# GUIDELINE:

# COUNSELLING OF WOMEN TO IMPROVE BREASTFEEDING PRACTICES

World Health Organization

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Guideline: counselling of women to improve breastfeeding practices

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# CONTENTS

# PUBLICATION HISTORY

This World Health Organization (WHO) *Guideline: counselling of women to improve breastfeeding practices*, is the first evidence-informed guideline from the WHO for this intervention. It complements the interventions and guidance presented in *Breastfeeding counselling: a training course*, *Infant and young child feeding counselling: an integrated course*, *Combined course on growth assessment and IYCF counselling,* Integrated Management of Childhood Illness, *Community management of at-risk mothers and infants under six months of age (C-MAMI) tool, Essential newborn care course*, *Caring for newborns and children in the community: a training course for community health workers*, *Guidelines on optimal feeding of low birth-weight infants in low- and middle-income countries*, *Guideline: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services*, *Implementation guidance: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services – the revised Baby-friendly Hospital Initiative* and *Infant and young child feeding in emergencies. Operational guidance for emergency relief staff and programme managers*.

The guideline expands on the details of optimal timing, frequency, mode or provider for breastfeeding counselling to improve breastfeeding practices, based on the most recent systematic and narrative reviews on the topic. A separate guidance document will expand on the details of a public health progamme on breastfeeding counselling.

# ACKNOWLEDGEMENTS

This guideline was coordinated by the WHO Departments of Maternal, Newborn, Child and Adolescent Health and Nutrition for Health and Development. Dr Pura Rayco-Solon and Dr Nigel Rollins (in alphabetical order) oversaw the preparation of this document, as responsible technical officers.

WHO acknowledges the technical guidance from the members of the WHO steering committee for this normative work: Dr Samira Aboubader and Dr Rajiv Bahl (Department of Maternal, Newborn, Child and Adolescent Health), Dr Meghan Bohren (Department of Maternal and Perinatal Health, Prevention of Unsafe Abortion) and Dr Laurence Grummer-Strawn and Dr Juan Pablo Peña-Rosas (Department of Nutrition for Health and Development).

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# Guideline[1]: counselling of women to improve breastfeeding practices

## EXECUTIVE SUMMARY

Breastfeeding is one of the foundations of child health, development and survival. For these reasons, the World Health Organization (WHO) recommends that breastfeeding should be initiated within the first hour after birth and that infants should exclusively breastfeed for the first 6 months; complementary foods should then be introduced, with continued breastfeeding until 24 months of age or older.

Despite extensive evidence that non-breastfeeding is associated with increased mortality and serious morbidity and other long-term adverse health outcomes, efforts at national level to increase exclusive breastfeeding and rates of continued breastfeeding have, in general, had only modest effect. In 2017, only about 41% of infants aged less than 6 months globally were exclusively breastfed and the rate of continued breastfeeding at 2 years was 45%.[2]

Prior to initiating the guideline process, a major review of approaches for improving breastfeeding practices noted multiple determinants and influences on practices at structural, community and workplace, and individual levels, which showed that several interventions can significantly improve rates of breastfeeding.[3] Breastfeeding counselling, along with baby-friendly hospital support and community mobilization approaches, is one of the key interventions to improve breastfeeding rates. Guidelines related to breastfeeding counselling would potentially improve the quality and delivery of services to pregnant women and mothers who want to breastfeed and may improve monitoring of the quality of health systems by defining the expected services and competencies of staff.

This guideline examines the evidence and makes recommendations and remarks on the implementation of some of the details of breastfeeding counselling, such as frequency, timing, mode and provider of breastfeeding counselling, to improve breastfeeding practices. The scope of the guideline is limited to this intervention.

This guideline does not aim to be a comprehensive guide on all potential interventions that can protect, promote and support breastfeeding. For instance, it will not discuss breastfeeding support in facilities providing maternity and newborn services; potential medical contraindications to breastfeeding; community-based practices; peer support; or support for breastfeeding in the workplace. Neither will it review the articles of the *International Code of Marketing of Breast-milk Substitutes*[4] and its subsequent related World Health Assembly resolutions.[5]

1 This publication is a World Health Organization (WHO) guideline. A WHO guideline is any document, whatever its title, containing WHO recommendations about health interventions, whether they be clinical, public health or policy interventions. A standard guideline is produced in response to a request for guidance in relation to a change in practice, or controversy in a single clinical or policy area, and is not expected to cover the full scope of the condition or public health problem. A recommendation provides information about what policy-makers, health-care providers or patients should do. It implies a choice between different interventions that have an impact on health and that have ramifications for the use of resources. All publications containing WHO recommendations are approved by the WHO Guidelines Review Committee.

2 United Nations Children's Fund. Data. Infant and young child feeding (https://data.unicef.org/topic/nutrition/infant-and-young-child-feeding/).

3 Sinha B, Chowdhury R, Sankar MJ, Martines J, Taneja S, Mazumder S et al. Interventions to improve breastfeeding outcomes: a systematic review and meta-analysis. Acta Paediatr. 2015;104(467):114–34. doi:10.1111/apa.13127.

4 International Code of Marketing of Breast-milk Substitutes. Geneva: World Health Organization; 1981 (http://www.who.int/nutrition/publications/code_english.pdf); The International Code of Marketing of Breast-Milk Substitutes – 2017 update: frequently asked questions. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/254911/1/WHO-NMH-NHD-17.1-eng.pdf?ua=1).

5 World Health Organization. Code and subsequent resolutions (http://www.who.int/nutrition/netcode/resolutions/en/).

This guideline is consistent with and complements the interventions and guidance presented in *Breastfeeding counselling: a training course*, *Infant and young child feeding counselling: an integrated course*, *Combined course on growth assessment and IYCF counselling*, Integrated Management of Childhood Illness, *Community management of at-risk mothers and infants under six months of age (C-MAMI) tool*, *Essential newborn care course*, *Caring for newborns and children in the community: a training course for community health workers*, *Guidelines on optimal feeding of low birth-weight infants in low- and middle-income countries*, *Guideline: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services*, *Implementation guidance: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services – the revised Baby-friendly Hospital Initiative* and *Infant and young child feeding in emergencies. Operational guidance for emergency relief staff and programme managers*, and does not supersede or replace them.

## Purpose of the guideline

The objective of this guideline is to provide global, evidence-informed recommendations on breastfeeding counselling, as a public health intervention, to improve breastfeeding practices among pregnant women and mothers who intend to breastfeed, or are currently breastfeeding, and their infants and children.

The recommendations in this guideline are intended for a wide audience, including policy-makers, their expert advisers, and technical and programme staff at government institutions and organizations involved in the design, implementation and scaling up of programmes for breastfeeding counselling and nutrition-sensitive actions[1] of infant and young child feeding programmes.

This guideline aims to help WHO Member States and their partners to make evidence-informed decisions on the appropriate actions in their efforts to achieve the Sustainable Development Goals,[2] the resolutions of the World Health Assembly on Infant and young child feeding,[3] and the global targets put forward in the *Comprehensive implementation plan on maternal, infant and young child nutrition*,[4] *The global strategy for women's, children's, and adolescents' health (2016–2030)*[5] and the *Global strategy for infant and young child feeding*.[6]

## Guideline development methodology

WHO developed the present evidence-informed recommendations using the procedures outlined in the *WHO handbook for guideline development*.[7] The steps in this process included: (i) identification of priority questions and outcomes; (ii) retrieval of the evidence; (iii) assessment and synthesis of the evidence; (iv) formulation of recommendations, including research priorities; and planning for (v) dissemination; (vi) implementation, equity and ethical considerations; and (vii) impact evaluation and updating of the guideline. The Grading of Recommendations Assessment, Development and Evaluation (GRADE)[8] methodology was followed, to prepare evidence profiles related to preselected topics, based on up-to-date systematic reviews. The Developing and Evaluating Communication Strategies to support Informed Decisions and Practice based on Evidence (DECIDE)[9] framework, an evidence-to-decision tool that includes intervention effects, the quality

1 Interventions or programmes that address the underlying determinants of fetal and child nutrition and development – food security; adequate caregiving resources at the maternal, household and community levels; and access to health services and a safe and hygienic environment – and incorporate specific nutrition goals and actions (https://www.thelancet.com/pb/assets/raw/Lancet/pdfs/nutrition_4.pdf).

2 United Nations. Sustainable Development Knowledge Platform. Sustainable Development Goals (https://sustainabledevelopment.un.org/sdgs).

3 Resolution WHA71.9. Infant and young child feeding. In: Seventy-first World Health Assembly, Geneva, 21–26 May 2018. Resolutions and decisions, annexes. Geneva: World Health Organization; 2018 (WHA71/2018/REC/1; http://apps.who.int/gb/ebwha/pdf_files/WHA71/A71_R9-en.pdf).

4 Resolution WHA65.6. Comprehensive implementation plan on maternal, infant and young child nutrition. In: Sixty-fifth World Health Assembly, Geneva, 21–26 May 2012. Resolutions and decisions, annexes. Geneva: World Health Organization; 2012:12–13 (WHA65/2012/REC/1; http://www.who.int/nutrition/topics/WHA65.6_resolution_en.pdf).

5 The global strategy for women's, children's and adolescents' health (2016–2023). Survive, thrive transform. Geneva: World Health Organization; 2015 (http://www.who.int/life-course/partners/global-strategy/globalstrategyreport2016-2030-lowres.pdf).

6 Global strategy for infant and young child feeding. Geneva: World Health Organization; 2003 (http://apps.who.int/iris/bitstream/handle/10665/42590/9241562218.pdf?sequence=1&isAllowed=y).

7 WHO handbook for guideline development, 2nd ed. Geneva: World Health Organization; 2014 (http://apps.who.int/medicinedocs/documents/s22083en/s22083en.pdf).

8 GRADE (http://www.gradeworkinggroup.org/).

9 DECIDE (2011–2015) (http://www.decide-collaboration.eu/evidence-decision-etd-framework).

of the evidence, values and preferences, resources, equity, acceptability and feasibility criteria, was used to guide the formulation of the recommendations by the guideline development group.

The scoping of the guideline and the prioritization of the outcomes was done by the guideline development group, 11–12 May 2017, in Geneva, Switzerland. The development and finalization of the evidence-informed recommendations were done by the guideline development group, in a meeting held in Geneva, Switzerland, 26–28 June 2018. Three options for types of recommendations were agreed, namely: (i) recommended; (ii) recommended in specific contexts only; and (iii) not recommended. Four experts served as technical peer-reviewers of the draft guideline.

## Available evidence

The available evidence included systematic reviews that followed the procedures of the *Cochrane handbook for systematic reviews of interventions*[1] and assessed the effects of breastfeeding counselling on pregnant women and mothers who are considering or already breastfeeding. All trials compared a group of participants who received breastfeeding counselling to a group that received standard care or no breastfeeding counselling, or were otherwise compared to breastfeeding counselling with a different timing, frequency or mode or by a different type of counsellor. For the trials to be included in the reviews, co-interventions other than breastfeeding counselling had to have been used for both the control and intervention arms. The overall quality of the available evidence was moderate to low for the critical outcomes on breastfeeding practices.[2]

Additional qualitative systematic reviews of evidence were conducted, to assess the values and preference of pregnant women and mothers in relation to the benefits and harms associated with each intervention, and the acceptability of each of the interventions to health-care staff and breastfeeding counsellors. The findings of the qualitative reviews were appraised using the GRADE Confidence in the Evidence from Reviews of Qualitative research (GRADE-CERQual)[3] approach. Overall confidence in the evidence from reviews of qualitative research was based on four components: methodological limitations of the individual studies; adequacy of the data; coherence of the evidence; and relevance of the individual studies to the review finding. The overall confidence in the synthesis of qualitative evidence was high to moderate for maternal values and preferences and also high to moderate for acceptability to health facility staff.[4]

A decision-making framework was used to lead discussion and decision-making. This included the following considerations: (i) the quality of the evidence across outcomes critical to decision-making; (ii) the balance of benefits and harms; (iii) values and preferences related to the recommended intervention in different settings and for different stakeholders, including the populations at risk; (iv) the acceptability of the intervention among key stakeholders; (v) resource implications for programme managers; (vi) equity; and (vii) the feasibility of implementation of the intervention.

1 Higgins JPT, Green S, editors. Cochrane handbook for systematic reviews of interventions. Version 5.1.0. York: The Cochrane Collaboration; 2011 (http://handbook.cochrane.org/).

2 According to GRADE, high-quality evidence indicates confidence that the true effect lies close to that of the estimate of the effect. Moderate-quality evidence indicates moderate confidence in the effect estimate: the true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different. Low-quality evidence indicates that confidence in the effect estimate is limited: the true effect may be substantially different from the estimate of the effect. Very-low-quality evidence indicates very little confidence in the effect estimate: the true effect is likely to be substantially different from the estimate of effect.

3 GRADE CERQual. Confidence in the evidence from reviews of qualitative research (http://www.cerqual.org/).

4 According to GRADE CERQual, high confidence indicates that it is highly likely that the review finding is a reasonable representation of the phenomenon of interest. Moderate confidence indicates that it is likely that the review finding is a reasonable representation of the phenomenon of interest. Low confidence indicates that it is possible that the review finding is a reasonable representation of the phenomenon of interest. Very low confidence indicates that it is not clear whether the review finding is a reasonable representation of the phenomenon of interest.

## Recommendations

- Breastfeeding counselling should be provided to all pregnant women and mothers with young children (*recommended, moderate-quality evidence*).
- Breastfeeding counselling should be provided in both the antenatal period and postnatally, and up to 24 months or longer (*recommended, moderate-quality evidence*).
- Breastfeeding counselling should be provided at least six times, and additionally as needed (*recommended, low-quality evidence*).
- Breastfeeding counselling should be provided through face-to-face counselling (*recommended, low-quality evidence*). Breastfeeding counselling may, in addition, be provided though telephone or other remote modes of counselling (*context-specific recommendation, moderate-quality evidence*).
- Breastfeeding counselling should be provided as a continuum of care, by appropriately trained health-care professionals and community-based lay and peer breastfeeding counsellors (*recommended, moderate-quality evidence*).
- Breastfeeding counselling should anticipate and address important challenges and contexts for breastfeeding, in addition to establishing skills, competencies and confidence among mothers (*context-specific recommendation, low-quality evidence*).

  Common challenges and contexts include returning to work or school; the specific needs of mothers who are obese, adolescent girls, primiparous (first-time mothers) or carrying multiple pregnancies (when the mother is pregnant with two or more babies); mothers with mental health difficulties; mothers of infants with special needs, e.g. low birth weight or disability; mothers who delivers by caesarean section; breastfeeding in public spaces; and breastfeeding in humanitarian emergencies.

## Best practice statement

- Protection, promotion and support of breastfeeding, in accordance with international guidance, are essential in emergencies. Breastfeeding counselling should be an integral part of emergency preparedness plans for infant and young child feeding, and both initial and sustained responses.

## Remarks

The remarks in this section are intended to give some considerations for implementation of the recommendations, based on the discussion of the guideline development group.

- Counselling is a process and interaction between counsellors and pregnant women or mothers. Breastfeeding counselling is therefore not intended to be a "top-down" intervention of "telling women what to do". The aim of breastfeeding counselling is to empower women to breastfeed, while respecting their personal situations and wishes. Breastfeeding counselling is, therefore, never to be forced upon any woman. This would be contrary to the concept of counselling. Rather, counselling is made available and accessible to all pregnant women and mothers, particularly those who are considering or already breastfeeding.
- Breastfeeding counselling for pregnant women can enable them to have the best start at breastfeeding, with support to allow mothers and their neonates to initiate breastfeeding as soon as possible after birth, stay together throughout the day and night, and establish and maintain breastfeeding with proper attachment and positioning.
- Sensitive and effective counselling can assist mothers who are considering or are already breastfeeding to overcome challenges. By emphasizing that breastfeeding provides protection and comfort as well as food, counselling can respond to the particular barriers that individual mothers face.

- Mothers who may not be considering breastfeeding could be supported to make informed choices about feeding their infants and children. Counselling can highlight the extensive and resounding evidence on the benefits of breastfeeding, as well as providing mothers with scientific, unbiased and factual information about other infant and young child feeding choices, so that they can safely and responsively feed their child.
- Those who are breastfeeding as well as giving additional foods or fluids (such as infant formula milk or other breast-milk substitutes) are encouraged to continue breastfeeding as much as they are able to, while they are supported with sensitivity and care to address challenges that they may be facing around feeding their child.

**Timing of breastfeeding counselling**

- Counselling during pregnancy or soon after birth includes encouraging mothers and their families to start a nurturing, caring and responsive relationship with their infant. Feeding decisions at this time may be shaped by experiences, contexts and various influences around them, as well as having short- and long-term consequences. Breastfeeding counselling at this time aims to enable a positive and loving environment in which the neonate can thrive.
- Postnatal breastfeeding counselling further supports mothers and their families in enabling them to build closeness, with skin-to-skin contact and responsive feeding. Mothers may need extra support in establishing and boosting their confidence in breastfeeding, recognizing the milk ejection reflex (or let-down) and effective feeding, and understanding feeding patterns and growth spurts.
- Parents and caregivers need to be enabled to access appropriate help when they have concerns about feeding. This may be particularly important in the first few weeks after birth when breastfeeding is being established, and during potential changes in their situation (such as the mother's return to school or work), when they may have concerns about maintaining breastfeeding, according to their individual circumstance. An assessment of breastfeeding effectiveness may be valuable in reassuring parents and addressing issues around feeding.

**Frequency of breastfeeding counselling**

- Provision of at least six breastfeeding counselling contacts allows for a full range of support to breastfeeding mothers and their families, beginning in the antenatal period through to the introduction of complementary feeding and beyond. Policy-makers and implementers are duty-bound to ensure that breastfeeding counselling contacts are of sufficient quality and quantity to be effective, while ensuring that their use does not expose the mothers and their families to financial hardship.
- People-centred breastfeeding counselling means that the counselling responds to the individual mothers' and families' needs, preferences and values. If individual family situations preclude them from accessing at least six counselling contacts, they are, nonetheless, encouraged and enabled to go to as many as they can, and maximize the benefit of this resource with meaningful engagement without stigma or recrimination.
- The minimum of six breastfeeding counselling contacts may occur at the following time points: before birth (antenatal period); during and immediately after birth (perinatal period up to the first 2–3 days after birth); at 1–2 weeks after birth (neonatal period); in the first 3–4 months (early infancy); at 6 months (at the start of complementary feeding); and after 6 months (late infancy and early childhood), with additional contacts as necessary (for instance, when planning to return to school or work, or any time that concerns or challenges related to breastfeeding arise) or when oppportunities for breastfeeding counselling occur (such as during child immunization visits).

- Breastfeeding counselling during the perinatal period and during the stay in the facility providing maternity and newborn services is done in conjunction with other interventions that protect, support and promote breastfeeding, as outlined in the Baby-friendly Hospital Initiative[1,2] and in the *Essential newborn care course*.[3]

**Mode of breastfeeding counselling**

- Individual face-to-face counselling may be complemented but not replaced by telephone counselling and/or other technologies.
- Preferences for different methods of counselling will vary with context. Health workers around the world are increasingly using other technologies. Telephone counselling and other technologies are very useful options as adjuncts and may empower end-users, as well as health workers and lay or peer counsellors.
- Telephone counselling will depend on the availability and accessibility of telephones for pregnant women and mothers.
- Telephone counselling and/or other technologies may be very useful in certain contexts where face-to-face counselling capacity or access may be limited or absent, such as emergencies.

**Provider of breastfeeding counselling**

- What works best in terms of staff allocation will vary considerably, depending on the context and national health-care system. At country level, it is important to have a system that enables, where necessary, continuity of care and integration of lay and peer counsellors with non-lay counsellors. Continuity of care is best brought about within a system of collaboration and communication between all providers.
- For breastfeeding counselling to be effective, a good training and mentoring programme, for both lay and non-lay counsellors, will be an essential first step. Careful planning and leadership will be important for those responsible for developing the skills, knowledge and confidence of counsellors in enabling mothers to achieve their goals for breastfeeding.
- A systems-based approach within the health-care system and at community level, with cascade training and support or supervision, may be a constructive way forward, with clearly defined skills, training and supervision for different levels of counsellors, and referral systems. Lactation consultants and other highly trained breastfeeding counsellors can play useful roles in training and supervision.

**Anticipatory breastfeeding counselling**

- To some extent, all breastfeeding counselling is anticipatory. The goal of the counselling contact is to support mothers in achieving their individualized goals for breastfeeding, whether they are considering initiating breastfeeding, or they are already breastfeeding and are facing particular challenges for continuation of breastfeeding. Anticipatory counselling therefore refers to evaluating and assessing potential and existing challenges that may impact the mothers' breastfeeding goals. The anticipatory nature of breastfeeding counselling helps to reduce potential risks, problems or complications, for optimal breastfeeding.
- In difficult or complicated circumstances, positive feedback and emotional support are especially needed to support the mothers' confidence and self-efficacy in breastfeeding.

1 Guideline: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/handle/10665/259386/9789241550086-eng.pdf;jsessionid=CC71EF98EE71B8FAF384BC4F2AC2DB7B?sequence=1).

2 Implementation guidance: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services – the revised Baby-friendly Hospital Initiative. Geneva: World Health Organization; 2018 (http://apps.who.int/iris/bitstream/handle/10665/272943/9789241513807-eng.pdf?ua=1).

3 Essential newborn care course. Geneva: World Health Organization; 2010 (http://www.who.int/maternal_child_adolescent/documents/newborncare_course/en/).

- Using the principles of person-centred and quality-focused care, each Member State may need to identify which circumstances will require additional training and skills-building, based on their assessment of the primary challenges to optimal breastfeeding in their contexts.
- Advice and information for women who do not intend to breastfeed needs to be considered as a potential component of anticipatory counselling for pregnant women.
- During emergencies, appropriate and timely support to infant and young child feeding saves lives; protects child nutrition, health and development; and benefits mothers. Breastfeeding counselling is a vital intervention in emergency response and needs to be protected. Emergency preparedness is critical to a timely, efficient and appropriate response.
- Emergency preparedness includes training of personnel likely to be involved in providing support to mothers in an emergency, and building the capacity of those delivering services during a response. As a minimum, staff in contact with mothers and children aged under 2 years are trained to be sensitive to psychosocial issues, on nutrition screening and on referral pathways to more specialist support.
- More specialist capacity to counsel mothers with heightened needs, such as stressed or traumatized mothers, malnourished infants and mothers, low-birth-weight infants, and infants with disability and feeding difficulties, may be needed.

## *Research gaps*

Discussions between the members of the WHO guideline development group and the external resource group highlighted the limited evidence available in some knowledge areas, meriting further research, particularly in the following areas:

- different modes, frequency or intensity of breastfeeding counselling that would best protect, support and promote breastfeeding among specific population groups, such as adolescent girls, obese women and those with multiple pregnancies;
- complex multi-component interventions to protect, support and promote breastfeeding among women returning to school or work;
- the nature of breastfeeding counselling with stressed, traumatized or malnourished mothers or infants and young children, such as in humanitarian emergencies;
- the nature of breastfeeding counselling of mothers of preterm, low-birth-weight or sick infants, or those admitted to the neonatal intensive care unit;
- different durations, content (including clinical and practical skills) and modes of training delivery, in order to meet minimum competency to address breastfeeding challenges;
- capacity-buidling methodologies to develop the advanced competencies required to address persistent or complex breastfeeding problems;
- studies across different regions, countries and population groups (e.g. by income levels, educational levels, cultural and ethnic backgrounds) and contexts (e.g. in areas where breastfeeding is the norm and where breastfeeding practices are not optimal), in order to adequately and sensitively protect, promote and support breastfeeding.

## *Plans for updating the guideline*

The WHO steering group will continue to follow research developments in the area of breastfeeding counselling, particularly for questions in which the quality of evidence was found to be low or very low. If the guideline merits an update, or if there are concerns about the validity of the guideline, the Departments of Maternal, Newborn, Child and Adolescent Health and Nutrition for Health and Development will coordinate the guideline update, following the formal procedures of the *WHO handbook for guideline development*.[1]

As the guideline nears the 10-year review period, the Departments of Maternal, Newborn, Child and Adolescent Health and Nutrition for Health and Development at the WHO headquarters in Geneva, Switzerland, along with its internal partners, will be responsible for conducting a search for appropriate new evidence.

1 WHO handbook for guideline development, 2nd ed. Geneva: World Health Organization; 2014 (http://apps.who.int/medicinedocs/documents/s22083en/s22083en.pdf).

# Guideline[1]: counselling of women to improve breastfeeding practices

## INTRODUCTION

Breastfeeding is one of the foundations of child health, development and survival. It is especially important where diarrhoea, pneumonia and undernutrition are common causes of mortality in children under 5 years of age. Breastfeeding also helps to reduce overweight and obesity and protects maternal health in all parts of the world. For these reasons, the World Health Organization (WHO) recommends that breastfeeding should be initiated within the first hour after birth and that infants should exclusively breastfeed for the first 6 months; complementary foods should then be introduced with continued breastfeeding until 24 months of age or older *(1)*. In 2012, the World Health Assembly Resolution 65.6 endorsed a *Comprehensive implementation plan on maternal, infant and young child nutrition (1)*, which specified six global nutrition targets for 2025, including increasing the rate of exclusive breastfeeding in the first 6 months up to at least 50% *(2)*.

Despite extensive evidence that non-breastfeeding is associated with increased mortality and serious morbidity and other long-term adverse health outcomes, efforts at national level to increase rates of exclusive breastfeeding and continued breastfeeding have, in general, had only modest effect. This reflects changes in normative attitudes towards breastfeeding, the challenge for women wanting or needing to return to work and the lack of national investment to counsel and support women who choose to breastfeed *(3)*. In 2017, only about 41% of infants aged less than 6 months globally were exclusively breastfed and the rate of continued breastfeeding at 2 years was 45% *(4)*.

A major review of approaches for improving breastfeeding practices noted multiple determinants and influences on practices at structural, community and workplace, and individual levels *(5)*. In brief, interventions can significantly improve rates of exclusive and continued breastfeeding: more interventions at multiple levels of the health system and the community have a cumulative effect. Counselling and support at health facilities, peer-to-peer counselling, group counselling, counselling and support delivered in communities, and infrastructural modifications to create a supportive and enabling environment can all increase rates of exclusive and continued breastfeeding.

Guidelines related to breastfeeding counselling would potentially improve the quality and delivery of services to pregnant women and mothers who want to breastfeed and may improve monitoring of the quality of health systems by defining the expected services and competencies of staff.

This guideline examines the evidence and makes recommendations and remarks on the implementation of some of the details of breastfeeding counselling, such as frequency, timing, mode and provider of breastfeeding counselling, to improve breastfeeding practices. The scope of the guideline is limited to this intervention.

This guideline does not aim to be a comprehensive guide on all potential interventions that can protect, promote and support breastfeeding. For instance, it will not discuss breastfeeding support in facilities providing maternity and newborn services, potential medical contraindications to breastfeeding, community-based practices, peer support or support for breastfeeding in the workplace. Neither will it review the articles of the *International Code of Marketing of Breast-milk Substitutes (6, 7)* and its subsequent related World Health Assembly resolutions *(8)*.

1 This publication is a World Health Organization (WHO) guideline. A WHO guideline is any document, whatever its title, containing WHO recommendations about health interventions, whether they be clinical, public health or policy interventions. A standard guideline is produced in response to a request for guidance in relation to a change in practice, or controversy in a single clinical or policy area, and is not expected to cover the full scope of the condition or public health problem. A recommendation provides information about what policy-makers, health-care providers or patients should do. It implies a choice between different interventions that have an impact on health and that have ramifications for the use of resources. All publications containing WHO recommendations are approved by the WHO Guidelines Review Committee.

## Objectives

The objective of this guideline is to provide global, evidence-informed recommendations on breastfeeding counselling, as a public health intervention, to improve breastfeeding practices and health and nutrition outcomes among pregnant women and mothers who intend to breastfeed, or are currently breastfeeding, and their infants and children. It is intended to contribute to discussions among stakeholders when selecting or prioritizing interventions to be undertaken in their specific context. This document presents the key recommendations and a summary of the supporting evidence.

## Scope

This guideline aims to help WHO Member States and their partners to make evidence-informed decisions on the appropriate actions in their efforts to achieve the Sustainable Development Goals *(9)*, the resolutions of the World Health Assembly on Infant and young child feeding *(10)*, and the global targets put forward in the *Comprehensive implementation plan on maternal, infant and young child nutrition (1)*, the *Global strategy for women's, children's, and adolescents' health (2016–2030) (11)* and the *Global strategy for infant and young child feeding (12)*.

This guideline aims to improve the quality of breastfeeding counselling among pregnant women and mothers, in order to increase the number of infants and young children being breastfed according to WHO recommendations. It also aims to clarify the scope and expectations of quality breastfeeding counselling, such as when, how often and by whom breastfeeding counselling should be offered, and considerations for responding to the needs of specific populations.

Although the guideline is not planned as a comprehensive operational manual or implementation tool, recommendations from this guideline process will provide detail regarding quality breastfeeding counselling, to update relevant WHO courses and tools. In particular, the guideline is expected to add specificity on a number of important programmatic points on breastfeeding counselling for which there is no current guidance. The recommendations in the guideline will therefore also inform the development of relevant nutrition and health policies and standards of care.

## Relevant WHO guidelines and tools

WHO recommendations on infant and child feeding are reflected in a range of tools and training materials, such as *Breastfeeding counselling: a training course (13)*, *Infant and young child feeding counselling: an integrated course (14)*, the *Combined course on growth assessment and IYCF counselling (15)*, Integrated Management of Childhood Illness *(16)* and the *Community management of at-risk mothers and infants under six months of age (C-MAMI) tool (17)*. Infant feeding counselling and support are also primary components of the *Essential newborn care course (18)* and *Caring for newborns and children in the community: a training course for community health workers (19)*, which includes courses on *Caring for the sick child (20)*, *Caring for the newborn at home (21)* and *Caring for the child's healthy growth and development (22)*.

The 2011 *Guidelines on optimal feeding of low birth-weight infants in low- and middle-income countries* contain recommendations for a specific high-risk population *(23)*.

