

Primary Care Behavioral Counseling Interventions to Support Breastfeeding

US Preventive Services Task Force Recommendation Statement

US Preventive Services Task Force

IMPORTANCE The association between breastfeeding and health benefits in children has been previously well established; health benefits have also been found for women who breastfeed. However, breastfeeding rates in the US are relatively modest; as of 2021, 59.8% of infants at age 6 months are breastfed and 27.2% of infants at that age are exclusively breastfed.

OBJECTIVE The US Preventive Services Task Force (USPSTF) commissioned a systematic review to evaluate the evidence on the benefits and harms of primary care behavioral counseling interventions to support breastfeeding.

POPULATION Adolescents and adults who are pregnant or postpartum, and their infants and children.

EVIDENCE ASSESSMENT The USPSTF concludes with moderate certainty that primary care behavioral counseling interventions to support breastfeeding have a moderate net benefit.

RECOMMENDATION The USPSTF recommends providing interventions or referrals, during pregnancy and after birth, to support breastfeeding. (B recommendation)

JAMA. doi:10.1001/jama.2025.3650
Published online April 8, 2025.

+ Editorial

+ Related article and JAMA Patient Page

+ Supplemental content

+ CME at jamacmelookup.com

Corresponding Author: Wanda K. Nicholson, MD, MPH, MBA, Milken Institute of Public Health, George Washington University, 950 New Hampshire Ave NW, #2, Washington, DC 20052 (chair@uspstf.net).

Summary of Recommendation

Population	Recommendation	Grade
Pregnant and postpartum women	The USPSTF recommends providing interventions or referrals, during pregnancy and after birth, to support breastfeeding.	B

USPSTF indicates US Preventive Services Task Force.

See the Summary of Recommendation figure.

Pathway to Benefit

To achieve the benefits of breastfeeding interventions, it is important that evidence-based interventions are readily accessible for all patients.

Mission Statement

The US Preventive Services Task Force (USPSTF) works to improve the health of people nationwide by making evidence-based recommendations on effective ways to prevent disease and prolong life.

Importance

The association between breastfeeding and health benefits in children has been previously well established¹; health benefits have also

been found for women who breastfeed.² However, breastfeeding rates in the US are relatively modest; as of 2021, 59.8% of infants at age 6 months are breastfed and 27.2% of infants at that age are exclusively breastfed.³ Healthy People 2030 has set a goal to increase the proportion of infants who are breastfed exclusively through age 6 months to 42.4%⁴ and the proportion of infants who are breastfed any amount at 1 year to 54.1%⁵ Breastfeeding rates differ according to race, age, level of education, and other sociodemographic factors.^{3,6} Variables associated with lower breastfeeding rates include Black race; being younger than 30 years; participating in the Special Supplemental Nutrition Program for Women, Infants, and Children; being unmarried; living in a nonmetropolitan area; or having

high school as the highest education level achieved.^{3,6} Disparities are present by race, with 73.9% of Asian infants, 51.7% of Black infants, 56.1% of Hispanic infants, and 63.4% of White infants being breastfed at 6 months.³

There are complex historical, structural, and economic factors that research has shown to contribute to disparities in rates of breastfeeding. Examples include lasting psychological impact and stigma of enslaved Black women being forced to act as wet nurses⁷⁻¹⁰; the marketing tactics of formula companies^{11,12}; and societal messaging that emphasizes the use of breasts for sexual purposes rather than nutrition.⁸⁻¹⁰ Studies have shown that Hispanic and Latina communities may have a perception that providing both breast milk and formula gives infants twice the benefits, which contributes to lower breastfeeding rates.¹³⁻¹⁵ Research also has shown that Black and Hispanic and Latina individuals, as well as individuals with lower socioeconomic status, may work in jobs that make it difficult to continue breastfeeding while working.^{14,16-18} For example, Black women often report returning to work early, at 6 to 8 weeks postpartum, which may make it more difficult to breastfeed their infants.^{9,16,19}

Studies also have identified multiple factors that limit access to breastfeeding support. Zip codes that have higher proportions of Black residents are less likely to have birthing facilities with supportive breastfeeding practices, such as early initiation of breastfeeding, rooming in, limited use of breastfeeding supplements, limited use of pacifiers, and postdischarge support.²⁰ Additionally, in a large population study, Black, Hispanic, and Indigenous women reported higher rates of mistreatment by health care professionals during pregnancy, including having their preferences ignored.²¹ Research has also documented that women belonging to racial and ethnic minorities may be less likely to receive breastfeeding support than White women.²²⁻²⁵

USPSTF Assessment of Magnitude of Net Benefit

The US Preventive Services Task Force (USPSTF) concludes with moderate certainty that behavioral counseling interventions to support breastfeeding have a **moderate net benefit**. Therefore, clinicians should provide behavioral counseling interventions or referrals to support breastfeeding.

