

About this Report

Breastfeeding has a profound impact on population health outcomes. The <u>evidence for the value of human milk</u> to the overall health of infants, children, and mothers is scientific, robust, and continually reaffirmed by new research. Breastfed infants are at lower risk of certain infections and sudden unexplained infant death. Children who were breastfed have decreased risk of obesity, type 1 and 2 diabetes, asthma, and childhood leukemia. Women who breastfeed reduce their risk of chronic illnesses, including type 2 diabetes, cardiovascular disease, and breast and ovarian cancers. A <u>recent CDC study</u> of over 3 million U.S. births found that ever breastfeeding is associated with a 26% reduction in the odds of post-perinatal (between 7-364 days) infant death.

The <u>American Academy of Pediatrics recommends</u> infants be exclusively breastfed for about six months with continued breastfeeding while introducing complementary foods for two years or beyond. Unfortunately, barriers to establishing and maintaining the breastfeeding relationship are persistent and pervasive in the United States, and only a small proportion of dyads meet these recommendations.

This is why increasing breastfeeding rates and creating lactation-friendly environments have been identified as critical public health priorities both nationally and globally. This year, in addition to the ongoing COVID-19 pandemic, many families also had to navigate the devastating infant formula recall and shortage, stripping away their confidence in keeping their babies safely fed.

The good news is that federal investments are making a difference for babies, mothers, and our nation. The California breastfeeding report describes how breastfeeding rates and other measures compare to national levels, lists the coalitions serving communities in the state, and highlights state and community-based lactation projects made possible through federal funding in 2021 and 2022.

Our values and priorities are reflected through the care and attention we show to our nation's infants and young children, and we all have a role to play. In the words of Surgeon General Regina Benjamin, "We can all help make breastfeeding easier."

We hope this report illustrates the importance of breastfeeding and human milk and sheds a light on the policy, system, and environmental factors that impact infant feeding outcomes. To access reports from other states and territories, please visit www.usbreastfeeding.org/state-breastfeeding-reports.

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Breastfeeding Rates

See how California breastfeeding rates and other measures compare to national rates and targets set by the Healthy People 2030 (HP2030) initiative.

	Breastfeeding Initiation	Exclusive Any Breastfeeding Breastfeeding at		Formula Supplementation
	miciación	at 6 Months	12 months	at 2 Days
California	89.9%	27.3%	43.6%	19%
U.S. National	84.1%	24.9%	35.9%	19.2%
HP2030 Target	N/A	42.4%	54.1%	N/A

Source: <u>CDC Breastfeeding Report Card</u>, a biannual publication highlighting progress towards breastfeeding goals in the United States. Breastfeeding and supplementation rates are measured as a percentage.

WIC Program Breastfeeding Performance Measures

The Special Supplemental Nutrition Program for Women, Infants and Children (WIC) program provides supplemental foods, health care referrals, and nutrition education for low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and to infants and children up to age five. The WIC program serves approximately 53 percent of all infants born in the United States.

	Fully Breastfed Rate	Partially Breastfed Rate	Total Breastfed Rate	Fully Formula Fed Rate
California WIC	18.2%	21.5%	39.7%	60.3%
Rates				
National WIC Rates	12.1%	21.9%	33.9%	66.1%

Source: <u>Fiscal Year 2021 WIC Breastfeeding Data Local Agency Report</u>. Breastfeeding and formula feeding rates are measured as a percentage of participating children under one year of age.

Breastfeeding Coalitions Serving in California

An extensive network of state, tribal, territorial, local, and cultural breastfeeding coalitions across the United States are working to create policy, systems, and environmental interventions to better serve babies, mothers, and families. The following coalitions serve in California:

- Alameda County Breastfeeding Coalition
- Asian & Pacific Islander Breastfeeding Task Force
- Breastfeeding Coalition of San Joaquin County
- Breastfeeding Coalition of Ventura County
- BreastfeedLA
- California Breastfeeding Coalition

- Contra Costa Breastfeeding Coalition
- Inland Empire Breastfeeding Coalition
- Kings County Breastfeeding Coalition
- Lake County Breastfeeding Taskforce
- Nursing Mothers Counsel, Inc.
- San Diego County Breastfeeding Coalition
- TriCounties Breastfeeding Alliance
- Tulare County Breastfeeding Coalition



Creating a Landscape of Support

The policy, systems, and environments that surround and shape our lives have a profound impact on the infant feeding experience, either helping or hindering breastfeeding. Maternity care practices, paid family and medical leave, and childcare practices are proven to impact breastfeeding outcomes, and are highlighted in the CDC Breastfeeding Report Card.

