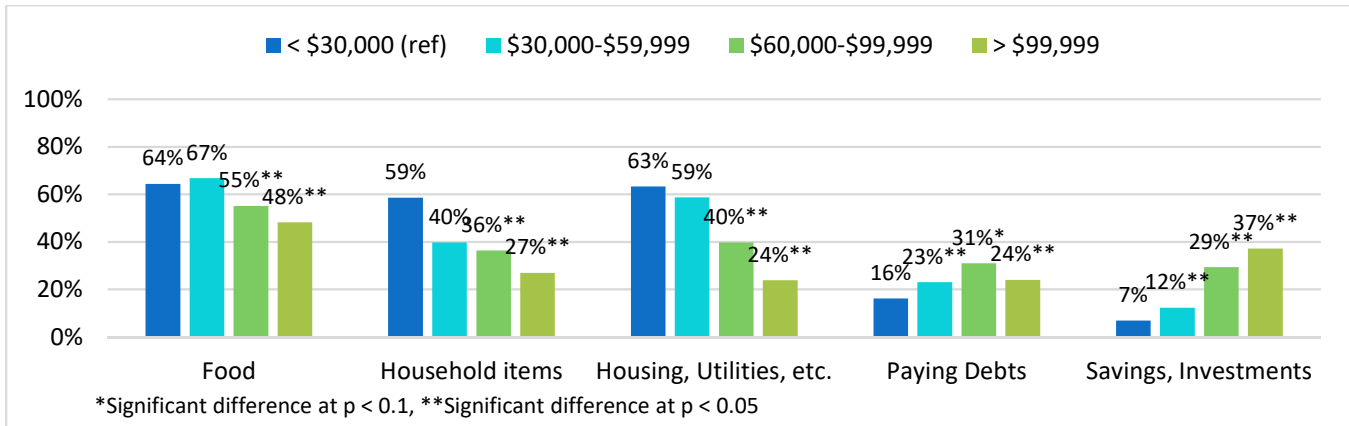
- Most households (70%) received the tax credit, but 3 in 10 households did not or were unaware of receiving it.
- Those at the highest income range were most likely to receive it (>99.9k, 78%) compared to the lowest income range (<30k, 59%). Other research confirms this finding.³⁶
- People identifying as Hispanic were the least likely group to receive the tax credit (49%) compared to other racial and ethnic groups.

Finding 3b: Receipt of Cash payments from the 2021 Child Tax Credit was inequitable.

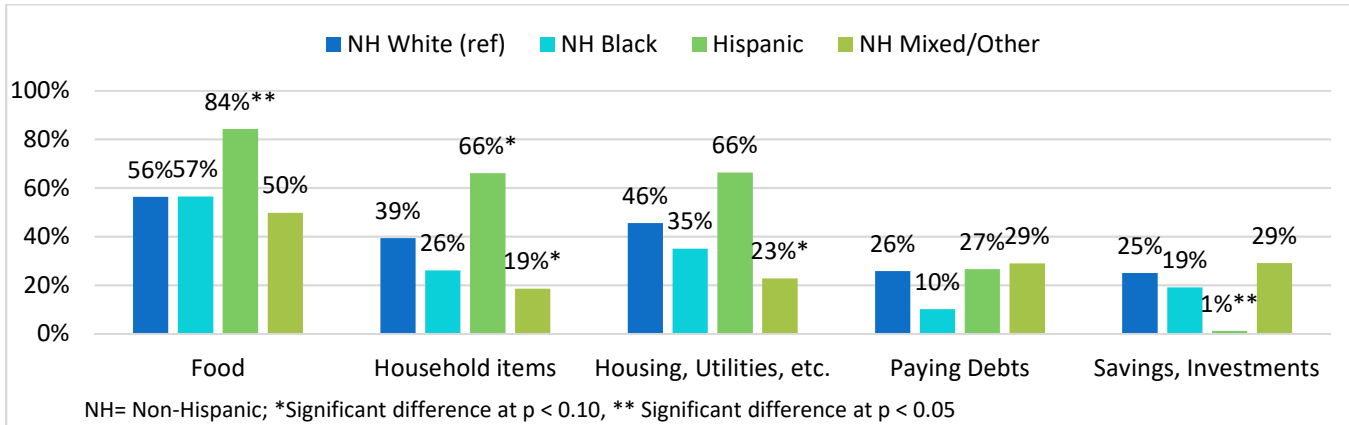
We calculated survey-weighted percentages for income and race/ethnicity categories to describe how the Advance Payments were spent in these groups.

What did you spend the advance monthly payments on?

By Household Income



By Race and Ethnicity



- Households at the lowest income levels (<\$30k) had the highest spending in essentials; households at the highest income levels (>\$99k) were the most likely to put the money into savings.
- Hispanic families also demonstrated high spending in essentials; putting the payments towards savings was also the lowest in this group.

Finding 3c: The 2021 Child Tax Credit Expansion was used most often for essential living expenses, especially for financially vulnerable and Hispanic groups. This may be a mechanism for reducing health inequity.