See **Table 1** for more information on the USPSTF recommendation rationale and assessment and the eFigure in the Supplement for information on the recommendation grade. See the **Figure** for a summary of the recommendation for clinicians. For more details on the methods the USPSTF uses to determine the net benefit, see the USPSTF Procedure Manual.²⁶

Practice Considerations

Patient Population Under Consideration

This recommendation applies to all adolescents and adults who are pregnant or postpartum, and their infants and children. Interventions to support breastfeeding may also involve partners, other family members, and friends. This recommendation does not apply in circumstances in which there are contraindications to breastfeeding (eg, certain maternal medical conditions or infant metabolic dis-

Table 1. Summary of USPSTF Rationale

Rationale	Assessment
Benefits of behavioral interventions	- The USPSTF found adequate evidence that behavioral counseling interventions to support breastfeeding provide a moderate benefit in improving the initiation, duration, and exclusivity of breastfeeding. - Based on well-established, foundational evidence from prior reviews, the USPSTF had previously determined that there is convincing evidence that breastfeeding provides substantial health benefits for children and adequate evidence that breastfeeding provides moderate health benefits for women who breastfeed.
Harms of behavioral interventions	The USPSTF found adequate evidence to bound the harms of behavioral counseling interventions to support breastfeeding as no greater than small, based on the nature of the intervention, the low likelihood of serious harms, and the available information from studies reporting few harms.
USPSTF assessment	The USPSTF concludes with moderate certainty that behavioral counseling interventions that support breastfeeding provide a moderate net benefit.

Abbreviation: USPSTF, US Preventive Services Task Force.

orders, such as galactosemia). The USPSTF did not review evidence on interventions directed at breastfeeding of preterm infants.

Definitions of Breastfeeding

For the purposes of this recommendation statement, *breastfeeding* includes both feeding at the breast and feeding expressed breast milk through a bottle. Rates of breastfeeding are described in terms of *initiation* (starting breastfeeding or introducing breast milk, at or within 1 week after birth), *duration* (the number of months breastfeeding or consumption of breast milk lasts), and *exclusivity* (consumption of only breast milk, whether from the breast or bottle, and without other liquid or food supplementation).

Behavioral Counseling Interventions and Implementation Considerations

Behavioral counseling interventions that help increase breastfeeding rates include breastfeeding education and support. Breastfeeding education typically includes a formalized program to convey general breastfeeding knowledge and focuses on the benefits of breastfeeding, practical breastfeeding skills (eg, latching), and the management of common breastfeeding complications. These programs may also offer family members encouragement and advice on how to provide support. Breastfeeding support can include providing information about the benefits of breastfeeding, psychological support (encouragement, reassurance, and discussing questions and problems), and direct support during breastfeeding observations (helping with the positioning of the infant and observing latching). Interventions are often provided by professionals such as nurses, midwives, clinicians, or lactation care providers. Support may also be provided by trained peers. Interventions that occur over multiple periods (ie, during the prenatal, peripartum, and postpartum periods) tend to have greater effects compared with those that occur over a single period (just 1 trimester of pregnancy). Effective interventions have varied in terms of delivery setting—in person vs remote delivery (via video, telephone, or text), in-home visit vs in hospital or in medical office, and delivery to an individual vs a group.

For women who decide to breastfeed their infant via expressed milk, health insurance plans must cover the cost of a breast pump.²⁷ Additionally, most employees covered by the Fair Labor

Figure. Clinician Summary: Primary Care Behavioral Counseling Interventions to Support Breastfeeding

What does the USPSTF recommend?	For all pregnant and postpartum women: Provide interventions or referrals during pregnancy and after birth to support breastfeeding. Grade: B
To whom does this recommendation apply?	This recommendation applies to all adolescents and adults who are pregnant, and their infants and children. Interventions may involve partners, other family members, and friends. This recommendation does not apply in circumstances where there are contraindications to breastfeeding (such as certain maternal medical conditions or infant metabolic disorders). The USPSTF did not review the evidence on interventions directed at breastfeeding of preterm infants, for whom additional nutritional needs may be present.
What's new?	This recommendation is consistent with the 2016 recommendation on primary care interventions to support breastfeeding.
How to implement this recommendation?	- To achieve the benefits of breastfeeding interventions, it is important that evidence-based interventions are readily accessible for all patients who are pregnant or postpartum. - Behavioral counseling interventions that help increase breastfeeding rates include breastfeeding education and support. - Breastfeeding education typically includes a formalized program to convey general breastfeeding knowledge and focuses on the benefits of breastfeeding, practical breastfeeding skills, and the management of common breastfeeding complications. - Breastfeeding support can include providing information about the benefits of breastfeeding, psychological support, and direct support during breastfeeding observations. - Interventions may be provided by a variety of professionals, including nurses, midwives, clinicians, or lactation care providers. Support may also be provided by trained peers. - Interventions may be provided in a variety of delivery settings: in person, remote delivery (via video, telephone, or text), in-home visit, in hospital, or in medical office. Interventions may also be delivered to an individual or in a group setting. - Interventions that occur over multiple periods (ie, during prenatal, peripartum, and postpartum periods) tend to have greater effects.
What additional information should clinicians know about this recommendation?	Variables associated with lower breastfeeding rates include Black race, being younger than 30 years, participating in the Special Supplemental Nutrition Program for Women, Infants, and Children, being unmarried, living in a nonmetropolitan area, or having high school as the highest education level achieved.
Why is this recommendation and topic important?	- Breastfeeding has been associated with both child health benefits (lower rates of asthma, respiratory and gastrointestinal tract infections, and infant mortality) and maternal health benefits (lower rates of ovarian cancer, hypertension, and type 2 diabetes). - Currently in the US, 27.2% of infants at 6 months of age are exclusively breastfed. The Healthy People 2030 goal is to increase this to 42.4% of infants.
What are additional tools and resources?	- The Centers for Disease Control and Prevention provides resources for families and public health programs (https://www.cdc.gov/breastfeeding/php/about/index.html). - The Eunice Kennedy Shriver National Institute of Child Health and Human Development provides educational materials for patients (https://www.nichd.nih.gov/health/topics/breastfeeding). - The US Department of Labor provides a fact sheet on Fair Labor Standards Act protections for employees to pump breast milk at work (https://www.dol.gov/agencies/whd/fact-sheets/73-flsa-break-time-nursing-mothers). - The National Institutes of Health has created a drug and lactation database, LactMed, that contains information on drugs and other chemicals that may pass from breast milk to the infant (https://www.ncbi.nlm.nih.gov/books/NBK501922/).
Where to read the full recommendation statement?	Visit the USPSTF website (https://www.uspreventiveservicestaskforce.org/uspstf/) or the JAMA website (https://jamanetwork.com/collections/44068/united-states-preventive-services-task-force) to read the full recommendation statement. This includes more details on the rationale of the recommendation, including benefits and harms; supporting evidence; and recommendations of others.