The WHO *Guideline: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services (24)* and *Implementation guidance: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services – the revised Baby-friendly Hospital Initiative (25)*, which updates the "Ten Steps to Successful Breastfeeding", has recently been developed. This guideline complements the operational guidance of the *Innocenti Declaration on the protection, promotion and support of breastfeeding (26)*, published in 1991, and the *Innocenti Declaration 2005 on infant and young child feeding (27)*, published

in 2005. It also complements some of the implementation guidance of the *Baby-friendly Hospital Initiative*, published in 1991 and updated in 2009 *(28, 29)*. Guidance specific to humanitarian contexts, developed in collaboration with various implementing agencies, appear in *Infant and young child feeding in emergencies. Operational guidance for emergency relief staff and programme managers (30)*.

None of these previous publications make evidence-informed recommendations on the optimal timing, frequency, mode or provider for breastfeeding counselling to improve breastfeeding practices. This guideline complements the interventions presented in these relevant WHO guidelines and tools, and does not supersede or replace them.

## Population of interest

The guideline will directly affect all pregnant women and mothers, and their infants and children. The recommendations in this guideline equally apply to parents who may not identify as "women" or "mothers", including transgender and non-binary parents.

While the recommendations in this guideline may also apply to fathers, families and other caregivers, interventions specific to them and other people around pregnant women and mothers are not the main focus of this guideline.

## Priority questions

The following key questions were posed, based on the policy and programme guidance needs of Member States and their partners. The population, intervention, comparator, outcomes (PICO) format was used.

1. Should breastfeeding counselling be provided as a standard of care, compared to not providing breastfeeding counselling, to pregnant women and mothers who are considering or already breastfeeding, in order to improve breastfeeding practices?
2. When should breastfeeding counselling be provided: should breastfeeding counselling be provided antenatally, postnatally, or during both periods, compared to no breastfeeding counselling or standard care, to pregnant women and mothers who are considering or already breastfeeding, in order to improve breastfeeding practices?
3. How often should breastfeeding counselling be provided: should breastfeeding counselling be provided at a greater frequency, or at a lesser frequency, compared to no breastfeeding counselling or standard care, to pregnant women and mothers who are considering or already breastfeeding, in order to improve breastfeeding practices?
4. What is the optimal mode for breastfeeding counselling: should breastfeeding counselling be provided through face-to-face counselling, telephone and other modes of remote counselling, or through both modes, compared to no breastfeeding counselling or standard care, to pregnant women and mothers who are considering or already breastfeeding, in order to improve breastfeeding practices?
5. Who should be providing breastfeeding counselling: should breastfeeding counselling be provided by lay health workers, non-lay or professional health workers, or both, compared to no breastfeeding counselling or standard care, to pregnant women and mothers who are considering or already breastfeeding, in order to improve breastfeeding practices?
6. Should anticipatory breastfeeding counselling be provided as a standard of care, compared to not providing anticipatory breastfeeding counselling, to pregnant women and mothers who are considering or already breastfeeding, in order to improve breastfeeding practices?

## Outcomes of interest

The outcomes of interest considered critical for decision-making included the following:

- early initiation of breastfeeding within one hour after birth
- any breastfeeding at 4–6 weeks
- exclusive breastfeeding at 4–6 weeks
- any breastfeeding at 6 months
- exclusive breastfeeding at 6 months
- giving any additional foods or fluids in the first 2 days after birth
- use of artificial teats and bottles in the first 6 months.

The key questions and outcomes guiding the evidence review and synthesis for the recommendations in this guideline are listed in Annex 1.

## Target audience

The recommendations in this guideline are intended for a wide audience, including policy-makers their expert advisers, and technical and programme staff at government institutions and organizations involved in the design, implementation and scaling up of programmes of breastfeeding counselling and nutrition-senstive actions of infant and young child feeding programmes. The end-users of this guideline are:

- national and local policy-makers;
- implementers and managers of national and local nutrition and health programmes;
- nongovernmental and other research or implementing agencies involved in the planning, management and evaluation of programmes with respect to the provision of infant and young child feeding counselling;
- administrative and health-care staff and professional societies who are involved in policy-making, information-sharing, education and training;
- health professionals, including managers of nutrition and health programmes and public health policy-makers in all settings;
- health workers who guide end-users regarding expectations for quality breastfeeding counselling and the needs of specific populations of pregnant women and mothers.

## Presentation of the recommendations

The discussion points around each of the key questions are presented, covering the following contents:

- summary of evidence from systematic reviews for each of the interventions;
- summary of considerations for determining the direction and strength of the recommendations, which includes:
    - quality of evidence;
    - balance of benefits and harms;
    - values and preferences (of pregnant women and mothers);
    - acceptability (to health workers, lay or peer counsellors);
    - resource implications;

- equity;
- feasibility.

- At the end of each section, a short summary brings together:
  - the recommendation;
  - the rationale;
  - additional remarks for consideration in implementing the recommendations.

Three options for the types of recommendations were agreed by the guideline development group, namely:

- recommended;
- context-specific recommendation (recommended only in specific contexts);
- not recommended.

In presenting the summary of evidence from systematic reviews for each of the interventions, standardized statements of effects were used for different combinations of the magnitude of effect and the quality of evidence (assessed using the Grading of Recommendations Assessment, Development and Evaluation [GRADE] *(31)*. The following table, adapted from Cochrane Norway *(32)*, was used as a guide:

| | **Important benefit or harm** | **Less important benefit or harm** | **No important benefit or harm** |
|---|---|---|---|
| High-quality evidence | [*Intervention*] improves/ reduces [*outcome*] (high-quality evidence) | [*Intervention*] slightly improves/reduces [*outcome*] (high-quality evidence) | [*Intervention*] makes little or no difference to [*outcome*] (high-quality evidence) |
| Moderate-quality evidence | [*Intervention*] probably improves/reduces [*outcome*] (moderate-quality evidence) | [*Intervention*] probably slightly improves/reduces [*outcome*] (moderate-quality evidence) | [*Intervention*] probably makes little or no difference to [*outcome*] (moderate-quality evidence) |
| Low-quality evidence | [*Intervention*] may improve/reduce [*outcome*] (low-quality evidence) | [*Intervention*] may slightly improve/reduce [*outcome*] (low-quality evidence) | [*Intervention*] may make little or no difference to [*outcome*] (low-quality evidence) |
| Very low-quality evidence | It is uncertain whether [*intervention*] improves/reduces [*outcome*] as the quality of the evidence has been assessed as very low | | |
| No studies | None of the studies looked at [*outcome*] | | |

In this framework, the size of the effect is judged as important, less important, or not important. This decision is a judgement call and focuses on the importance to the end-users (decision-makers, health-care providers, health service users and end-beneficiaries) rather than on statistical significance.

## *Description of the interventions*

The 2009 WHO publication on *Infant and young child feeding. Model chapter for textbooks for medical students and allied health professionals* states that "Infant and young child feeding counselling is the process by which a health worker can support mothers and babies to implement good feeding practices and help them overcome difficulties"*(33)*. This was used as the operational definition for breastfeeding counselling used to gather and synthesize evidence that informed the recommendations. This definition excludes mass education or non-facilitated groups.

In order to focus the guideline only on breastfeeding counselling, other areas of breastfeeding support and protection, such as regulation of marketing of breast-milk substitutes, maternity protection, establishment of a broader enabling environment, training curricula, mass-media communications and advocacy, are not considered in this current guideline.

# EVIDENCE AND RECOMMENDATIONS

The evidence that formed the recommendations based on the six key questions on breastfeeding counselling is based on one systematic review that followed the procedures of the *Cochrane handbook for systematic reviews of interventions (34)* and assessed the effects of breastfeeding counselling among pregnant women and mothers who are considering or already breastfeeding. All studies compared a group of participants who received breastfeeding counselling to a group that received standard care or no breastfeeding counselling, or were otherwise compared to breastfeeding counselling with a different timing, frequency or mode, or by a different type of counsellor. For the studies to be included in the reviews, co-interventions other than breastfeeding counselling had to have been used for both the control and intervention arms.

The review searched six electronic databases (CINAHL, clinicaltrials.gov, Cochrane Trials Register, International Clinical Trials Registry Platform (WHO), Embase and Medline) using key search terms "breastfeeding and synonyms" AND "counselling and synonyms", up to February 2018. Two review authors independently assessed potential studies identified and resolved any disagreement through discussion, consulting a third review author if required.

Two review authors extracted information from studies and resolved discrepancies through discussion. Two review authors independently assessed the risk of bias for each study, using the criteria outlined in the *Cochrane handbook for systematic reviews of interventions (34)*. Any disagreement was resolved by discussion or by involving a third assessor. The quality of the evidence was assessed using the GRADE approach *(35, 36)*, and a summary of the intervention effect and a measure of quality for each of the outcomes listed earlier was produced using the GRADE approach. In order to determine an overall rating of quality across all critical outcomes, the highest rating for any of the critical outcomes was selected when all outcomes consistently indicated benefit. Where there was inconsistency in the direction of effect across outcomes, the lowest-quality rating was selected for the overall rating.

The search identified 5181 titles and abstracts. A further 11 records were identified through checking the reference of three systematic reviews *(5, 37, 38)*. There were 345 full articles reviewed, from which 82 studies were assessed for inclusion, 63 of which contributed data to the analyses. Nineteen studies were excluded from the analyses because they did not present data in a useable form or did not report relevant outcomes.

There were 48 individually randomized controlled trials and 15 cluster randomized trials. The total number of participants was 33 073. The included studies took place in 26 countries: 10 high-income, 16 middle-income and 2 low-income countries. The overall quality of the available evidence was moderate to low for the critical outcomes on breastfeeding practices.[1]

An additional qualitative systematic review of evidence was done to assess the values and preference of pregnant women and mothers in relation to the benefits and harms associated with each intervention, and the acceptability of each of the interventions to health-care staff and breastfeeding counsellors. The findings of the qualitative review were appraised using the GRADE Confidence in the Evidence from Reviews of Qualitative Research (GRADE-CERQual) *(39, 40)* approach.

1 According to GRADE, high-quality evidence indicates confidence that the true effect lies close to that of the estimate of the effect. Moderate-quality evidence indicates moderate confidence in the effect estimate: the true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different. Low-quality evidence indicates that confidence in the effect estimate is limited: the true effect may be substantially different from the estimate of the effect. Very-low-quality evidence indicates very little confidence in the effect estimate: the true effect is likely to be substantially different from the estimate of effect.

The qualitative systematic review searched the following databases: CINAHL, Cochrane library, Embase, Global Health Ovid, Global Index Medicus, International Clinical Registry Platform (WHO), Medline (PubMed), PsycINFO and Web of Science. All articles were reviewed by two reviewers, using Covidence systematic review software *(41)*. Discrepant reviews required a third reviewer. Full-text articles were obtained, summarized and assessed for quality, using the Critical Appraisal Skills Programme (CASP) tool *(42)*.

The search identified 8800 titles and abstracts. There were 117 full-text articles reviewed, from which 36 were included in the analysis. The studies reflected views from mothers (25 studies), mothers and their families (2 studies), health-care workers (21 studies), or both mothers and health-care workers (10 studies). There were 39 countries represented in the included studies: 29 high-income, 5 middle-income and 5 low-income countries.

Overall confidence in the evidence from the reviews of qualitative research was based on four components: methodological limitations of the individual studies; adequacy of the data; coherence of the evidence; and relevance of the individual studies to the review finding. The overall confidence in the synthesis of qualitative evidence was high to moderate for maternal values and preferences and also high to moderate for acceptability to health staff and lay counsellors.[1]

The key questions and outcomes guiding the evidence review and synthesis for the recommendations in this guideline are listed in Annex 1.

When formulating recommendations, the guideline development group also considered issues of feasibility, resource use and equity, in addition to the evidence from the systematic quantitative and qualitative reviews. No reviews were conducted regarding these domains, and the guideline development group based their judgements on their own observations, experience and expert knowledge of the field and vast literature related to breastfeeding.

## *Key question 1*

**Should breastfeeding counselling be provided as a standard of care, compared to not providing breastfeeding counselling, to pregnant women and mothers who are considering or already breastfeeding, in order to improve breastfeeding practices?**

### Summary of evidence

The systematic review on breastfeeding counselling of pregnant women and mothers who are considering or already breastfeeding showed that breastfeeding counselling probably reduces the likelihood of not initiating breastfeeding within the first hour after birth, compared to no breastfeeding counselling (risk ratio [RR] 0.74; 95% confidence interval [CI] 0.53–1.02; 7 trials; *n* = 3731; moderate-quality evidence). Although the results show possibility of harm, with breastfeeding counselling resulting in fewer women initiating breastfeeding within the first hour after birth (confidence interval crosses 1.0, up to RR = 1.02 or 2% likelihood of harm), on the balance, the confidence interval (up to RR = 0.53 or 47% likelihood of benefit) and point estimate (RR = 0.74 or 26% likelihood of benefit) suggest it is probably less likely that breastfeeding will not be initiated within the first hour of birth.

Breastfeeding counselling may reduce the likelihood of not breastfeeding at 4–6 weeks (RR 0.85; 95% CI 0.77–0.94; 31 trials; *n* = 8288; low-quality evidence), not exclusively breastfeeding at 4–6 weeks (RR 0.79; 95% CI 0.72–0.87; 36 trials; *n* = 8106; low-quality evidence), not breastfeeding at 6 months (RR 0.92; 95% CI 0.87–0.97; 32 trials;

1 According to GRADE-CERQual *(40)*, high confidence indicates that it is highly likely that the review finding is a reasonable representation of the phenomenon of interest. Moderate confidence indicates that it is likely that the review finding is a reasonable representation of the phenomenon of interest. Low confidence indicates that it is possible that the review finding is a reasonable representation of the phenomenon of interest. Very low confidence indicates that it is not clear whether the review finding is a reasonable representation of the phenomenon of interest.

*n* = 9789; low-quality evidence) and not exclusively breastfeeding at 6 months (RR 0.84; 95% CI 0.78–0.91; 36 trials; *n* = 10 586; low-quality evidence), compared to no breastfeeding counselling. Breastfeeding counselling may reduce the likelihood of infants being fed any additional foods or fluids other than breast milk in the first 2 days after birth (RR 0.65; 95% CI 0.48–0.88; 1 trial; *n* = 100; low-quality evidence) and probably reduces the likelihood of using artificial teats and bottles during the first 6 months (RR 0.86; 95% CI 0.76–0.97; 5 trials; *n* = 1450; moderate-quality evidence), compared to no breastfeeding counselling.

**Summary of the considerations of the members of the guideline development group for determining the direction and strength of the recommendation**

The guideline development group, with the support of the steering group, formulated a recommendation informed by the evidence presented and with explicit consideration of the factors listed next.

***Quality of evidence***

The overall quality of evidence for the effect of breastfeeding counselling on breastfeeding practices is moderate (see Annex 2).

***Balance of benefits and harms***

There is overwhelming evidence on the positive impact of breastfeeding on child survival, health and development, and maternal health. Because breastfeeding counselling probably improves breastfeeding rates, it follows that counselling probably impacts positively on the child's and mother's health. The guideline development group considered the potential harms from breastfeeding counselling, which included the opportunity cost of providers taking time to counsel mothers and the cost to mothers in terms of their time and possible feelings of inadequacy. However, the guideline development group considered these to be minimal and avoidable if the counselling is tailored to individual needs and sensitively offered, considering the mother's social and cultural context. Therefore, the guideline development group agreed that the benefits of breastfeeding counselling far outweigh the potential harms.

This consideration applies to all key questions on breastfeeding counselling, whether the counselling is given during the antenatal period or postnatally or both, at a greater or lesser frequency, through face-to-face or remote counselling, or by a lay or non-lay health worker. It will thus not be repeated in the discussions of subsequent key questions.

***Values and preferences***

The systematic review of qualitative studies on the values and preferences of mothers in relation to breastfeeding counselling showed consistently that women wanted more counselling and stressed the importance of follow-up. When provided or proactively sought out by women, counselling is highly valued and satisfaction is high. There was high confidence in this evidence (see Annex 3).

Variability in values and preference was deemed minor, although the guideline development group acknowledged that there were cultural differences in the value placed on breastfeeding, which may affect the value placed on breastfeeding counselling itself.

***Acceptability***

The systematic review of qualitative studies among key stakeholders showed that they highly valued breastfeeding counselling. It was acknowledged that health workers may be reticent to counsel if not properly trained and allocated sufficient time for counselling. There was high confidence in this evidence (see Annex 3).

Variability in acceptability was judged as minor, although issues around implementation were considered important in determining acceptability.

***Resource implications***

The guideline development group agreed that, overall, the implementation of breastfeeding counselling interventions in pregnant women and mothers will require additional resources and will vary by context. This may include indirect or opportunity costs to the health-care workers and the women and their families, for time spent at counselling. There were insufficient data to accurately estimate costs.

The guideline development group suggested that breastfeeding counselling interventions probably make up a large component of breastfeeding intervention packages, which are already widely implemented. Given the short-term and long-term benefits of breastfeeding on survival, health and development of children, and the health benefits for mothers, provision of counselling, which probably impacts on breastfeeding practice, may be very cost effective.

***Equity***

The guideline development group agreed that equity will be increased if coverage of quality counselling is high and accessible to all pregnant women and mothers. If counselling is available but accessible only to women in better resourced settings, or to those who can afford the cost when delivered as part of private services, then equity may be reduced, favouring high-income families or countries. On the other hand, in some contexts, pregnant women and mothers from higher wealth quintiles and high-income countries may be targeted with competing messages to undermine optimal breastfeeding practices and promote breast-milk substitutes. This further underlines the importance of making quality breastfeeding counselling available and accessible to all pregnant women and mothers, in order to increase equity.

This consideration applies to all key questions on breastfeeding counselling, whether the counselling is given antenatally or postnatally or both, at a greater or lesser frequency, through face-to-face or remote counselling, or by a lay or non-lay health worker. It will thus not be repeated in the discussions of subsequent key questions.

***Feasibility***

The guideline development group agreed that counselling all pregnant women and mothers is feasible, given available resources (human, financial and organizational). According to the *Global nutrition policy review 2016–2017 (43)*, 99% of the 161 countries that responded to the survey reported implementing breastfeeding counselling in 2016. In order to enable quality counselling, appropriate training or coaching of, and provision of supervisory support to, health workers and lay/non-lay counsellors by skilled trainers is essential. Trained counsellors need sufficient time for counselling, and creative or innovative solutions will be required at a systems level, such as cascade capacity-building approaches, to enable appropriate breastfeeding counselling.

This consideration applies to all key questions on breastfeeding counselling, whether the counselling is given during the antenatal period or postnatally or both, at a greater or lesser frequency, through face-to-face or remote counselling, or by a lay or non-lay health worker. It will thus not be repeated in the discussions of subsequent key questions.

**Recommendation**

- Breastfeeding counselling should be provided to all pregnant women and mothers with young children (*recommended, moderate-quality evidence*).

**Rationale**

The guideline development group took into consideration the factors listed next during the deliberations. These considerations apply to all key questions on breastfeeding counselling, whether the counselling is given during the antenatal period or postnatally or both, at a greater or lesser frequency, through face-to-face or remote counselling, or by a lay or non-lay health worker. They will thus not be repeated in the discussions of subsequent key questions.

- Breastfeeding counselling of pregnant women and mothers shows important benefits for breastfeeding practices. On the other hand, potential harms of breastfeeding counselling were deemed minimal.
- Both mothers and key stakeholders such as health-care workers value breastfeeding counselling. Health-care workers would prefer to have more time and resources, in order to provide better quality counselling.
- Accessible and quality breastfeeding counselling, as part of universal health coverage, can improve equity among women and children and throughout the life-course.

Based on the evidence presented and the considerations discussed, the guideline development group recommended breastfeeding counselling for all pregnant women and mothers, in order to improve breastfeeding practices.

**Remarks**

The remarks in this section are intended to give some considerations for implementation of the recommendation, based on the discussion of the guideline development group.

- Counselling is a process and interaction between counsellors and pregnant women or mothers. Breastfeeding counselling is not intended to be a "top-down" intervention of "telling women what to do". The aim of breastfeeding counselling is to empower women to breastfeed, while respecting their personal situations and wishes. Breastfeeding counselling is, therefore, never forced upon any woman. This would be contrary to the concept of counselling. Rather, counselling is made available and accessible to all pregnant women and mothers, particularly those who are considering or already breastfeeding.
- Breastfeeding counselling for pregnant women can enable them to have the best start at breastfeeding, with support to allow mothers and their neonates to initiate breastfeeding as soon as possible after birth, stay together throughout the day and night, and establish and maintain breastfeeding with proper attachment and positioning.
- Sensitive and effective counselling can assist mothers who are considering or are already breastfeeding to overcome challenges. By emphasizing that breastfeeding provides protection and comfort as well as food, counselling can respond to the particular barriers that individual mothers face.
- Mothers who may not be considering breastfeeding could be supported to make informed choices about feeding their infants and children. Counselling can highlight the extensive and resounding evidence on the benefits of breastfeeding, as well as providing mothers with scientific, unbiased and factual information about other infant and young child feeding choices, so that they can safely and responsively feed their child.
- Those who are breastfeeding as well as giving additional foods or fluids (such as infant formula milk or other breast-milk substitutes) are encouraged to continue breastfeeding as much as they are able to, while they are supported with sensitivity and care to address challenges that they may be facing around feeding their child.

## *Key question 2*

**When should breastfeeding counselling be provided: should breastfeeding counselling be provided antenatally, postnatally, or during both periods, compared to no breastfeeding counselling or standard care, to pregnant women and mothers who are considering or already breastfeeding, in order to improve breastfeeding practices?**

**Summary of evidence**

The systematic review on timing of breastfeeding counselling showed that antenatal counselling alone (RR 0.48; 95% CI 0.35–0.65; 1 trial; *n* = 194; low-quality evidence) may reduce the likelihood of not breastfeeding within one hour after birth, compared to standard care or no breastfeeding counselling. No trials provided data for only postnatal counselling. Both antenatal and postnatal counselling (RR 0.79; 95% CI 0.57–1.08; 6 trials; *n* = 1489; low-quality evidence) may make little or no difference to the likelihood of not breastfeeding within one hour after birth, compared to standard care or no breastfeeding counselling.

The likelihood of not breastfeeding at 4–6 weeks may be reduced by either antenatal counselling alone (RR 0.86; 95% CI 0.72–1.03; 6 trials; *n* = 1489; low-quality evidence) or postnatal counselling alone (RR 0.83; 95% CI 0.69–1.00; 13 trials; *n* = 3877; low-quality evidence), compared to standard care or no breastfeeding counselling. Providing both antenatal and postnatal counselling probably makes little or no difference to the likelihood of not breastfeeding at 4–6 weeks (RR 0.91; 95% CI 0.76–1.05; 11 trials; *n* = 2339; moderate-quality evidence), though the point estimate suggests that there is probably reduced likelihood of not breastfeeding at 4–6 weeks, compared to standard care or no breastfeeding counselling. The likelihood of not breastfeeding at 6 months is probably reduced by antenatal counselling alone (RR 0.93; 95% CI 0.88–0.98; 6 trials; *n* = 1489; moderate-quality evidence), may be slightly reduced by postnatal counselling alone (RR 0.96; 95% CI 0.88–1.04; 19 trials; *n* = 6629; low-quality evidence), and may be reduced by providing both antenatal and postnatal counselling (RR 0.79; 95% CI 0.67–0.93; 6 trials; *n* = 1088; low-quality evidence), compared to standard care or no breastfeeding counselling.

The likelihood of not exclusively breastfeeding at 4–6 weeks is probably slightly reduced by antenatal counselling alone (RR 0.95; 95% CI 0.89 to 1.02; 6 trials; *n* = 1274; moderate-quality evidence) and may make little or no difference to not exclusively breastfeeding at 6 months (RR 0.98; 95% CI 0.96–1.01; 5 trials; *n* = 1206; low-quality evidence). The likelihood of not exclusively breastfeeding at 4–6 weeks and at 6 months may be reduced by postnatal counselling alone (at 4–6 weeks: RR 0.71; 95% CI 0.59–0.85; 13 trials; *n* = 3446; low-quality evidence; at 6 months: RR 0.88; 95% CI 0.81–0.96; 16 trials; *n* = 3928; low-quality evidence), and may be reduced by both antenatal and postnatal counselling (at 4–6 weeks: RR 0.81; 95% CI 0.69–0.94; 17 trials; *n* = 3446; low-quality evidence; at 6 months: RR 0.71; 95% CI 0.55–0.93; 15 trials; *n* = 5411; low-quality evidence), compared to standard care or no breastfeeding counselling.

Both antenatal and postnatal counselling may make little or no difference to the likelihood of giving additional foods or fluids in the first 2 days after birth (RR 0.76; 95% CI 0.45–1.28; 1 trial; *n* = 100; low-quality evidence), compared to standard care or no counselling, though the point estimate suggests there may be reduced likelihood. Postnatal counselling alone (RR 0.77; 95% CI 0.68–0.87; 3 trials; *n* = 659; moderate-quality evidence), or together with antenatal counselling (RR 0.92; 95% CI 0.85–1.00; 2 trials; *n* = 791; moderate-quality evidence), probably reduces the likelihood of using artificial teats and bottles, compared to standard care or no breastfeeding counselling.

**Summary of the considerations of the members of the guideline development group for determining the direction and strength of the recommendation**

The guideline development group, with the support of the steering group, formulated a recommendation informed by the evidence presented and with explicit consideration of the factors listed next.

***Quality of evidence***

The overall quality of evidence for the effect of timing of breastfeeding counselling (antenatal alone, postnatal alone, both antenatal and postnatal) on breastfeeding practices is moderate (see Annex 2).

***Balance of benefits and harms***

The guideline development group agreed that the benefits of breastfeeding counselling far outweigh the potential harms.

***Values and preferences***

The systematic review of qualitative studies on the values and preferences of mothers showed that most mothers and families spoke about receiving or having inadequate education and advice about infant feeding during their pregnancy (generally inadequate time rather than poor quality); receiving or having follow-up counselling was also reported as important, both to address problems and to encourage successes. Women appreciated antenatal counselling and meeting a health worker or counsellor prior to the birth (otherwise this was seen as a "missed opportunity"). There was high confidence in this evidence.

Women living with HIV reported that they did not like being counselled about feeding options straight after learning about their HIV status. Adolescent mothers reported having little routine and continued contact with health professionals after the early postnatal period (many adolescents thought all benefits were gained in the early days after delivery). Mothers of low socioeconomic status (in high-income countries) described very limited positive encounters with medical professionals in the postpartum period. A lack of contact between pregnant women or mothers and medical staff was commonly cited, compared to contact with other helpful peer counsellors. There was moderate confidence in this evidence (see Annex 3).

***Acceptability***

The systematic review of qualitative studies among key stakeholders showed that nurses commented that, in order to provide counselling, they need more time with women, including those in hospitals and on home visits. The need for better timing of follow-up support was also raised. Both health-care professionals and women described the hospital environment as being busy and hectic. Mothers and midwives described the lack of time available for breastfeeding support. There was high confidence in this evidence.

Nurses in neonatal intensive care units had difficulties in helping mothers maintain their milk supply, and recognized the need for follow-up (in some contexts, infants are only discharged once they can feed without gavage – which may encourage bottle feeding, since it is usually achieved sooner). Women living with HIV wanted more counselling and follow-up, rather than a huge amount of information in one sitting. Counsellors agreed, but said that they didn't think the women would come back, so they try to put all the information in one session. Time challenges at paediatric visits were also reported as barriers to breastfeeding care, especially because this time would not be reimbursed. Health workers believed that women who voluntarily enrolled in counselling antenatally were more "prepared" to breastfeed than those who did not. There was moderate confidence in this evidence (see Annex 3).

### *Resource implications*

Greater human, financial and organizational resources will be required to enable counselling to be provided in both the antenatal period and postnatally, and up to 24 months or longer, although there were insufficient data to estimate the actual resource implications of counselling during the antenatal, postnatal and early childhood periods. Additional training, job aids, tools and staff will be required, as well as significant organizational resources.

### *Equity*

The guideline development group agreed that equity will be increased if coverage of quality counselling is high and accessible to all pregnant women and mothers.

### *Feasibility*

The guideline development group agreed that counselling all pregnant women and mothers is feasible, given available resources (human, financial and organizational).

## Recommendation

- Breastfeeding counselling should be provided in both the antenatal period and postnatally, and up to 24 months or longer (*recommended, moderate-quality evidence*).

## Rationale

The guideline development group took into consideration standard points as presented in the rationale for the first key question. The following factors were, in addition, taken into consideration during the deliberations for this key question.

- Breastfeeding counselling of pregnant women and mothers shows important benefits for breastfeeding practices when provided during the antenatal period and postnatally. On the other hand, potential harms of breastfeeding counselling were deemed minimal or trivial.
- While both mothers and key stakeholders such as health-care workers value breastfeeding counselling, specific contexts may warrant an adjustment in the timing of the breastfeeding counselling (such as for women living with HIV, and adolescent girls). Health-care workers would prefer to have more time and resources, in order to provide better quality counselling.

Based on the evidence presented and the considerations discussed, the guideline development group recommended breastfeeding counselling for all pregnant women and mothers during the antenatal period and postnatally, up to 24 months or longer, in order to improve breastfeeding practices.

## Remarks

The remarks in this section are intended to give some considerations for implementation of the recommendation, based on the discussion of the guideline development group.

- Counselling during pregnancy or soon after birth includes encouraging mothers and their families to start a nurturing, caring and responsive relationship with their infant. Feeding decisions at this time may be shaped by experiences, contexts and various influences around them, as well as having short- and long-term consequences. Breastfeeding counselling at this time aims to enable a positive and loving environment in which the neonate can thrive.

- Postnatal breastfeeding counselling further supports mothers and their families in enabling them to build closeness, with skin-to-skin contact and responsive feeding. Mothers may need extra support in establishing and boosting their confidence in breastfeeding, recognizing the milk ejection reflex (or let-down) and effective feeding, and understanding feeding patterns and growth spurts.
- Parents and caregivers need to be enabled to access appropriate help when they have concerns about feeding. This may be particularly important in the first few weeks after birth when breastfeeding is being established, and during potential changes in their situation (such as the mother's return to school or work), when they may have concerns about maintaining breastfeeding, according to their individual circumstance. An assessment of breastfeeding effectiveness may be valuable in reassuring parents and addressing issues around feeding.

