



WIC's proven outcomes help grow a healthier next generation.

A summary of key research documenting WIC's public health impact

NWA'S MISSION

The National WIC Association (NWA) provides its members with tools and leadership to expand and sustain effective nutrition services for mothers and young children.

For nearly fifty years, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) has supported health and nutrition needs during a targeted life stage for millions of families, including nearly half of all infants in the United States.¹ WIC's demonstrated public health success is reflected in a strong body of evidence, with recent research demonstrating that WIC's ongoing services during the COVID-19 pandemic continue to deliver critical support to grow a healthier next generation.

COST-SAVINGS

In 2019, research from UCLA, PHFE WIC, and the City of Los Angeles measured the economic effects of WIC participation during pregnancy.² The study determined that every dollar invested in WIC returns an average of \$2.48 in medical, educational, and productivity costs. The study's model was limited to cost savings associated with preterm birth, suggesting that the program's total cost savings are actually higher. The study also suggests that increased WIC participation among the eligible population would be associated with even further cost-savings.

This study builds on a consistent evidence base, including landmark studies from 1992 demonstrating Medicaid cost-savings associated with prenatal WIC participation.³ Prior research has also associated prenatal WIC participation with reduced risk of low birthweights, mitigating long-term health, cognitive, and developmental conditions. Both preterm birth and low birthweights are significant drivers of healthcare expenditures in both the short- and long-term.⁴

RECENT WIC RESEARCH



WIC SAVES \$2.48 FOR EVERY DOLLAR SPENT²



WIC REDUCES INFANT MORTALITY BY 16%⁵



HEALTHY WIC FOODS REDUCE CHILDHOOD OBESITY RATES^{6,7}



WIC BENEFIT BUMP INCREASES FRUIT AND VEGETABLE CONSUMPTION¹¹



WIC FAMILIES WANT OPTIONS TO SUSTAIN REMOTE SERVICES¹³



WIC FAMILIES ARE READY TO EMBRACE MODERN SHOPPING OPTIONS¹³

HEALTHY BABIES

In December 2019, the Journal of the American Medical Association published a national cohort study led by researchers at the University of North Carolina-Chapel Hill, identifying a 16 percent reduction in the risk of infant mortality that is directly attributable to WIC participation.⁵ The study evaluated over 11 million birth certificate records between 2011 and 2017.



The authors attribute the healthier WIC food package and breastfeeding promotion and support as key factors on positive birth outcomes associated with WIC participation. The WIC food package supports low-income women by increasing intake of key nutrients like protein, vitamin D and iron.

HEALTHY KIDS

After decades of advocacy from the National WIC Association and broader public health community, USDA revised the WIC food packages in 2009 to provide healthier options, including fruits, vegetables, and whole grains.

Following these changes to the food package, childhood obesity rates for WIC-enrolled toddlers age 2-4 declined from 15.9 percent in 2010 to 14.4 percent in 2020.⁶ This trend demonstrates the protective effect of WIC participation on childhood obesity.

HEALTHY MOMS

In September 2019, JAMA Pediatrics published a study by researchers at the University of California at San Francisco exploring the impact of the 2009 food package revisions on maternal health outcomes.⁷ The research used birth certificate and hospital discharge data from over 2.4 million mothers, comparing outcomes before and after the 2009 food package revisions. The study found that the revised WIC package was associated with reduced risk of excessive weight gain during pregnancy and maternal preeclampsia, the latter of which is a leading risk factor for maternal mortality and morbidity.⁸

WIC BENEFIT BUMP

Beginning in April 2021, WIC issued higher benefits for fruits and vegetables, ensuring enhanced access to nutritious foods through a more robust benefit.¹⁰

Over 5 million WIC participants are receiving this WIC benefit bump, with current levels \$26/month for children and \$47-52/month for pregnant and postpartum participants.

In 2022, the National WIC Association and Nutrition Policy Institute published the results of a survey that received over 10,000 responses on child fruit and vegetable consumption. The report found that fruit and vegetable consumption increased of 1/4 cup per day after the WIC benefit bump was enacted.¹¹ This increase is commensurate with other similar effective nutrition interventions.¹² Since this survey, qualitative research from several states in 2022 and 2023¹³⁻¹⁶ has found similar impacts, with participants describing increased satisfaction with CVB and purchasing a greater quantity and variety of produce.

MODERN SERVICES FOR WIC FAMILIES

WIC providers swiftly adapted to adjust services during COVID to assure uninterrupted services. The National WIC Association and Nutrition Policy Institute surveyed 26,000 WIC participants in spring 2021, identifying broad satisfaction with remote service delivery, with a strong desire to sustain remote options and provide balanced choices to participants beyond the public health concerns of the pandemic.¹⁷ The study also identified participant interest in modern options for WIC shoppers, including online ordering with in-store pickup, although initial data suggests that delivery fees could pose a barrier to WIC participants accessing home delivery options.

Investing in WIC improves the health of women, infants, and children, and leads to long-term healthcare savings.