	% of live births occurring at Baby-Friendly facilities	mPINC Score	Has enacted paid family and medical leave legislation	# of weeks available to care for a new child	ECE licensing breastfeeding support score
California	40.9%	87	Yes	8	100
U.S. National	28.9%	81	No		

Source: <u>CDC Breastfeeding Report Card</u>. CDC's national Maternity Practices in Infant Nutrition and Care (mPINC) survey assesses maternity care practices that affect how babies are fed. Among states with enacted paid family and medical leave legislation, the number of weeks presented are those that can be claimed by eligible employees for the care of a new child by birth, adoption, or foster care. ECE score indicates the extent to which a state's licensing regulation for early child education centers meet the Caring for our Children's standard to encourage and fully support breastfeeding/feeding of breast milk.

Federally Funded Lactation Projects in California

Each year funding is allocated to a variety of federally funded programs that address infant nutrition security through the federal appropriations process. These investments are making a real difference. Breastfeeding rates have risen substantially in recent decades, but additional efforts are needed to help our nation reach Healthy People 2030 goals.

Federally funded lactation support programs are low-cost, high-impact interventions that work to reduce the persistent and pervasive barriers to breastfeeding success. This funding supports critical national efforts, including monitoring and evaluation, research, public education, resource development, and beyond. Funding also supports a wide range of state and community-level projects to address the challenges faced by specific populations. These programs support and reinforce each other, reaching distinct audiences and environments.

See how federal investments are making a difference in California below.

Centers for Disease Control and Prevention (CDC)

- The <u>CDC Hospitals Promoting Breastfeeding program</u> provides critical support to advance breastfeeding continuity of care and increase access to lactation-friendly environments in states, hospitals, and communities. In Fiscal Year 2022, this program was funded at \$9.75 million.
- The <u>State Physical Activity and Nutrition</u> (SPAN) program funds recipients to implement evidence-based strategies at state and local levels to improve nutrition and physical activity. As part of the SPAN program, California is addressing racial disparities in breastfeeding rates by improving workplace compliance with the lactation accommodation laws and incorporating breastfeeding supports into continuity of care practices.



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- Good Health and Wellness in Indian Country (GHWIC) is the CDC's largest investment to improve American Indian and Alaskan Native (AI/AN) tribal health and is focused on health promotion and chronic disease prevention, including increase breastfeeding rates. In California, the Pinoleville Pomo Nation received \$374,886, and the California Rural Indian Health Board Inc. received \$1,439,125 through the GHWIC program.
- State Perinatal Quality Collaboratives (PQCs) are state or multi-state networks of multidisciplinary teams, working to improve outcomes for maternal and infant health. PQCs do this by advancing evidence-informed clinical practices and processes using quality improvement (QI) principles to address gaps in care. CDC's Division of Reproductive Health is currently providing support for the California Perinatal Quality Collaborative, which is working to support breastfeeding/human milk feeding.
- EMPower Best Practices is a hospital-based quality improvement initiative funded by the CDC Division of Nutrition, Physical Activity, and Obesity. The purpose of this initiative is to improve knowledge and skills in evidence-based maternity practices supportive of optimal infant nutrition with a focus on culturally diverse, atrisk populations and those from low-income families. This project is coordinated in partnership with the Carolina Global Breastfeeding Institute based at the University of North Carolina at Chapel Hill and Population Health Improvement Partners. The EMPower Best Practices initiative is supporting the following hospitals in California:
 - UCLA Santa Monica Medical Center
 - Ronald Reagan UCLA Medical Center
 - MemorialCare Miller Children's & Women's Hospital Long Beach
 - o Lucile Packard Children's Hospital Stanford
 - o Adventist Health White Memorial

Health Resources & Service Administration, Maternal and Child Health Bureau (HRSA, MCHB)