## *Key question 3*

**How often should breastfeeding counselling be provided: should breastfeeding counselling be provided at a greater frequency, or at a lesser frequency, compared to no breastfeeding counselling or standard care, to pregnant women and mothers who are considering or already breastfeeding, in order to improve breastfeeding practices?**

**Summary of evidence**

The systematic review on timing of breastfeeding counselling showed that four or more contacts of breastfeeding counselling may make little or no difference to the likelihood of not initiating breastfeeding within one hour after birth (RR 0.79; 95% CI 0.57–1.08; 6 trials: *n* = 3537; low-quality evidence), though the point estimate suggests there may be reduced likelihood, compared to standard care or no breastfeeding counselling. It was uncertain whether fewer than four breastfeeding counselling contacts reduces the likelihood of not breastfeeding within one hour after birth, because the quality of evidence was very low.

Fewer than four breastfeeding counselling contacts may make little or no difference to any breastfeeding at 4–6 weeks (RR 0.95; 95% CI 0.84–1.07; 15 trials; *n* = 4179; low-quality evidence) and probably slightly reduces the likelihood of not exclusively breastfeeding at 4–6 weeks (RR 0.92; 95% CI 0.88–0.97; 16 trials; *n* = 3600; moderate-quality evidence). Four or more breastfeeding counselling contacts may reduce the likelihood of not breastfeeding (RR 0.77; 95% CI 0.66–0.90; 15 trials; *n* = 3526; low-quality evidence) and not exclusively breastfeeding (RR 0.69; 95% CI 0.58–0.82; 20 trials; *n* = 4506; low-quality evidence) at 4–6 weeks, compared to standard care or no breastfeeding counselling.

For breastfeeding outcomes at 6 months, fewer than four breastfeeding counselling contacts probably makes little or no difference to any breastfeeding (RR 0.96; 95% CI 0.92–1.01; 14 trials; *n* = 4395; moderate-quality evidence) and probably slightly reduces the likelihood of not exclusively breastfeeding (RR 0.96; 95% CI 0.94–0.98; 13 trials; *n* = 3153; moderate-quality evidence). Four or more breastfeeding counselling contacts may reduce the likelihood of not breastfeeding (RR 0.85; 95% CI 0.75–0.96; 16 trials; *n* = 3575; low-quality evidence) and not exclusively breastfeeding (RR 0.76; 95% CI 0.66–0.88; 23 trials; *n* = 7392; low-quality evidence), compared to standard care or no breastfeeding counselling.

Four or more breastfeeding counselling contacts may make little or no difference to the likelihood of giving additional foods or fluids apart from breast milk (RR 0.76; 95% CI 0.45–1.28; 1 trial; *n* = 100; low-quality evidence), compared to standard care or no breastfeeding counselling. No studies were found that looked at the effect of fewer than four breastfeeding counselling contacts on giving additional foods or fluids.

Four or more breastfeeding contacts reduces the likelihood of using artificial teats and bottles before 6 months (RR 0.77; 95% CI 0.68–0.88; 1 trial; *n* = 350; high-quality evidence), compared to standard care or no breastfeeding counselling. Fewer than four breastfeeding contacts probably slightly reduces the likelihood

of using artificial teats and bottles before 6 months (RR 0.91; 95% CI 0.82–1.01; 4 trials; *n* = 1450; moderate-quality evidence).

One study *(44)* directly compared three and six breastfeeding counselling contacts of the same counselling intervention. The results of this study show that six breastfeeding counselling contacts may make little or no difference to the likelihood of not exclusively breastfeeding at 3 months (RR 0.70; 95% CI 0.44–1.12; 1 trial; *n* = 96; low-quality evidence), though the point estimate suggests it is more likely that there is reduced likelihood, compared to three contacts.

**Summary of the considerations of the members of the guideline development group for determining the direction and strength of the recommendation**

The guideline development group, with the support of the steering group, formulated a recommendation informed by the evidence presented and with explicit consideration of the factors listed next.

***Quality of evidence***

The overall quality of evidence for the effect of frequency of breastfeeding counselling on breastfeeding practices is low (see Annex 2).

***Balance of benefits and harms***

The guideline development group agreed that the benefits of breastfeeding counselling far outweigh the potential harms.

***Values and preferences***

The systematic review of qualitative studies on the values and preferences of mothers showed that most women needed enough time to discuss challenges with their providers. This was true of clinic staff and community peer supporters. Follow-up was important, both to address problems and to encourage successes. There was high confidence in this evidence.

Women wanted more counselling and follow-up, rather than a large amount of information in one sitting. Counsellors agreed, but said that they didn't think the women would come back, so they try to put all the information in one session. For adolescent mothers, there was some criticism of hospital staff for offering insufficient help with subsequent feeds, for instance leaving the mother to manage alone once the baby was fixed on the breast. In addition, there appeared to be little routine continued contact with health professionals after the early postnatal period. There was moderate confidence in this evidence (see Annex 3).

***Acceptability***

The systematic review of qualitative studies among key stakeholders showed that nurses felt they need more time to spend with women, including women in hospitals or on home visits, and better timing of follow-up support (with individualized timing rather than on schedule). There was high confidence in this evidence.

Health-care workers felt that follow-up was important, both to address problems and to encourage successes. Lack of time and skills was a concern across disciplines, with the exception of lactation counsellors, who reported adequate skills but inadequate time. Some health-care workers suggested "woman-led counselling", giving the patient control over relationship commencement; length of continuation; and the frequency of contact, in order to improve women's satisfaction. Nurses in neonatal intensive care units had difficulties in helping mothers maintain their milk supply, and recognized the need for follow-up. Women living with HIV wanted more frequent counselling and follow-up, rather than a large amount of information in one sitting. Counsellors agreed, but said that they didn't think the women would come back, so they try to put all the information in one session. There was moderate confidence in this evidence (see Annex 3).

### *Resource implications*

Greater human, financial and organizational resources will be required to enable counselling to be provided more frequently, although there were insufficient data to estimate the actual resource implications of counselling during the antenatal, postnatal and early childhood periods. Additional training, job aids, tools and staff will be required, as well as significant organizational resources.

### *Equity*

The guideline development group agreed that equity will be increased if coverage of quality counselling is high and accessible to all pregnant women and mothers.

### *Feasibility*

Counselling all pregnant women and mothers is feasible, given available resources (human, financial and organizational).

### Recommendation

- Breastfeeding counselling should be provided at least six times, and additionally as needed (*recommended, low-quality evidence*).

### Rationale

The guideline development group took into consideration standard points as presented in the rationale for the first key question. The following factors were, in addition, taken into consideration during the deliberations for this key question.

- Breastfeeding counselling of pregnant women and mothers shows important benefits for breastfeeding practices when given four or more times. Additional evidence showed important benefits for six or more counselling contacts compared to three contacts.

Based on the evidence presented and the considerations discussed, the guideline development group recommended breastfeeding counselling for all pregnant women and mothers, at least six times, in order to improve breastfeeding practices.

### Remarks

The remarks in this section are intended to give some considerations for implementation of the recommendation, based on the discussion of the guideline development group.

- Provision of at least six breastfeeding counselling contacts allows for a full range of support to breastfeeding mothers and their families, beginning in the antenatal period through to the introduction of complementary feeding and beyond. Policy-makers and implementers are duty-bound to ensure that breastfeeding counselling contacts are of sufficient quality and quantity to be effective, while ensuring that their use does not expose the mothers and their families to financial hardship.
- People-centred breastfeeding counselling means that the counselling responds to the individual mothers' and families' needs, preferences and values. If individual family situations preclude them from accessing at least six counselling contacts, they should nonetheless be encouraged and enabled to go to as many as they can, and maximize the benefit of this resource with meaningful engagement without stigma or recrimination.

- The minimum of six breastfeeding counselling contacts may occur at the following time points: before birth (antenatal period); during and immediately after birth (perinatal period up to the first 2–3 days after birth); at 1–2 weeks after birth (neonatal period); in the first 3–4 months (early infancy); at 6 months (at the start of complementary feeding); and after 6 months (late infancy and early childhood), with additional contacts as necessary (for instance, when planning to return to school or work, or any time that concerns or challenges related to breastfeeding arise) or when oppportunities for breastfeeding counselling occur (such as during child immunization visits).
- Breastfeeding counselling during the perinatal period and during the stay in the facility providing maternity and newborn services should be done in conjunction with other interventions that protect, support and promote breastfeeding, as outlined in the Baby-friendly Hospital Initiative *(23–29)* and in the *Essential newborn care course (18)*.

## *Key question 4*

**What is the optimal mode for breastfeeding counselling: should breastfeeding counselling be provided through face-to-face counselling, telephone and other modes of remote counselling, or through both modes, compared to no breastfeeding counselling or standard care, to pregnant women and mothers who are considering or already breastfeeding, in order to improve breastfeeding practices?**

### Summary of evidence

The systematic review on timing of breastfeeding counselling showed that it is uncertain whether face-to-face or both telephone and face-to-face breastfeeding counselling improve initiation of breastfeeding within one hour after birth, as the quality of evidence was very low. No studies were found that looked at the effect of telephone counselling on initiation of breastfeeding within one hour after birth.

For breastfeeding outcomes at 4–6 weeks, face-to-face breastfeeding counselling may reduce the likelihood of not breastfeeding (RR 0.86; 95% CI 0.75–1.00; 10 trials; *n* = 3230; low-quality evidence) and not exclusively breastfeeding (RR 0.67; 95% CI 0.56–0.81; 13 trials; *n* = 3550; low-quality evidence), compared to standard care or no breastfeeding counselling. Telephone breastfeeding counselling probably reduces the likelihood of not breastfeeding (RR 0.75; 95% CI 0.61–0.93; 4 trials; *n* = 1231; moderate-quality evidence) and not exclusively breastfeeding (RR 0.72; 95% CI 0.55–0.95; 4 trials; *n* = 1420; moderate-quality evidence), compared to standard care or no breastfeeding counselling. Breastfeeding counselling provided by both face-to-face and telephone counselling may reduce the likelihood of not breastfeeding at 4–6 weeks (RR 0.86; 95% CI 0.73–1.01; 16 trials; *n* = 3827; low-quality evidence) and may make little or no difference to exclusive breastfeeding at 4–6 weeks (RR 0.96; 95% CI 0.86–1.07; 15 trials; *n* = 3136; low-quality evidence), compared to standard care or no breastfeeding counselling.

At 6 months, face-to-face breastfeeding counselling may reduce the likelihood of not breastfeeding (RR 0.89; 95% CI 0.81–0.98; 13 trials; *n* = 3083; low-quality evidence) and not xsexclusively breastfeeding (RR 0.74; 95% CI 0.63–0.87; 21 trials; *n* = 7540; low-quality evidence), compared to standard care or no breastfeeding counselling. Telephone breastfeeding counselling probably reduces the likelihood of not breastfeeding at 6 months (RR 0.74; 95% CI 0.55–1.00; 2 trials; *n* = 1420; moderate-quality evidence) and may make little or no difference to exclusive breastfeeding at 6 months (RR 0.96; 95% CI 0.91–1.01; 3 trials; *n* = 697; low-quality evidence), compared to standard care or no breastfeeding counselling. Breastfeeding counselling provided by both face-to-face and telephone counselling may slightly reduce the likelihood of not breastfeeding (RR 0.95; 95% CI 0.88–1.02; 15 trials; *n* = 6235; low-quality evidence) and not exclusively breastfeeding at 6 months (RR 0.96; 95% CI 0.96–1.01; 9 trials; *n* = 2308; low-quality evidence), compared to standard care or no breastfeeding counselling.

No studies were found that looked at the effect of face-to-face breastfeeding counselling alone or telephone and remote counselling alone on giving additional foods or fluids in the first 3 days of life. It is uncertain whether providing both face-to-face and telephone breastfeeding counselling reduces the likelihood of giving additional foods or fluids, as the quality of evidence was assessed as very low.

Face-to-face breastfeeding counselling (RR 0.65; 95% CI 0.34–1.23; 2 trials; *n* = 519; low-quality evidence) may make little or no difference to the likelihood of feeding with artificial teats and bottles up to 6 months, compared to standard care or no breastfeeding counselling, though the point estimate suggests that there may be reduced likelihood. Breastfeeding counselling provided by both face-to-face and telephone counselling (RR 0.77; 95% CI 0.57–1.03; 3 trials; *n* = 951; low-quality evidence) may reduce the likelihood of feeding with artificial teats and bottles up to 6 months, compared to standard care or no breastfeeding counselling. No studies were found that looked at the effect of telephone counselling on feeding with bottles up to 6 months after birth.

**Summary of the considerations of the members of the guideline development group for determining the direction and strength of the recommendation**

The guideline development group, with the support of the steering group, formulated a recommendation informed by the evidence presented and with explicit consideration of the factors listed next.

***Quality of evidence***

The overall quality of evidence for the effect of face-to-face breastfeeding counselling on breastfeeding practices is low, and the overall quality of evidence for telephone or remote breastfeeding counselling is moderate (see Annex 2).

***Balance of benefits and harms***

The guideline development group agreed that the benefits of breastfeeding counselling far outweigh the potential harms.

***Values and preferences***

The systematic review of qualitative studies on the values and preferences of mothers showed that women want autonomy and to have their choices respected. Women who didn't or couldn't breastfeed felt they were not supported or listened to. Women wanted confirmation regarding normality of their breastfeeding and competency. Women appreciated learning how to do something, not having it done for them, and felt empowered by having been made to try it themselves; they felt the need for empowerment because breastfeeding was anticipated to be easy but was not. Current antenatal class provision was considered to be insufficiently inclusive of fathers and partners. Adolescent mothers need ongoing support for a long time, and easy access to health professionals. For adolescent mothers, there was some criticism of hospital staff for offering insufficient help with subsequent feeds, for instance leaving the mother to manage alone once the baby was latched to the breast. There was high confidence in this evidence.

Women particularly appreciated home-based care when sufficient time was allowed for breastfeeding to occur in a relaxed environment. On the other hand, feeding in a children's centre (in the United Kingdom of Great Britain and Northern Ireland) was more comfortable than feeding at home, as not all partners and families were supportive of breastfeeding and some would have preferred the baby to be bottle fed. Mothers appreciated the support from mothers' groups as valuable ongoing sources of advice and encouragement. Establishing a personal connection with a health worker facilitated breastfeeding better than receiving large amounts of written information or watching videos, although both of these could be useful adjuncts to breastfeeding care. Women sometimes felt infantilized by the "teacher", when women were seen as lacking in information that midwives had to "fill" with much knowledge about breastfeeding.

Mothers were comfortable with the technology and satisfied with lactation consultation by videoconference, though it was not the preferred method for this type of service. Mothers felt that lactation consultation by videoconference might save time and money, especially in future pregnancies when they already had more knowledge. Mothers living with HIV and their counsellors viewed counselling sessions differently. Mothers wanted counselling, while counsellors wanted to provide information. There was moderate confidence in this evidence (see Annex 3).

### *Acceptability*

The systematic review of qualitative studies among key stakeholders showed that midwives emphasized listening to women's issues and individualizing support, including stressing non-verbal observation and communication. They felt it was important to observe breastfeeding sessions, to offer individualized support. Medical staff acknowledged that women living with HIV receive mixed messages between various clinics and clinic staff. Both health-care professionals and mothers described issues around conflicting information. Nurses raised that they need more time to spend with women, including women in hospital and on home visits, and the need for better timing of follow-up support was raised. There was high confidence in this evidence.

Health workers encouraged mothers' knowledge or other indicators that showed their baby received enough milk, since they could not see it. Mothers living with HIV and their counsellors viewed counselling sessions differently. Mothers wanted counselling, while counsellors wanted to provide information. Participants stated that Women, Infants, and Children (WIC, a welfare programme in the United States of America [USA]) communicates support for breastfeeding but does not provide sufficient education and encouragement. There was moderate confidence in this evidence (see Annex 3).

### *Resource implications*

Greater human, financial and organizational resources will be required to enable counselling to be provided by both face-to-face and telephone or remote counselling, although there were insufficient data to estimate the actual resource implications of counselling during the antenatal, postnatal and early childhood periods. Additional training, job aids, tools and staff will be required, as well as significant organizational resources.

### *Equity*

The guideline development group agreed that equity will be increased if coverage of quality counselling is high and accessible to all pregnant women and mothers.

### *Feasibility*

Counselling all pregnant women and mothers is feasible, given available resources (human, financial and organizational).

### Recommendation

- Breastfeeding counselling should be provided through face-to-face counselling (*recommended, low-quality evidence*). Breastfeeding counselling may, in addition, be provided though telephone or other remote modes of counselling (*context-specific recommendation, moderate-quality evidence*).

### Rationale

The guideline development group took into consideration standard points as presented in the rationale for the first key question. The following factors were, in addition, taken into consideration during the deliberations for this key question.

- Breastfeeding counselling of pregnant women and mothers shows important benefits for breastfeeding practices when provided through either face-to-face counselling or telephone counselling or both.
- Local context, such as availability of resources, values and preferences of end-beneficiaries, and acceptability among health workers, could have an effect on the feasibility of providing telephone or other remote modes of counselling.

Based on the evidence presented and the considerations discussed, the guideline development group recommended breastfeeding counselling for all pregnant women and mothers, with face-to-face contact, and additional telephone or other modes of remote counselling in specific contexts, in order to improve breastfeeding practices.

**Remarks**

The remarks in this section are intended to give some considerations for implementation of the recommendation, based on the discussion of the guideline development group.

- Individual face-to-face counselling may be complemented but not replaced by telephone counselling and/or other technologies.
- Preferences for different methods of counselling will vary with context. Health workers around the world are increasingly using other technologies. Telephone counselling and other technologies are very useful options as adjuncts and may empower end-users, as well as health workers and lay or peer counsellors.
- Telephone counselling will depend on the availability and accessibility of telephones for pregnant women and mothers.
- Telephone counselling and/or other technologies may be very useful in certain contexts where face-to-face counselling capacity or access may be limited or absent, such as emergencies.

## *Key question 5*

**Who should be providing breastfeeding counselling: should breastfeeding counselling be provided by lay health workers, non-lay or professional health workers, or both, compared to no breastfeeding counselling or standard care, to pregnant women and mothers who are considering or already breastfeeding, in order to improve breastfeeding practices?**

**Summary of evidence**

The systematic review on timing of breastfeeding counselling showed that breastfeeding counselling by non-lay personnel (RR 0.58; 95% CI 0.37–0.90; 2 trials; *n* = 294; low-quality evidence) may reduce the likelihood of not initiating breastfeeding within one hour after birth, compared to standard care or no breastfeeding counselling. Breastfeeding counselling by lay personnel (RR 0.79; 95% CI 0.56–1.11; 5 trials; *n* = 3437; low-quality evidence) may make little or no difference in the likelihood of not initiating breastfeeding, compared to standard care or no breastfeeding counselling, though the point estimate suggests that there may be reduced likelihood. No studies were found that looked at the effect of breastfeeding counselling provided by both lay and non-lay personnel on initiation of breastfeeding within one hour after birth.

Breastfeeding counselling by non-lay personnel may reduce the likelihood of not breastfeeding (RR 0.86; 95% CI 0.77–0.96; 24 trials; *n* = 7064; low-quality evidence) and not exclusively breastfeeding at 4–6 weeks (RR 0.91; 95% CI 0.85–0.96; 21 trials; *n* = 5681; low-quality evidence), compared to standard care or no breastfeeding counselling. Breastfeeding counselling by lay personnel may make little or no difference to the

likelihood of not breastfeeding at 4–6 weeks (RR 0.82; 95% CI 0.62–1.10; 4 trials; *n* = 896; low-quality evidence) and reduce the likelihood of not exclusively breastfeeding at 4–6 weeks (RR 0.64; 95% CI 0.42–0.97; 9 trials; *n* = 1941; low-quality evidence), compared to standard care or no breastfeeding counselling. It is uncertain whether breastfeeding counselling provided by both lay and non-lay personnel improves any breastfeeding at 4–6 weeks, as the quality of evidence was assessed as very low. Breastfeeding counselling provided by both lay and non-lay personnel probably reduces the likelihood of not exclusively breastfeeding at 4–6 weeks (RR 0.67; 95% CI 0.50–0.90; 1 trial; *n* = 360; moderate-quality evidence), compared to standard care or no breastfeeding counselling.

Breastfeeding counselling by non-lay personnel may reduce the likelihood of not breastfeeding (RR 0.94; 95% CI 0.89–0.99; 23 trials; *n* = 7512; low-quality evidence) and not exclusively breastfeeding at 6 months (RR 0.97; 95% CI 0.94–0.99; 19 trials; *n* = 5487; low-quality evidence), compared to standard care or no breastfeeding counselling. Breastfeeding counselling by lay personnel may reduce the likelihood of not breastfeeding at 6 months (RR 0.71; 95% CI 0.48–1.04; 5 trials; *n* = 505; low-quality evidence), compared to standard care or no breastfeeding counselling. It is uncertain whether breastfeeding counselling by lay personnel improves exclusive breastfeeding at 6 months, as the quality of evidence was assessed as very low. Breastfeeding counselling provided by both lay and non-lay personnel probably reduces the likelihood of not breastfeeding at 6 months (RR 0.95; 95% CI 0.88 to 1.02; 3 trials; *n* = 1605; moderate-quality evidence). It is uncertain whether breastfeeding counselling provided by both lay and non-lay personnel improves exclusive breastfeeding at 6 months, as the quality of evidence was assessed as very low.

No studies were found that looked at the effect of breastfeeding counselling by lay personnel or by both lay and non-lay personnel on giving additional foods or fluids in the first 3 days after birth. Breastfeeding counselling by non-lay personnel alone may make little or no difference to the likelihood of giving additional foods or fluids in the first 3 days after birth (RR 0.76; 95% CI 0.45–1.28; 1 trial; *n* = 100; low-quality evidence), though the point estimate suggests that there may be reduced likelihood, compared to standard care or no breastfeeding counselling.

Breastfeeding counselling by non-lay personnel probably reduces the likelihood of using bottles in the first 6 months (RR 0.77; 95% CI 0.68–1.03; 3 trials; *n* = 100; moderate-quality evidence), compared to standard care or no breastfeeding counselling. Breastfeeding counselling by lay personnel may make little or no difference to feeding using bottles in the first 6 months (RR 0.65; 95% CI 0.34–1.23; 2 trials; *n* = 519; low-quality evidence), though the point estimate suggests there may be reduced likelihood, compared to standard care or no breastfeeding counselling. No studies were found that looked at breastfeeding counselling provided by both lay and non-lay personnel on feeding using bottles in the first 6 months.

**Summary of the considerations of the members of the guideline development group for determining the direction and strength of the recommendation**

The guideline development group, with the support of the steering group, formulated a recommendation informed by the evidence presented and with explicit consideration of the factors listed next.

***Quality of evidence***

The overall quality of evidence for the effect of the counsellor for breastfeeding counselling (lay personnel, non-lay personnel, both lay and non-lay personnel together) on breastfeeding practices is moderate (see Annex 2).

***Balance of benefits and harms***

The guideline development group agreed that the benefits of breastfeeding counselling far outweigh the potential harms.

### *Values and preferences*

The systematic review of qualitative studies on the values and preferences of mothers showed that women's perception could be divided among information and practical and social support, the latter being the most important to women. Women viewed midwives as more technical and didactic and lay counsellors as more socially supportive. Women desired continuity of care; several different counsellor contacts caused insecurity and uncertainty, especially if different advice was offered. Conflicting information and advice can undermine confidence and frustrate women. Issues around conflicting information were described by both health-care professionals and mothers. Women living with HIV said they received mixed messages between various clinics and clinic staff. There was high confidence in this evidence.

Women sometimes felt infantilized by the "teacher", when women were seen as lacking in information that midwives had to "fill" with much knowledge about breastfeeding. For women who intended mixed feeding at baseline, lactation counselling helped in early establishment of breastfeeding, and probably prevented exclusive feeding with formula milk and helped women to breastfeed for longer. Women felt that lay counsellors could perform as well as, or even better than, the health workers in supporting them to exclusively breastfeed their babies. Women praised their breastfeeding peer counsellors for being knowledgeable and experienced, responding promptly to distress calls, and acting in a personal and caring way. They highlighted availability and home visits, friendliness, personal connection, and helping them overcome modesty. Participants stated that the midwives played both positive and negative roles in their ability to breastfeed.

Some women living with HIV shared that midwives were hostile to them during their various encounters in the maternity unit because of their HIV-positive status. Women felt that their encounters with the trained HIV counsellors in the unit encouraged them to continue breastfeeding until it was time for them to stop. Mothers living with HIV and their counsellors viewed counselling sessions differently. Mothers wanted counselling, while counsellors wanted to provide information. HIV counsellors see their success with the life of the baby, and do not fully consider the well-being of the mother.

Mothers from a low-income setting described very limited positive encounters with medical professionals postpartum. Lack of contact by medical staff was commonly cited, compared to more helpful peer counsellors. Adolescent mothers felt undue pressure from midwives to breastfeed. Adolescents felt that they benefited from network support (from peers), coupled with educational programmes. There was moderate confidence in this evidence (see Annex 3).

### *Acceptability*

The systematic review of qualitative studies among key stakeholders showed that there was major variability in how key stakeholders, such as lay and non-lay counsellors, view the benefits of breastfeeding counselling. Midwives emphasized listening to women's issues and individualizing support, including stressing non-verbal observation and communication. Peer supporters noted that a lack of visibility of their office and a lack of identity vis-à-vis professional health workers impeded their work. They often felt treated like "outsiders" by professional health workers. Medical staff acknowledged that women living with HIV receive mixed messages between various clinics and clinic staff. Both health-care professionals and mothers described issues around conflicting information. There was high confidence in this evidence.

Participants described problems in the continuity of care. Not only could the mother see multiple midwives during her hospital stay but she was likely to see a number of different midwives and maternal and child health nurses after hospital discharge. Some staff said that they found it difficult to promote or support breastfeeding because they did not feel comfortable talking to mothers about it if breastfeeding was outside their personal experience. Gender was found to influence counselling (male doctors know less about breastfeeding because they are not expected to know as much and do not have lived personal experience).

While doctors and nurses work side by side, they can have parallel agendas and separate aims for their patient. Midwives view themselves as providing information and practical and social support. They emphasized consensus of care and methods among health-care professionals. Several midwives mentioned that they recognized that mothers required reassurance when initiating breastfeeding, so they spent time explaining what was happening and what to expect. Midwives and public health nurses felt more confident than doctors in providing breastfeeding support. They felt they played an important role in breastfeeding promotion, whereas doctors' views varied, with some general practitioners feeling that they weren't best placed to provide breastfeeding promotion.

There was some criticism of inexperienced or newly graduated midwives as not having the practical skills required to resolve complex breastfeeding issues for women. Lack of time and skills was a concern across disciplines, with the exception of lactation counsellors, who reported adequate skills but inadequate time. Lactation counsellors saw themselves as experts in breastfeeding. They believed they were more holistic in their approach to women and infants and young children, and saw their role as empowering women and providing emotional support.

Professionalization of lay breastfeeding support services put pressure on peer counsellors, as it restricted the time they could spend with breastfeeding mothers and increased the work they needed to do to ensure accountability.

Many women did not have extended family nearby and had little experience with babies, therefore lacked much practical knowledge. Support workers served as a liaison between women and other community services for new mothers.

Mothers living with HIV and their counsellors viewed counselling sessions differently. Mothers wanted counselling, while counsellors wanted to provide information. HIV counsellors see their success with the life of the baby, and do not fully consider the well-being of the mother. HIV counsellors were stressed and often angry when mothers did not follow instructions, putting their children's lives at risk, which counsellors worried could be blamed on them. The advice health workers provided to women living with HIV was sometimes not consistent (or not perceived to be consistent) with WHO and national recommendations.

Particularly among those who primarily provided care for women of lower socioeconomic status, it was difficult for providers to distinguish between social factors and obesity as causes of poor breastfeeding outcomes. There was moderate confidence in this evidence (see Annex 3).

#### *Resource implications*

Greater human, financial and organizational resources will be required to enable counselling to be provided by lay or non-lay counsellors, although there were insufficient data to estimate the actual resource implications of counselling during the antenatal, postnatal and early childhood periods. Additional training, job aids, tools and staff will be required, as well as significant organizational resources.

#### *Equity*

The guideline development group agreed that equity will be increased if coverage of quality counselling is high and accessible to all pregnant women and mothers.

#### *Feasibility*

Counselling all pregnant women and mothers is feasible, given available resources (human, financial and organizational).

### Recommendation

- Breastfeeding counselling should be provided as a continuum of care, by appropriately trained health-care professionals and community-based lay and peer breastfeeding counsellors (*recommended, moderate-quality evidence*).

### Rationale

The guideline development group took into consideration standard points as presented in the rationale for the first key question. The following factors were, in addition, taken into consideration during the deliberations for this key question.

- Reaching pregnant women and mothers who are considering or already breastfeeding with breastfeeding counselling, particularly those whom health services are not reaching, such as the marginalized, stigmatized and geographically isolated, could be improved by enabling and strengthening the competencies of both lay and non-lay counsellors.

Based on the evidence presented and the considerations discussed, the guideline development group recommended breastfeeding counselling for all pregnant women and mothers, provided as a continuum of care by appropriately trained lay and non-lay counsellors, in order to improve breastfeeding practices.

### Remarks

The remarks in this section are intended to give some considerations for implementation of the recommendation, based on the discussion of the guideline development group.

- What works best in terms of staff allocation will vary considerably, depending on the context and national health-care system. At country level, it is important to have a system that enables, where necessary, continuity of care and integration of lay and peer counsellors, with non-lay counsellors. Continuity of care is best brought about within a system of collaboration and communication between all providers.
- For breastfeeding counselling to be effective, a good training and mentoring programme, for both lay and non-lay counsellors, will be an essential first step. Careful planning and leadership will be important for those responsible for developing the skills, knowledge and confidence of counsellors in enabling mothers to achieve their goals for breastfeeding.
- A systems-based approach within the health-care system and at community level, with cascade training and support or supervision, may be a constructive way forward, with clearly defined skills, training and supervision for different levels of counsellors, and referral systems. Lactation consultants and other highly trained breastfeeding counsellors can play useful roles in training and supervision.