The USPSTF recognizes that clinical decisions involve more considerations than evidence alone. Clinicians should understand the evidence but individualize decision-making to the specific patient or situation.

Standards Act have the right to a reasonable break time and place to express breast milk while at work.²⁸

Additional Tools and Resources

The Centers for Disease Control and Prevention provides information for families and public health programs (<https://www.cdc.gov/breastfeeding/php/about/index.html>; <https://www.cdc.gov/breastfeeding/php/guidelines-recommendations/index.html>) and on practices that support breastfeeding in maternity care settings (<https://www.cdc.gov/breastfeeding/php/guidelines-recommendations/safety-in-maternity-care.html>).

The US Department of Labor provides a fact sheet on Fair Labor Standards Act protections for employees to pump breast milk at work

(<https://www.dol.gov/agencies/whd/fact-sheets/73-flsa-break-time-nursing-mothers>).

The Office of the Assistant Secretary for Health provides resources on how to support breastfeeding at work (<https://womenshealth.gov/supporting-nursing-moms-work/resources>).

Information on breast pumps and breastfeeding is available through the US Food and Drug Administration (<https://www.fda.gov/consumers/womens-health-topics/pregnancy#Breast%20pumps%20and%20breastfeeding>).

The Eunice Kennedy Shriver National Institute of Child Health and Human Development provides educational materials on breastfeeding for patients and families (<https://www.nichd.nih.gov/health/topics/breastfeeding>).

The US Department of Agriculture provides resources for breastfeeding support for women participating in the Special Supplemental Nutrition Program for Women, Infants, and Children (<https://wicbreastfeeding.fns.usda.gov/>).

The National Institutes of Health has created a drug and lactation database, LactMed, that contains information on drugs and other chemicals that may pass from breast milk to the infant (<https://www.ncbi.nlm.nih.gov/books/NBK501922/>).

Additional resources on breastfeeding for maternal and child health professionals are available through the Health Resources and Services Administration's Maternal and Child Health Bureau (<https://mchb.hrsa.gov/programs-impact/focus-areas/maternal-health/mchb-supports-breastfeeding>).

Update of Previous USPSTF Recommendation

This recommendation updates the 2016 recommendation statement on primary care interventions to support breastfeeding. The current recommendation is consistent with the 2016 recommendation; both are B recommendations.

Supporting Evidence

Scope of Review

The USPSTF commissioned a systematic review^{29,30} to evaluate the benefits and harms of behavioral counseling interventions to support breastfeeding in all adolescents and adults who are pregnant or postpartum. This is an update to a systematic review that was commissioned for the USPSTF in 2016. The updated review focused on interventions that were initiated in, conducted in, or referable from primary care.

Benefits of Behavioral Counseling Interventions

Ninety trials representing data on more than 49 000 pregnant or postpartum women and their infants were reviewed.^{29,30} Thirty-three of the trials were conducted in the US, 23 in Europe, 17 in Asia, 10 in Australia and New Zealand, and 7 in Canada.^{29,30} The average age of study participants ranged from 16 to 33 years. The participants in the majority of the US-based studies (24/33) were predominantly Black and/or Hispanic and Latina women, including 6 studies that limited enrollment to Black women or Hispanic or Latina women.^{29,30} Many of the US-based studies also required that participants have incomes in a lower income bracket to be able to enroll.^{29,30} Almost half of the studies limited enrollment to women who were intending to breastfeed, and the majority of participants in the remaining studies intended to breastfeed at the beginning of the study.^{29,30} Most of the studies delivered the intervention to individual participants, although 12 interventions included group sessions with other participants.^{29,30} Trials varied widely in terms of when interventions were provided (prenatally, peripartum, or postpartum), who delivered the intervention (nurse, midwife, clinician, lactation care provider, or peer), and where the intervention was delivered (office, hospital, home, video, telephone, or text).^{29,30} Few of the studies described whether interventions addressed use of expressed or donor breast milk. Few studies reported on the training and certification of lactation care providers. No studies reported out-

comes by whether breastfeeding was at the breast vs through use of expressed or donor breast milk.