- The <u>Title V Maternal and Child Health (MCH) Block Grant</u> provides funding for states and jurisdictions to meet the unique health needs of their children and families. In its five-year action plan, California has chosen increasing the percentage of infants who are ever breastfed and infants who are breastfed exclusively through 6 months as one of their Title V Maternal and Child Health grant National Performance Measures.
- The purpose of the <u>Healthy Start program</u> is to improve health outcomes before, during, and after pregnancy, and reduce racial/ethnic differences in rates of infant death and adverse perinatal outcomes through local projects that can include lactation education. California received five Healthy Start awards totaling \$5,456,029 in 2020. Alameda County was awarded \$1,165,343, Fresno County was awarded \$980,000, Los Angeles County was awarded \$1,165,343, Project Concern International in San Diego was awarded \$1,165,343, and SHIELDS for Families in Los Angeles was awarded \$980,000.
- The <u>Healthy Start Doula Supplement</u> provides funding to increase the availability of doulas in Healthy Start service areas most affected by infant and maternal mortality and to increase the number of women with a higher risk of poor birth outcomes receiving doula services. In 2021, funding in California was directed to Project Concern International and County of Alameda. In 2022, funding was directed to Shields for Families.
- The Maternal, Infant, and Early Childhood Home Visiting (MIECHV) program supports pregnant people and parents with young children who live in communities that face greater risks and barriers to achieving positive maternal and child health outcomes, including through lactation support. In 2022, the California Department of Public Health received \$18,608,627 in funding to implement the MIECHV program.
- The Maternal and Child Health (MCH) Nutrition program promotes the healthy nutrition of mothers, children, and families by establishing and enhancing MCH Nutrition Centers of Excellence to provide training for future and current MCH nutrition professionals and technical assistance to state Title V and other MCH programs. MCH Nutrition Training programs include education on breastfeeding. In California, the University of California, Berkeley received funding to support the Maternal and Child Health Nutrition Training Program. University of California, Los Angeles also received funding to support the Partners in Excellence for Leadership in MCH Nutrition Program.



U.S. Department of Agriculture, Food and Nutrition Service

- Each year, the Food and Nutrition Service (FNS), Special Supplemental Nutrition Program for Women, Infants and Children (WIC) presents the <u>WIC Breastfeeding Award of Excellence</u> to recognize local WIC agencies that have provided exemplary breastfeeding promotion and support activities. The following California agencies were awarded in 2021:
 - o 2021 Gold Award:
 - Riverside County
 - Sacramento County Department of Health Services
 - San Mateo County
 - San Francisco Department of Public Health
 - o 2021 Premier Award:
 - County of Sonoma
- FNS also provides the WIC Breastfeeding Performance Bonus Award, which recognizes agencies with the highest rates of fully breastfed infants. The following agency was awarded in 2022:
 - o California Department of Public Health

Office on Women's Health

The Reducing Disparities in Breastfeeding Innovation Challenge sought innovative ways to increase breastfeeding initiation and continuation rates and decrease disparities. In California, MOMS Orange County was a winner of the Reducing Disparities in Breastfeeding Innovation Challenge. This organization offers free one-on-one lactation consultation in English, Spanish, and Vietnamese to low-income pregnant women and new mothers in Orange County, California. In fiscal year 2020, 95% of women who gave birth while enrolled in the program started breastfeeding, and 37% continued to breastfeed exclusively for 6 months.

National Institutes of Health

- The National Institutes of Health and National Institute of Child Health and Human Development conduct and fund a variety of clinical research related to breastfeeding and breast milk. In California, the following organizations received funding:
 - o University of California Los Angeles was funded to complete the following research projects:
 - "Evaluation of pre-exposure prophylaxis cascade in pregnant and breastfeeding women in Cape Town, South Africa"
 - "Evaluating the PrEP cascade in HIV-negative pregnant and breastfeeding women in South Africa (PrEP-PP)."
 - The Lundquist Institute for Biomedical Innovation was funded to complete the following research projects:
 - "Prevention of obesity in Infants of overweight and obese women"
 - "E-Cigarette Vaping during Pregnancy and Lactation, Germ Cell Epigenetic Memory, and Transgenerational Asthma"
 - "Maternal Obesity Programs Offspring Hypothalamic Neurogenesis and Appetite: Mechanisms and Prevention of Hyperphagia-mediated Childhood Obesity"
 - Stanford University was funded to complete the following research projects:
 - "Impact of HIV exposure, feeding status, and microbiome on immune ontogeny and vaccine responses in infants"
 - "Maternal Outcomes and Neurodevelopmental Effects of Antiepileptic Drugs (MONEAD)"
 - "Disparities in Processes and Outcomes of Care Across Asian/Pacific Islander Populations at Childbirth"



