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Primary Care Interventions to Support Breastfeeding

US Preventive Services Task Force

Recommendation Statement

US Preventive Services Task Force

IMPORTANCE There is convincing evidence that breastfeeding provides substantial health benefits for children. However, nearly half of all US mothers who initially breastfeed stop doing so by 6 months, and there are significant disparities in breastfeeding rates among younger mothers and in disadvantaged communities.

OBJECTIVE To update the 2008 US Preventive Services Task Force (USPSTF) recommendation on primary care interventions to promote breastfeeding.

EVIDENCE REVIEW The USPSTF reviewed the evidence on the effectiveness of interventions to support breastfeeding on breastfeeding initiation, duration, and exclusivity. The USPSTF also briefly reviewed the literature on the effects of these interventions on child and maternal health outcomes.

FINDINGS The USPSTF found adequate evidence that interventions to support breastfeeding, including professional support, peer support, and formal education, change behavior and that the harms of these interventions are no greater than small. The USPSTF concludes with moderate certainty that interventions to support breastfeeding have a moderate net benefit.

CONCLUSIONS AND RECOMMENDATION The USPSTF recommends providing interventions during pregnancy and after birth to support breastfeeding. (B recommendation)

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The US Preventive Services Task Force (USPSTF) makes recommendations about the effectiveness of specific preventive care services for patients without obvious related signs or symptoms.

It bases its recommendations on the evidence of both the benefits and harms of the service and an assessment of the balance. The USPSTF does not consider the costs of providing a service in this assessment.

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. Similarly, the USPSTF notes that policy and coverage decisions involve considerations in addition to the evidence of clinical benefits and harms.

Summary of Recommendation and Evidence

The USPSTF recommends providing interventions during pregnancy and after birth to support breastfeeding. (B recommendation) (Figure 1)

Rationale

Importance

There is convincing evidence that breastfeeding provides substantial health benefits for children and adequate evidence that breastfeeding provides moderate health benefits for women. However, nearly half of all mothers in the United States who initially breastfeed stop doing so by 6 months, and there are significant disparities in breastfeeding rates among younger mothers and in disadvantaged communities.¹

Effectiveness of Interventions to Change Behavior

Adequate evidence indicates that interventions to support breastfeeding increase the duration and rates of breastfeeding, including exclusive breastfeeding.

Harms of Interventions to Change Behavior

There is adequate evidence to bound the potential harms of interventions to support breastfeeding are no greater than small, based on the nature of the intervention, the low likelihood of

Figure 1. US Preventive Services Task Force Grades and Levels of Certainty

What the USPSTF Grades Mean and Suggestions for Practice		
Grade	Definition	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer or provide this service.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate, or there is moderate certainty that the net benefit is moderate to substantial.	Offer or provide this service.
C	The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.	Offer or provide this service for selected patients depending on individual circumstances.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I statement	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.	Read the Clinical Considerations section of the USPSTF Recommendation Statement. If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.

USPSTF Levels of Certainty Regarding Net Benefit	
Level of Certainty	Description
High	The available evidence usually includes consistent results from well-designed, well-conducted studies in representative primary care populations. These studies assess the effects of the preventive service on health outcomes. This conclusion is therefore unlikely to be strongly affected by the results of future studies.
Moderate	The available evidence is sufficient to determine the effects of the preventive service on health outcomes, but confidence in the estimate is constrained by such factors as the number, size, or quality of individual studies. inconsistency of findings across individual studies. limited generalizability of findings to routine primary care practice. lack of coherence in the chain of evidence. As more information becomes available, the magnitude or direction of the observed effect could change, and this change may be large enough to alter the conclusion.
Low	The available evidence is insufficient to assess effects on health outcomes. Evidence is insufficient because of the limited number or size of studies. important flaws in study design or methods. inconsistency of findings across individual studies. gaps in the chain of evidence. findings not generalizable to routine primary care practice. lack of information on important health outcomes. More information may allow estimation of effects on health outcomes.
The USPSTF defines certainty as “likelihood that the USPSTF assessment of the net benefit of a preventive service is correct.” The net benefit is defined as benefit minus harm of the preventive service as implemented in a general, primary care population. The USPSTF assigns a certainty level based on the nature of the overall evidence available to assess the net benefit of a preventive service.	

serious harms, and the available information from studies reporting few harms.

USPSTF Assessment

The USPSTF concludes with moderate certainty that interventions to support breastfeeding have a moderate net benefit for women and their children.