All but 1 of the 90 trials reported prevalence of breastfeeding at some time point after the intervention, although the number of studies reporting at a given time point (initiation, <3 months, 3 months to <6 months, and 6 months) varied from 27 to 51 trials (N analyzed, 10 622 to 17 580).^{29,30} Based on pooled analyses evaluating follow-up up to 6 months, there was a statistically significant increased prevalence of any breastfeeding and exclusive breastfeeding in the intervention group at all time points, except for initiation of any breastfeeding. Effect sizes ranged from a risk ratio of 1.06 (95% CI, 1.03-1.08; 47 trials [n = 15 663]) for any breastfeeding at less than 3 months to a risk ratio of 1.46 (95% CI, 1.20-1.78; 37 trials [n = 14 398]) for exclusive breastfeeding at 6 months. Overall, at any given time point, risk ratios for exclusive breastfeeding were higher than they were for any breastfeeding, indicating that interventions may have a greater role in increasing exclusive breastfeeding. Generally, intervention effectiveness did not vary by provider type (nurse, midwife, clinician, lactation care provider), intervention content, timing, or setting. Exploratory analyses suggest that interventions may be more effective in women who were not initially intending to breastfeed and if they take place over multiple periods (ie, prenatal, peripartum, or postpartum).

A much smaller number of the included trials reported on the direct impact of the breastfeeding support intervention on infant health outcomes (10 trials [n = 6592]) or maternal health outcomes (9 trials [n = 2334]). Generally, the number of participants analyzed for each of these outcomes was much smaller, making it difficult to determine if any differences between control and intervention groups existed, since many of these analyses were underpowered. However, the association between breastfeeding and improved health outcomes in infants has been well established by observational studies.² A recent review of these studies² found that "more" vs "less" breastfeeding was associated with a lower risk of acute otitis media, asthma,^{31,32} rapid weight gain and obesity,³³⁻³⁵ childhood leukemia,^{36,37} moderate to severe respiratory tract infections and gastrointestinal tract infections in infants,³⁸ allergic rhinitis,³⁹ malocclusion,^{40,41} inflammatory bowel disease,⁴² type 1 diabetes,^{43,44} elevated blood pressure,⁴⁵ and infant mortality.^{46,47} Although the evidence on improved health outcomes in women who breastfeed is less robust, breastfeeding has been associated with reduced risk for breast and epithelial ovarian cancer,^{48,49} hypertension,⁴⁹ and type 2 diabetes.^{49,50}

Harms of Behavioral Counseling Interventions

Few trials (7 trials [n = 1404]) reported on harms of behavioral counseling interventions to support breastfeeding. Most reported no adverse events related to the intervention, although 1 trial reported greater feelings of anxiety and decreased confidence among participants in the intervention group. Twenty-two trials (n = 13 815) reported that participants in the intervention group experienced fewer breastfeeding problems or difficulties (such as mastitis or sore nipples or breasts), pointing to another potential benefit of these interventions.

Response to Public Comments

A draft version of this recommendation statement was posted for public comment on the USPSTF website from October 22 to November 18, 2024. Some comments requested that the recommendation

include health system-level interventions. The USPSTF would like to clarify that it focuses on interventions that can be provided in primary care settings and has revised the title of the recommendation to make this clearer. Comments were also received asking for additional information on barriers to breastfeeding and for additional tools and resources on breastfeeding. Additional information has been added to the Importance section and the Practice Considerations section, as appropriate. Some commenters sought additional information on how interventions should be provided (eg, who should provide them and when). A high-level summary of intervention characteristics is provided in the Behavioral Counseling Interventions and Implementation Considerations section. No specific intervention provider type or intervention content, timing, or setting was found to be more effective. Further details of characteristics of individual interventions can be found in the accompanying evidence report.^{29,30} A few commenters expressed concern that limiting the evidence base to randomized clinical trials was overly restrictive. The USPSTF follows consistent methodology on how it reviews and assesses the evidence for all its recommendations (see the USPSTF Procedure Manual²⁶). Following that methodology, the USPSTF did find adequate evidence on the benefits and harms of primary care interventions to support breastfeeding.

Research Needs and Gaps

See **Table 2** for research needs and gaps related to primary care behavioral counseling interventions to support breastfeeding.