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- o Children's Hospital of Los Angeles was funded to complete the following research projects:
 - "Role of Human Milk Oligosaccharides on Infant Brain Development"
 - "Home intervention for reducing sugary drinks & obesity in Hispanic women-infants"
 - "Impact of Early feeding and human milk oligosaccharides on obesity and brain development"
 - "Early Life Social, Environmental, and Nutritional Determinants of Disease (ELSEND)"
- Import Therapeutics, Inc. was funded to complete a research project titled "Scanning the Cryptosporidium proteome for vaccine antigens."
- University of California, Santa Cruz was funded to complete a research project titled "Notch/Robo Regulated Mechanisms Governing Cell Fate Acquisition."
- Beckman Research Institute City of Hope was funded to complete a research project titled "Mammary Adipocyte Remodeling in Health and Disease."
- Kaiser Foundation Research Institute was funded to complete a research project titled "Fetal and Early Postnatal Influences on Child Metabolic Health After Gestational Diabetes."
- o University of California, San Francisco was funded to complete the following research projects:
 - "The OMWaNA Study: Operationalizing kangaroo Mother care among clinically unstable low birth Weight Neonates in Africa"
 - "Understanding the role of food insecurity and depression in non-adherence to Option B+ among perinatal Kenyan women living with HIV: a Syndemics approach"
 - "The effect of SARS-CoV-2 on the susceptibility of respiratory outcomes in a Puerto Rican Birth Cohort"
- University of California at Davis was funded to complete the following research projects:
 - "Understanding the Lactational Amenorrhea Method of Contraception for Mothers of Preterm and Term Infants"
 - "Goals for Reaching Optimal Wellness: GROWell"
 - "Neural mechanisms of protective effects of early nutrition on the development of socialemotional difficulties among children in Ghana."
 - "The role of glucocorticoids in the regulation of alpha-lactalbumin and milk production"
- o University of California, San Diego was funded to complete the following research projects:
 - "Lifelong Triclosan Exposure and Fatty Liver Disease"
 - "Exploring Associations between Human Milk Oligosaccharides and Atherosclerosis Risk Factors in Infancy and Early Childhood"
 - "Home vs. Clinic Collection of Human Milk in Evaluating the Pharmacokinetics of Four Medications"
 - "Exploring human milk oligosaccharides and malaria risk in breastfed infants"
 - "Human Milk Oligosaccharides for Prevention of Alcohol-Associated Liver Disease"
 - "Antibiotic Treatment in Breastfeeding Mothers: Effects on Milk, Microbiome, and Infant Outcomes"
 - "The impact of ampicillin and breast milk oligosaccharides on the infant microbiome and immune functions"
 - "Impact of Maternal Antibiotics on the Breastfeeding Infant Microbiome and Metabolome"
 - "Milk Analytics Core"
 - "Pharmacometrics and Analytical Chemistry Core"
 - "Exposure to per- and polyfluoroalkyl substances (PFAS) and risk of cancer in children"
 - "Optimization of Antibiotics in Mothers and their Breastfed Infants Using Pharmacomicrobiomic and Metabolomic Analyses (mPRINT P50)"
 - "Home vs. Clinic Collection of Human Milk in Evaluating the Pharmacokinetics of Four Medications"
- University of California Berkeley was funded to complete a research project titled "Maintaining and Expanding the CHAMACOS Epidemiology Cohort Infrastructure for Future Generations."



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- San Jose State University was funded to complete a research project titled "Regulation of Mammary Gland Development by Sirtuin 4."
- o California State University Northridge was funded to complete the following research projects:
 - "Mechanisms and consequences of human milk oligosaccharide growth and bile stress across diverse strains of the potential therapeutic bacterium, Akkermansia muciniphila"
 - "Diversity Supplement to SC1GM136546"
- Scripps Research Institute was funded to complete a research project titled "Distinguishing plasminogen-dependent and plasminogen-independent roles of the plasminogen receptor, Plg-RKT."
- o Rand Corporation was funded to complete a research project titled "The Impact of Telelactation Services on Breastfeeding Outcomes among Minority Mothers: Siteless Tele-MILC Trial."