## *Key question 6*

**Should anticipatory[1] breastfeeding counselling be provided as a standard of care, compared to not providing anticipatory breastfeeding counselling, to pregnant women and mothers who are considering or already breastfeeding, in order to improve breastfeeding practices?**

### Summary of evidence

Addressing common constraints to breastfeeding might be of particular relevance for some groups of women such as primiparous women, adolescent women, women whose babies were born by caesarean section,

1 While all breastfeeding counselling is to some extent anticipatory in the sense that it anticipates, evaluates and prevents potential challenges to breastfeeding, here we mean it to apply particularly to address common constraints in specific groups of women who may be more prone to breastfeeding challenges.

women with multiple pregnancies, women who plan return to school or work, or women who are obese. Except for primiparity, where enough data allowed for meta-analysis, the results from individual studies for these contexts are described in narrative form. No trials were found on the effects of breastfeeding counselling among women whose babies were born by caesarean section, those with mental health difficulties, or those whose babies had special needs.

### *Primiparous women*

The systematic review of evidence showed that breastfeeding counselling among primiparous women may make little no difference to the likelihood of not breastfeeding at 4–6 weeks (RR 0.85; 95% CI 0.67–1.08; 10 trials; *n* = 2769; low-quality evidence), compared to standard care or no breastfeeding counselling, though the point estimate suggests there may be reduced likelihood. Breastfeeding counselling among primiparous women may reduce the likelihood of not exclusively breastfeeding at 4–6 weeks (RR 0.88; 95% CI 0.77–1.00; 11 trials; *n* = 2901; low-quality evidence), compared to standard care or no breastfeeding counselling.

Breastfeeding counselling of primiparous women may reduce the likelihood of not breastfeeding at 6 months (RR 0.84; 95% CI 0.68–1.04; 6 trials; *n* = 1046; low-quality evidence), probably reduces the likelihood of not exclusively breastfeeding at 6 months (RR 0.85; 95% CI 0.75–0.97; 7 trials; *n* = 1375; moderate-quality evidence) and probably reduces the likelihood of using artificial teats and bottles up to 6 months (RR 0.67; 95% CI 0.49–0.91; 2 trials; *n* = 231; moderate-quality evidence), compared to standard care or no breastfeeding counselling.

Breastfeeding counselling of primiparous women may make little or no difference to the likelihood of giving additional foods or fluids apart from breast milk (RR 0.76; 95% CI 0.45–1.28; 1 trial; *n* = 100; low-quality evidence), compared to standard care or no breastfeeding counselling, though the point estimate suggests there may be reduced likelihood. It is uncertain whether breastfeeding counselling among primiparous women improves initiation of breastfeeding within the first hour after birth, as the quality of evidence was assessed as very low.

### *Adolescent girls*

One study *(45)* focused on 248 adolescent African American girls aged 10–19 years in the USA, with a mean age of 18.3 years. The intervention comprised weekly home counselling visits by childbirth support providers (doulas), during pregnancy and up to 3 months postpartum. Telephone support was also available. Women in the control group received usual antenatal care. The results show that the weekly home counselling visits to adolescent girls may make little or no difference to any breastfeeding at 6 months (RR 1.03; 95% CI 0.71–1.48; 1 trial; *n* = 248; low-quality evidence), compared to usual antenatal care.

### *Women with multiple pregnancies*

One study *(46)* included only women with multiple pregnancies. This study, conducted in Brazil, randomized 171 women who had given birth to twins. The intervention comprised three group counselling sessions at weekly intervals during pregnancy, provided by certified health professionals. Women in both the intervention and control groups received antenatal care according to the standard protocol for multiple pregnancies, and one non-specific breastfeeding counselling session postnatally. The results showed that one antenatal breastfeeding counselling session may make little or no difference to exclusive breastfeeding at 4–6 weeks (RR 1.01; 95% CI 0.91–1.12; 1 trial; *n* = 171; low-quality evidence) and may make little or no difference to the likelihood of not breastfeeding at 6 months (RR 0.96; 95% CI 0.80–1.16; 1 trial; *n* = 171; low-quality evidence) or not exclusively breastfeeding at 6 months (RR 0.98 CI 0.92–1.04; 1 trial; *n* = 171; low-quality evidence), compared to not having an antenatal breastfeeding counselling session, among women with multiple pregnancies.

### *Women who plan to return to work or school*

One trial *(47)* conducted in Turkey, randomized 67 women who intended to return to work following birth. The intervention was described as one-to-one training on the advantages of breast milk, its benefits for mother and infant, and techniques for expressing and storing breast milk. The timing and frequency of the intervention appeared to entail five contacts starting 2 weeks before the woman planned to return to work, until the baby was 6 months of age. It was unclear who provided the counselling. Women in the control group received home visits, but not the training programme. The results showed that the "training" intervention among women intending to return to work may make little or no difference to any breastfeeding at 6 months (RR 2.26; 95% CI 0.64–8.02; 1 trial; *n* = 77; low-quality evidence) but may reduce the likelihood of not exclusively breastfeeding at 6 months (RR 0.86; 95% CI 0.74–0.99; 1 trial; *n* = 77; low-quality evidence).

Rojjanasrirat *(48)* conducted a trial of women planning to return to work within 12 weeks after birth, in the USA. The intervention group (*n* = 81) received breastfeeding education antenatally, facilitated by a lactation consultant, which focused on combining work and breastfeeding, and two follow-up telephone calls at 1 week and 4–6 weeks postpartum, also from a lactation consultant. Women in the control group (*n* = 85) received a general breastfeeding class antenatally, taught by a range of personnel, including nurses, breastfeeding educators or lactation consultants. The results showed that breastfeeding education focused on combining work and breastfeeding may make little or no difference to any breastfeeding at 6 weeks (RR 1.18; 95% CI 0.48–2.91; 1 trial; *n* = 166; low-quality evidence) or exclusive breastfeeding at 6 weeks (RR 1.12; 95% CI 0.76–1.64; 1 trial; *n* = 166; low-quality evidence), compared to receiving a general breastfeeding class.

### *Women who are overweight or obese*

A trial from Denmark included only obese women, defined as having a body mass index (BMI) over 30 kg/m² *(49)*. In this trial, 226 women were randomized to receive a telephone-based advisory support service, delivered by a certified lactation consultant (intervention), or standard care comprising routine postnatal visits by a midwife or health visitor (control). The participants in the intervention group were offered a minimum of nine consultations, until the baby was 6 months of age. The results showed that this intervention among obese women may make little or no difference to the likelihood of not breastfeeding at 6 weeks (RR 0.78; 95% CI 0.48–1.25; 1 trial; *n* = 226; low-quality evidence), not exclusively breastfeeding at 6 weeks (RR 0.88; 95% CI 0.62–1.24; 1 trial; *n* = 226; low-quality evidence) or exclusive breastfeeding at 6 months (RR 1.00; CI 0.98–1.02; 1 trial; *n* = 226; low-quality evidence).

Two further studies, both from the USA, included women who were overweight, with inclusion criteria of BMI over 29 kg/m² *(50)* and BMI over 27 kg/m² *(51)*. The results showed that breastfeeding counselling among overweight women may make little or no difference to any breastfeeding at 6 weeks (RR 1.09; 95% CI 0.50–2.36; 2 trials; *n* = 276; low-quality evidence), exclusive breastfeeding at 6 weeks (RR 1.04; 95% CI 0.70–1.54; 2 trials; *n* = 276; low-quality evidence) or exclusive breastfeeding at 6 months (RR 1.00; 95% CI 0.98–1.01; 2 trials; *n* = 433; low-quality evidence), compared to standard care or no breastfeeding counselling.

## Summary of the considerations of the members of the guideline development group for determining the direction and strength of the recommendation

The guideline development group, with the support of the steering group, formulated a recommendation and a best practice statement informed by the evidence presented and with explicit consideration of the factors listed next.

### *Quality of evidence*

The overall quality of evidence for the effect of anticipatory breastfeeding on breastfeeding practices is low (see Annex 2).

### *Balance of benefits and harms*

The guideline development group agreed that the benefits of breastfeeding counselling far outweigh the potential harms.

### *Values and preferences*

The systematic review of qualitative studies on the values and preferences of mothers showed that some women described feeling unprepared for the "realities of breastfeeding". They would have liked more information before their baby was born about what to expect, particularly in terms of discomfort and the time they might spend feeding, and an opportunity to learn how to deal with common feeding problems. There was high confidence in this evidence.

Many women found early hospital care to establish feeding unhelpful, and felt that some counselling may need to be undertaken at home and that pre-discharge counselling should anticipate this. There was moderate confidence in this evidence (see Annex 3).

### *Acceptability*

The systematic review of qualitative studies among key stakeholders showed that many women did not have extended family nearby and had little experience with babies, therefore lacked much practical knowledge. Support workers served as a liaison between women and other community services for new mothers. Nurses value lactation consultants in contexts where breastfeeding is not the norm. Several midwives mentioned that they recognized that mothers required reassurance when initiating breastfeeding, so they spent time explaining what was happening and what to expect.

Obese patients require more time and attention from providers and that burden affects providers' perception of these patients. Physical challenges, either specific to the mechanics of breastfeeding or general challenges of obesity, were most commonly discussed by health workers. There was moderate confidence in this evidence (see Annex 3).

### *Resource implications*

Greater human, financial and organizational resources will be required to enable counselling to be provided in an anticipatory manner for specific contexts, although there were insufficient data to estimate the actual resource implications of counselling during the antenatal, postnatal and early childhood periods. Additional training, job aids, tools and staff will be required, as well as significant organizational resources.

### *Equity*

The guideline development group agreed that equity will be increased if coverage of quality counselling is high and accessible to all pregnant women and mothers.

### *Feasibility*

Counselling all pregnant women and mothers is feasible, given available resources (human, financial and organizational).

**Recommendation**

- Breastfeeding counselling should anticipate and address important challenges and contexts for breastfeeding, in addition to establishing skills, competencies and confidence among mothers (*context-specific recommendation, low-quality evidence*).

Common challenges and contexts include returning to work or school; the specific needs of mothers who are obese, adolescent girls, primiparous (first-time mothers) or carrying multiple pregnancies (when the mother is pregnant with two or more babies); mothers with mental health difficulties; mothers of infants with special needs, e.g. low birth weight or disability; mothers who delivers by caesarean section; breastfeeding in public spaces; and breastfeeding in humanitarian emergencies.

**Best practice statement**

- Protection, promotion and support of breastfeeding, in accordance with international guidance, are essential in emergencies. Breastfeeding counselling should be an integral part of emergency preparedness plans for infant and young child feeding, and both initial and sustained responses.

**Rationale**

The guideline development group took into consideration standard points as presented in the rationale for the first key question. The following factors were, in addition, taken into consideration during the deliberations for this key question.

- Appropriate and timely breastfeeding counselling of pregnant women and mothers that addresses specific challenges as and when they are needed could have important benefits for breastfeeding practices.
- A best practice statement on emergency contexts helps bring visibility to the heightened risk exposure for children and immense challenges faced by pregnant women and mothers in such circumstances, which warrants prioritization of breastfeeding counselling as an intervention in emergency response.

Based on the evidence presented and the considerations discussed, the guideline development group recommended anticipatory breastfeeding counselling for all pregnant women and mothers who may be facing specific challenging contexts, in order to improve breastfeeding practices.

**Remarks**

The remarks in this section are intended to give some considerations for implementation of the recommendation and best practice statement, based on the discussion of the guideline development group.

- To some extent, all breastfeeding counselling is anticipatory. The goal of the counselling contact is to support mothers in achieving their individualized goals for breastfeeding, whether they are considering initiating breastfeeding, or they are already breastfeeding and are facing particular challenges for continuation of breastfeeding. Anticipatory counselling therefore refers to evaluating and assessing potential and existing challenges that may impact the mothers' breastfeeding goals. The anticipatory nature of breastfeeding counselling helps to reduce potential risks, problems or complications for optimal breastfeeding.
- In difficult or complicated circumstances, positive feedback and emotional support are especially needed to support the mothers' confidence and self-efficacy in breastfeeding.
- Using the principles of person-centred and quality-focused care, each Member State may need to identify which circumstances will require additional training and skills-building, based on their assessment of the primary challenges to optimal breastfeeding in their contexts.
- Advice and information for women who do not intend to breastfeed needs to be considered as a potential component of anticipatory counselling for pregnant women.
- During emergencies, appropriate and timely support to infant and young child feeding saves lives; protects child nutrition, health and development; and benefits mothers. Breastfeeding counselling is a vital intervention in emergency response and needs to be protected. Emergency preparedness is critical to a timely, efficient and appropriate response.

- Emergency preparedness includes training of personnel likely to be involved in providing support to mothers in an emergency and building the capacity of those delivering services during a response. As a minimum, staff in contact with mothers and children aged under 2 years are trained to be sensitive to psychosocial issues, on nutrition screening and on referral pathways to more specialist support.
- More specialist capacity to counsel mothers with heightened needs, such as stressed or traumatized mothers, malnourished infants and mothers, low-birth-weight infants and infants with disability and associated feeding difficulties, may be needed.

# IMPLEMENTATION OF THE GUIDELINE

The implementation of this guideline is consistent with and complements the interventions and guidance presented in *Breastfeeding counselling: a training course (13)*, *Infant and young child feeding counselling: an integrated course (14)*, the *Combined course on growth assessment and IYCF counselling (15)* and Integrated Management of Childhood Illness *(16)*, the *Community management of at-risk mothers and infants under six months of age (C-MAMI) tool (17)*, *Essential newborn care course (18)* and *Caring for newborns and children in the community: a training course for community health workers (19)*, *Guidelines on optimal feeding of low birth-weight infants in low- and middle-income countries (23)*, *Guideline: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services (24)*, *Implementation guidance: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services – the revised Baby-friendly Hospital Initiative (25)* and *Infant and young child feeding in emergencies*. *Operational guidance for emergency relief staff and programme managers (30)*.

The nature of counselling requires careful consideration: effective quality counselling should be offered, with sufficient time and by appropriately trained staff. The nature of breastfeeding counselling requires a shift in paradigm. There has been too much "telling mothers to breastfeed" and "telling mothers about the benefits of breastfeeding" but not enough actual emotional and practical support to enable and empower mothers to breastfeed. Algorithms for triage and setting priorities are potentially useful; however, concerns were raised about the risks of a "robotic approach" to counselling, which would be contrary to the actual nature of counselling itself. It was acknowledged that in certain settings, community health workers may need job aids and tools in order to triage and prioritize their interventions.

Building confidence and reassuring mothers are key components of breastfeeding counselling. Mothers need to be empowered to breastfeed and respected in their wishes. Basic breastfeeding counselling should include information and support on obvious issues such as the normal breastfeeding pattern, responsive feeding, recognizing let-down and others. Counselling all pregnant women and mothers on breastfeeding is feasible, and sufficient investment in resources (human, financial, organizational) needs to be made, together with strategic thinking at a systems level. Creative or innovative solutions may be required.

Health workers are overworked in many contexts. Therefore, although they value counselling as an intervention, breastfeeding counselling may place an additional burden on them and the health system, unless additional capacity-building and training, as well as task-shifting and/or referral systems, are put in place to enable sufficient time and skills for quality counselling.

Quality training requires time and resources, which are often limited. Careful thought needs to go into training systems and curricula, in order to include, where necessary, essential anticipatory counselling guidance for certain subgroups and contexts or challenges, while not overburdening basic breastfeeding counselling training in general.

Breastfeeding counselling may be best integrated into the health-care system, as an integral part of standard antenatal care, postpartum care and community health care, and with equal access for all women. Reinforcing coordination between the public and private health-care systems, as well as with community health counselling services, may increase the overall impact of breastfeeding counselling interventions. A systems-level approach will probably be required, with cascade training for capacity-building and potential task-shifting as options. In some contexts, it may be more acceptable to target specific groups rather than all mothers, especially where resources are limited (for instance, during emergencies).

## *Implementation considerations*

As this is a global guideline, Member States are expected to adapt the recommendation according to their setting and its feasibility. Public health nutrition and child health programmes that include breastfeeding protection, promotion and support require supportive policies, and health-care services that enable the proper access to quality services. WHO regional and country offices assist with these processes.

Engaging with multiple stakeholders and partners will be critical in strengthening implementation and sustaining gains in breastfeeding rates. Working in collaboration with sectors involved in child and adolescent well-being; reproductive health; early childhood development and education; social welfare and protection; communication and social marketing; and others can help ensure a comprehensive, cross-sectoral and more sustainable approach to improving breastfeeding practices.

Scaling up breastfeeding programmes entails several components working synchronously. This usually requires the endorsement of both local administrators and governmental policy-makers; effective leadership to transform processes; training of health-care workers; and alignment of hospital-wide health services related to breastfeeding, so that they are people centred, i.e. with the infants, young children, mothers and their families at the centre of care *(52, 53)*.

## *Regulatory considerations*

Accessible and quality breastfeeding counselling, as part of universal health coverage, can improve equity among women and children and throughout the life-course. Implementation of interventions to protect, promote and support breastfeeding through breastfeeding counselling should be aligned to the overall quality standards for the care of mothers and neonates *(54)*.

Sustaining improvements in optimal breastfeeding practices will need leadership that promotes quality standards; a national, institutional or community culture that protects, supports and promotes breastfeeding; robust monitoring and feedback mechanisms with actions to respond to findings; and progressive and innovative improvement that continually integrates quality-focused and person-centred care.

In an environment with inappropriate promotion of foods for infants and young children, increased investment in the implementation of laws, policies and programmes aimed at protection, promotion and support of breastfeeding, including through breastfeeding counselling, is imperative. Sustainable and adequate technical and financial resources, and supportive and protective policy and regulatory interventions, as well as political will, are required.

Member States should frame their breastfeeding policies and breastfeeding counselling actions around dimensions of quality (such as effective, people-centred, safe, timely, equitable, integrated and efficient care), as part of universal health coverage.

## *Ethical and equity considerations*

Ethical principles lead to consideration of whether an intervention is producing benefits to individuals and communities; preventing harms, also at the individual and societal levels; and distributing health benefits

across social groups, that is, how much an intervention is contributing to health equity; and respecting and promoting the exercise of human rights.

Breastfeeding is a complex social act that encompasses behaviours, values, beliefs and social roles and interplays with the implementation of policies, strategies and actions to protect, promote and support breastfeeding. Achieving equity in breastfeeding entails political leadership to create an enabling environment that supports the availability of and access to quality breastfeeding support. Policy-makers need to have a holistic view of what is needed for breastfeeding and how to address the needs of diverse, vulnerable populations through breastfeeding counselling.

Ethics-based implementation means making sure that care respects the individual's right to make informed and autonomous decisions, safeguards privacy, protects the most vulnerable, and ensures the fair distribution of resources. While poverty drives much inequity and inequality in access to health services worldwide, breastfeeding counselling is essential for all social and economic classes, not just the poor.

Populations that may have lower rates of breastfeeding initiation and duration include mothers who are young; return early to work; lack social support; do not intend to breastfeed; have health concerns such as diabetes, obesity or poor mental health; or have medical issues during delivery, such as caesarean birth. Vulnerable infants include those who are preterm, have low birth weight, or are admitted to the neonatal intensive care unit. Parents who may not identify as "women" or "mothers", including transgender and non-binary parents, may have difficulties accessing culturally safe health care. Innovations are needed to promote access to breastfeeding counselling, particularly in vulnerable populations.

### *Monitoring and evaluation of guideline implementation*

Monitoring and evaluation should be built into the implementation process, in order to provide important lessons for uptake and further implementation. WHA Resolution 65.6 endorsed a *Comprehensive implementation plan on maternal, infant and young child nutrition (1)*, which specified six global nutrition targets for 2025 *(2)*. One of the targets is to increase the rate of exclusive breastfeeding in the first 6 months of life up to at least 50%.

For evaluation at the global level, the WHO Departments of Maternal, Newborn, Child and Adolescent Health and Nutrition for Health and Development have developed a centralized platform for sharing information on nutrition actions in public health practice implemented around the world. By sharing programmatic details, specific country adaptations and lessons learnt, this platform provides examples of how guidelines are being translated into actions. The Global database on the Implementation of Nutrition Action (GINA) *(55)* provides valuable information on the implementation of numerous nutrition policies and interventions.

## RESEARCH GAPS

Discussions between the members of the WHO guideline development group and the external resource group highlighted the limited evidence available in some knowledge areas, meriting further research, particularly in the following areas:

- different modes, frequency or intensity of breastfeeding counselling that would best protect, support and promote breastfeeding among specific population groups, such as adolescent girls, obese women and those with multiple pregnancies;
- complex multi-component interventions to protect, support and promote breastfeeding among women returning to school or work;

- the nature of breastfeeding counselling with stressed, traumatized or malnourished mothers or infants and young children, such as in humanitarian emergencies;
- the nature of breastfeeding counselling of mothers of preterm, low-birth-weight or sick infants, or those admitted to the neonatal intensive care unit;
- different durations, content (including clinical and practical skills) and modes of training delivery, in order to meet minimum competency to address breastfeeding challenges;
- capacity-buidling methodologies to develop the advanced competencies required to address persistent or complex breastfeeding problems;
- studies across different regions, countries and population groups (e.g. by income levels, educational levels, cultural and ethnic backgrounds) and contexts (e.g. in areas where breastfeeding is the norm and where breastfeeding practices are not optimal), in order to adequately and sensitively protect, promote and support breastfeeding.

# GUIDELINE DEVELOPMENT PROCESS

This guideline was developed in accordance with the WHO evidence-informed guideline-development procedures, as outlined in the *WHO handbook for guideline development (56)*.

## *WHO steering group*

A WHO steering group (see Annex 4), led by the Departments of Maternal, Newborn, Child and Adolescent Health and Nutrition for Health and Development, was established with representatives of the Departments of Maternal, Newborn, Child and Adolescent Health, Nutrition for Health and Development, and Reproductive Health and Research. The steering group guided the overall guideline development process, as well as the retrieval, assessment and summary of the evidence.

The steering group drafted the scope of the guideline and key questions in PICO format; identified the systematic review team and guideline methodologist; developed and finalized the planning proposal; helped with the selection of the guideline development group and the external resource persons; oversaw the evidence retrieval, assessment and synthesis; collected and assessed disclosures of interest; and managed conflicts in consultation with the Office of Compliance, Risk Management and Ethics. The steering group drafted the recommendation, based on the decisions of the guideline development group; drafted the final guideline, including management of the peer-review process; and oversaw the dissemination of the guideline. Regional advisers from the WHO regions also participated in the meetings of the guideline development group.

## *Guideline development group*

The steering group identified candidates for the guideline development group from the roster of WHO advisers and experts, a call for expressions of interest issued in February 2017, recommendations from other WHO departments, and literature reviews. Twenty persons were informally asked whether they were interested in becoming part of the guideline development group. Of those 20 persons, 18 gave a positive response. Those interested were then asked to submit their latest curriculum vitae and filled in declaration-of-interest forms.

A guideline development group was established with 18 members, to advise WHO in the areas of epidemiology, nutrition, infant and maternal health care, paediatrics, and systematic reviews. There were 13 women and 5 men, representing the six WHO regions.

The guideline development group scoped the guideline, drafted the key questions in PICO format and prioritized the outcomes on 11–12 May 2017. In a second meeting of the guideline development group on 26–28 June 2018, they examined the evidence used to inform the recommendation and appraised it, using the GRADE evidence profiles *(31, 35, 36)*. They interpreted the evidence, taking into consideration the Developing and Evaluating Communication Strategies to support Informed Decisions and Practice based on Evidence (DECIDE) framework *(57)*, an evidence-to-decision tool that includes intervention effects, the quality of the evidence, values and preferences, resources, equity, acceptability and feasibility criteria, to guide the formulation of the recommendations *(58, 59)*. The list of the guideline development group members and their areas of expertise appears in Annex 5.

## Meeting observers

The meeting observers for this guideline comprised five persons, identified by the steering group. Their expertise included infant and young child feeding, child health, humanitarian situations and emergencies. The members of the group of meeting observers are listed in Annex 6.

## Systematic review team

The following groups were commissioned to conduct systematic reviews relevant to the key questions identified during the guideline development group scoping meeting:

- School of Nursing and Health Sciences, University of Dundee, United Kingdom of Great Britain and Northern Ireland
- Department of International Health, Johns Hopkins School of Public Health, United States of America

The systematic review team provided comprehensive, objective syntheses of the evidence for each of the key questions to inform the recommendations. These systematic reviews were presented at the guideline development group meeting in Geneva, Switzerland, 26–28 June 2018. The list of systematic review authors is presented in Annex 7.

The discussions around each of the key questions, from evidence to recommendations, were assisted by a methodologist (see Annex 7).

## Management of conflicts of interests

The steering group, in compliance with the WHO *Guidelines for declaration of interests for WHO experts (60)*, and in collaboration with the Department of Compliance and Risk Management and Ethics, managed the potential conflicts of interests. All potential guideline development group members were asked to fill in and sign the standard WHO declaration-of-interests and confidentiality undertaking forms. Updated curriculum vitae were also required from the prospective members of the guideline development group, as they engage in their individual capacity and not as institutional representatives.

The steering group reviewed the declarations-of-interest statements in conjunction with the curriculum vitae for all guideline development group members. Information from the internet or media were gathered, in order to identify any public statements made or positions held by the prospective guideline development group members and experts on the issue of breastfeeding counselling. These were assessed for intellectual bias that may be perceived to, or actually, affect impartiality. All concerns or potential issues were discussed with the WHO Office of Compliance, Risk Management and Ethics. All potential conflicts of interest were managed on a case-by-case basis.

The following members of the guideline development group were assessed to have no perceived or real conflicts of interests on the topic. They were asked to verbally declare their research and programme experiences and sources of funding: Dr Ebunoula A Adejuyigbe, Professor Abdou-Rahmane Diparidé

Agbèrè, Dr Rifat Nisar Ashraf, Dr Teresita González de Cosio, Dr Elsa RJ Giugliani, Dr Marianne Nishani Lucas, Ms Marie McGrath, Dr Purnima Menon, Professor Rafael Pérez-Escamilla, Dr Vanessa Aline Rouzier, Ms Randa Jarudi Saadeh, Professor Mohamadou Guélaye Sall, Dr Maria Asuncion A Silvestre, Dr Olena Starets, Ms Terrie Wefwafwa and Ms Ruikan Yang.

The members listed next had declared interests that were further discussed with the Office of Compliance, Risk Management and Ethics. They were assessed to merit full participation in the meeting after publicly disclosing their interests at the start of the meeting to all meeting participants, and in the guideline document. They fully participated in discussions and were included in all decision-making processes. Aside from their research and programme experiences and sources of funding, they were asked to specifically declare the following:

**Dr Felicity M Savage**

Dr Savage declared that, as Chairperson of the World Alliance for Breastfeeding Action since 2003, she is frequently called upon to advise the organization on all aspects of breastfeeding, including the subject of breastfeeding counselling. She directed training courses on breastfeeding advocacy and practice in Malaysia (2014, 2015, 2016) and Saudi Arabia (2017), at a cost of approximately US$ 25 000 over the 4 years, funded by the Infant Feeding Consortium (Community Interest Company). Funds for the training are from sponsors such as the United Nations Children's Fund (UNICEF), Save the Children, WHO, Alive & Thrive and Action against Hunger.

She was employed by WHO as Medical Officer in the Department of Child Health from 1993 to 2001, with work involving the development of a training course on breastfeeding counselling for WHO. After leaving WHO, she undertook consultancies for WHO and UNICEF to introduce the course into several countries, and, also as a consultant, she revised the materials for WHO, completing the work in 2012.

The declared interests were assessed as minimal and unlikely to affect or be reasonably perceived to affect the expert's judgements.

**Professor Mark Tomlinson**

Professor Tomlinson declared that he has been a consultant for WHO since 2013. He has received a grant from the USA National Institutes of Health, National Institute of Mental Health for work related to breastfeeding, as a professor of Stellenbosch University, South Africa. The project is called "Improving South African Government's community health workers' capacities to deliver evidence-based interventions for optimizing HIV outcomes and reducing comorbidities: a cluster randomized controlled trial" (US$ 2.2 million; 2016–2021).

The declared interests were assessed as minimal and unlikely to affect or be reasonably perceived to affect the expert's judgements.

Names and brief biographies of the members of the guideline development group, along with a description of the objectives of the meeting, were published on the WHO website, for public notice and comment. No additional information on any interests or biases relating to the individuals being considered for membership of the guideline development group were brought to light from the public notice.

## *Identification of priority questions and outcomes*

An initial set of questions to be addressed in the guidelines was the starting point for formulating the recommendation. The questions were drafted by technical staff at the Departments of Maternal, Newborn, Child and Adolescent Health and Nutrition for Health and Development, based on the policy and programme guidance needs of Member States and their partners. The questions were discussed and reviewed by the steering group.

A meeting of the guideline development group on 11–12 May 2017 in Geneva, Switzerland, was held to finalize the scope of the questions and to rank the outcomes and populations of interest for the recommendations on breastfeeding counselling. The guideline development group discussed the relevance of the questions and modified them as needed. The group scored the relative importance of each outcome from 1 to 9 (where 7–9 indicated that the outcome was critical for a decision, 4–6 indicated that it was important and 1–3 indicated that it was not important). The final key questions on this intervention, along with the outcomes that were identified as critical for decision-making, are listed in PICO format in Annex 1.

## Evidence identification and retrieval

Cochrane reviews assessing the effect of breastfeeding counselling on breastfeeding practices were assessed. None of the previous reviews focused on each of the key questions, and reviewed the critical outcomes. In light of this, a new the systematic review was contracted with the University of Dundee, United Kingdom of Great Britain and Northern Ireland, to systematically review the evidence for the critical health outcomes of breastfeeding counselling on breastfeeding practices.

A systematic review of qualitative studies on the values and preferences of pregnant women and mothers, and health workers and other key stakeholders, in relation to breastfeeding counselling and its consequences, was commissioned to the Johns Hopkins School of Public Health, USA.

## Quality assessment and grading of evidence

Systematic reviews based on the PICO questions were used to summarize and appraise the evidence. These reviews followed the procedures of the *Cochrane handbook for systematic reviews of interventions (34)*. Each study included in the systematic reviews was assessed for risk of bias. This was recorded and contributed towards the assessment of the overall quality of the evidence. During the discussion and deliberations, the steering group and the guideline development group, with support from a methodologist, carefully reviewed the quality, scope and study inclusion criteria for the systematic reviews. When possible, the findings were synthesized with a pooled estimate of effect. The results of the systematic reviews were presented to the guideline development group, along with an assessment of the quality of the evidence for the critical outcomes.