Recommendations of Others

Several organizations, including the American Academy of Pediatrics,⁵¹ the American College of Obstetricians and Gynecologists,⁵² the

Table 2. Research Needs and Gaps for Primary Care Interventions to Support Breastfeeding

To fulfill its mission to improve health by making evidence-based recommendations for preventive services, the USPSTF routinely highlights the most critical evidence gaps for making actionable preventive services recommendations. The USPSTF often needs additional evidence to create the strongest recommendations for everyone and especially for persons with the greatest burden of disease. This table summarizes key bodies of evidence needed for the USPSTF to make recommendations for primary care behavioral counseling interventions to support breastfeeding. For each of the evidence gaps listed below, research must assess intervention effectiveness among different demographic characteristics such as race and ethnicity, geographic location, socioeconomic level, and working status. For additional information and detail on research needed to address these evidence gaps, see the Evidence Gaps Research Taxonomy table on the USPSTF website (https://www.uspreventiveservicestaskforce.org/home/getfilebytoken/7bjqTLpnnknE_tdsTvyJD3).

Interventions to Support Breastfeeding

1. The direct effects of breastfeeding interventions on breastfeeding measures, short- and medium-term maternal and child health outcomes, and the relationship between breastfeeding measures and these health outcomes.
2. Potential intervention harms, particularly those associated with maternal emotional well-being (eg, feelings of depression, anxiety, guilt, failure, or shame) and quality of life.
3. Benefits and harms of breastfeeding support interventions in populations who experience challenges to breastfeeding, such as
 - Women who are Black, low-income, or living in rural locations
 - Women returning to the workplace or infants entering a new care situation (eg, daycare, nanny)
 - Women contemplating breastfeeding
 - Women intending to bottle feed expressed milk

Abbreviation: USPSTF, US Preventive Services Task Force.

American Academy of Family Physicians,⁵³ the Academy of Breastfeeding Medicine,⁵⁴ and the 2020-2025 Dietary Guidelines for Americans,⁵⁵ recommend exclusive breastfeeding for approximately the first 6 months, followed by introduction of complementary foods and continued breastfeeding as long as mutually desired. Generally, these organizations also state that breastfeeding beyond the first^{53,55} or second^{51,52} year offers health benefits.

ARTICLE INFORMATION

Accepted for Publication: March 1, 2025.

Published Online: April 8, 2025.
doi:10.1001/jama.2025.3650

The US Preventive Services Task Force Members:

Wanda K. Nicholson, MD, MPH, MBA; Michael Silverstein, MD, MPH; John B. Wong, MD; David Chelmsow, MD; Tumaini Rucker Coker, MD, MBA; Esa M. Davis, MD, MPH; Alicia Fernandez, MD; Ericka Gibson, MD, MPH; Carlos Roberto Jaén, MD, PhD, MS; Marie Krousel-Wood, MD, MSPH; Sei Lee, MD, MAS; Goutham Rao, MD; John M. Ruiz, PhD; James Stevermer, MD, MSPH; Joel Tsevat, MD, MPH; Sandra Millon Underwood, PhD, RN; Sarah Wiehe, MD, MPH.

Affiliations of The US Preventive Services Task

Force Members: George Washington University, Washington, DC (Nicholson); Brown University, Providence, Rhode Island (Silverstein); Tufts University School of Medicine, Boston, Massachusetts (Wong); Virginia Commonwealth University, Richmond (Chelmsow); University of Washington, Seattle (Coker); University of Maryland School of Medicine, Baltimore (Davis); University of California, San Francisco (Fernandez, Lee); Kaiser Permanente, Atlanta, Georgia (Gibson); The University of Texas Health Science Center,

San Antonio (Jaén, Tsevat); Tulane University, New Orleans, Louisiana (Krousel-Wood); Case Western Reserve University, Cleveland, Ohio (Rao); University of Arizona, Tucson (Ruiz); University of Missouri, Columbia (Stevermer); University of Wisconsin, Milwaukee (Underwood); Indiana University, Bloomington (Wiehe).

Author Contributions: Dr Nicholson had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis. The US Preventive Task Force (USPSTF) members contributed equally to the recommendation statement.

Conflict of Interest Disclosures: Authors followed the policy regarding conflicts of interest described at <https://uspreventiveservicestaskforce.org/uspstf/about-uspstf/conflict-interest-disclosures>. All members of the USPSTF receive travel reimbursement and an honorarium for participating in USPSTF meetings. Dr Lee reported receiving grants from the National Institute on Aging (K24AG066998) and National Institute on Aging (R01AG079982) outside the submitted work. No other disclosures were reported.

Funding/Support: The USPSTF is an independent, voluntary body. The US Congress mandates that

the Agency for Healthcare Research and Quality (AHRQ) support the operations of the USPSTF.

Role of the Funder/Sponsor: AHRQ staff assisted in the following: development and review of the research plan, commission of the systematic evidence review from an Evidence-based Practice Center, coordination of expert review and public comment of the draft evidence report and draft recommendation statement, and the writing and preparation of the final recommendation statement and its submission for publication. AHRQ staff had no role in the approval of the final recommendation statement or the decision to submit for publication.

Disclaimer: Recommendations made by the USPSTF are independent of the US government. They should not be construed as an official position of AHRQ or the US Department of Health and Human Services.