Clinical Considerations

Patient Population Under Consideration

This recommendation applies to pregnant women, new mothers, and their infants and children. Interventions to support breastfeeding

may also involve a woman's partner, other family members, and friends. This recommendation does not apply to circumstances in which there are contraindications to breastfeeding (eg, certain maternal medical conditions or infant metabolic disorders, such as galactosemia). The USPSTF did not review evidence on interventions directed at breastfeeding of preterm infants (Figure 2).

Interventions

Breastfeeding support can begin during pregnancy and continue through the early life of the child. Primary care clinicians can support women before and after childbirth by providing interventions directly or through referral to help them make an informed choice about how to feed their infants and to be successful in their choice. Interventions include promoting the benefits of breastfeeding,

Figure 2. Primary Care Interventions to Support Breastfeeding: Clinical Summary

Population	Pregnant women, new mothers, and their children
Recommendation	Provide interventions during pregnancy and after birth to support breastfeeding. Grade: B
Interventions	Primary care clinicians can support women before and after childbirth by providing interventions directly or by referral to help them make an informed choice about how to feed their infants and to be successful in their choice. Interventions include promoting the benefits of breastfeeding, providing practical advice and direct support on how to breastfeed, and providing psychological support. Interventions can be categorized as professional support, peer support, and formal education, although none of these categories are mutually exclusive, and interventions may be combined within and between categories. Interventions may also involve a woman's partner, other family members, and friends.
Implementation	Not all women choose to or are able to breastfeed. Clinicians should, as with any preventive service, respect the autonomy of women and their families to make decisions that fit their specific situation, values, and preferences.
Balance of Benefits and Harms	The USPSTF concludes with moderate certainty that interventions to support breastfeeding have a moderate net benefit.

For a summary of the evidence systematically reviewed in making this recommendation, the full recommendation statement, and supporting documents, please go to <http://www.uspreventiveservicestaskforce.org>.



USPSTF indicates US Preventive Services Task Force.

providing practical advice and direct support on how to breastfeed, and providing psychological support. Interventions can be categorized as professional support, peer support, and formal education, although none of these categories are mutually exclusive, and interventions may be combined within and between categories.

Professional Support

Professional support is 1-on-1 counseling about breastfeeding provided by a health professional (medical, nursing, or allied professionals, including those providing lactation care). Some interventions include the provision of supplies, such as educational materials, nursing bras, and breast pumps. Professional support can include providing information about the benefits of breastfeeding, psychological support (encouraging the mother, providing reassurance, and discussing the mother's questions and problems), and direct support during breastfeeding observations (helping with the positioning of the infant and observing latching). Professional support may be delivered during pregnancy, the hospital stay, the postpartum period, or at multiple stages. It may be conducted in an office setting, in the hospital, through home visits, through telephone support, or any combination of these. Sessions generally last from 15 to 45 minutes, although some programs have used shorter or longer sessions. Most successful interventions include multiple sessions and are delivered at more than 1 point in time.

Peer Support

Similar to professional support, peer support provides women with 1-on-1 counseling about breastfeeding but is delivered by a layperson (generally a mother with successful breastfeeding experience and a background similar to that of the patient) who has received training in how to provide support. Like professional support, peer

support may be delivered through a variety of stages, settings, methods, and durations.

Formal Education

Formal education interventions typically include a formalized program to convey general breastfeeding knowledge, most often in the prenatal period, although some may span time periods. Education is usually offered in group sessions and may include telephone support, electronic interventions, videos, and print materials. They are directed at mothers but may include other family members. Content generally 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 support the mother.

Useful Resources

The Centers for Disease Control and Prevention provides information on different breastfeeding intervention strategies, including program examples and resources.² Another resource is the Surgeon General's "Call to Action to Support Breastfeeding."³

Other Considerations

Implementation

Although there is moderate certainty that breastfeeding is of moderate net benefit to women and their infants and children, not all women choose to or are able to breastfeed. Clinicians should, as with any preventive service, respect the autonomy of women and their families to make decisions that fit their specific situation, values, and preferences.