Evidence profiles were prepared according to the GRADE *(31)* approach, to assess the overall quality of the evidence *(35, 36)*. The quality of evidence for each outcome was rated as "high", "moderate", "low" or "very low", based on a set of criteria including risk of bias, inconsistency, imprecision, indirectness and publication bias.

## Formulation of recommendations

The draft recommendations were discussed by the steering group and in consultation with the guideline development group, in a meeting held on 26–28 June 2018 in Geneva, Switzerland.

Three options for types of recommendations were agreed, namely:

- recommended;
- context-specific recommendation (recommended in specific contexts only);
- not recommended.

The systematic review and the GRADE evidence profiles for each of the critical outcomes were used for drafting recommendations. An evidence-to-decision framework (based on the DECIDE framework *(57)*) was used to lead discussion and decision-making *(58, 59)*.

The domains listed next were prepared by the steering group and discussed during the guideline development group meeting for each of the key PICO questions.

### *Quality of evidence*

The overall quality of the evidence as presented in the GRADE profile was considered in the drafting of the recommendation. The higher the quality of evidence across critical outcomes that are relevant to decision-making, the higher the likelihood is of a clear positive recommendation. A context-specific recommendation is likely to be warranted when the overall quality is rated "low" or "very low".

### *Balance of benefits and harms*

The guideline development group evaluated the balance between desirable and undesirable consequences, including the magnitude of the effects and relative importance of these consequences. Where benefits clearly outweigh harms or vice versa, the greater the likelihood is of a recommendation in favour of or against the intervention, respectively. Context-specific recommendations are more likely to be made when regional differences in feasibility or resource use, which may impact on the feasibility of implementing a recommendation, exist.

### *Values and preferences*

The relative importance of the outcome to the individuals or populations directly affected by the recommendation describes the values and preferences. A systematic review team performed a review of qualitative information on how end-users (pregnant women and mothers) perceived breastfeeding counselling. These were presented during the guideline development group meeting. When there is uncertainty or wide variability on the values and preferences of the target beneficiaries, a context-specific recommendation may be warranted.

### *Acceptability*

A review of qualitative information on how health-care workers and service providers perceive breastfeeding counselling and its effects was done and presented during the guideline development group meeting. The higher the acceptability of the intervention among stakeholders, the more likely it is that an intervention will be clearly recommended. When it was deemed necessary to recommend an intervention that is associated with low acceptability, strategies to address concerns about acceptability during implementation were discussed.

### *Resource implications*

This relates to evaluation of how resource intensive and cost effective the intervention is to service users and health systems in different settings. A recommendation in favour of or against the intervention is likely where the resource implications are clearly advantageous or disadvantageous, whereas a context-specific recommendation may be justified if the resource implications are uncertain.

### *Equity*

An intervention is likely to be recommended if it will reduce health inequities among different groups of women and their families.

### *Feasibility*

The steering group presented instances when breastfeeding counselling was implemented in different settings, to highlight the feasibility of implementation and whether barriers exist. Where there is greater feasibility, the more likely it is that the intervention will be recommended.

Based on the discussions during the meeting, each recommendation was supported by a rationale, implementation considerations and research priorities.

### Decision-making during the guideline development group meeting

The chairperson, Ms Saadeh, was nominated at the opening of the consultation and the nominations were approved by the guideline development group. A methodologist was present during the meetings, to support the chair in the processes for decision-making.

The procedures for decision-making were established at the beginning of the meetings, including a minimal set of rules for agreement and documentation of decision-making. At least two thirds of the guideline development group was present for an initial discussion of the evidence and proposed recommendation and remarks.

Deliberations among the members of the guideline development group took place until consensus was reached. If no consensus was reached, a four-fifths vote of the guideline development group was required for approval of the proposed recommendation (secondary decision rule).

### Document preparation and peer-review

The responsible technical officer wrote the first draft of the guideline, with comments from the steering group.

The final draft guideline was peer-reviewed by content experts, to provided technical feedback; identify errors of fact; ensure that there were no important omissions, contradictions or inconsistencies with scientific evidence or programmatic feasibility; and assist with clarifying the language, especially in relation to implementation, adaptation and contextual issues. The independent peer-reviewers were selected by the steering group. Six potential peer-reviewers were approached after assessment of the declarations of interests, and four agreed. The list of peer-reviewers appears in Annex 8.

The steering group reviewed all comments and revised the document, in order to ensure clarity of the recommendation while maintaining consistency with the original meaning. Technical editing and proofreading was done by a contracted party.

## DISSEMINATION AND PLANS FOR UPDATING

### Dissemination

The current guideline will be posted on the WHO website, including the WHO Nutrition website *(61)* and the WHO e-Library of Evidence for Nutrition Actions (eLENA) *(62)*. In addition, it will be disseminated through a broad network of international partners, including WHO country and regional offices, ministries of health, WHO collaborating centres, universities, other United Nations agencies and nongovernmental organizations.

### Plans for updating the guideline

The WHO steering group will continue to follow research developments in breastfeeding counselling, particularly for questions in which the quality of evidence was found to be low or very low. If the guideline merits an update, or if there are concerns about the validity of the guideline, the Departments of Maternal, Newborn, Child and Adolescent Health and Nutrition for Health and Development will coordinate the guideline update, following the formal procedures of the *WHO handbook for guideline development (56)*.

As the guideline nears the 10-year review period, the Departments of Maternal, Newborn, Child and Adolescent Health and Nutrition for Health and Development at the WHO headquarters in Geneva, Switzerland, along with its internal partners, will be responsible for conducting a search for new evidence.

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# ANNEX 1. QUESTION IN POPULATION, INTERVENTION, COMPARATOR, OUTCOMES (PICO) FORMAT

## *Key question 1*

**Should breastfeeding counselling be provided as a standard of care, compared to not providing breastfeeding counselling, to pregnant women and mothers who are considering or already breastfeeding, in order to improve breastfeeding practices?**

| | |
|---|---|
| **Population:** | Pregnant women and mothers |
| **Intervention:** | Breastfeeding counselling |
| **Comparator:** | Standard care or no breastfeeding counselling |
| **Outcomes:** | • Early initiation of breastfeeding within one hour after birth<br>• Any breastfeeding at 4–6 weeks<br>• Exclusive breastfeeding at 4–6 weeks<br>• Any breastfeeding at 6 months<br>• Exclusive breastfeeding at 6 months<br>• Giving any additional foods or fluids in the first 2 days after birth<br>• Use of artificial teats and bottles in the first 6 months |

## *Key question 2*

**When should breastfeeding counselling be provided: should breastfeeding counselling be provided antenatally, postnatally, or during both periods, compared to no breastfeeding counselling or standard care, to pregnant women and mothers who are considering or already breastfeeding, in order to improve breastfeeding practices?**

| | |
|---|---|
| **Population:** | Pregnant women and mothers |
| **Intervention:** | Breastfeeding counselling offed at the following time points:<br>• antenatal period<br>• postnatal period<br>• both antenatal and postnatal periods |
| **Comparator:** | Comparisons between breastfeeding counselling with the different time points above or standard care/no breastfeeding counselling |

| | |
|---|---|
| **Outcomes:** | • Early initiation of breastfeeding within one hour after birth<br>• Any breastfeeding at 4–6 weeks<br>• Exclusive breastfeeding at 4–6 weeks<br>• Any breastfeeding at 6 months<br>• Exclusive breastfeeding at 6 months<br>• Giving any additional foods or fluids in the first 2 days after birth<br>• Use of artificial teats and bottles in the first 6 months |

## *Key question 3*

**How often should breastfeeding counselling be provided: should breastfeeding counselling be provided at a greater frequency, or at a lesser frequency, compared to no breastfeeding counselling or standard care, to pregnant women and mothers who are considering or already breastfeeding, in order to improve breastfeeding practices?**

| | |
|---|---|
| **Population:** | Pregnant women and mothers |
| **Intervention:** | Greater frequency of breastfeeding counselling offed at the following time points:<br>• antenatal period<br>• postnatal period<br>• other specific time points, including when difficulties arise |
| **Comparator:** | **No intervention or placebo** |
| **Outcomes:** | • Early initiation of breastfeeding within one hour after birth<br>• Any breastfeeding at 4–6 weeks<br>• Exclusive breastfeeding at 4–6 weeks<br>• Any breastfeeding at 6 months<br>• Exclusive breastfeeding at 6 months<br>• Giving any additional foods or fluids in the first 2 days after birth<br>• Use of artificial teats and bottles in the first 6 months |

## *Key question 4*

**What is the optimal mode for breastfeeding counselling: should breastfeeding counselling be provided through face-to-face counselling, telephone and other modes of remote counselling, or through both modes, compared to no breastfeeding counselling or standard care, to pregnant women and mothers who are considering or already breastfeeding, in order to improve breastfeeding practices?**

| | |
|---|---|
| **Population:** | Pregnant women and mothers |
| **Intervention:** | Breastfeeding counselling through individual face-to-face counselling |
| **Comparator:** | Breastfeeding counselling through alternative modes of counselling, such as telephone or other remote (online, text messaging) modes of counselling, or standard care/no breastfeeding counselling |
| **Outcomes:** | • Early initiation of breastfeeding within one hour after birth<br>• Any breastfeeding at 4–6 weeks<br>• Exclusive breastfeeding at 4–6 weeks<br>• Any breastfeeding at 6 months<br>• Exclusive breastfeeding at 6 months<br>• Giving any additional foods or fluids in the first 2 days after birth<br>• Use of artificial teats and bottles in the first 6 months |

## *Key question 5*

**Who should be providing breastfeeding counselling: should breastfeeding counselling be provided by lay health workers, non-lay or professional health workers, or both, compared to no breastfeeding counselling or standard care, to pregnant women and mothers who are considering or already breastfeeding, in order to improve breastfeeding practices?**

| | |
|---|---|
| **Population:** | Pregnant women and mothers |
| **Intervention:** | Breastfeeding counselling by professional health workers |
| **Comparator:** | Breastfeeding counselling by lay health workers, community volunteers and other non-professional workers, or both |

| | |
|---|---|
| **Outcomes:** | • Early initiation of breastfeeding within one hour after birth<br>• Any breastfeeding at 4–6 weeks<br>• Exclusive breastfeeding at 4–6 weeks<br>• Any breastfeeding at 6 months<br>• Exclusive breastfeeding at 6 months<br>• Giving any additional foods or fluids in the first 2 days after birth<br>• Use of artificial teats and bottles in the first 6 months |

## *Key question 6*

**Should anticipatory breastfeeding counselling be provided as a standard of care, compared to not providing anticipatory breastfeeding counselling, to pregnant women and mothers who are considering or already breastfeeding, in order to improve breastfeeding practices?**

| | |
|---|---|
| **Population:** | Pregnant women and mothers |
| **Intervention:** | Anticipatory breastfeeding counselling that address specific challenges such as returning to school or work; breastfeeding in public spaces; specific needs of mothers who are obese, adolescents, primiparous, have mental health disorders, or have infants with special needs (e.g. disabilities); breastfeeding in humanitarian settings |
| **Comparator:** | Breastfeeding counselling with no anticipatory content |
| **Outcomes:** | • Early initiation of breastfeeding within one hour after birth<br>• Any breastfeeding at 4–6 weeks<br>• Exclusive breastfeeding at 4–6 weeks<br>• Any breastfeeding at 6 months<br>• Exclusive breastfeeding at 6 months<br>• Giving any additional foods or fluids in the first 2 days after birth<br>• Use of artificial teats and bottles in the first 6 months |

# ANNEX 2. GRADE EVIDENCE PROFILE TABLES

## *Key question 1*

### Breastfeeding counselling compared to no breastfeeding counselling in improving breastfeeding practices

**Population:** women intending to breastfeed or who may initiate breastfeeding or who are already breastfeeding
**Intervention:** breastfeeding counselling defined as a process by which counsellors support mothers and babies to implement good feeding practices and help them to overcome difficulties
**Comparator:** standard care or no breastfeeding counselling

| Certainty assessment | | | | | | | № of patients | | Effect | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| № of studies | Study design | Risk of bias | Inconsistency | Indirectness | Imprecision | Other considerations | Counselling | No counselling or standard care | Relative (95% CI) | Absolute (95% CI) | Certainty | Importance |
| Number of women who do not initiate breastfeeding within 1 hour after birth | | | | | | | | | | | | |
| 7 | randomized trials | serious[a] | not serious | not serious | not serious | none | 1038/1913 (54.3%) | 1188/1818 (65.3%) | **RR 0.74** (0.53 to 1.02) | **170 fewer per 1000** (from 13 more to 307 fewer) | ⨁⨁⨁⊖ MODERATE | CRITICAL |
| Number of women who stop any breastfeeding before 4–6 weeks postpartum | | | | | | | | | | | | |
| 31 | randomized trials | serious[b] | serious[c] | not serious | not serious | none | 1232/4222 (29.2%) | 1357/4066 (33.4%) | **RR 0.85** (0.77 to 0.94) | **50 fewer per 1000** (from 20 fewer to 77 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop any breastfeeding before 6 months postpartum | | | | | | | | | | | | |
| 32 | randomized trials | serious[d] | serious[e] | not serious | not serious | none | 3224/5640 (57.2%) | 2491/4149 (60.0%) | **RR 0.92** (0.87 to 0.97) | **48 fewer per 1000** (from 18 fewer to 78 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop exclusive breastfeeding before 4–6 weeks postpartum | | | | | | | | | | | | |
| 36 | randomized trials | serious[f] | serious[g] | not serious | not serious | none | 2314/4337 (53.4%) | 2424/3769 (64.3%) | **RR 0.79** (0.72 to 0.87) | **135 fewer per 1000** (from 84 fewer to 180 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop exclusive breastfeeding before 6 months postpartum | | | | | | | | | | | | |
| 36 | randomized trials | serious[h] | serious[i] | not serious | not serious | none | 3893/5404 (72.0%) | 4478/5182 (86.4%) | **RR 0.84** (0.78 to 0.91) | **138 fewer per 1000** (from 78 fewer to 190 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of neonates given prelacteal or additional food, fluids or infant formula milk within the first 2 days postpartum | | | | | | | | | | | | |
| 1 | randomized trials | serious[j] | not serious | not serious | not serious | One small trial[k] | 26/50 (52.0%) | 40/50 (80.0%) | **RR 0.65** (0.48 to 0.88) | **280 fewer per 1000** (from 96 fewer to 416 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |

| Certainty assessment | | | | | | | № of patients | | Effect | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| № of studies | Study design | Risk of bias | Inconsistency | Indirectness | Imprecision | Other considerations | Counselling | No counselling or standard care | Relative (95% CI) | Absolute (95% CI) | Certainty | Importance |
| Number of babies fed with bottles during the first 6 months postpartum | | | | | | | | | | | | |
| 5 | randomized trials | serious[l] | not serious | not serious | not serious | none | 403/729 (55.3%) | 468/721 (64.9%) | **RR 0.86** (0.76 to 0.97) | **91 fewer per 1000** (from 19 fewer to 156 fewer) | ⨁⨁⨁⊖ MODERATE | CRITICAL |
| Number of women who stop any breastfeeding before 12 months postpartum | | | | | | | | | | | | |
| 2 | randomized trials | serious[m] | serious[n] | not serious | not serious | none | 349/416 (83.9%) | 516/549 (94.0%) | **RR 0.88** (0.69 to 1.12) | **113 fewer per 1000** (from 113 more to 291 fewer) | ⨁⨁⊖⊖ LOW | IMPORTANT |

**CI:** confidence interval; **df:** degrees of freedom; **RR:** risk ratio.

a. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 6 trials, unclear or high risk of bias of blinding of outcome assessment in 6 trials, and unclear or high risk of bias for incomplete outcome data in 4 trials.

b. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 13 trials, unclear or high risk of bias of blinding of outcome assessment in 16 trials, and unclear or high risk of bias for incomplete outcome data in 16 trials.

c. Downgraded for high heterogeneity that is not explained: heterogeneity: $\tau^2 = 0.03$; $\chi^2 = 64.03$, df = 30 ($P = 0.0003$); $I^2 = 53\%$.

d. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 16 trials, unclear or high risk of bias of blinding of outcome assessment in 21 trials, and unclear or high risk of bias for incomplete outcome data in 20 trials.

e. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.01$; $\chi^2 = 85.17$, df = 31 ($P < 0.00001$); $I^2 = 64\%$.

f. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 14 trials, unclear or high risk of bias of blinding of outcome assessment in 18 trials, and unclear or high risk of bias for incomplete outcome data in 19 trials.

g. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.06$; $\chi^2 = 269.19$, df = 35 ($P < 0.00001$); $I^2 = 87\%$.

h. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 18 trials, unclear or high risk of bias of blinding of outcome assessment in 22 trials, and unclear or high risk of bias for incomplete outcome data in 19 trials.

i. Downgraded for very high heterogeneity: heterogeneity: $\tau^2 = 0.05$; $\chi^2 = 2341.08$, df = 35 ($P < 0.00001$); $I^2 = 99\%$.

j. Risk of bias: downgraded for unclear risk of bias of blinding of outcome assessment and high risk of bias for incomplete outcome data.

k. Evidence based on one small trial with a low number of events and with serious risk of bias.

l. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 1 trials, unclear or high risk of bias of blinding of outcome assessment in 2 trials, and unclear or high risk of bias for incomplete outcome data in 2 trials.

m. Risk of bias: downgraded for high risk of bias for allocation concealment in 1 trials, unclear or high risk of bias of blinding of outcome assessment in both trials, and unclear risk of bias for incomplete outcome data in both trials.

n. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.03$; $\chi^2 = 21.05$, df = 1 ($P < 0.00001$); $I^2 = 95\%$.

## *Key question 2*

**Timing of breastfeeding counselling: breastfeeding counselling provided antenatally, postnatally or during both periods, compared to standard care or no breastfeeding counselling in improving breastfeeding practices**

**Population:** women intending to breastfeed or who may initiate breastfeeding or who are already breastfeeding
**Intervention:** breastfeeding counselling provided only during the antenatal period, only in the postnatal period, or during both periods
**Comparator:** standard care or no breastfeeding counselling

| Certainty assessment | | | | | | | № of patients | | Effect | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| № of studies | Study design | Risk of bias | Inconsistency | Indirectness | Imprecision | Other considerations | Counselling | No counselling or standard care | Relative (95% CI) | Absolute (95% CI) | Certainty | Importance |
| Number of women who do not initiate breastfeeding within 1 hour after birth | | | | | | | | | | | | |
| 7 | | | | | | | 1038/1913 (54.3%) | 1188/1818 (65.3%) | **RR 0.74** (0.53 to 1.02) | **170 fewer per 1000** (from 13 more to 307 fewer) | — | |
| Number of women who do not initiate breastfeeding within 1 hour after birth – antenatal | | | | | | | | | | | | |
| 1 | randomized trials | very serious[a] | not serious | not serious | not serious | none | 35/108 (32.4%) | 58/86 (67.4%) | **RR 0.48** (0.35 to 0.65) | **351 fewer per 1000** (from 236 fewer to 438 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who do not initiate breastfeeding within 1 hour after birth – both antenatal and postnatal | | | | | | | | | | | | |
| 6 | randomized trials | serious[b] | serious[c] | not serious | not serious | none | 1003/1805 (55.6%) | 1130/1732 (65.2%) | **RR 0.79** (0.57 to 1.08) | **137 fewer per 1000** (from 52 more to 281 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop any breastfeeding before 4–6 weeks postpartum | | | | | | | | | | | | |
| 30 | | | | | | | 1196/3994 (29.9%) | 1258/3711 (33.9%) | **RR 0.87** (0.79 to 0.96) | **44 fewer per 1000** (from 14 fewer to 71 fewer) | — | |
| Number of women who stop any breastfeeding before 4–6 weeks postpartum – antenatal | | | | | | | | | | | | |
| 6 | randomized trials | serious[d] | serious[e] | not serious | not serious | none | 319/782 (40.8%) | 338/707 (47.8%) | **RR 0.86** (0.72 to 1.03) | **67 fewer per 1000** (from 14 more to 134 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop any breastfeeding before 4–6 weeks postpartum – postnatal | | | | | | | | | | | | |
| 13 | randomized trials | serious[f] | serious[g] | not serious | not serious | none | 461/2039 (22.6%) | 467/1838 (25.4%) | **RR 0.83** (0.69 to 1.00) | **43 fewer per 1000** (from 0 fewer to 79 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop any breastfeeding before 4–6 weeks postpartum – both antenatal and postnatal | | | | | | | | | | | | |
| 11 | randomized trials | serious[f] | not serious | not serious | not serious | none | 416/1173 (35.5%) | 453/1166 (38.9%) | **RR 0.91** (0.78 to 1.05) | **35 fewer per 1000** (from 19 more to 85 fewer) | ⨁⨁⨁⊖ MODERATE | CRITICAL |

| Certainty assessment | | | | | | | № of patients | | Effect | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| № of studies | Study design | Risk of bias | Inconsistency | Indirectness | Imprecision | Other considerations | Counselling | No counselling or standard care | Relative (95% CI) | Absolute (95% CI) | Certainty | Importance |
| Number of women who stop any breastfeeding before 6 months postpartum | | | | | | | | | | | | |
| 31 | | | | | | | 3067/5412 (56.7%) | 2219/3794 (58.5%) | **RR 0.92** (0.87 to 0.98) | **47 fewer per 1000** (from 12 fewer to 76 fewer) | — | |
| Number of women who stop any breastfeeding before 6 months postpartum – antenatal | | | | | | | | | | | | |
| 6 | randomized trials | serious[h] | not serious | not serious | not serious | none | 545/782 (69.7%) | 526/707 (74.4%) | **RR 0.93** (0.88 to 0.98) | **52 fewer per 1000** (from 15 fewer to 89 fewer) | ⨁⨁⨁⨀ MODERATE | CRITICAL |
| Number of women who stop any breastfeeding before 6 months postpartum – postnatal | | | | | | | | | | | | |
| 19 | randomized trials | serious[i] | serious[j] | not serious | not serious | none | 2188/4083 (53.6%) | 1286/2546 (50.5%) | **RR 0.96** (0.88 to 1.04) | **20 fewer per 1000** (from 20 more to 61 fewer) | ⨁⨁⨀⨀ LOW | CRITICAL |
| Number of women who stop any breastfeeding before 6 months postpartum – both antenatal and postnatal | | | | | | | | | | | | |
| 6 | randomized trials | serious[k] | serious[l] | not serious | not serious | none | 334/547 (61.1%) | 407/541 (75.2%) | **RR 0.79** (0.67 to 0.93) | **158 fewer per 1000** (from 53 fewer to 248 fewer) | ⨁⨁⨀⨀ LOW | CRITICAL |
| Number of women who stop exclusive breastfeeding before 4–6 weeks postpartum | | | | | | | | | | | | |
| 36 | | | | | | | 2314/4337 (53.4%) | 2424/3769 (64.3%) | **RR 0.79** (0.72 to 0.87) | **135 fewer per 1000** (from 84 fewer to 180 fewer) | — | |
| Number of women who stop exclusive breastfeeding before 4–6 weeks postpartum – antenatal | | | | | | | | | | | | |
| 6 | randomized trials | serious [m] | not serious | not serious | not serious | none | 450/704 (63.9%) | 399/570 (70.0%) | **RR 0.95** (0.89 to 1.02) | **35 fewer per 1000** (from 14 more to 77 fewer) | ⨁⨁⨁⨀ MODERATE | CRITICAL |
| Number of women who stop exclusive breastfeeding before 4–6 weeks postpartum – postnatal | | | | | | | | | | | | |
| 13 | randomized trials | serious[n] | serious[o] | not serious | not serious | none | 1009/1943 (51.9%) | 935/1503 (62.2%) | **RR 0.71** (0.59 to 0.85) | **180 fewer per 1000** (from 93 fewer to 255 fewer) | ⨁⨁⨀⨀ LOW | CRITICAL |
| Number of women who stop exclusive breastfeeding before 4–6 weeks postpartum – both antenatal and postnatal | | | | | | | | | | | | |
| 17 | randomized trials | serious[p] | serious[q] | not serious | not serious | none | 855/1690 (50.6%) | 1090/1696 (64.3%) | **RR 0.81** (0.69 to 0.94) | **122 fewer per 1000** (from 39 fewer to 199 fewer) | ⨁⨁⨀⨀ LOW | CRITICAL |
| Number of women who stop exclusive breastfeeding before 6 months postpartum | | | | | | | | | | | | |
| 36 | | | | | | | 3747/5391 (69.5%) | 4403/5154 (85.4%) | **RR 0.81** (0.74 to 0.88) | **162 fewer per 1000** (from 103 fewer to 222 fewer) | — | |
| Number of women who stop exclusive breastfeeding before 6 months postpartum – antenatal | | | | | | | | | | | | |
| 5 | randomized trials | serious[r] | not serious | not serious | not serious | none | 601/671 (89.6%) | 494/535 (92.3%) | **RR 0.98** (0.96 to 1.01) | **18 fewer per 1000** (from 9 more to 37 fewer) | ⨁⨁⨁⨀ MODERATE | CRITICAL |

| Certainty assessment | | | | | | | № of patients | | Effect | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| № of studies | Study design | Risk of bias | Inconsistency | Indirectness | Imprecision | Other considerations | Counselling | No counselling or standard care | Relative (95% CI) | Absolute (95% CI) | Certainty | Importance |
| Number of women who stop exclusive breastfeeding before 6 months postpartum – postnatal | | | | | | | | | | | | |
| 16 | randomized trials | serious[s] | serious[t] | not serious | not serious | none | 1483/2002 (74.1%) | 1575/1926 (81.8%) | **RR 0.88** (0.81 to 0.96) | **98 fewer per 1000** (from 33 fewer to 155 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop exclusive breastfeeding before 6 months postpartum – both antenatal and postnatal | | | | | | | | | | | | |
| 15 | randomized trials | serious[u] | serious[v] | not serious | not serious | none | 1663/2718 (61.2%) | 2334/2693 (86.7%) | **RR 0.71** (0.55 to 0.93) | **251 fewer per 1000** (from 61 fewer to 390 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of neonates given prelacteal or additional food, fluids or infant formula milk within the first 2 days postpartum | | | | | | | | | | | | |
| 1 | | | | | | | 16/50 (32.0%) | 21/50 (42.0%) | **RR 0.76** (0.45 to 1.28) | **101 fewer per 1000** (from 118 more to 231 fewer) | — | |
| Number of neonates given prelacteal or additional food, fluids or infant formula milk within the first 2 days postpartum – antenatal | | | | | | | | | | | | |
| 0 | | | | | | | 0/0 | 0/0 | not pooled | | — | CRITICAL |
| Number of neonates given prelacteal or additional food, fluids or infant formula milk within the first 2 days postpartum – postnatal | | | | | | | | | | | | |
| 0 | | | | | | | 0/0 | 0/0 | not pooled | | — | CRITICAL |
| Number of neonates given prelacteal or additional food, fluids or infant formula milk within the first 2 days postpartum – both antenatal and postnatal | | | | | | | | | | | | |
| 1 | randomized trials | serious[w] | not serious | not serious | serious[x] | none | 16/50 (32.0%) | 21/50 (42.0%) | **RR 0.76** (0.45 to 1.28) | **101 fewer per 1000** (from 118 more to 231 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of babies fed with bottles during the first 6 months postpartum | | | | | | | | | | | | |
| 5 | | | | | | | 403/729 (55.3%) | 468/721 (64.9%) | **RR 0.86** (0.76 to 0.97) | **91 fewer per 1000** (from 19 fewer to 156 fewer) | — | |
| Number of babies fed with bottles during the first 6 months postpartum – antenatal | | | | | | | | | | | | |
| 0 | | | | | | | 0/0 | 0/0 | not pooled | | — | |
| Number of babies fed with bottles during the first 6 months postpartum – postnatal | | | | | | | | | | | | |
| 3 | randomized trials | serious[y] | not serious | not serious | not serious | none | 143/331 (43.2%) | 188/328 (57.3%) | **RR 0.77** (0.68 to 0.87) | **132 fewer per 1000** (from 75 fewer to 183 fewer) | ⨁⨁⨁⊖ MODERATE | CRITICAL |
| Number of babies fed with bottles during the first 6 months postpartum – both antenatal and postnatal | | | | | | | | | | | | |
| 2 | randomized trials | serious[z] | not serious | not serious | not serious | none | 260/398 (65.3%) | 280/393 (71.2%) | **RR 0.92** (0.85 to 1.00) | **57 fewer per 1000** (from 0 fewer to 107 fewer) | ⨁⨁⨁⊖ MODERATE | CRITICAL |

**CI:** confidence interval; **df:** degrees of freedom; **RR:** risk ratio.

a. Risk of bias: downgraded for unclear risk of bias for allocation concealment, high risk of bias of blinding of outcome assessment, and unclear risk of bias for incomplete outcome data.
b. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 5 trials, unclear or high risk of bias of blinding of outcome assessment in 5 trials, and unclear or high risk of bias for incomplete outcome data in 3 trials.
c. Downgraded for very high heterogeneity: heterogeneity: $\tau^2 = 0.14$; $\chi^2 = 184.47$, df = 5 ($P < 0.00001$); $I^2 = 97\%$.
d. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 2 trials, unclear or high risk of bias of blinding of outcome assessment in 3 trials, and unclear or high risk of bias for incomplete outcome data in 3 trials.
e. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.03$; $\chi^2 = 12.50$, df = 5 ($P = 0.03$); $I^2 = 60\%$.
f. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 7 trials, unclear or high risk of bias of blinding of outcome assessment in 5 trials, and unclear or high risk of bias for incomplete outcome data in 7 trials.
g. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.06$; $\chi^2 = 27.31$, df = 12 ($P = 0.007$); $I^2 = 56\%$.
h. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 2 trials, unclear or high risk of bias of blinding of outcome assessment in 3 trials, and unclear or high risk of bias for incomplete outcome data in 3 trials.
i. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 11 trials, unclear or high risk of bias of blinding of outcome assessment in 13 trials, and unclear or high risk of bias for incomplete outcome data in 12 trials.
j. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.02$; $\chi^2 = 52.31$, df = 18 ($P < 0.0001$); $I^2 = 66\%$.
k. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 2 trials, unclear or high risk of bias of blinding of outcome assessment in 4 trials, and unclear or high risk of bias for incomplete outcome data in 4 trials.
l. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.03$; $\chi^2 = 18.52$, df = 5 ($P = 0.002$); $I^2 = 73\%$.
m. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 1 trial, unclear or high risk of bias of blinding of outcome assessment in 2 trials, and unclear or high risk of bias for incomplete outcome data in 3 trials.
n. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 5 trials, unclear or high risk of bias of blinding of outcome assessment in 4 trials, and unclear or high risk of bias for incomplete outcome data in 4 trials.
o. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.09$; $\chi^2 = 120.15$, df = 12 ($P < 0.00001$); $I^2 = 90\%$.
p. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 8 trials, unclear or high risk of bias of blinding of outcome assessment in 12 trials, and unclear or high risk of bias for incomplete outcome data in 12 trials.
q. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.08$; $\chi^2 = 124.56$, df = 16 ($P < 0.00001$); $I^2 = 87\%$.
r. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 1 trial, unclear or high risk of bias of blinding of outcome assessment in 2 trials, and unclear or high risk of bias for incomplete outcome data in 3 trials.
s. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 8 trials, unclear or high risk of bias of blinding of outcome assessment in 10 trials, and unclear or high risk of bias for incomplete outcome data in 7 trials.
t. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.02$; $\chi^2 = 193.99$, df = 15 ($P < 0.00001$); $I^2 = 92\%$.
u. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 9 trials, unclear or high risk of bias of blinding of outcome assessment in 10 trials, and unclear or high risk of bias for incomplete outcome data in 9 trials.
v. Downgraded for very high heterogeneity: heterogeneity: $\tau^2 = 0.26$; $\chi^2 = 3936.12$, df = 14 ($P < 0.00001$); $I^2 = 100\%$.
w. Risk of bias: downgraded for unclear risk of bias of blinding of outcome assessment and high risk of bias for incomplete outcome.
x. Imprecision: downgraded for imprecision with wide confidence intervals.
y. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 1 trial, unclear or high risk of bias of blinding of outcome in 2 trials, and high risk of bias for incomplete outcome data in 1 trial.
z. Risk of bias: downgradedfor unclear risk of bias for incomplete outcome data in 1 trial.