Additional Contributions: We thank Tina Fan, MD, MPH (AHRQ), who contributed to the writing of the manuscript, and Lisa Nicolella, MA (AHRQ), who assisted with coordination and editing.

Additional Information: Published by JAMA®—Journal of the American Medical Association under arrangement with the Agency for Healthcare Research and Quality (AHRQ). ©2025 AMA and United States Government, as represented by the

Secretary of the Department of Health and Human Services (HHS), by assignment from the members of the United States Preventive Services Task Force (USPSTF). All rights reserved.

REFERENCES

1. Ip S, Chung M, Raman G, et al. Breastfeeding and maternal and infant health outcomes in developed countries. *Evid Rep Technol Assess (Full Rep)*. 2007; (153):1-186.
2. Patnode CD, Henikson NB, Webber EM, Blasi PR, Senger CA, Guirguis-Blake JM. *Breastfeeding and Health Outcomes for Infants and Children: Systematic Review*. (Prepared by the Kaiser Permanente Evidence-based Practice Center under Contract No. 75Q8012D00004.) Agency for Healthcare Research and Quality; March 2025. AHRQ publication 25-EHC014. doi:10.23970/AHRQPCRSRBREASTFEEDING
3. Centers for Disease Control and Prevention. CDC National Immunization Surveys (NIS) 2020 and 2021: rates of any and exclusive breastfeeding by socio-demographics among children born in 2021. Accessed March 10, 2025. https://www.cdc.gov/breastfeeding-data/?CDC_AAref_Val=https://www.cdc.gov/breastfeeding/data/nis_data/rates-any-exclusive-bf-socio-dem-2021.html
4. US Department of Health and Human Services. Healthy People 2030: increase the proportion of infants who are breastfed exclusively through age 6 months—MICH-15. Accessed February 25, 2025. <https://odphp.health.gov/healthypeople/objectives-and-data/browse-objectives/infants/increase-proportion-infants-who-are-breastfed-exclusively-through-age-6-months-mich-15>
5. US Department of Health and Human Services. Healthy People 2030: increase the proportion of infants who are breastfed at 1 year—MICH-16. Accessed March 10, 2025. <https://odphp.health.gov/healthypeople/objectives-and-data/browse-objectives/infants/increase-proportion-infants-who-are-breastfed-1-year-mich-16>
6. Centers for Disease Control and Prevention. Breastfeeding among US children born 2014-2021. CDC National Immunization Survey—Child. Accessed February 25, 2025. <https://www.cdc.gov/breastfeeding-data/survey/results.html>
7. Otarola L, Sly J, Manigat T, et al. Understanding Black matriarchal role models in the US attitudes and beliefs about breastfeeding. *Breastfeed Med*. 2021;16(6):501-505. doi:10.1089/bfm.2020.0320
8. Gyamfi A, O'Neill B, Henderson WA, Lucas R. Black/African American breastfeeding experience: cultural, sociological, and health dimensions through an equity lens. *Breastfeed Med*. 2021;16(2):103-111. doi:10.1089/bfm.2020.0312
9. Gross TT, Powell R, Anderson AK, Hall J, Davis M, Hilyard K. WIC peer counselors' perceptions of breastfeeding in African American women with lower incomes. *J Hum Lact*. 2015;31(1):99-110. doi:10.1177/0890334414561061
10. Hinson TD, Skinner AC, Lich KH, Spatz DL. Factors that influence breastfeeding initiation among African American women. *J Obstet Gynecol Neonatal Nurs*. 2018;47(3):290-300. doi:10.1016/j.jogn.2018.02.007
11. Barriers to breastfeeding: supporting initiation and continuation of breastfeeding: ACOG Committee Opinion, Number 821. *Obstet Gynecol*. 2021;137(2):e54-e62. doi:10.1097/AOG.0000000000004249
12. Mangun K, Parcell LM. The Pet Milk Co "Happy Family" advertising campaign: a groundbreaking appeal to the Negro market of the 1950s. *Journalism Hist*. 2014;40:70-84. doi:10.1080/00947679.2014.12062933
13. Hamner HC, Beauregard JL, Li R, Nelson JM, Perrine CG. Meeting breastfeeding intentions differ by race/ethnicity, Infant and Toddler Feeding Practices Study-2. *Matern Child Nutr*. 2021;17(2):e13093. doi:10.1111/mcn.13093
14. Rhodes EC, Damio G, LaPlant HW, et al. Promoting equity in breastfeeding through peer counseling: the US Breastfeeding Heritage and Pride program. *Int J Equity Health*. 2021;20(1):128. doi:10.1186/s12939-021-01408-3
15. Bunik M, Clark L, Zimmer LM, et al. Early infant feeding decisions in low-income Latinas. *Breastfeed Med*. 2006;1(4):225-235. doi:10.1089/bfm.2006.1.225
16. Bartkowski JP, Kohler J, Xu X, et al. Racial differences in breastfeeding on the Mississippi Gulf Coast: making sense of a promotion-prevalence paradox with cross-sectional data. *Healthcare (Basel)*. 2022;10(12):2444. doi:10.3390/healthcare10122444
17. Griswold MK, Crawford SL, Perry DJ, et al. Experiences of racism and breastfeeding initiation and duration among first-time mothers of the Black Women's Health Study. *J Racial Ethn Health Disparities*. 2018;5(6):1180-1191. doi:10.1007/s40615-018-0465-2