In addition to clinicians' direct activities to support breastfeeding, there are system-level interventions intended to promote breastfeeding. System-level interventions include policies, programs, and staff training, usually implemented within hospitals or health care systems. The Baby Friendly Hospital Initiative is the most widely implemented system-level intervention and is based on the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) "10 Steps to Successful Breastfeeding for Hospitals."⁴ Other system-level interventions include maternity care practices such as encouraging skin-to-skin contact, rooming-in, restricted pacifier use, and distributing breast pumps. Community-based interventions include social marketing initiatives, workplace initiatives, and public policy actions. A comprehensive review of the evidence on the effectiveness of these types of system-level interventions for the purposes of making a recommendation is beyond the scope of the USPSTF. A focused review of system-level interventions is included in the full evidence report,⁵ and the Centers for Disease Control and Prevention also provides information about individual, system-level, and community-based interventions.⁶

Research Needs and Gaps

To better assess how population-level interventions would affect breastfeeding rates, future studies should include women who have not already declared their intention to breastfeed. To better understand the effects of different interventions and patient populations, future research should include adequate sample sizes, clear descriptions of the included populations and comparators, and standardized reporting of outcomes. Studies would be more useful if they were designed to allow assessment of the relative contributions of individual components of multicomponent breastfeeding support programs. Trials should include reliable and valid measures of infant and maternal health outcomes and be powered to detect potential effects on these outcomes. Studies also should explore maternal satisfaction with the intervention and any potential negative feelings or feelings of inadequacy that could result if mothers choose not to or are unable to breastfeed. Studies in populations with low breastfeeding rates are especially needed, and more research is needed to better understand the root causes of breastfeeding disparities and how they can be addressed through health care and community interventions. Other areas for research include the potential benefits and harms of supporting indirect breastfeeding (eg, use of breast pumps), the role of breastfeeding support for adoptive or surrogate families, the role of systems to distribute donor breast milk, and the effect of new technologies to support breastfeeding (eg, web- or computer-based interventions).

Discussion

Benefits of Breastfeeding

A history of being breastfed has been found to be associated with a reduced risk of a variety of negative health outcomes in infancy and childhood, including illnesses such as acute otitis media, asthma, atopic dermatitis, and gastrointestinal tract infection, and chronic conditions such as obesity, diabetes, and high blood pressure.^{5,7} Although the majority of studies are observational and definitions

and comparisons vary widely, any breastfeeding appears to be more beneficial than no breastfeeding, and longer durations of breastfeeding confer greater benefits than shorter durations. Breastfeeding is also associated with positive maternal health outcomes, such as reduced risk of maternal breast and ovarian cancer and type 2 diabetes.

Breastfeeding Rates

Estimates for any breastfeeding among infants born in 2012 in the United States were 80.0% for initiation, 51.4% at 6 months, and 29.2% at 12 months. Rates of exclusive breastfeeding through 3 and 6 months were 43.3% and 21.9%, respectively.¹ These rates have been increasing over the past few decades but are still less than the Healthy People 2020 targets for initiating breastfeeding (81.9%), breastfeeding to 6 months (60.6%), and breastfeeding to 12 months (34.1%). Targets for exclusive breastfeeding at 3 and 6 months are 46% and 25%, respectively.⁸

Scope of Review

The USPSTF commissioned a systematic evidence review to update its 2008 recommendation on primary care interventions to promote breastfeeding.^{5,7} This update focused on the effectiveness of interventions to support breastfeeding on breastfeeding initiation, duration, and exclusivity. The USPSTF briefly reviewed the literature on the effects of breastfeeding on child and maternal health outcomes published since the previous review to ensure that there have been no major changes in the direction of the evidence but did not formally assess the literature. The population of interest included mothers of full- or near-term infants and members of the mother-infant support system (eg, partners, grandparents, or friends). The review used a broad conception of primary care interventions that encompassed activities initiated, conducted, or referred by primary care clinicians.

Effectiveness of Interventions to Change Behavior and Outcomes

The USPSTF found insufficient evidence to determine the direct effects of interventions to support breastfeeding on child and maternal health outcomes. Six trials reported inconsistent effects of counseling interventions on a range of infant health outcomes, including gastrointestinal illness, otitis media, respiratory tract illness, and health care use. None of the studies reported maternal health outcomes.^{5,9-14}