Conclusion

In summary:

- Cash payment policies have shown direct benefits to maternal and child health.
- The 2021 Child Tax Credit expansion itself improved determinants of maternal and infant health, such as nutrition.
- Michiganders used the 2021 Child Tax Credit Advance Payments to buy food and other essentials.
- Uptake of the Advance Payments was not equitable by race, ethnicity, or income

Therefore, it is likely that the 2021 Child Tax Credit Expansion also improved maternal and infant health, but this has yet to be proven. It is important to understand whether any beneficial impacts were equitable.

Opportunity to evaluate the 2021 CTC Expansion to:

- (1) Determine how this national policy affected maternal and infant health**
- (2) Determine whether those effects were equitable or reduced health disparities**

Evaluating 2021 CTC will help when deciding on similar policies in the future. If effective, this adds a proven policy tool to improve maternal and infant health

Resources

1. Roosa Tikkanen, Munira Z. Gunja, Molly FitzGerald, Laurie Zephyrin. Maternal Mortality and Maternity Care in the United States Compared to 10 Other Developed Countries. *The Commonwealth Fund Issue Briefs*. Published online November 18, 2020. doi:<https://doi.org/10.26099/411v-9255>
2. Findings International Comparison | 2018 Annual Report. America's Health Rankings. Accessed June 6, 2022. <https://www.americashealthrankings.org/learn/reports/2018-annual-report/findings-international-comparison>
3. Danielle M. Ely, Ph.D., and Anne K. Driscoll, Ph.D. *Infant Mortality in the United States, 2019: Data From the Period Linked Birth/Infant Death File*. National Vital Statistics System, NCHS, CDC, USDHHS; 2021. Accessed June 5, 2022. <https://www.cdc.gov/nchs/data/nvsr/nvsr70/NVSR70-14.pdf>
4. Negative income tax, explained. MIT Sloan. Accessed June 6, 2022. <https://mitsloan.mit.edu/ideas-made-to-matter/negative-income-tax-explained>
5. Bidanure JU. The Political Theory of Universal Basic Income. *Annual Review of Political Science*. 2019;22(1):481-501. doi:10.1146/annurev-polisci-050317-070954
6. Sun S, Huang J, Hudson D, Sherraden M. Cash Transfers and Health. *Center for Social Development Research*. Published online September 11, 2020. doi:<https://doi.org/10.7936/m5br-f244>
7. Fuller AE, Zaffar N, Cohen E, et al. Cash transfer programs and child health and family economic outcomes: a systematic review. *Can J Public Health*. 2022;113(3):433-445. doi:10.17269/s41997-022-00610-2
8. Chung W, Ha H, Kim B. Money Transfer and Birth Weight: Evidence from the Alaska Permanent Fund Dividend. *Economic Inquiry*. 2016;54(1):576-590. doi:10.1111/ecin.12235
9. Enns JE, Nickel NC, Chartier M, et al. An unconditional prenatal income supplement is associated with improved birth and early childhood outcomes among First Nations children in Manitoba, Canada: a population-based cohort study. *BMC Pregnancy and Childbirth*. 2021;21(1):312. doi:10.1186/s12884-021-03782-w
10. Struck S, Enns JE, Sanguins J, et al. An unconditional prenatal cash benefit is associated with improved birth and early childhood outcomes for Metis families in Manitoba, Canada. *Children and Youth Services Review*. 2021;121:105853. doi:10.1016/j.childyouth.2020.105853
11. Brownell M, Nickel NC, Chartier M, et al. An Unconditional Prenatal Income Supplement Reduces Population Inequities In Birth Outcomes. *Health Aff (Millwood)*. 2018;37(3):447-455. doi:10.1377/hlthaff.2017.1290
12. Brownell MD, Chartier MJ, Nickel NC, et al. Unconditional Prenatal Income Supplement and Birth Outcomes. *Pediatrics*. 2016;137(6):e20152992. doi:10.1542/peds.2015-2992
13. Daley A. Income and the mental health of Canadian mothers: Evidence from the Universal Child Care Benefit. *SSM - Population Health*. 2017;3:674-683. doi:10.1016/j.ssmph.2017.08.002
14. Forget EL. New questions, new data, old interventions: the health effects of a guaranteed annual income. *Prev Med*. 2013;57(6):925-928. doi:10.1016/j.yjmed.2013.05.029
15. Forget E. The Town with No Poverty: The Health Effects of a Canadian Guaranteed Annual Income Field Experiment. *Canadian Public Policy*. 2011;37(3):283-305.