## *Key question 3*

**Frequency of breastfeeding counselling: breastfeeding counselling provided at a greater or lesser frequency, compared to standard care or no breastfeeding counselling in improving breastfeeding practices**

**Population:** women intending to breastfeed or who may initiate breastfeeding or who are already breastfeeding
**Intervention:** breastfeeding counselling provided at a greater (four or more times) or lesser (fewer than four times) frequency
**Comparator:** standard care or no breastfeeding counselling

| Certainty assessment | | | | | | | № of patients | | Effect | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| № of studies | Study design | Risk of bias | Inconsistency | Indirectness | Imprecision | Other considerations | Counselling | No counselling or standard care | Relative (95% CI) | Absolute (95% CI) | Certainty | Importance |
| Number of women who do not initiate breastfeeding within 1 hour after birth | | | | | | | | | | | | |
| 7 | | | | | | | 1038/1913 (54.3%) | 1188/1818 (65.3%) | **RR 0.74** (0.53 to 1.02) | **170 fewer per 1000** (from 13 more to 307 fewer) | — | |
| Number of women who do not initiate breastfeeding within 1 hour after birth – fewer than four breastfeeding counselling sessions | | | | | | | | | | | | |
| 1 | randomized trials | very serious[a] | not serious | not serious | not serious | one tria[lb] | 35/108 (32.4%) | 58/86 (67.4%) | **RR 0.48** (0.35 to 0.65) | **351 fewer per 1000** (from 236 fewer to 438 fewer) | ⨁⊖⊖⊖ VERY LOW | CRITICAL |
| Number of women who do not initiate breastfeeding within 1 hour after birth – four or more breastfeeding counselling sessions | | | | | | | | | | | | |
| 6 | randomized trials | serious[c] | serious[d] | not serious | not serious | none | 1003/1805 (55.6%) | 1130/1732 (65.2%) | **RR 0.79** (0.57 to 1.08) | **137 fewer per 1000** (from 52 more to 281 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop any breastfeeding before 4–6 weeks postpartum | | | | | | | | | | | | |
| 30 | | | | | | | 1196/3994 (29.9%) | 1258/3711 (33.9%) | **RR 0.87** (0.79 to 0.96) | **44 fewer per 1000** (from 14 fewer to 71 fewer) | — | |
| Number of women who stop any breastfeeding before 4–6 weeks postpartum – fewer than four breastfeeding counselling sessions | | | | | | | | | | | | |
| 15 | randomized trials | serious[e] | serious[f] | not serious | not serious | none | 733/2129 (34.4%) | 725/2050 (35.4%) | **RR 0.95** (0.84 to 1.07) | **18 fewer per 1000** (from 25 more to 57 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop any breastfeeding before 4–6 weeks postpartum – four or more breastfeeding counselling sessions | | | | | | | | | | | | |
| 15 | randomized trials | serious[g] | serious[h] | not serious | not serious | none | 463/1865 (24.8%) | 533/1661 (32.1%) | **RR 0.77** (0.66 to 0.90) | **74 fewer per 1000** (from 32 fewer to 109 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop any breastfeeding before 6 months postpartum | | | | | | | | | | | | |
| 30 | | | | | | | 2481/4460 (55.6%) | 2031/3510 (57.9%) | **RR 0.92** (0.86 to 0.98) | **46 fewer per 1000** (from 12 fewer to 81 fewer) | — | |

| Certainty assessment | | | | | | | № of patients | | Effect | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| № of studies | Study design | Risk of bias | Inconsistency | Indirectness | Imprecision | Other considerations | Counselling | No counselling or standard care | Relative (95% CI) | Absolute (95% CI) | Certainty | Importance |
| Number of women who stop any breastfeeding before 6 months postpartum – fewer than four breastfeeding counselling sessions | | | | | | | | | | | | |
| 14 | randomized trials | serious[i] | not serious | not serious | not serious | none | 1599/2675 (59.8%) | 1029/1720 (59.8%) | **RR 0.96** (0.92 to 1.01) | **24 fewer per 1000** (from 6 more to 48 fewer) | ⨁⨁⨁⊖ MODERATE | CRITICAL |
| Number of women who stop any breastfeeding before 6 months postpartum – four or more breastfeeding counselling sessions | | | | | | | | | | | | |
| 16 | randomized trials | serious[j] | serious[k] | not serious | not serious | none | 882/1785 (49.4%) | 1002/1790 (56.0%) | **RR 0.85** (0.75 to 0.96) | **84 fewer per 1000** (from 22 fewer to 140 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop exclusive breastfeeding before 4–6 weeks postpartum | | | | | | | | | | | | |
| 36 | | | | | | | 2314/4337 (53.4%) | 2424/3769 (64.3%) | **RR 0.79** (0.72 to 0.87) | **135 fewer per 1000** (from 84 fewer to 180 fewer) | — | |
| Number of women who stop exclusive breastfeeding before 4–6 weeks postpartum – fewer than four breastfeeding counselling sessions | | | | | | | | | | | | |
| 16 | randomized trials | serious[l] | not serious | not serious | not serious | none | 1178/1971 (59.8%) | 1036/1629 (63.6%) | **RR 0.92** (0.88 to 0.97) | **51 fewer per 1000** (from 19 fewer to 76 fewer) | ⨁⨁⨁⊖ MODERATE | CRITICAL |
| Number of women who stop exclusive breastfeeding before 4–6 weeks postpartum – four or more breastfeeding counselling sessions | | | | | | | | | | | | |
| 20 | randomized trials | serious[m] | serious[n] | not serious | not serious | none | 1136/2366 (48.0%) | 1388/2140 (64.9%) | **RR 0.69** (0.58 to 0.82) | **201 fewer per 1000** (from 117 fewer to 272 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop exclusive breastfeeding before 6 months postpartum | | | | | | | | | | | | |
| 36 | | | | | | | 3813/5391 (70.7%) | 4403/5154 (85.4%) | **RR 0.83** (0.77 to 0.90) | **145 fewer per 1000** (from 85 fewer to 196 fewer) | — | |
| Number of women who stop exclusive breastfeeding before 6 months postpartum – fewer than four breastfeeding counselling sessions | | | | | | | | | | | | |
| 13 | randomized trials | serious[o] | not serious | not serious | not serious | none | 1444/1682 (85.9%) | 1326/1471 (90.1%) | **RR 0.96** (0.94 to 0.98) | **36 fewer per 1000** (from 18 fewer to 54 fewer) | ⨁⨁⨁⊖ MODERATE | CRITICAL |
| Number of women who stop exclusive breastfeeding before 6 months postpartum – four or more breastfeeding counselling sessions | | | | | | | | | | | | |
| 23 | randomized trials | serious[p] | serious[q] | not serious | not serious | none | 2369/3709 (63.9%) | 3077/3683 (83.5%) | **RR 0.76** (0.66 to 0.88) | **201 fewer per 1000** (from 100 fewer to 284 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of neonates given prelacteal or additional food, fluids or infant formula milk within the first 2 days postpartum | | | | | | | | | | | | |
| 1 | | | | | | | 16/50 (32.0%) | 21/50 (42.0%) | **RR 0.76** (0.45 to 1.28) | **101 fewer per 1000** (from 118 more to 231 fewer) | — | |
| Number of neonates given prelacteal or additional food, fluids or infant formula milk within the first 2 days postpartum – fewer than four breastfeeding counselling sessions | | | | | | | | | | | | |
| 0 | | | | | | | 0/0 | 0/0 | not pooled | | — | |
| Number of neonates given prelacteal or additional food, fluids or infant formula milk within the first 2 days postpartum – four or more breastfeeding counselling sessions | | | | | | | | | | | | |
| 1 | randomized trials | serious[r] | not serious | not serious | serious[s] | none | 16/50 (32.0%) | 21/50 (42.0%) | **RR 0.76** (0.45 to 1.28) | **101 fewer per 1000** (from 118 more to 231 fewer) | ⨁⨁⊖⊖ LOW | |

| Certainty assessment | | | | | | | № of patients | | Effect | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| № of studies | Study design | Risk of bias | Inconsistency | Indirectness | Imprecision | Other considerations | Counselling | No counselling or standard care | Relative (95% CI) | Absolute (95% CI) | Certainty | Importance |
| Number of babies fed with bottles during the first 6 months postpartum | | | | | | | | | | | | |
| 5 | | | | | | | 403/729 (55.3%) | 468/721 (64.9%) | **RR 0.86** (0.76 to 0.97) | **91 fewer per 1000** (from 19 fewer to 156 fewer) | — | |
| Number of babies fed with bottles during the first 6 months postpartum – fewer than four breastfeeding counselling sessions | | | | | | | | | | | | |
| 4 | randomized trials | serious[t] | not serious | not serious | not serious | none | 292/554 (52.7%) | 324/546 (59.3%) | **RR 0.91** (0.82 to 1.01) | **53 fewer per 1000** (from 6 more to 107 fewer) | ⨁⨁⨁⊖ MODERATE | CRITICAL |
| Number of babies fed with bottles during the first 6 months postpartum – four or more breastfeeding counselling sessions | | | | | | | | | | | | |
| 1 | randomized trials | not serious | not serious | not serious | not serious | none | 111/175 (63.4%) | 144/175 (82.3%) | **RR 0.77** (0.68 to 0.88) | **189 fewer per 1000** (from 99 fewer to 263 fewer) | ⨁⨁⨁⨁ HIGH | CRITICAL |
| Number of women who stop exclusive breastfeeding at 3 months (3 visits versus 6 visits) | | | | | | | | | | | | |
| 1 | randomized trials | serious[u] | not serious | not serious | serious[v] | none | 27/52 (51.9%) | 16/44 (36.4%) | **RR 1.43** (0.89 to 2.29) | **156 more per 1000** (from 40 fewer to 469 more) | ⨁⨁⊖⊖ LOW | CRITICAL |

**CI:** confidence interval; **df**: degrees of freedom; **RR:** risk ratio.

a. Risk of bias: downgraded for unclear risk of bias for allocation concealment, high risk of bias of blinding of outcome assessment, and unclear risk of bias for incomplete outcome data.
b. Evidence based on one small trial with a low number of events and with very serious risk of bias.
c. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 5 trials, unclear or high risk of bias of blinding of outcome assessment in 5 trials, and unclear or high risk of bias for incomplete outcome data in 3 trials.
d. Downgraded for very high heterogeneity: heterogeneity: $\tau^2 = 0.14$; $\chi^2 = 184.47$, df = 5 ($P < 0.00001$); $I^2 = 97\%$.
e. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 7 trials, unclear or high risk of bias of blinding of outcome assessment in 7 trials, and unclear or high risk of bias for incomplete outcome data in 9 trials.
f. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.02$; $\chi^2 = 26.79$, df = 14 ($P = 0.02$); $I^2 = 48\%$.
g. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 5 trials, unclear or high risk of bias of blinding of outcome assessment in 8 trials, and unclear or high risk of bias for incomplete outcome data in 6 trials.
h. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.04$; $\chi^2 = 29.16$, df = 14 ($P = 0.010$); $I^2 = 52\%$.
i. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 5 trials, unclear or high risk of bias of blinding of outcome assessment in 9 trials, and unclear or high risk of bias for incomplete outcome data in 10 trials.
j. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 10 trials, unclear or high risk of bias of blinding of outcome assessment in 10 trials, and unclear or high risk of bias for incomplete outcome data in 8 trials.
k. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.04$; $\chi^2 = 64.32$, df = 15 ($P < 0.00001$); $I^2 = 77\%$.
l. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 7 trials, unclear or high risk of bias of blinding of outcome assessment in 8 trials, and unclear or high risk of bias for incomplete outcome data in 9 trials.
m. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 7 trials, unclear or high risk of bias of blinding of outcome assessment in 10 trials, and unclear or high risk of bias for incomplete outcome data in 10 trials.
n. Downgraded for very high heterogeneity: heterogeneity: $\tau^2 = 0.13$; $\chi^2 = 269.75$, df = 19 ($P < 0.00001$); $I^2 = 93\%$.
o. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 4 trials, unclear or high risk of bias of blinding of outcome assessment in 8 trials, and unclear or high risk of bias for incomplete outcome data in 8 trials.
p. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 14 trials, unclear or high risk of bias of blinding of outcome assessment in 14 trials, and unclear or high risk of bias for incomplete outcome data in 11 trials.
q. Downgraded for very high heterogeneity: heterogeneity: $\tau^2 = 0.11$; $\chi^2 = 3741.43$, df = 22 ($P < 0.00001$); $I^2 = 99\%$.
r. Risk of bias: downgraded for unclear risk of bias of blinding of outcome assessment, and high risk of bias for incomplete outcome data.
s. Imprecision: downgraded for imprecision with wide confidence intervals.
t. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 1 trial, unclear or high risk of bias of blinding of outcome assessment in 2 trials, and unclear or high risk of bias for incomplete outcome data in 2 trials.
u. Risk of bias: downgraded for unclear risk of bias for allocation concealment, high risk of bias of blinding of outcome assessment, and unclear risk of bias for incomplete outcome data.
v. Imprecision: downgraded for imprecision with high confidence intervals.

## *Key question 4*

**Mode of breastfeeding counselling: breastfeeding counselling provided through face-to-face counselling or through telephone and other modes of remote counselling, compared to standard care or no breastfeeding counselling in improving breastfeeding practices**

**Population:** women intending to breastfeed or who may initiate breastfeeding or who are already breastfeeding
**Intervention:** breastfeeding counselling provided with face-to-face counselling only, with telephone or other remote counselling only, and with both face-to-face and remote counselling
**Comparator:** standard care or no breastfeeding counselling

| Certainty assessment | | | | | | | № of patients | | Effect | | Certainty | Importance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| № of studies | Study design | Risk of bias | Inconsistency | Indirectness | Imprecision | Other considerations | Counselling | No counselling or standard care | Relative (95% CI) | Absolute (95% CI) | | |
| Number of women who do not initiate breastfeeding within 1 hour after birth | | | | | | | | | | | | |
| 7 | | | | | | | 1038/1913 (54.3%) | 1188/1818 (65.3%) | **RR 0.74** (0.53 to 1.02) | **170 fewer per 1000** (from 13 more to 307 fewer) | — | |
| Number of women who do not initiate breastfeeding within 1 hour after birth – face-to-face counselling | | | | | | | | | | | | |
| 6 | randomized trials | serious[a] | serious[b] | not serious | serious[c] | none | 1022/1863 (54.9%) | 1167/1768 (66.0%) | **RR 0.73** (0.52 to 1.03) | **178 fewer per 1000** (from 20 more to 317 fewer) | ⨁⊖⊖⊖ VERY LOW | CRITICAL |
| Number of women who do not initiate breastfeeding within 1 hour after birth – telephone counselling | | | | | | | | | | | | |
| 0 | | | | | | | 0/0 | 0/0 | not pooled | | — | |
| Number of women who do not initiate breastfeeding within 1 hour after birth – both face-to-face and telephone counselling | | | | | | | | | | | | |
| 1 | randomized trials | serious[d] | not serious | not serious | serious[e] | One small trial[f] | 16/50 (32.0%) | 21/50 (42.0%) | **RR 0.76** (0.45 to 1.28) | **101 fewer per 1000** (from 118 more to 231 fewer) | ⨁⊖⊖⊖ VERY LOW | CRITICAL |
| Number of women who stop any breastfeeding before 4–6 weeks postpartum | | | | | | | | | | | | |
| 31 | | | | | | | 1232/4222 (29.2%) | 1357/4066 (33.4%) | **RR 0.85** (0.77 to 0.94) | **50 fewer per 1000** (from 20 fewer to 77 fewer) | — | |
| Number of women who stop any breastfeeding before 4–6 weeks postpartum – face-to-face counselling | | | | | | | | | | | | |
| 11 | randomized trials | serious[g] | serious[h] | not serious | not serious | none | 520/1586 (32.8%) | 594/1644 (36.1%) | **RR 0.86** (0.75 to 1.00) | **51 fewer per 1000** (from 0 fewer to 90 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop any breastfeeding before 4–6 weeks postpartum – telephone counselling | | | | | | | | | | | | |
| 4 | randomized trials | serious[i] | not serious | not serious | not serious | none | 135/700 (19.3%) | 120/531 (22.6%) | **RR 0.75** (0.61 to 0.93) | **56 fewer per 1000** (from 16 fewer to 88 fewer) | ⨁⨁⨁⊖ MODERATE | CRITICAL |
| Number of women who stop any breastfeeding before 4–6 weeks postpartum – both face-to-face and telephone counselling | | | | | | | | | | | | |
| 16 | randomized trials | serious[j] | serious[k] | not serious | not serious | none | 577/1936 (29.8%) | 643/1891 (34.0%) | **RR 0.86** (0.73 to 1.01) | **48 fewer per 1000** (from 3 more to 92 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |

| Certainty assessment | | | | | | | № of patients | | Effect | | Certainty | Importance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| № of studies | Study design | Risk of bias | Inconsistency | Indirectness | Imprecision | Other considerations | Counselling | No counselling or standard care | Relative (95% CI) | Absolute (95% CI) | | |
| Number of women who stop any breastfeeding before 6 months postpartum | | | | | | | | | | | | |
| 32 | | | | | | | 3209/5640 (56.9%) | 2476/4149 (59.7%) | **RR 0.92** (0.87 to 0.97) | **48 fewer per 1000** (from 18 fewer to 78 fewer) | — | |
| Number of women who stop any breastfeeding before 6 months postpartum – face-to-face counselling | | | | | | | | | | | | |
| 14 | randomized trials | serious[l] | serious[m] | not serious | not serious | none | 893/1541 (57.9%) | 1001/1542 (64.9%) | **RR 0.89** (0.81 to 0.98) | **71 fewer per 1000** (from 13 fewer to 123 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop any breastfeeding before 6 months postpartum – telephone counselling | | | | | | | | | | | | |
| 2 | randomized trials | serious[n] | not serious | not serious | not serious | none | 52/234 (22.2%) | 71/237 (30.0%) | **RR 0.74** (0.55 to 1.00) | **78 fewer per 1000** (from 0 fewer to 135 fewer) | ⨁⨁⨁⊖ MODERATE | CRITICAL |
| Number of women who stop any breastfeeding before 6 months postpartum – both face-to-face and telephone counselling | | | | | | | | | | | | |
| 16 | randomized trials | serious[o] | serious[p] | not serious | not serious | none | 2264/3865 (58.6%) | 1404/2370 (59.2%) | **RR 0.95** (0.88 to 1.02) | **30 fewer per 1000** (from 12 more to 71 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop exclusive breastfeeding before 4–6 weeks postpartum | | | | | | | | | | | | |
| 36 | | | | | | | 2314/4337 (53.4%) | 2424/3769 (64.3%) | **RR 0.79** (0.72 to 0.87) | **135 fewer per 1000** (from 84 fewer to 180 fewer) | — | |
| Number of women who stop exclusive breastfeeding before 4–6 weeks postpartum – face-to-face counselling | | | | | | | | | | | | |
| 17 | randomized trials | serious[q] | serious[r] | not serious | not serious | none | 1019/1923 (53.0%) | 1200/1627 (73.8%) | **RR 0.67** (0.56 to 0.81) | **243 fewer per 1000** (from 140 fewer to 325 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop exclusive breastfeeding before 4–6 weeks postpartum – telephone counselling | | | | | | | | | | | | |
| 4 | randomized trials | serious[s] | not serious | not serious | not serious | none | 440/827 (53.2%) | 341/593 (57.5%) | **RR 0.72** (0.55 to 0.95) | **161 fewer per 1000** (from 29 fewer to 259 fewer) | ⨁⨁⨁⊖ MODERATE | CRITICAL |
| Number of women who stop exclusive breastfeeding before 4–6 weeks postpartum – both face-to-face and telephone counselling | | | | | | | | | | | | |
| 15 | randomized trials | serious[t] | serious[u] | not serious | not serious | none | 855/1587 (53.9%) | 883/1549 (57.0%) | **RR 0.96** (0.86 to 1.07) | **23 fewer per 1000** (from 40 more to 80 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop exclusive breastfeeding before 6 months postpartum | | | | | | | | | | | | |
| 36 | | | | | | | 3747/5391 (69.5%) | 4403/5154 (85.4%) | **RR 0.81** (0.74 to 0.88) | **162 fewer per 1000** (from 103 fewer to 222 fewer) | — | |
| Number of women who stop exclusive breastfeeding before 6 months postpartum – face-to-face counselling | | | | | | | | | | | | |
| 24 | randomized trials | serious[v] | serious[w] | not serious | not serious | none | 2587/3887 (66.6%) | 3196/3653 (87.5%) | **RR 0.74** (0.63 to 0.87) | **227 fewer per 1000** (from 114 fewer to 324 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |

| Certainty assessment | | | | | | | № of patients | | Effect | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| № of studies | Study design | Risk of bias | Inconsistency | Indirectness | Imprecision | Other considerations | Counselling | No counselling or standard care | Relative (95% CI) | Absolute (95% CI) | Certainty | Importance |
| Number of women who stop exclusive breastfeeding before 6 months postpartum – telephone counselling | | | | | | | | | | | | |
| 3 | randomized trials | serious[x] | serious[y] | not serious | not serious | none | 285/342 (83.3%) | 306/355 (86.2%) | **RR 0.96** (0.83 to 1.12) | **34 fewer per 1000** (from 103 more to 147 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop exclusive breastfeeding before 6 months postpartum – both face-to-face and telephone counselling | | | | | | | | | | | | |
| 9 | randomized trials | serious[z] | serious[aa] | not serious | not serious | none | 875/1162 (75.3%) | 901/1146 (78.6%) | **RR 0.96** (0.91 to 1.01) | **31 fewer per 1000** (from 8 more to 71 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of neonates given prelacteal or additional food, fluids or infant formula milk within the first 2 days postpartum | | | | | | | | | | | | |
| 1 | | | | | | | 16/50 (32.0%) | 21/50 (42.0%) | **RR 0.76** (0.45 to 1.28) | **101 fewer per 1000** (from 118 more to 231 fewer) | — | |
| Number of neonates given prelacteal or additional food, fluids or infant formula milk within the first 2 days postpartum – face-to-face counselling | | | | | | | | | | | | |
| 0 | | | | | | | 0/0 | 0/0 | not pooled | | — | |
| Number of neonates given prelacteal or additional food, fluids or infant formula milk within the first 2 days postpartum – telephone counselling | | | | | | | | | | | | |
| 0 | | | | | | | 0/0 | 0/0 | not pooled | | — | |
| Number of neonates given prelacteal or additional food, fluids or infant formula milk within the first 2 days postpartum – both face-to-face and telephone counselling | | | | | | | | | | | | |
| 1 | randomized trials | serious[ab] | not serious | not serious | serious[ac] | One small trial[f] | 16/50 (32.0%) | 21/50 (42.0%) | **RR 0.76** (0.45 to 1.28) | **101 fewer per 1000** (from 118 more to 231 fewer) | ⨁⊖⊖⊖ VERY LOW | CRITICAL |
| Number of babies fed with bottles during the first 6 months postpartum | | | | | | | | | | | | |
| 5 | | | | | | | 403/749 (53.8%) | 468/721 (64.9%) | **RR 0.76** (0.63 to 0.91) | **156 fewer per 1000** (from 58 fewer to 240 fewer) | — | |
| Number of babies fed with bottles during the first 6 months postpartum – face-to-face counselling | | | | | | | | | | | | |
| 2 | randomized trials | serious[ad] | not serious | not serious | serious[ae] | none | 115/259 (44.4%) | 155/260 (59.6%) | **RR 0.65** (0.34 to 1.23) | **209 fewer per 1000** (from 137 more to 393 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of babies fed with bottles during the first 6 months postpartum – telephone counselling | | | | | | | | | | | | |
| 0 | | | | | | | 0/0 | 0/0 | not pooled | | — | |
| Number of babies fed with bottles during the first 6 months postpartum – both face-to-face and telephone counselling | | | | | | | | | | | | |
| 3 | randomized trials | serious[af] | serious[ag] | not serious | not serious | none | 288/490 (58.8%) | 313/461 (67.9%) | **RR 0.77** (0.57 to 1.03) | **156 fewer per 1000** (from 20 more to 292 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |

**CI:** confidence interval; **df**: degrees of freedom; **RR:** risk ratio.

a. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 6 trials, unclear or high risk of bias of blinding of outcome assessment in 5 trials, and unclear or high risk of bias for incomplete outcome data in 3 trials.
b. Downgraded for very high heterogeneity: heterogeneity: $\tau^2 = 0.18$; $\chi^2 = 232.96$, df = 5 ($P < 0.00001$); $I^2 = 98\%$.
c. Imprecision: downgraded for imprecision with wide confidence intervals.
d. Risk of bias: downgraded for unclear risk of bias of blinding of outcome assessments, and high risk of bias for incomplete outcome data.
e. Imprecision: downgraded for imprecision with wide confidence intervals.
f. Evidence based on one small trial with a low number of events and with serious risk of bias.
g. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 4 trials, unclear or high risk of bias of blinding of outcome assessment in 6 trials, and unclear or high risk of bias for incomplete outcome data in 7 trials.
h. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.03$; $\chi^2 = 23.83$, df = 10 ($P = 0.008$); $I^2 = 58\%$.
i. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 3 trials, high risk of bias of blinding of outcome assessment in 1 trial, and unclear risk of bias for incomplete outcome data in 1 trial.
j. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 6 trials, unclear or high risk of bias of blinding of outcome assessment in 9 trials, and unclear or high risk of bias for incomplete outcome data in 8 trials.
k. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.05$; $\chi^2 = 37.56$, df = 15 ($P = 0.001$); $I^2 = 60\%$.
l. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 6 trials, unclear or high risk of bias of blinding of outcome assessment in 8 trials, and unclear or high risk of bias for incomplete outcome data in 7 trials.
m. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.02$; $\chi^2 = 38.39$, df = 13 ($P = 0.0003$); $I^2 = 66\%$.
n. Risk of bias: downgraded for unclear of bias for allocation concealment in 2 trials, high risk of bias of blinding of outcome assessment in 1 trial, and unclear risk of bias for incomplete outcome data in 1 trial.
o. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 8 trials, unclear or high risk of bias of blinding of outcome assessment in 12 trials, and unclear or high risk of bias for incomplete outcome data in 12 trials.
p. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.01$; $\chi^2 = 42.16$, df = 15 ($P = 0.0002$); $I^2 = 64\%$.
q. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 7 trials, unclear or high risk of bias of blinding of outcome assessment in 9 trials, and unclear or high risk of bias for incomplete outcome data in 10 trials.
r. Downgraded for very high heterogeneity: heterogeneity: $\tau^2 = 0.12$; $\chi^2 = 232.16$, df = 16 ($P < 0.00001$); $I^2 = 93\%$.
s. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 3 trials, high risk of bias of blinding of outcome assessment in 1 trial, and unclear risk of bias for incomplete outcome data in 1 trial.
t. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 4 trials, unclear or high risk of bias of blinding of outcome assessment in 8 trials, and unclear or high risk of bias for incomplete outcome data in 8 trials.
u. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.02$; $\chi^2 = 48.35$, df = 14 ($P < 0.0001$); $I^2 = 71\%$.
v. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 12 trials, unclear or high risk of bias of blinding of outcome assessment in 14 trials, and unclear or high risk of bias for incomplete outcome data in 12 trials.
w. Downgraded for very high heterogeneity: heterogeneity: $\tau^2 = 0.14$; $\chi^2 = 2744.84$, df = 23 ($P < 0.00001$); $I^2 = 99\%$.
x. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 3 trials, high risk of bias of blinding of outcome assessment in 1 trial, and unclear risk of bias for incomplete outcome data in 1 trial.
y. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.01$; $\chi^2 = 18.58$, df = 2 ($P < 0.0001$); $I^2 = 89\%$.
z. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 3 trials, unclear or high risk of bias of blinding of outcome assessment in 7 trials, and unclear or high risk of bias for incomplete outcome data in 6 trials.
aa. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.00$; $\chi^2 = 25.83$, df = 8 ($P = 0.001$); $I^2 = 69\%$.
ab. Risk of bias: downgraded for unclear risk of bias of blinding of outcome assessments, and high risk of bias for incomplete outcome data.
ac. Imprecision: downgraded for imprecision with wide confidence intervals.
ad. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 1 trial, and high risk of bias of blinding of outcome assessment in 1 trial.
ae. Imprecision: downgraded for imprecision with wide confidence intervals.
af. Risk of bias: downgraded for unclear risk of bias of blinding of outcome assessment in 1 trial, and unclear or high risk of bias for incomplete outcome data in 2 trials.
ag. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.05$; $\chi^2 = 10.02$, df = 2 ($P = 0.007$); $I^2 = 80\%$.