References

- 1 United States Department of Agriculture, Food and Nutrition Service (2019) National- and State-Level Estimates of WIC Eligibility and WIC Program Reach in 2017: Final Report, 59. Accessed online: <https://nps-prod.azureedge.net/sites/default/files/resource-files/WICEligibles2017-Volume1.pdf>.
- 2 Nianogo R, Wang M, Basturo-Davila R, Nobari T, Prelip M, Arah O, Whaley S (2019) Economic evaluation of California prenatal participation in the special supplemental nutrition program for Women, Infants, and Children (WIC) to prevent preterm birth. *Journal of Preventive Medicine*. In-Press. Available online: <https://doi.org/10.1016/j.jpmed.2019.04.011>.
- 3 Devaney B, Bilheimer L, Schore J (1992) Medicaid costs and birth outcomes: the effects of prenatal WIC participation and the use of prenatal care. *Journal of Policy Analysis & Management* 11(4), pp. 573-592. <https://www.ncbi.nlm.nih.gov/pubmed/10121542>.
- 4 Beam AL, Fried I, Palmer N, Agniel D, Brat G, Fox K, Kohane J, Sinaiko A, Zupancic JAF, Armstrong J (2020) Estimates of healthcare spending for preterm and low-birthweight infants in a commercially insured population, 2008-2016. *Journal of Perinatology* 40:1091-1099. <https://doi.org/10.1038/s41372-020-0635-z>.
- 5 Soneji S, Beltran-Sanchez H (2019) Association of Special Supplemental Nutrition Program for Women, Infants, and Children with Preterm Birth and Infant Mortality. *JAMA* 321(2), <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2756257>.
- 6 Obesity Among Young Children Enrolled in WIC. Centers for Disease Control and Prevention. <https://www.cdc.gov/obesity/data/obesity-among-WIC-enrolled-young-children.html> Last updated May 24, 2021.
- 7 Fryar CD, Carroll MD, Afull J. Prevalence of overweight, obesity, and severe obesity among children and adolescents aged 2-19 years: United States, 1963-1965 through 2017-2018. *NCHS Health E-Stats*. 2020. [h erweight-obesity-child-H.pdf](https://www.nchs.gov/health-stat/HES020-011)
- 8 Hamad R, Collin DF, Baer RJ, Jelliffe-Pawlowski LL. Association of Revised WIC Food Package With Perinatal and Birth Outcomes: A Quasi-Experimental Study. *JAMA Pediatr*. 2019;173(9):845-852. doi:10.1001/jamapediatrics.2019.1706
- 9 Phipps EA, Thadhani R, Benzing T, Karumanchi SA. pre-eclampsia: pathogenesis, novel diagnostics and therapies. *Nat Rev Nephrol*. 2019;15(5):275-289
- 10 US Department of Agriculture. Implementation of the American Rescue Plan Act of 2021 State Agency Option to Temporarily Increase the Cash-Value Voucher/Benefit for Fruit and Vegetable Purchases. WIC Policy Memorandum #2021-3. March 24, 2021
- 11 Ritchie L, Lee D, Felix C, Sallack L, Chauvenet C, Machel G, Whaley SE. Multi-State WIC Participant Survey: Cash Value Benefit Increase During COVID. The National WIC Association and Nutrition Policy Institute, University of California Division of Agriculture and Natural Resources. February 2022.
- 12 Hodder, R.K., O'Brien, K.M., Tzelepis, F., Wyse, R.J., & Wolfenden, L. (2020). Interventions for increasing fruit and vegetable consumption in children aged five years and under. *Cochrane Database of Systematic Reviews*, 9(9):CD008552. <https://doi.org/10.1002/14651858.cd008552.pub3>
13. Halverson MM, Karpyn A. WIC Participants' Perceptions of the Cash-Value Benefit Increase during the COVID-19 Pandemic. *Nutrients*. 2022 Aug 26;14(17):3509.
14. Duffy EW, Vest DA, Davis CR, Hall MG, De Marco M, Ng SW, Taillie LS. "I Think That's the Most Beneficial Change That WIC Has Made in a Really Long Time": Perceptions and Awareness of an Increase in the WIC Cash Value Benefit. *Int J Environ Res Public Health*. 2022 Jul 16;19(14):8671.
15. Martinez CE, Ritchie LD, Lee DL, Tsai MM, Anderson CE, Whaley SE. California WIC Participants Report Favorable Impacts of the COVID-Related Increase to the WIC Cash Value Benefit. *Int J Environ Res Public Health*. 2022 Aug 25;19(17):10604.
16. Gago C, Colchamiro R, May K, Rimm EB, Kenney EL. Caregivers' Perceived Impact of WIC's Temporary Cash-Value Benefit (CVB) Increases on Fruit and Vegetable Purchasing, Consumption, and Access in Massachusetts. *Nutrients*. 2022; 14(23):4947. <https://doi.org/10.3390/nu14234947>.
17. Ritchie L, Lee D, Sallack L, Machel G., Chauvenet C, Kim L, Song L, Whaley S (2021) Multi-State WIC Participant Satisfaction Survey: Learning from Program Adaptations during COVID. <https://thewichub.org/multistate-wic-participant-satisfaction-survey-learning-from-program-adaptations-during-covid/>