16. Currie J, Cole N. Welfare and Child Health: The Link Between AFDC Participation and Birth Weight. *The American Economic Review*. 1993;83(4):971-985.
17. SALKIND NJ, HASKINS R. Negative Income Tax: The Impact on Children from Low-Income Families. *Journal of Family Issues*. 1982;3(2):165-180. doi:10.1177/019251382003002003
18. O'Connor JF, Madden JP. The Negative Income Tax and the Quality of Dietary Intake. *The Journal of Human Resources*. 1979;14(4):507-517. doi:10.2307/145321
19. Keeley MC. The Effects of Negative Income Tax Programs on Fertility. *The Journal of Human Resources*. 1980;15(4):675-694. doi:10.2307/145407
20. Elesh D, Lefcowitz MJ. The Effects of the New Jersey-Pennsylvania Negative Income Tax Experiment on Health and Health Care Utilization. *Journal of Health and Social Behavior*. 1977;18(4):391-405. doi:10.2307/2955347
21. Kehrer BH, Wolin CM. Impact of Income Maintenance on Low Birth Weight: Evidence from the Gary Experiment. *The Journal of Human Resources*. 1979;14(4):434-462. doi:10.2307/145316
22. Bruckner TA, Rehkopf DH, Catalano RA. Income gains and very low-weight birth among low-income black mothers in California. *Biodemography Soc Biol*. 2013;59(2):141-156. doi:10.1080/19485565.2013.833802
23. Hamad R, Rehkopf DH. Poverty and Child Development: A Longitudinal Study of the Impact of the Earned Income Tax Credit. *Am J Epidemiol*. 2016;183(9):775-784. doi:10.1093/aje/kwv317
24. Hamad R, Rehkopf DH. Poverty, Pregnancy, and Birth Outcomes: A Study of the Earned Income Tax Credit. *Paediatric and Perinatal Epidemiology*. 2015;29(5):444-452. doi:10.1111/ppe.12211
25. Strully KW, Rehkopf DH, Xuan Z. Effects of Prenatal Poverty on Infant Health: State Earned Income Tax Credits and Birth Weight. *Am Sociol Rev*. 2010;75(4):534-562. doi:10.1177/0003122410374086
26. Hoynes H, Miller D, Simon D. Income, the Earned Income Tax Credit, and Infant Health. *American Economic Journal: Economic Policy*. 2015;7(1):172-211. doi:10.1257/pol.20120179
27. Evans WN, Garthwaite CL. Giving Mom a Break: The Impact of Higher EITC Payments on Maternal Health. *American Economic Journal: Economic Policy*. 2014;6(2):258-290. doi:10.1257/pol.6.2.258
28. Averett S, Wang Y. The effects of Earned Income Tax Credit payment expansion on maternal smoking. *Health Econ*. 2013;22(11):1344-1359. doi:10.1002/hec.2886
29. Komro KA, Markowitz S, Livingston MD, Wagenaar AC. Effects of State-Level Earned Income Tax Credit Laws on Birth Outcomes by Race and Ethnicity. *Health Equity*. 2019;3(1):61-67. doi:10.1089/heq.2018.0061
30. Lenhart O. The effects of income on health: new evidence from the Earned Income Tax Credit. *Rev Econ Household*. 2019;17(2):377-410. doi:10.1007/s11150-018-9429-x
31. Markowitz S, Komro KA, Livingston MD, Lenhart O, Wagenaar AC. Effects of state-level Earned Income Tax Credit laws in the U.S. on maternal health behaviors and infant health outcomes. *Soc Sci Med*. 2017;194:67-75. doi:10.1016/j.socscimed.2017.10.016

32. Troller-Renfree SV, Costanzo MA, Duncan GJ, et al. The impact of a poverty reduction intervention on infant brain activity. *Proceedings of the National Academy of Sciences*. 2022;119(5):e2115649119. doi:10.1073/pnas.2115649119
33. Tax Year 2021/Filing Season 2022 Child Tax Credit Frequently Asked Questions — Topic A: 2021 Child Tax Credit Basics | Internal Revenue Service. Accessed June 13, 2022. <https://www.irs.gov/credits-deductions/tax-year-2021-filing-season-2022-child-tax-credit-frequently-asked-questions-topic-a-2021-child-tax-credit-basics>
34. The Child Tax Credit. The White House. Accessed June 14, 2022. <https://www.whitehouse.gov/child-tax-credit/>
35. Wessel D. What is the Child Tax Credit? And how much of it is refundable? Brookings. Published January 22, 2021. Accessed July 21, 2022. <https://www.brookings.edu/blog/up-front/2021/01/22/what-is-the-child-tax-credit-and-how-much-of-it-is-refundable/>
36. Parolin Z, Ananat E, Collyer SM, Curran M, Wimer C. The Initial Effects of the Expanded Child Tax Credit on Material Hardship. Published online September 2021. doi:10.3386/w29285
37. Shafer PR, Gutiérrez KM, Ettinger de Cuba S, Bovell-Ammon A, Raifman J. Association of the Implementation of Child Tax Credit Advance Payments With Food Insufficiency in US Households. *JAMA Netw Open*. 2022;5(1):e2143296. doi:10.1001/jamanetworkopen.2021.43296
38. Corinth K, Meyer BD, Stadnicki M, Wu D. The Anti-Poverty, Targeting, and Labor Supply Effects of Replacing a Child Tax Credit with a Child Allowance. Published online October 2021. doi:10.3386/w29366
39. Garfinkel I, Sariscsany L, Ananat E, et al. The Benefits and Costs of a U.S. Child Allowance. Published online March 2022. doi:10.3386/w29854