## *Key question 5*

**Provider of breastfeeding counselling: breastfeeding counselling** provided **by lay health workers, non-lay or professional health workers, or both, compared to standard care or no breastfeeding counselling in improving breastfeeding practices**

**Population:** women intending to breastfeed or who may initiate breastfeeding or who are already breastfeeding
**Intervention:** breastfeeding counselling provided by a non-lay health worker only, by a non-lay health worker only, or by both lay and non-lay health workers
**Comparator:** standard care or no breastfeeding counselling

| Certainty assessment | | | | | | | № of patients | | Effect | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| № of studies | Study design | Risk of bias | Inconsistency | Indirectness | Imprecision | Other considerations | Counselling | No counselling or standard care | Relative (95% CI) | Absolute (95% CI) | Certainty | Importance |
| Number of women who do not initiate breastfeeding within 1 hour after birth | | | | | | | | | | | | |
| 7 | | | | | | | 1038/1913 (54.3%) | 1188/1818 (65.3%) | **RR 0.74** (0.53 to 1.02) | **170 fewer per 1000** (from 13 more to 307 fewer) | — | |
| Number of women who do not initiate breastfeeding within 1 hour after birth – lay counsellor | | | | | | | | | | | | |
| 5 | randomized trials | serious[a] | serious[b] | not serious | not serious | none | 987/1755 (56.2%) | 1109/1682 (65.9%) | **RR 0.79** (0.56 to 1.11) | **138 fewer per 1000** (from 73 more to 290 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who do not initiate breastfeeding within 1 hour after birth – non-lay counsellor | | | | | | | | | | | | |
| 2 | randomized trials | serious[c] | not serious | not serious | not serious | none | 51/158 (32.3%) | 79/136 (58.1%) | **RR 0.58** (0.37 to 0.90) | **244 fewer per 1000** (from 58 fewer to 366 fewer) | ⨁⨁⨁⊖ MODERATE | CRITICAL |
| Number of women who do not initiate breastfeeding within 1 hour after birth – both lay and non-lay counsellors | | | | | | | | | | | | |
| 0 | | | | | | | 0/0 | 0/0 | not pooled | | — | |
| Number of women who stop any breastfeeding before 4–6 weeks postpartum | | | | | | | | | | | | |
| 31 | | | | | | | 1232/4222 (29.2%) | 1357/4066 (33.4%) | **RR 0.85** (0.77 to 0.94) | **50 fewer per 1000** (from 20 fewer to 77 fewer) | — | |
| Number of women who stop any breastfeeding before 4–6 weeks postpartum – lay counsellor | | | | | | | | | | | | |
| 4 | randomized trials | serious[d] | serious[e] | not serious | not serious | none | 157/458 (34.3%) | 177/438 (40.4%) | **RR 0.82** (0.62 to 1.10) | **73 fewer per 1000** (from 40 more to 154 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop any breastfeeding before 4–6 weeks postpartum – non-lay counsellor | | | | | | | | | | | | |
| 26 | randomized trials | serious[f] | serious[g] | not serious | not serious | none | 1018/3596 (28.3%) | 1111/3468 (32.0%) | **RR 0.86** (0.77 to 0.96) | **45 fewer per 1000** (from 13 fewer to 74 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop any breastfeeding before 4–6 weeks postpartum – both lay and non-lay counsellors | | | | | | | | | | | | |
| 1 | randomized trials | very serious[h] | not serious | not serious | not serious | One small trial[i] | 57/168 (33.9%) | 69/160 (43.1%) | **RR 0.79** (0.60 to 1.04) | **91 fewer per 1000** (from 17 more to 173 fewer) | ⨁⊖⊖⊖ VERY LOW | CRITICAL |

| Certainty assessment | | | | | | | № of patients | | Effect | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| № of studies | Study design | Risk of bias | Inconsistency | Indirectness | Imprecision | Other considerations | Counselling | No counselling or standard care | Relative (95% CI) | Absolute (95% CI) | Certainty | Importance |
| Number of women who stop any breastfeeding before 6 months postpartum | | | | | | | | | | | | |
| 30 | | | | | | | 3199/5556 (57.6%) | 2441/4066 (60.0%) | **RR 0.93** (0.88 to 0.97) | **42 fewer per 1000** (from 18 fewer to 72 fewer) | — | |
| Number of women who stop any breastfeeding before 6 months postpartum – lay counsellor | | | | | | | | | | | | |
| 3 | randomized trials | serious[j] | not serious | not serious | not serious | none | 123/257 (47.9%) | 162/248 (65.3%) | **RR 0.71** (0.48 to 1.04) | **189 fewer per 1000** (from 26 more to 340 fewer) | ⨁⨁⨁⊖ MODERATE | CRITICAL |
| Number of women who stop any breastfeeding before 6 months postpartum – non-lay counsellor | | | | | | | | | | | | |
| 24 | randomized trials | serious[k] | serious[l] | not serious | not serious | none | 2359/4158 (56.7%) | 1963/3354 (58.5%) | **RR 0.94** (0.89 to 0.99) | **35 fewer per 1000** (from 6 fewer to 64 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop any breastfeeding before 6 months postpartum – both lay and non-lay counsellors | | | | | | | | | | | | |
| 3 | randomized trials | serious[m] | not serious | not serious | not serious | none | 717/1141 (62.8%) | 316/464 (68.1%) | **RR 0.95** (0.88 to 1.02) | **34 fewer per 1000** (from 14 more to 82 fewer) | ⨁⨁⨁⊖ MODERATE | CRITICAL |
| Number of women who stop exclusive breastfeeding before 4–6 weeks postpartum | | | | | | | | | | | | |
| 35 | | | | | | | 2300/4275 (53.8%) | 2366/3707 (63.8%) | **RR 0.82** (0.75 to 0.89) | **115 fewer per 1000** (from 70 fewer to 160 fewer) | — | |
| Number of women who stop exclusive breastfeeding before 4–6 weeks postpartum – lay counsellor | | | | | | | | | | | | |
| 9 | randomized trials | serious[n] | serious[o] | not serious | not serious | none | 382/930 (41.1%) | 690/1011 (68.2%) | **RR 0.64** (0.42 to 0.97) | **246 fewer per 1000** (from 20 fewer to 396 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop exclusive breastfeeding before 4–6 weeks postpartum – non-lay counsellor | | | | | | | | | | | | |
| 24 | randomized trials | serious[p] | serious[q] | not serious | not serious | none | 1851/3105 (59.6%) | 1626/2576 (63.1%) | **RR 0.91** (0.85 to 0.96) | **57 fewer per 1000** (from 25 fewer to 95 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop exclusive breastfeeding before 4–6 weeks postpartum – both lay and non-lay counsellors | | | | | | | | | | | | |
| 2 | randomized trials | serious[r] | not serious | not serious | not serious | none | 67/240 (27.9%) | 50/120 (41.7%) | **RR 0.67** (0.50 to 0.90) | **137 fewer per 1000** (from 42 fewer to 208 fewer) | ⨁⨁⨁⊖ MODERATE | CRITICAL |
| Number of women who stop exclusive breastfeeding before 6 months postpartum | | | | | | | | | | | | |
| 34 | | | | | | | 3715/5307 (70.0%) | 4337/5071 (85.5%) | **RR 0.82** (0.75 to 0.89) | **154 fewer per 1000** (from 94 fewer to 214 fewer) | — | |
| Number of women who stop exclusive breastfeeding before 6 months postpartum – lay counsellor | | | | | | | | | | | | |
| 10 | randomized trials | serious[s] | serious[t] | not serious | serious[u] | none | 1241/2219 (55.9%) | 1937/2271 (85.3%) | **RR 0.67** (0.30 to 1.51) | **281 fewer per 1000** (from 435 more to 597 fewer) | ⨁⊖⊖⊖ VERY LOW | CRITICAL |
| Number of women who stop exclusive breastfeeding before 6 months postpartum – non-lay counsellor | | | | | | | | | | | | |
| 21 | randomized trials | serious[v] | serious[w] | not serious | not serious | none | 2314/2827 (81.9%) | 2267/2660 (85.2%) | **RR 0.97** (0.94 to 0.99) | **26 fewer per 1000** (from 9 fewer to 51 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |

| Certainty assessment | | | | | | | № of patients | | Effect | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| № of studies | Study design | Risk of bias | Inconsistency | Indirectness | Imprecision | Other considerations | Counselling | No counselling or standard care | Relative (95% CI) | Absolute (95% CI) | Certainty | Importance |
| Number of women who stop exclusive breastfeeding before 6 months postpartum – both lay and non-lay counsellors | | | | | | | | | | | | |
| 3 | randomized trials | serious[x] | serious[y] | not serious | serious[z] | none | 160/261 (61.3%) | 133/140 (95.0%) | **RR 0.61** (0.18 to 2.05) | **371 fewer per 1000** (from 779 fewer to 997 more) | ⨁◯◯◯ VERY LOW | CRITICAL |
| Number of neonates given prelacteal or additional food, fluids or infant formula milk within the first 2 days postpartum | | | | | | | | | | | | |
| 1 | randomized trials | | | | | | 16/50 (32.0%) | 21/50 (42.0%) | **RR 0.76** (0.45 to 1.28) | 101 fewer per 1000 (from 118 more to 231 fewer) | — | |
| Number of neonates given prelacteal or additional food, fluids or infant formula milk within the first 2 days postpartum – lay counsellor | | | | | | | | | | | | |
| 0 | | | | | | | 0/0 | 0/0 | not pooled | | — | |
| Number of neonates given prelacteal or additional food, fluids or infant formula milk within the first 2 days postpartum – non-lay counsellor | | | | | | | | | | | | |
| 1 | randomized trials | serious[aa] | not serious | not serious | serious[ab] | One small trial[ac] | 16/50 (32.0%) | 21/50 (42.0%) | **RR 0.76** (0.45 to 1.28) | **101 fewer per 1000** (from 118 more to 231 fewer) | ⨁◯◯◯ VERY LOW | CRITICAL |
| Number of neonates given prelacteal or additional food, fluids or infant formula milk within the first 2 days postpartum – both lay and non-lay counsellors | | | | | | | | | | | | |
| 0 | | | | | | | 0/0 | 0/0 | not pooled | | — | |
| Number of babies fed with bottles during the first 6 months postpartum | | | | | | | | | | | | |
| 5 | randomized trials | | | | | | 403/749 (53.8%) | 468/721 (64.9%) | **RR 0.76** (0.63 to 0.91) | **156 fewer per 1000** (from 58 fewer to 240 fewer) | — | |
| Number of babies fed with bottles during the first 6 months postpartum – lay counsellor | | | | | | | | | | | | |
| 2 | randomized trials | serious[ad] | not serious | not serious | serious[ae] | none | 115/259 (44.4%) | 155/260 (59.6%) | **RR 0.65** (0.34 to 1.23) | **209 fewer per 1000** (from 137 more to 393 fewer) | ⨁⨁◯◯ LOW | CRITICAL |
| Number of babies fed with bottles during the first 6 months postpartum – non-lay counsellor | | | | | | | | | | | | |
| 3 | randomized trials | serious[af] | not serious | not serious | not serious | none | 288/490 (58.8%) | 313/461 (67.9%) | **RR 0.77** (0.57 to 1.03) | **156 fewer per 1000** (from 20 more to 292 fewer) | ⨁⨁⨁◯ MODERATE | CRITICAL |
| Number of babies fed with bottles during the first 6 months postpartum – both lay and non-lay counsellors | | | | | | | | | | | | |
| 0 | | | | | | | 0/0 | 0/0 | not pooled | | — | |

**CI:** confidence interval; **df**: degrees of freedom; **RR:** risk ratio.

a. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 5 trials, unclear or high risk of bias of blinding of outcome assessment in 4 trials, and unclear or high risk of bias for incomplete outcome data in 2 trials.

b. Downgraded for very high heterogeneity: heterogeneity: $\tau^2 = 0.14$; $\chi^2 = 181.07$, df = 4 ($P < 0.00001$); $I^2 = 98\%$.

c. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 1 trial, unclear or high risk of bias of blinding of outcome assessment in 2 trials, and unclear or high risk of bias for incomplete outcome data in 2 trials.

d. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 1 trial, unclear risk of bias of blinding of outcome assessment in 3 trials, and high risk of bias for incomplete outcome data in 1 trial.

e. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.05$; $\chi^2 = 7.77$, df = 3 ($P = 0.05$); $I^2 = 61\%$.

f. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 11 trials, unclear or high risk of bias of blinding of outcome assessment in 12 trials, and unclear or high risk of bias for incomplete outcome data in 14 trials.

g. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.04$; $\chi^2 = 55.90$, df = 25 ($P = 0.0004$); $I^2 = 55\%$.

h. Risk of bias: downgraded for high risk of bias for allocation concealment, blinding of outcome assessment, and incomplete outcome data.

i. One small trial with low number of events and very high risk of bias.

j. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 2 trials, unclear risk of bias of blinding of outcome assessment in 1 trial, and unclear or high risk of bias for incomplete outcome data in 2 trials.

k. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 11 trials, unclear or high risk of bias of blinding of outcome assessment in 15 trials, and unclear or high risk of bias for incomplete outcome data in 15 trials.

l. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.01$; $\chi^2 = 50.86$, df = 23 ($P = 0.0007$); $I^2 = 55\%$.

m. Risk of bias: downgraded for high risk of bias for allocation concealment in 1 trial, unclear risk of bias of blinding of outcome assessment in 3 trials, and high risk of bias for incomplete outcome data in 2 trials.

n. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 5 trials, unclear or high risk of bias of blinding of outcome assessment in 7 trials, and unclear or high risk of bias for incomplete outcome data in 5 trials.

o. Downgraded for very high heterogeneity: heterogeneity: $\tau^2 = 0.38$; $\chi^2 = 212.38$, df = 8 ($P < 0.00001$); $I^2 = 96\%$.

p. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 9 trials, unclear or high risk of bias of blinding of outcome assessment in 11 trials, and unclear or high risk of bias for incomplete outcome data in 12 trials.

q. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.01$; $\chi^2 = 54.49$, df = 23 ($P = 0.0002$); $I^2 = 58\%$.

r. Risk of bias: downgraded for high risk of bias for incomplete outcome data.

s. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 7 trials, unclear or high risk of bias of blinding of outcome assessment in 6 trials, and unclear or high risk of bias for incomplete outcome data in 4 trials.

t. Downgraded for very high heterogeneity: heterogeneity: $\tau^2 = 1.71$; $\chi^2 = 4451.81$, df = 9 ($P < 0.00001$); $I^2 = 100\%$.

u. Imprecision: downgraded for imprecision with wide confidence intervals.

v. Risk of bias: downgraded for unclear or high risk of bias for allocation concealment in 9 trials, unclear or high risk of bias of blinding of outcome assessment in 13 trials, and unclear or high risk of bias for incomplete outcome data in 12 trials.

w. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.00$; $\chi^2 = 58.60$, df = 20 ($P < 0.0001$); $I^2 = 66\%$.

x. Risk of bias: downgraded for unclear or high risk of bias of blinding of outcome assessment in 1 trial, and high risk of bias for incomplete outcome data in 2 trials.

y. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 1.12$; $\chi^2 = 169.58$, df = 2 ($P < 0.00001$); $I^2 = 99\%$.

z. Imprecision: downgraded for imprecision with wide confidence intervals.

aa. Risk of bias: downgraded for unclear risk of bias of blinding of outcome assessment, and high risk of bias for incomplete outcome data.

ab. Imprecision: downgraded for imprecision with wide confidence intervals.

ac. One small trial with low number of events and high risk of bias.

ad. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 1 trial, and high risk of bias of blinding of outcome assessment in 1 trial.

ae. Imprecision: downgraded for imprecision with wide confidence intervals.

af. Risk of bias: downgraded for unclear risk of bias of blinding of outcome assessment in 1 trial, and unclear or high risk of bias for incomplete outcome data in 2 trials.

# Key question 6

## Anticipatory breastfeeding counselling: anticipatory breastfeeding counselling compared to no anticipatory breastfeeding counselling in improving breastfeeding practices

**Population:** women intending to breastfeed or who may initiate breastfeeding or who are already breastfeeding
**Intervention:** anticipatory breastfeeding counselling provided to specific populations groups (primiparous women, women returning to school or work, adolescent girls, or overweight or obese women)
**Comparator:** standard care or no breastfeeding counselling

### *Primiparous pregnant women*

| Certainty assessment | | | | | | | № of patients | | Effect | | Certainty | Importance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| № of studies | Study design | Risk of bias | Inconsistency | Indirectness | Imprecision | Other considerations | Counselling | No counselling or standard care | Relative (95% CI) | Absolute (95% CI) | | |
| Number of women who do not initiate breastfeeding within 1 hour after birth – primiparous pregnant women | | | | | | | | | | | | |
| 1 trial | randomized trials | serious[a] | not serious | not serious | serious[b] | none | 16/50 (32.0%) | 21/50 (42.0%) | **RR 0.76** (0.45 to 1.28) | **101 fewer per 1000** (from 118 more to 231 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop any breastfeeding before 4–6 weeks postpartum – primiparous pregnant women | | | | | | | | | | | | |
| 9 trials 10 comparisons | randomized trials | serious[c] | serious[d] | not serious | not serious | none | 342/1473 (23.2%) | 335/1296 (25.8%) | **RR 0.85** (0.67 to 1.08) | **39 fewer per 1000** (from 21 more to 85 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop any breastfeeding before 6 months postpartum – primiparous pregnant women | | | | | | | | | | | | |
| 6 trials | randomized trials | serious[e] | serious[f] | not serious | not serious | none | 322/521 (61.8%) | 357/525 (68.0%) | **RR 0.84** (0.68 to 1.04) | **109 fewer per 1000** (from 27 more to 218 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop exclusive breastfeeding before 4–6 weeks postpartum – primiparous pregnant women | | | | | | | | | | | | |
| 10 trials 11 comparisons | randomized trials | serious[g] | serious[h] | not serious | not serious | none | 948/1625 (58.3%) | 772/1276 (60.5%) | **RR 0.88** (0.77 to 1.00) | **73 fewer per 1000** (from 0 fewer to 139 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of women who stop exclusive breastfeeding before 6 months postpartum – primiparous pregnant women | | | | | | | | | | | | |
| 7 trials | randomized trials | serious[i] | not serious | not serious | not serious | none | 425/688 (61.8%) | 482/687 (70.2%) | **RR 0.85** (0.75 to 0.97) | **105 fewer per 1000** (from 21 fewer to 175 fewer) | ⨁⨁⨁⊖ MODERATE | CRITICAL |
| Number of neonates given prelacteal or additional food, fluids or infant formula milk within the first 2 days postpartum – primiparous pregnant women | | | | | | | | | | | | |
| 1 trial | randomized trials | serious[j] | not serious | not serious | serious[b] | none | 16/50 (32.0%) | 21/50 (42.0%) | **RR 0.76** (0.45 to 1.28) | **101 fewer per 1000** (from 118 more to 231 fewer) | ⨁⨁⊖⊖ LOW | CRITICAL |
| Number of babies fed with bottles during the first 6 months postpartum – primiparous pregnant women | | | | | | | | | | | | |
| 2 trials | randomized trials | serious[k] | not serious | not serious | not serious | none | 59/127 (46.5%) | 67/104 (64.4%) | **RR 0.67** (0.49 to 0.91) | **213 fewer per 1000** (from 58 fewer to 329 fewer) | ⨁⨁⨁⊖ MODERATE | CRITICAL |

**CI:** confidence interval; **df**: degrees of freedom; **RR:** risk ratio.

## *Explanations*

a. Risk of bias: downgraded for unclear risk of bias of blinding of outcome assessment and high risk of bias for incomplete outcome data.
b. Imprecision: downgraded for imprecision with wide confidence intervals.
c. Risk of bias: downgraded for unclear of bias for allocation concealment in 2 trials, unclear or high risk of bias of blinding of outcome assessment in 3 trials, and unclear or high risk of bias for incomplete outcome data in 5 trials.
d. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.08$; $\chi^2 = 24.81$, df = 9 ($P = 0.003$); $I^2 = 64\%$.
e. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 2 trials, unclear or high risk of bias of blinding of outcome assessment in 3 trials, and unclear or high risk of bias for incomplete outcome data in 45 trials.
f. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.05$; $\chi^2 = 31.05$, df = 5 ($P < 0.00001$); $I^2 = 84\%$.
g. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 3 trials, unclear or high risk of bias of blinding of outcome assessment in 4 trials, and unclear or high risk of bias for incomplete outcome data in 5 trials.
h. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.02$; $\chi^2 = 36.22$, df = 10 ($P < 0.0001$); $I^2 = 72\%$.
i Risk of bias: downgraded for unclear risk of bias for allocation concealment in 3 trials, unclear or high risk of bias of blinding of outcome assessment in 3 trials, and unclear or high risk of bias for incomplete outcome data in 4 trials.
j. Risk of bias: downgraded for unclear risk of bias of blinding of outcome assessment and high risk of bias for incomplete outcome data.
k. Risk of bias: downgraded for unclear risk of bias of blinding of outcome assessment in 1 trial, and unclear or high risk of bias for incomplete outcome data in 2 trials.

### *Women who plan to return to school or work*

| Certainty assessment | | | | | | | № of patients | | Effect | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| № of studies | Study design | Risk of bias | Inconsistency | Indirectness | Imprecision | Other considerations | Counselling | No counselling or standard care | Relative (95% CI) | Absolute (95% CI) | Certainty | Importance |
| Number of women who do not initiate breastfeeding within 1 hour after birth – women who plan to return to school or work | | | | | | | | | | | | |
| 0 | | | | | | | | | | | | |
| Number of women who stop any breastfeeding before 4–6 weeks postpartum – women who plan to return to school or work | | | | | | | | | | | | |
| 1 | randomized trial | serious[a] | not serious | not serious | not serious | one small trial[b] | 9/81 | 8/85 | **RR 1.18 CI 0.48 to 2.91** | **17 more per 1000** (from 49 fewer to 180 more) | ⨁⨁⊖⊖ LOW | |
| Number of women who stop exclusive breastfeeding before 4–6 weeks postpartum – women who plan to return to school or work | | | | | | | | | | | | |
| 1 | randomized trial | serious[a] | not serious | not serious | not serious | one small trial[b] | 33/81 | 31/85 | **RR 1.12, CI 0.76 to 1.64** | **44 more per 1000** (from 88 fewer to 131 more) | ⨁⨁⊖⊖ LOW | |
| Number of women who stop any breastfeeding before 6 months postpartum – women who plan to return to school or work | | | | | | | | | | | | |
| 1 | randomized trial | serious[c] | not serious | not serious | not serious | one small trial[b] | 7/34 | 3/33 | **RR 2.26 CI 0.64 to 8.02** | **115 more per 1000** (from 33 fewer to 638 more) | ⨁⨁⊖⊖ LOW | |
| Number of women who stop exclusive breastfeeding before 6 months postpartum – women who plan to return to school or work | | | | | | | | | | | | |
| 1 | randomized trial | serious[c] | not serious | not serious | not serious | one small trial[b] | 29/34 | 33/33 | **RR 0.86, CI 0.74 to 0.99** | **140 fewer per 1000** (from 260 fewer to 100 fewer) | ⨁⨁⊖⊖ LOW | |
| Number of neonates given prelacteal or additional food, fluids or infant formula milk within the first 2 days postpartum – women who plan to return to school or work | | | | | | | | | | | | |
| 0 | | | | | | | | | | | — | |
| Number of babies fed with bottles during the first 6 months postpartum – women who plan to return to school or work | | | | | | | | | | | | |
| 0 | | | | | | | | | | | — | |

**CI:** confidence interval; **RR:** risk ratio.

a. Risk of bias: downgraded for unclear risk of bias for allocation concealment, high risk of bias for blinding of outcome assessment and incomplete outcome data.

b. Evidence based on one small trial with a low number of events and a serious risk of bias.

c. Risk of bias: downgraded for unclear risk of bias for allocation concealment and high risk of bias for blinding of outcome assessment.

### *Women with multiple pregnancies*

| Certainty assessment | | | | | | | № of patients | | Effect | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| № of studies | Study design | Risk of bias | Inconsistency | Indirectness | Imprecision | Other considerations | Counselling | No counselling or standard care | Relative (95% CI) | Absolute (95% CI) | Certainty | Importance |
| Number of women who do not initiate breastfeeding within 1 hour after birth – women with multiple pregnancies | | | | | | | | | | | | |
| 0 | | | | | | | | | | | | |
| Number of women who stop any breastfeeding before 4–6 weeks postpartum – women with multiple pregnancies | | | | | | | | | | | | |
| 0 | | | | | | | | | | | | |
| Number of women who stop exclusive breastfeeding before 4–6 weeks postpartum – women with multiple pregnancies | | | | | | | | | | | | |
| 1 | randomized trial | serious [a] | not serious | not serious | not serious | one small trial[b] | 79/88 | 74/83 | **RR 1.01, CI 0.91 to 1.12** | **9 more per 1000** (from 80 fewer to 107 more) | ⨁⨁⊖⊖ LOW | |
| Number of women who stop any breastfeeding before 6 months postpartum – women with multiple pregnancies | | | | | | | | | | | | |
| 1 | randomized trial | serious [a] | not serious | not serious | not serious | one small trial[b] | 62/88 | 61/83 | **RR 0.96 CI 0.80 to 1.16** | **29 fewer per 1000** (from 147 fewer to 118 more) | ⨁⨁⊖⊖ LOW | |
| Number of women who stop exclusive breastfeeding before 6 months postpartum – women with multiple pregnancies | | | | | | | | | | | | |
| 1 | randomized trial | serious [a] | not serious | not serious | not serious | one small trial[b] | 84/88 | 81/83 | **RR 0.98, CI 0.92 to 1.04** | **20 fewer per 1000** (from 78 fewer to 39 more) | ⨁⨁⊖⊖ LOW | |
| Number of neonates given prelacteal or additional food, fluids or infant formula milk within the first 2 days postpartum – women with multiple pregnancies | | | | | | | | | | | | |
| 0 | | | | | | | | | | | — | |
| Number of babies fed with bottles during the first 6 months postpartum – women with multiple pregnancies | | | | | | | | | | | | |
| 0 | | | | | | | | | | | — | |

**CI:** confidence interval; **RR:** risk ratio.

a. Risk of bias: downgraded for unclear risk of bias for allocation concealment, high risk of bias for blinding of outcome assessment and incomplete outcome data, and unclear risk of bias for selective reporting.

b. Evidence based on one small trial with a low number of events and a serious risk of bias.

## *Adolescent girls*

| Certainty assessment | | | | | | | № of patients | | Effect | | Certainty | Importance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| № of studies | Study design | Risk of bias | Inconsistency | Indirectness | Imprecision | Other considerations | Counselling | No counselling or standard care | Relative (95% CI) | Absolute (95% CI) | | |
| Number of women who do not initiate breastfeeding within 1 hour after birth – adolescent girls | | | | | | | | | | | | |
| 0 | | | | | | | | | | | | |
| Number of women who stop any breastfeeding before 4–6 weeks postpartum – adolescent girls | | | | | | | | | | | | |
| 1 | randomized trial | serious[a] | not serious | not serious | not serious | one small trial[b] | 40/124 | 39/124 | **RR 1.03 CI 0.71 to 1.48** | **9 more per 1000** (from 91 fewer to 151 more) | ⨁⨁⊖⊖ LOW | |
| Number of women who stop exclusive breastfeeding before 4–6 weeks postpartum – adolescent girls | | | | | | | | | | | | |
| 0 | | | | | | | | | | | | |
| Number of women who stop any breastfeeding before 6 months postpartum – adolescent girls | | | | | | | | | | | | |
| 0 | | | | | | | | | | | | |
| Number of women who stop exclusive breastfeeding before 6 months postpartum – adolescent girls | | | | | | | | | | | | |
| 0 | | | | | | | | | | | | |
| Number of neonates given prelacteal or additional food, fluids or infant formula milk within the first 2 days postpartum – adolescent girls | | | | | | | | | | | | |
| 0 | | | | | | | | | | | — | |
| Number of babies fed with bottles during the first 6 months postpartum – adolescent girls | | | | | | | | | | | | |
| 0 | | | | | | | | | | | — | |

**CI:** confidence interval; **RR:** risk ratio.

a. Risk of bias: downgraded for unclear risk of bias for allocation concealment, high risk of bias for blinding of outcome assessment and incomplete outcome data, and unclear risk of bias for selective reporting.

b. Evidence based on one small trial with a low number of events and a serious risk of bias.