18. Johnson AM, Kirk R, Muzik M. Overcoming workplace barriers: a focus group study exploring African American mothers' needs for workplace breastfeeding support. *J Hum Lact*. 2015;31(3):425-433. doi:10.1177/0890334415573001
19. Spencer BS, Grassley JS. African American women and breastfeeding: an integrative literature review. *Health Care Women Int*. 2013;34(7):607-625. doi:10.1080/07399332.2012.684813
20. Lind JN, Perrine CG, Li R, Scanlon KS, Grummer-Strawn LM; Centers for Disease Control and Prevention (CDC). Racial disparities in access to maternity care practices that support breastfeeding—United States, 2011. *MMWR Morb Mortal Wkly Rep*. 2014;63(33):725-728.
21. Vedam S, Stoll K, Taiwo TK, et al; GVTM-US Steering Council. The Giving Voice to Mothers study: inequity and mistreatment during pregnancy and childbirth in the United States. *Reprod Health*. 2019;16(1):77. doi:10.1186/s12978-019-0729-2
22. Jones KM, Power ML, Queenan JT, Schulkin J. Racial and ethnic disparities in breastfeeding. *Breastfeed Med*. 2015;10(4):186-196. doi:10.1089/bfm.2014.0152
23. Robinson K, Fial A, Hanson L. Racism, bias, and discrimination as modifiable barriers to breastfeeding for African American women: a scoping review of the literature. *J Midwifery Womens Health*. 2019;64(6):734-742. doi:10.1111/jmwh.13058
24. Kulka TR, Jensen E, McLaurin S, et al. Community-based participatory research of breastfeeding disparities in African American women. *Infant Child Adolesc Nutr*. 2011;3(4):233-239. doi:10.1177/1941406411413918
25. Thomas EV. "Why even bother; they are not going to do it?" the structural roots of racism and discrimination in lactation care. *Qual Health Res*. 2018;28(7):1050-1064. doi:10.1177/1049732318759491
26. US Preventive Services Task Force. US Preventive Services Task Force Procedure Manual. Published May 2021. Accessed February 25, 2025. <https://www.uspreventiveservicestaskforce.org/uspstf/about-uspstf/methods-and-processes/procedure-manual>
27. US Centers for Medicare & Medicaid Services. Health benefits & coverage: breastfeeding benefits. Accessed February 25, 2025. <https://www.healthcare.gov/coverage/breast-feeding-benefits/>
28. US Department of Labor. Fact sheet #73: FLSA protections for employees to pump breast milk at work. Revised January 2023. Accessed February 25, 2025. <https://www.dol.gov/agencies/whd/fact-sheets/73-flsa-break-time-nursing-mothers>
29. Patnode CD, Senger CA, Coppola EL, Iacocca MO. *Interventions to Support Breastfeeding: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. Evidence Synthesis No. 242*. Agency for Healthcare Research and Quality; 2025. AHRQ publication 24-05316-EF-1.
30. Patnode CD, Senger CA, Coppola EL, Iacocca MO. Interventions to support breastfeeding: updated evidence report and systematic review for the US Preventive Services Task Force. *JAMA*. Published online April 8, 2025. doi:10.1001/jama.2024.27267
31. Xue M, Dehaas E, Chaudhary N, O'Byrne P, Satia I, Kurmi OP. Breastfeeding and risk of childhood asthma: a systematic review and meta-analysis. *ERJ Open Res*. 2021;7(4):00504-02021. doi:10.1183/23120541.00504-2021
32. Güngör D, Nadaud P, LaPergola CC, et al. Infant milk-feeding practices and food allergies, allergic rhinitis, atopic dermatitis, and asthma throughout the life span: a systematic review. *Am J Clin Nutr*. 2019;109(suppl 7):772S-799S. doi:10.1093/ajcn/nqy283
33. Zheng M, D'Souza NJ, Atkins L, et al. Breastfeeding and the longitudinal changes of body mass index in childhood and adulthood: a systematic review. *Adv Nutr*. 2024;15(1):100152. doi:10.1016/j.advnut.2023.100152
34. Horta BL, Rollins N, Dias MS, Garcez V, Pérez-Escamilla R. Systematic review and meta-analysis of breastfeeding and later overweight or obesity expands on previous study for World Health Organization. *Acta Paediatr*. 2023;112(1):34-41. doi:10.1111/apa.16460
35. Dewey K, Bazzano L, Davis T, et al. *The Duration, Frequency, and Volume of Exclusive Human Milk and/or Infant Formula Consumption and Overweight and Obesity: A Systematic Review*. US Department of Agriculture; 2020. doi:10.52570/NESR.DGAC2020.SR0301
36. Su Q, Sun X, Zhu L, et al. Breastfeeding and the risk of childhood cancer: a systematic review and dose-response meta-analysis. *BMC Med*. 2021;19(1):90. doi:10.1186/s12916-021-01950-5
37. Gong QQ, Quan DD, Guo C, Zhang C, Zhang ZJ. Association between maternal breastfeeding and risk of systemic neoplasms of offspring. *Ital J Pediatr*. 2022;48(1):98. doi:10.1186/s13052-022-01292-9
38. Duijts L, Ramadhani MK, Moll HA. Breastfeeding protects against infectious diseases

during infancy in industrialized countries: a systematic review. *Matern Child Nutr*. 2009;5(3):199-210. doi:10.1111/j.1740-8709.2008.00176.x