However, the USPSTF found evidence that interventions to support breastfeeding can increase the rate and duration of breastfeeding. An analysis of 43 trials found that breastfeeding support and education interventions targeting women were associated with a higher likelihood of any and exclusive breastfeeding at less than 3 months and at 3 to 6 months compared with usual care. Pooled estimates indicate a beneficial association for any breastfeeding at less than 3 months (risk ratio [RR], 1.07 [95% CI, 1.03-1.11]; 26 studies) and at 3 to 6 months (RR, 1.11 [95% CI, 1.04-1.18]; 23 studies) and for exclusive breastfeeding at less than 3 months (RR, 1.21 [95% CI, 1.11-1.33]; 22 studies) and at 3 to 6 months (RR, 1.20 [95% CI, 1.05-1.38]; 18 studies). At 6 months, individual-level interventions among women were associated with a 16% higher likelihood of exclusive breastfeeding (RR, 1.16 [95% CI, 1.02-1.32]; 17 studies) but not any breastfeeding. The association between

individual-level interventions and breastfeeding initiation was not significant, based on the pooled point estimate (RR, 1.00 [95% CI, 0.99-1.02]; 14 studies).⁵ Based on these data, it can be projected that for every 30 women offered support, 1 additional woman will breastfeed for up to 6 months.

Despite great variation in interventions and study design, there was little evidence that the effects of individual-level interventions vary across different populations or intervention characteristics, although the variability may have masked such relationships. There was some suggestion that interventions taking place during a combination of prenatal, peripartum, or postpartum time periods were more effective than those taking place only during 1 time period. Some data also suggested that interventions are effective in both adolescents and adults. All 4 trials of individual-level interventions among adolescents or young adults reported higher rates of breastfeeding among intervention vs control group participants.

Potential Harms of Interventions to Support Breastfeeding

There are very few data on the potential harms of interventions to support breastfeeding, which in theory could include guilt related to not breastfeeding, increased anxiety about breastfeeding, and increased postpartum depression. Only 2 trials among adults reported on adverse events related to a breastfeeding support intervention. One trial found no significant differences in maternal anxiety between groups at 2 weeks. The other trial reported that a few mothers expressed feelings of anxiety and decreased confidence in their breastfeeding ability despite breastfeeding going well and discontinued their participation in the peer counseling intervention.

Estimate of Magnitude of Net Benefit

There is adequate evidence that interventions to support breastfeeding change behavior and that the harms of these interventions are no greater than small. Therefore, the USPSTF concludes with moderate certainty that interventions to support breastfeeding have a moderate net benefit.

Response to Public Comment

A draft version of this recommendation statement was posted for public comment on the USPSTF website from April 26 to May 23, 2016. Many comments expressed concern that the recommendation did not explicitly include the term "promotion" of breastfeeding. The USPSTF interprets support as including promotion. The USPSTF revised the recommendation statement to clarify that it has not changed its confidence in the benefits of breastfeeding and that it continues to recommend interventions to encourage breastfeeding. The USPSTF also clarified that there has been no

change from the previous recommendation in the type of interventions being recommended. Other comments expressed concern that the recommendation would lead to undue pressure on women who decide not to breastfeed. The USPSTF reviewed the language in the recommendation to ensure that the autonomy of women is respected. Comments also requested that the USPSTF address policy- and society-level barriers to breastfeeding; although these are indeed important issues, they are beyond the scope of the USPSTF.

Update of Previous USPSTF Recommendation

This recommendation updates the 2008 USPSTF recommendation on primary care interventions to promote and support breastfeeding. The scope of the review and type of interventions recommended did not change. The grade of the recommendation remains a B.

Recommendations of Others

Several national and international organizations, including the American Academy of Pediatrics (AAP),¹⁵ the American College of Obstetricians and Gynecologists (ACOG),¹⁶ and WHO/UNICEF,¹⁷ recommend exclusive breastfeeding up to around 6 months, followed by continued breastfeeding for at least 1 year, as mutually desired by mother and infant, while complementary foods are introduced. ACOG also recommends that all obstetrician-gynecologists and other providers of obstetric care develop and maintain knowledge and skills in anticipatory guidance and support each woman's informed decision about whether to initiate or continue breastfeeding. ACOG endorses the integration of the WHO/UNICEF "10 Steps to Successful Breastfeeding" into maternity care to increase the likelihood that women achieve their personal breastfeeding goals.¹⁶ AAP recommends that pediatricians serve as breastfeeding advocates and educators, provides resources that pediatricians can use in their practices, and endorses the WHO/UNICEF "10 Steps to Successful Breastfeeding."¹⁵ The American Academy of Family Physicians recommends providing interventions during pregnancy and after birth to support breastfeeding.¹⁸ The National Association of Pediatric Nurse Practitioners endorses the optimization of infant breastfeeding and breastfeeding promotion as part of pediatric care.¹⁹ In 2011, the US Surgeon General issued a call to action that clinicians, health systems, community programs, and government policy support women who choose to breastfeed.³

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