### *Women who are overweight or obese*

| Certainty assessment | | | | | | | № of patients | | Effect | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| № of studies | Study design | Risk of bias | Inconsistency | Indirectness | Imprecision | Other considerations | Counselling | No counselling or standard care | Relative (95% CI) | Absolute (95% CI) | Certainty | Importance |
| Number of women who do not initiate breastfeeding within 1 hour after birth – women who are overweight or obese | | | | | | | | | | | | |
| 0 | | | | | | | | | | | | |
| Number of women who stop any breastfeeding before 4–6 weeks postpartum – women who are overweight or obese | | | | | | | | | | | | |
| 2 | randomized trial | serious[a] | serious[b] | not serious | not serious | | 34/133 | 38/143 | **RR 1.09 CI 0.50 to 2.36** | **24 more per 1000** (from 133 fewer to 361 more) | ⨁⊖⊖⊖ VERY LOW | |
| Number of women who stop exclusive breastfeeding before 4–6 weeks postpartum – women who are overweight or obese | | | | | | | | | | | | |
| 2 | randomized trial | serious[a] | not serious | not serious | not serious | | 54/133 | 59/143 | **RR 1.04, CI 0.70 to 1.54** | **17 more per 1000** (from 124 fewer to 223 more) | ⨁⨁⊖⊖ LOW | |
| Number of women who stop any breastfeeding before 6 months postpartum – women who are overweight or obese | | | | | | | | | | | | |
| 0 | | | | | | | | | | | | |
| Number of women who stop exclusive breastfeeding before 6 months postpartum – women who are overweight or obese | | | | | | | | | | | | |
| 2 | randomized trial | serious[c] | not serious | not serious | not serious | | 210/211 | 221/221 | **RR 1.00, CI 0.98 to 1.01** | **0 per 1000** (from 20 fewer to 10 more) | ⨁⨁⊖⊖ LOW | |
| Number of neonates given prelacteal or additional food, fluids or infant formula milk within the first 2 days postpartum – women who are overweight or obese | | | | | | | | | | | | |
| 0 | | | | | | | | | | | — | |
| Number of babies fed with bottles during the first 6 months postpartum – women who are overweight or obese | | | | | | | | | | | | |
| 0 | | | | | | | | | | | — | |

**CI:** confidence interval; **df**: degrees of freedom; **RR:** risk ratio.

a. Risk of bias: downgraded for unclear risk of bias for random sequence generation in 1 trial, unclear risk of bias for allocation concealment in 2 trials, and unclear risk of bias in selective reporting in 1 trial.

b. Downgraded for high heterogeneity: heterogeneity: $\tau^2 = 0.21$; $\chi^2 = 3.07$, df = 1 ($P = 0.08$); $I^2 = 67\%$.

c. Risk of bias: downgraded for unclear risk of bias for allocation concealment in 2 trials, high risk of bias in blinding of outcome assessment in 1 trial, high risk of bias of incomplete outcome data in 1 trial and unclear risk of bias in selective reporting in 2 trials.

# ANNEX 3. GRADE-CERQUAL SUMMARY OF QUALITATIVE FINDINGS

## *Key question 1*

**Should breastfeeding counselling be provided as a standard of care, compared to not providing breastfeeding counselling, to pregnant women and mothers who are considering or already breastfeeding, in order to improve breastfeeding practices?**

The values and preferences of mothers, and the acceptability among stakeholders, of breastfeeding counselling assimilate all the results from the subsequent key questions.

## *Key question 2*

**When should breastfeeding counselling be provided: should breastfeeding counselling be provided antenatally, postnatally, or during both periods, compared to no breastfeeding counselling or standard care, to pregnant women and mothers who are considering or already breastfeeding, in order to improve breastfeeding practices?**

| Review finding | Contributing studies | Confidence in the evidence | Explanation of confidence in the evidence assessment |
|---|---|---|---|
| **Women and families** | | | |
| Many women felt they received inadequate education and advice about infant feeding during their pregnancy. There was generally inadequate time (per session) rather than poor quality. | *(1–3)* | HIGH | 1 study with minor methodological limitations; consistent across studies; consistent findings across high- and low-income countries |
| Women appreciated antenatal counselling and meeting a health worker/counsellor prior to the birth (otherwise a "missed opportunity"). | *(4, 5)* | HIGH | 1 study with minor methodological limitations; consistent across studies (high-income countries only) |
| Women felt that follow-up was important, both to address problems and to encourage successes. | *(3, 6)* | HIGH | 1 study with minor methodological limitations; 1 study with moderate methodological limitations (insufficient information about analysis); consistent findings across high- and low-income countries |
| In the context of HIV testing, women didn't like being counselled about feeding options soon after finding out their HIV status. | *(7)* | MODERATE | 1 study with moderate methodological limitations (insufficient information on methods and ethics); relevant to HIV populations; three African countries |
| Women living with HIV wanted more counselling and follow-up, rather than a huge amount of information in one sitting. Counsellors agreed, but said that they didn't think the women would come back, so they try to put all the information in one session. | *(7)* | MODERATE | 1 study with moderate methodological limitations (insufficient information on methods and ethics); three African countries |
| For adolescent mothers, there appeared to be little routine continued contact with health professionals after the early postnatal period (many adolescents thought all benefits were gained in the early days after delivery). | *(8)* | MODERATE | 1 study; relevant to adolescent population (United Kingdom of Great Britain and Northern Ireland [UK] only) |

| Review finding | Contributing studies | Confidence in the evidence | Explanation of confidence in the evidence assessment |
|---|---|---|---|
| **Women and families** | | | |
| Mothers of low socioeconomic status (in high-income countries) described very limited positive encounters with medical professionals in the postpartum period. Lack of contact with medical staff was commonly cited, compared to contact with other helpful peer counsellors. | *(5)* | MODERATE | 1 study; limited relevance (United States of America [USA] only) |
| **Health workers** | | | |
| Nurses raised that they need more time to spend with women, including those in hospitals and on home visits, and better timing of follow-up support was raised (individualized, rather than on schedule). | *(9, 10)* | HIGH | 2 studies with minor methodological limitations; consistent across studies; limited relevance (high-income countries only) |
| Health-care professionals described the hospital environment as being busy and hectic. Mothers and midwives described the lack of time available for breastfeeding support. | *(9, 10)* | HIGH | 2 studies with minor methodological limitations; consistent across studies; limited relevance (high-income countries only) |
| Nurses in neonatal intensive care units (NICUs) had difficulties in helping mothers maintain their milk supply and recognized the need for follow-up (in some contexts, infants are only discharged once they can feed without gavage – which may encourage bottle feeding, since it is usually achieved sooner). | *(9)* | MODERATE | 1 study; limited relevance (high-income countries only) |
| Women living with HIV wanted more counselling and follow-up, rather than a huge amount of information in one sitting. Counsellors agreed, but said that they didn't think the women would come back, so they try to put all the information in one session. | *(7)* | MODERATE | 1 study with moderate methodological limitations (insufficient information on methods and ethics); relevant to HIV population; three African countries |
| Health workers stated that time challenges at paediatric visits were also barriers to breastfeeding care, especially because this time would not be reimbursed. | *(11)* | MODERATE | 1 study; limited relevance (USA only) |
| For mothers in the NICU, nurses felt they should discuss breastfeeding early on, others said they wished to wait until the mother's health improved, or so that they didn't feel pressured. | *(12)* | LOW | 1 study; inconsistent findings within study; low relevance (high-income countries only) |
| Providers who provided antenatal care for women typically did not see women again until 6 weeks postpartum, and paediatric care providers felt that their visits were too infrequent to support breastfeeding adequately. Thus, a critical period when women encountered difficulties with or stopped breastfeeding was missed. | *(11)* | LOW | 1 study; limited relevance (USA only) |

## *Key question 3*

**How often should breastfeeding counselling be provided: should breastfeeding counselling be provided at a greater frequency, or at a lesser frequency, compared to no breastfeeding counselling or standard care, to pregnant women and mothers who are considering or already breastfeeding, in order to improve breastfeeding practices?**

| Review finding | Contributing studies | Confidence in the evidence | Explanation of confidence in the evidence assessment |
|---|---|---|---|
| **Women and families** | | | |
| Women need enough time to discuss challenges with their providers. This was true of clinic staff and community peer supporters. | *(1, 2, 10, 13–16)* | HIGH | 1 study with moderate methodological limitations (insufficient descriptions); 3 studies with minor methodological limitations; 1 study with significant methodological limitations (small unique sample); consistent findings across high- and low-income countries |
| Women felt that follow-up was important, both to address problems and to encourage successes. | *(6, 17)* | HIGH | 1 study with minor methodological limitations; 1 study with moderate methodological limitations (insufficient information about analysis); consistent findings across high- and low-income countries |
| Women wanted more counselling and follow up, rather than a huge amount of information in one sitting. Counsellors agreed, but said that they didn't think the women would come back, so they try to put all the information in one session. | *(7)* | MODERATE | 1 study with moderate methodological limitations (insufficient information on methods and ethics); three African countries |
| For adolescent mothers, there appeared to be little routine continued contact with health professionals after the early postnatal period. | *(8)* | MODERATE | 1 study; relevant to adolescent population (UK only) |
| Adolescent mothers need ongoing support for a long time, and easy access to a health professional. For adolescent mothers, there was some criticism of hospital staff for offering insufficient help with subsequent feeds, for instance leaving the mother to manage alone once the baby was fixed on the breast. | *(8)* | MODERATE | 1 study; relevant to adolescent population (UK only) |
| **Health workers** | | | |
| Nurses raised that they need more time to spend with women, including those in hospitals and on home visits, and better timing of follow-up support was raised (individualized, rather than on schedule). | *(9, 10)* | HIGH | 2 studies with minor methodological limitations; consistent across studies; limited relevance (high-income countries only) |
| Some health-care workers suggested "woman-led counselling", giving the patient control over relationship commencement; length of continuation; and the frequency of contact, in order to improve women's satisfaction. | *(18)* | MODERATE | 1 study (high-income countries only) |
| Nurses in NICUs had difficulties in helping mothers maintain their milk supply and recognized the need for follow-up. | *(12)* | MODERATE | 1 study; relevant for the NICU population (high-income countries only) |

| | | | |
|---|---|---|---|
| **Health workers** | | | |
| Women living with HIV wanted more frequent counselling and follow-up, rather than a huge amount of information in one sitting. Counsellors agreed, but said that they didn't think the women would come back, so they try to put all the information in one session. | *(7)* | MODERATE | 1 study with moderate methodological limitations (insufficient information on methods and ethics); relevant to HIV population; three African countries |
| Lack of time and skills was a concern across disciplines, with the exception of lactation counsellors, who reported adequate skills but inadequate time. | *(11)* | LOW | 1 study; limited relevance (USA only) |
| Providers who provided antenatal care for women typically did not see women again until 6 weeks postpartum, and paediatric care providers felt that their visits were too infrequent to support breastfeeding adequately. Thus, a critical period when women encountered difficulties with or stopped breastfeeding was missed. | *(11)* | LOW | 1 study; limited relevance (USA only) |

## *Key question 4*

**What is the optimal mode for breastfeeding counselling: should breastfeeding counselling be provided through face-to-face counselling, telephone and other modes of remote counselling, or through both modes, to pregnant women and mothers who are considering or already breastfeeding, in order to improve breastfeeding practices?**

| Review finding | Contributing studies | Confidence in the evidence | Explanation of confidence in the evidence assessment |
|---|---|---|---|
| **Women and families** | | | |
| Women want autonomy and to have their choices respected. Women who didn't or couldn't breastfeed felt they were not supported or listened to. | *(1, 6, 19)* | HIGH | 1 study with minor methodological limitations; consistent across studies (high-income countries only) |
| Women wanted confirmation regarding normality of their breastfeeding and competency. | *(4, 6, 18, 19)* | HIGH | 2 studies with minor methodological limitations; consistent across studies (high-income countries only) |
| Women appreciated learning how to do something, not having it done for them, and felt empowered by having been made to try it themselves (women need empowerment because breastfeeding was anticipated to be easy but was not). | *(13, 15, 18)* | HIGH | 1 study with moderate methodological limitations (insufficient descriptions); 1 study with minor methodological limitations; consistent across studies (mostly high-income countries) |
| Current antenatal class provision was considered to be insufficiently inclusive of fathers and partners; this was highlighted by mothers and staff. | *(17, 20)* | HIGH | 1 study with minor methodological limitations (poor explanation of data analysis), 1 study with moderate methodological limitations (insufficient information about analysis); consistent across studies; high relevance; consistent findings across high- and low-income countries |

| | | | |
|---|---|---|---|
| Adolescent mothers need ongoing support for a long time, and easy access to a health professional. For adolescent mothers, there was some criticism of hospital staff for offering insufficient help with subsequent feeds, for instance leaving the mother to manage alone once the baby was fixed on the breast. | *(8, 21)* | HIGH | 2 studies; relevant to adolescent population; consistent across contexts (systematic review); mostly high-income settings |
| Women particularly appreciated home-based care when sufficient time was allowed for breastfeeding to occur in a relaxed environment. | *(13, 18)* | MODERATE | 1 study with moderate methodological limitations (insufficient descriptions); moderate consistency across studies (high-income countries only) |
| For some mothers, feeding in a children's centre (UK) was more comfortable than feeding at home, as not all partners and families were supportive of breastfeeding and some would have preferred the baby to be bottle fed. | *(20)* | MODERATE | 1 study with minor methodological limitations (poor explanation of data analysis); low relevance across contexts (UK only) |
| Mothers appreciated the support from mother's groups as valuable sources of advice and encouragement. | *(13, 22)* | MODERATE | 1 study with moderate methodological limitations (insufficient descriptions); 1 study with minor methodological limitations; consistent across studies (high-income countries only) |
| Establishing a personal connection with a health worker facilitated breastfeeding better than receiving large amounts of written information or watching videos, although both of these could be useful adjuncts to breastfeeding care. | *(5)* | MODERATE | 1 study; limited relevance (USA only) |
| Women sometimes felt infantilized by the "teacher", when women were seen as lacking in information that midwives had to "fill" with much knowledge about breastfeeding. | *(23)* | MODERATE | 1 study (high-income countries only) |
| Mothers were comfortable with the technology and satisfied with lactation consulting by videoconference, though it was not the preferred method for this type of service (USA). | *(24)* | MODERATE | 1 study with minor methodological limitations (USA only) |
| Mothers felt that lactation consulting by videoconference, might save time and money, especially in future pregnancies when they already had more knowledge (USA). | *(24)* | MODERATE | 1 study with minor methodological limitations (USA only) |
| Mothers living with HIV and their counsellors viewed counselling sessions differently. Mothers wanted counselling, while counsellors wanted to provide information. | *(7)* | MODERATE | 1 study with moderate methodological limitations (insufficient information on methods and ethics); relevant to HIV populations; three African countries |
| For women who intended mixed feeding at baseline, lactation counselling helped in early establishment of breastfeeding, probably prevented exclusive feeding with formula milk and helped women to breastfeed for longer. | *(25)* | LOW | 1 study with moderate concerns (not enough ethics information, thin qualitative evidence); limited relevance (USA only) |
| Lactation counsellors' accessibility across the continuum of care, by phone and in person, supplied the expertise and encouragement needed to navigate potential barriers to continued breastfeeding. | *(25)* | LOW | 1 study with moderate concerns (not enough ethics information, thin qualitative evidence); limited relevance (USA only) |

| | | | |
|---|---|---|---|
| Women reported that the most helpful advice they had received was someone showing them how to position the baby at the breast in the early postnatal period. | *(19)* | LOW | 1 study; low relevance (UK only) |
| Women reported that knowing that a counsellor may call positively influenced their breastfeeding practices (prevented them from stopping). | *(2)* | LOW | 1 study; limited relevance (USA only) |
| **Health workers** | | | |
| Midwives emphasized listening to women's issues and individualizing support, including stressing non-verbal observation and communication. | *(4, 6, 13, 14)* | HIGH | 2 studies with minor methodological limitations; 1 study with moderate methodological limitations (commentary by 3 nurses); 1 study with significant methodological limitations (small unique sample); consistent across studies (mostly high-income countries) |
| Midwives felt it was important to observe breastfeeding sessions, in order to offer individualized support. | *(6, 26)* | HIGH | 2 studies with minor methodological limitations; 1 study with moderate methodological limitations (commentary by 3 nurses); consistent across studies; findings across high- and low-income countries |
| Medical staff acknowledged that women living with HIV receive or perceive mixed messages between various clinics and clinic staff. Both health-care professionals and mothers described issues around conflicting information. | *(7, 10, 22)* | HIGH | 1 study with moderate methodological limitations (insufficient information on methods and ethics); 1 study with minor methodological limitations; consistent across studies; relevant to HIV population (2 studies); findings across high- and low-income countries |
| Nurses raised that they need more time to spend with women, including women in hospital and on home visits, and the need for better timing of follow-up support was raised (individualized, rather than on schedule). | *(9, 10)* | HIGH | 2 studies with minor methodological limitations; consistent across studies; limited relevance (high-income countries only) |
| Health workers encouraged mother's embodied knowledge or other indicators that showed their baby received enough milk, since they could not see it. | *(4)* | MODERATE | 1 study with minor methodological limitations (UK only) |
| Mothers living with HIV and counsellors viewed counselling sessions differently. Mothers wanted counselling, while counsellors wanted to provide information. | *(7)* | MODERATE | 1 study with moderate methodological limitations (insufficient information on methods and ethics); relevant to HIV population; three African countries |
| Participants stated that Women, Infants, and Children (WIC; welfare benefit programme in the USA) communicates support for breastfeeding but does not provide sufficient education and encouragement. | *(26)* | MODERATE | 1 study with minor methodological limitations; limited relevance (USA only) |
| Electronic prompts prompted providers to discuss breastfeeding benefits in some detail. | *(25)* | LOW | 1 study with moderate concerns (not enough ethics information, thin qualitative evidence); limited relevance (USA only) |
| Health-care professionals in the NICU emphasize the importance of breastfeeding, and used less complex management practices for breast milk. | *(12)* | LOW | 1 study; ambiguous finding; limited relevance (high-income countries only) |
| Some midwives were aware of the personal nature of breastfeeding, and that mothers may be sensitive to how their breasts were touched. | *(27)* | LOW | 1 study; inconsistent within study; limited relevance (UK only) |
| Nurses and lactation consultants thought that antenatal breast examinations would be helpful to "look at women's shape of their breasts and the shape and size of their nipples" and address flat nipples before delivery. They also thought obese women could be taught specific positions before delivery that might work better for them. | *(28)* | LOW | 1 study; limited relevance (USA only) |

## *Key question 5*

**Who should be providing breastfeeding counselling: should breastfeeding counselling be provided by lay health workers, non-lay or professional health workers, or both, compared to no breastfeeding counselling or standard care, to pregnant women and mothers who are considering or already breastfeeding, in order to improve breastfeeding practices?**

| Review finding | *Contributing studies* | Confidence in the evidence | Explanation of confidence in the evidence assessment |
|---|---|---|---|
| **Women and families** | | | |
| Women's perception could be divided among information and practical and social support, the latter being the most important to women. Women viewed midwives as more technical and didactic and lay counsellors as more socially supportive. | *(4, 5)* | HIGH | 1 study with minor methodological limitations; consistent across studies (mostly high-income countries) |
| Women desired continuity of care; several different counsellor contacts caused insecurity and uncertainty, especially if different advice was offered. Adolescents may be especially vulnerable to fragmented care. | *(4, 6, 18, 21)* | HIGH | 2 studies with minor methodological limitations; consistent across studies, including systematic review (high-income countries only) |
| Conflicting information and advice can undermine confidence and frustrate women. Issues around conflicting information were described by both health-care professionals and mothers. | *(7, 13, 15, 22)* | HIGH | 2 studies with minor methodological limitations; 1 study with moderate methodological limitations (insufficient information on methods and ethics); consistent across studies; consistent findings across high- and low-income countries |
| Women living with HIV said they received mixed messages between various clinics and clinic staff. | *(7, 22, 29)* | HIGH | 1 study with minor methodological limitations; with moderate methodological limitations (insufficient information on methods and ethics); 1 study with significant methodological limitations (abstract only); consistent across studies; multiple countries (low-income countries only) |
| Women sometimes felt infantilized, by the "teacher", when women were seen as lacking in information that midwives had to "fill" with much knowledge about breastfeeding. | *(23)* | MODERATE | 1 study (high-income countries only) |
| For women who intended mixed feeding at baseline, lactation counselling helped in early establishment of breastfeeding, prevented exclusive feeding with formula milk, and helped women to breastfeed for longer. | *(2, 25)* | MODERATE | 1 study with moderate concerns (not enough ethics information, thin qualitative evidence); limited relevance (USA only) |
| Women felt that lay community counsellors could perform as well as, or even better than, the health workers in supporting mothers to exclusively breastfeed their babies. | *(17)* | MODERATE | 1 study with moderate methodological limitations (insufficient information about analysis); low relevance (specific to Uganda programme) |
| Women praised their breastfeeding peer counsellors for being knowledgeable and experienced, responding promptly to distress calls, and acting in a personal and caring way. They highlighted availability and home visits, friendliness, personal connection, and helping them overcome modesty. | *(5)* | MODERATE | 1 study; limited relevance (USA only) |

| | | | |
|---|---|---|---|
| Participants stated that the midwives who helped them deliver their infants played both positive and negative roles in their ability to continue breastfeeding. Some of the participants shared that their midwives were hostile to them during their various encounters in the maternity unit because of their HIV-positive status. | *(30)* | MODERATE | 1 study with minor methodological limitations; inconsistent findings within study; limited relevance (largely focuses on community); relevance for HIV population (low-income countries only) |
| Women felt that their encounters with the trained HIV/AIDS counsellors in the unit encouraged them to continue breastfeeding until it was time for them to stop. | *(30)* | MODERATE | 1 study with minor methodological limitations; limited relevance (largely focuses on community); relevance for HIV population (low-income countries only) |
| Mothers living with HIV and counsellors viewed counselling sessions differently. Mothers wanted counselling, and counsellors wanted to provide information. HIV counsellors see their success with the life of the baby, and do not fully consider the well-being of the mother. | *(7)* | MODERATE | 1 study with moderate methodological limitations (insufficient information on methods and ethics); relevant to HIV populations; three African countries |
| Mothers from a low-income setting described very limited positive encounters with medical professionals postpartum. Lack of contact by medical staff was commonly cited, compared to helpful peer counsellors. | *(5)* | MODERATE | 1 study; limited relevance (USA only) |
| Adolescents benefited from network support (from peers), coupled with educational programmes. | *(21)* | MODERATE | 1 study (systematic review); findings consistent across studies (high-income countries only) |
| Adolescent mothers felt undue pressure from midwives to breastfeed. | *(8)* | MODERATE | 1 study; relevant to adolescent population (UK only) |
| Lactation counsellors' accessibility across the continuum of care, by phone and in person, supplied the expertise and encouragement needed to navigate potential barriers to continued breastfeeding. | *(25)* | LOW | 1 study with moderate concerns (not enough ethics info, thin qualitative evidence); limited relevance (USA only) |
| Lay support "buddies" helped mothers explain their chosen feeding methods to their families. | *(31)* | LOW | 1 study with serious methodological concerns (no raw data to justify claims); limited relevance (South Africa only) |
| Women reported that knowing that a counsellor may call positively influenced their breastfeeding practices (prevented them from stopping). | *(2)* | LOW | 1 study; limited relevance (USA only) |
| Some women felt the counsellor was too old to be a peer to them or was simply a stranger. | *(3)* | LOW | 1 study with minor methodological limitations; low relevance (specific to Uganda programme) |
| **Health workers** | | | |
| Midwives emphasized listening to women's issues and individualizing support, including stressing non-verbal observation and communication. | *(4, 6, 14, 32)* | HIGH | 2 studies with minor methodological limitations; 1 study with moderate methodological limitations (commentary by 3 nurses); 1 study with significant methodological limitations (small unique sample); consistent across studies (mostly high-income countries) |
| Peer supporters noted that a lack of visibility of their office and a lack of identity vis-à-vis professional health workers impeded their work. They often felt treated like "outsiders" by professional health workers. | *(33, 34)* | HIGH | 2 studies; consistent across studies (high-income countries only) |

| | | | |
|---|---|---|---|
| Medical staff acknowledged that women living with HIV receive or perceive mixed messages between various clinics and clinic staff. Both health-care professionals and mothers described issues around conflicting information. | *(7, 10, 22)* | HIGH | 1 study with moderate methodological limitations (insufficient information on methods and ethics); 1 study with minor methodological limitations; consistent across studies; relevant to HIV population (2 studies) ; findings across high- and low-income countries |
| Midwives view themselves as providing information and practical and social support. | *(18)* | MODERATE | 1 study (high-income countries only) |
| Several midwives mentioned that they recognized that mothers required reassurance when initiating breastfeeding, so they spent time explaining what was happening and what to expect. | *(27)* | MODERATE | 1 study (UK only) |
| Midwives and public health nurses felt more confident in providing breastfeeding support than doctors. | *(10)* | MODERATE | 1 study with minor methodological limitations; limited relevance (high-income countries only) |
| Midwives and public health nurses felt they played an important role in promotion of breastfeeding, whereas doctors' views varied, with some general practitioners feeling that they weren't best placed to provide promotion of breastfeeding (UK). | *(10)* | MODERATE | 1 study with minor methodological limitations; limited relevance (high-income countries only) |
| There was some criticism of inexperienced or newly graduated midwives as not having the practical skills required to resolve complex breastfeeding issues for women. | *(9)* | MODERATE | 1 study with minor methodological limitations; limited relevance (high-income countries only) |
| Participants described problems in the continuity of care. Not only could the mother see multiple midwives during her hospital stay but she probably sees a number of different midwives and nurses after hospital discharge. | *(9, 11)* | MODERATE | 1 study with minor methodological limitations; consistent across studies; limited relevance (high-income countries only) |
| Some staff said that they found it difficult to promote or support breastfeeding because they did not feel comfortable talking to mothers about it if breastfeeding was outside their personal experience. Sex was found to influence counselling (male doctors know less about breastfeeding because they are not expected to know as much and do not have lived personal experience). | *(20, 35)* | MODERATE | 1 study with moderate methodological limitations; 1 study with minor methodological limitations (poor explanation of data analysis); consistent across studies (high-income countries only) |
| While doctors and nurses work side by side, they can have parallel agendas and separate aims for their patient. | *(10)* | MODERATE | 1 study with minor methodological limitations (high-income countries only) |
| Lack of time and skills was a concern across disciplines, with the exception of lactation counsellors, who reported adequate skills but inadequate time. | *(11)* | MODERATE | 1 study (USA only) |
| Lactation counsellors saw themselves as experts in breastfeeding and wish for other providers to do the same. They believed they were more holistic in their approach to women and infants and young children, and saw their role as empowering women and providing emotional support. | *(34)* | MODERATE | 1 study (USA only) |
| Professionalization of lay breastfeeding support services put pressure on peer counsellors, as it restricted the time they could spend with breastfeeding mothers and increased the work they needed to do to ensure accountability. | *(33)* | MODERATE | 1 study (UK only) |

| | | | |
|---|---|---|---|
| Many women did not have extended family nearby and had little experience with babies, therefore lacked much practical knowledge. Support workers served as a liaison between women and other community services for new mothers. | *(4)* | MODERATE | 1 study with minor methodological limitations (UK only) |
| Mothers living with HIV and counsellors viewed counselling sessions differently. Mothers wanted counselling, while counsellors wanted to provide information. HIV counsellors see their success with the life of the baby, and do not fully consider the well-being of the mother. | *(7)* | MODERATE | 1 study with moderate methodological limitations (insufficient information on methods and ethics); relevant to HIV population; three African countries |
| HIV counsellors were stressed and often angry when mothers did not follow instructions, putting their children's lives at risk, which counsellors worried could be blamed on them | *(7)* | MODERATE | 1 study with moderate methodological limitations (insufficient information on methods and ethics); relevant to HIV population; three African countries |
| The advice health workers provided to women living with HIV was sometimes not consistent (or not perceived to be consistent) with WHO and national recommendations. | *(36)* | MODERATE | 1 study; relevant to HIV population (only low-income countries) |
| Particularly among those who primarily provided care for women of lower socioeconomic status, it was difficult for providers to distinguish between social factors and obesity as causes of poor breastfeeding outcomes. | *(28)* | MODERATE | 1 study; relevant to obese women (USA only) |
| Electronic prompts prompted providers to discuss breastfeeding benefits in some detail. | *(25)* | LOW | 1 study with moderate concerns (not enough ethics information, thin qualitative evidence); limited relevance (USA only) |
| It was decided that support workers did not necessarily need "expertise" in breastfeeding, so it was a lay position. The emphasis was more on experience with communities, good listening skills and ability to engage rather than teach. | *(4)* | LOW | 1 study with minor methodological limitations; ambiguous findings; limited relevance (UK only) |
| Midwives try to minimize conflicting advice by sharing ideas with each other. | *(27)* | LOW | 1 study; limited relevance (UK only) |

## *Key question 6*

**Should anticipatory breastfeeding counselling be provided as a standard of care, compared to not providing anticipatory breastfeeding counselling, to pregnant women and mothers who are considering or already breastfeeding, in order to improve breastfeeding practices?**

| Review finding | Contributing studies | Confidence in the evidence | Explanation of confidence in the evidence assessment |
|---|---|---|---|
| **Women and families** | | | |
| Some women described feeling unprepared for the "realities of breastfeeding". They would have liked more information before their baby was born about what to expect, particularly in terms of discomfort and the time they might spend feeding, and an opportunity to learn how to deal with common feeding problems. | *(13, 14, 19)* | HIGH | 1 study with moderate methodological limitations (insufficient descriptions); 1 study with significant methodological limitations (small unique sample); consistent across studies (high-income countries only) |
| Many women found early hospital care to establish feeding unhelpful, and felt that some counselling may need to be undertaken at home and that pre-discharge counselling should anticipate this. | *(4)* | MODERATE | 1 study with minor methodological limitations (UK only) |
| **Health workers** | | | |
| Many women did not have extended family nearby and had little experience with babies, therefore lacked much practical knowledge. Support workers served as a liaison between women and other community services for new mothers. | *(4)* | MODERATE | 1 study with minor methodological limitations (UK only) |
| Nurses value lactation consultants in contexts where breastfeeding is not the norm. | *(12)* | MODERATE | 1 study (high-income countries only) |
| Several midwives mentioned that they recognized that mothers required reassurance when initiating breastfeeding, so they spent time explaining what was happening and what to expect. | *(27)* | MODERATE | 1 study (UK only) |
| Obese patients require more time and attention from providers and that burden affects providers' perception of these patients. | *(28)* | MODERATE | 1 study; relevant to obese women (USA only) |
| Physical challenges, either specific to the mechanics of breastfeeding or general challenges of obesity, were most commonly discussed by health workers. | *(28)* | MODERATE | 1 study; relevant to obese women (USA only) |
| Nurses and lactation consultants thought that prenatal breast examinations would be helpful to "look at women's shape of their breasts and the shape and size of their nipples" and address flat nipples before delivery. They also thought obese women could be taught specific positions before delivery that might work better for them. | *(28)* | LOW | 1 study; limited relevance (USA only) |

***List of studies included in the synthesis of qualitative evidence on breastfeeding counselling***


1. Alianmoghaddam N, Phibbs S, Benn C. Resistance to breastfeeding: a Foucauldian analysis of breastfeeding support from health professionals. Women Birth. 2017;30(6):e281–e291. doi:10.1016/j.wombi.2017.05.005.

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