39. Hoang MP, Samuthpongton J, Seresirikachorn K, Snidvongs K. Prolonged breastfeeding and protective effects against the development of allergic rhinitis: a systematic review and meta-analysis. *Rhinology*. 2022;60(2):82-91.

40. Boronat-Catalá M, Montiel-Co JM, Bellot-Arcís C, Almerich-Silla JM, Catalá-Pizarro M. Association between duration of breastfeeding and malocclusions in primary and mixed dentition: a systematic review and meta-analysis. *Sci Rep*. 2017;7(1):5048. doi:10.1038/s41598-017-05393-y

41. Teshome A, Girma B. The impact of exclusive breastfeeding on malocclusion: a systematic review. *SN Compr Clin Med*. 2021;3(1):95-103. doi:10.1007/s42399-020-00672-8

42. Agrawal M, Sabino J, Frias-Gomes C, et al. Early life exposures and the risk of inflammatory bowel disease: systematic review and meta-analyses. *EClinicalMedicine*. 2021;36:100884. doi:10.1016/j.eclinm.2021.100884

43. Güngör D, Nadaud P, LaPergola CC, et al. Infant milk-feeding practices and diabetes outcomes in offspring: a systematic review. *Am J Clin Nutr*. 2019;109(suppl 7):817S-837S. doi:10.1093/ajcn/nqy311

44. Cardwell CR, Stene LC, Ludvigsson J, et al. Breast-feeding and childhood-onset type 1

diabetes: a pooled analysis of individual participant data from 43 observational studies. *Diabetes Care*. 2012;35(11):2215-2225. doi:10.2337/dc12-0438

45. Horta BL, Loret de Mola C, Victora CG. Long-term consequences of breastfeeding on cholesterol, obesity, systolic blood pressure and type 2 diabetes: a systematic review and meta-analysis. *Acta Paediatr*. 2015;104(467):30-37. doi:10.1111/apa.13133

46. Thompson JMD, Tanabe K, Moon RY, et al. Duration of breastfeeding and risk of SIDS: an individual participant data meta-analysis. *Pediatrics*. 2017;140(5):e20171324. doi:10.1542/peds.2017-1324

47. Hauck FR, Thompson JMD, Tanabe KO, Moon RY, Vennemann MM. Breastfeeding and reduced risk of sudden infant death syndrome: a meta-analysis. *Pediatrics*. 2011;128(1):103-110. doi:10.1542/peds.2010-3000

48. Chowdhury R, Sinha B, Sankar MJ, et al. Breastfeeding and maternal health outcomes: a systematic review and meta-analysis. *Acta Paediatr*. 2015;104(467):96-113. doi:10.1111/apa.13102

49. Feltner C, Weber RP, Stuebe A, Grodinsky CA, Orr C, Viswanathan M. *Breastfeeding Programs and Policies, Breastfeeding Uptake, and Maternal Health Outcomes in Developed Countries. Report No. 18-EHC014-EF*. Agency for Healthcare Research and Quality; July 2018.

50. Aune D, Norat T, Romundstad P, Vatten LJ. Breastfeeding and the maternal risk of type 2 diabetes: a systematic review and dose-response meta-analysis of cohort studies. *Nutr Metab Cardiovasc Dis*. 2014;24(2):107-115. doi:10.1016/j.numecd.2013.10.028

51. Eidelman AI, Schanler RJ, Johnston M, et al; Section on Breastfeeding. Breastfeeding and the use of human milk. *Pediatrics*. 2012;129(3):e827-e841. doi:10.1542/peds.2011-3552

52. ACOG Committee Opinion No. 756: optimizing support for breastfeeding as part of obstetric practice. *Obstet Gynecol*. 2018;132(4):e187-e196. doi:10.1097/AOG.0000000000002890

53. American Academy of Family Physicians. Breastfeeding (policy statement). Accessed February 25, 2025. <https://www.aafp.org/about/policies/all/breastfeeding-policy-statement.html>

54. Chantry CJ, Eglash A, Labbok M. ABM position on breastfeeding—revised 2015. *Breastfeed Med*. 2015;10(9):407-411. doi:10.1089/bfm.2015.29012.cha

55. US Department of Agriculture, US Department of Health and Human Services. Dietary Guidelines for Americans, 2020-2025. 9th ed. Accessed February 25, 2025. <https://www.dietaryguidelines.gov/resources/2020-2025-dietary-guidelines-online-materials>