Protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services: the revised **BABY-FRIENDLY HOSPITAL INITIATIVE**







IMPLEMENTATION GUIDANCE

Protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services: the revised BABY-FRIENDLY HOSPITAL INITIATIVE





Implementation guidance: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services – the revised Baby-friendly Hospital Initiative.

ISBN 978-92-4-151380-7

© World Health Organization 2018

This joint report reflects the activities of the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF).

Some rights reserved. This work is available under the Creative Commons Attribution–NonCommercial–ShareAlike 3.0 IGO licence (CC BY–NC–SA 3.0 IGO; https://creativecommons.org/licenses/by–nc–sa/3.0/igo).

Under the terms of this licence, you may copy, redistribute and adapt the work for non-commercial purposes, provided the work is appropriately cited, as indicated below. In any use of this work, there should be no suggestion that WHO or UNICEF endorses any specific organization, products or services. The use of the WHO or UNICEF logos is not permitted. If you adapt the work, then you must license your work under the same or equivalent Creative Commons licence. If you create a translation of this work, you should add the following disclaimer along with the suggested citation: "This translation was not created by the World Health Organization (WHO). WHO is not responsible for the content or accuracy of this translation. The original English edition shall be the binding and authentic edition".

Any mediation relating to disputes arising under the licence shall be conducted in accordance with the mediation rules of the World Intellectual Property Organization (<u>http://www.wipo.int/amc/en/mediation/rules</u>).

Suggested citation. 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. Licence: <u>CC BY-NC-SA 3.0 IGO</u>.

Cataloguing-in-Publication (CIP) data. CIP data are available at http://apps.who.int/iris.

Sales, rights and licensing. To purchase WHO publications, see <u>http://apps.who.int/bookorders</u>. To submit requests for commercial use and queries on rights and licensing, see <u>http://www.who.int/about/licensing</u>.

Third-party materials. If you wish to reuse material from this work that is attributed to a third party, such as tables, figures or images, it is your responsibility to determine whether permission is needed for that reuse and to obtain permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

General disclaimers. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO or UNICEF concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by either WHO or UNICEF in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by WHO and UNICEF to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall either WHO or UNICEF be liable for damages arising from its use.

Printed in Switzerland.

Contents

Fo	rew	ordv	
Acknowledgements			
Executive summary			
Scope and purpose			
1.	Ir	ntroduction	1
	1.1	Breastfeeding matters	1
	1.2	The Baby-friendly Hospital Initiative: an overview	2
	1.3	Strengths and impact of the Baby-friendly Hospital Initiative	3
	1.4	Challenges in implementing the Baby-friendly Hospital Initiative	5
	1.5	Revision of the Ten Steps to Successful Breastfeeding and the implementation guidance	7
		Revision of the Ten Steps to Successful Breastfeeding	7
		Revision of the country-level implementation guidance	9
2.	т	he role of facilities providing maternity and newborn services	11
	2.1.	Critical management procedures to support breastfeeding	12
		Step 1: Facility policies	12
		Step 2: Staff competency	14
	2.2	Key clinical practices to support breastfeeding	15
		Step 3: Antenatal information	15
		Step 4: Immediate postnatal care	17
		Step 5: Support with breastfeeding	18
		Step 6: Supplementation	19
		Step 7: Rooming-in	20
		Step 8: Responsive feeding	21
		Step 9: Feeding bottles, teats and pacifiers	21
		Step 10: Care at discharge	22
	2.3	Coordination	22
	2.4	Quality-improvement process	23

3.	С	ountry-level implementation and sustainability	25		
	3.1	National leadership and coordination	26		
	3.2.	Policies and professional standards of care	26		
	3.3.	Health professional competency building	27		
	3.4	External assessment	28		
	3.5.	Incentives and sanctions	29		
	3.6.	Technical assistance to facilities	31		
	3.7	National monitoring	32		
	3.8	Communications and advocacy	33		
	3.9.	Financing	34		
4.		oordination of the Baby-friendly Hospital Initiative with other breastfeeding upport initiatives outside facilities providing maternity and newborn services	35		
5.	Т	ransition of BFHI implementation	37		
	5.1.	Countries with a well-functioning national "Baby-friendly" hospital designation programme	37		
	5.2.	Countries without an active or successful BFHI programme	37		
An	nex	 Ten Steps to Successful Breastfeeding – revised 2018 version: comparison to the original Ten Steps and the new 2017 WHO guideline 	39		
An	Annex 2. Ten Steps to Successful Breastfeeding in lay terms				
An	Annex 3. External review group members				
Re	References				

Foreword

It is estimated that over 820,000 deaths among children under age 5 could be prevented worldwide every year if all children were adequately breastfed. Breastfeeding promotes brain development, reduces the risk of obesity in children, and protects women against breast and ovarian cancer and diabetes. Facilities that provide maternity and newborn services have a unique role in providing new mothers and babies with the timely and appropriate support and encouragement they need to breastfeed successfully, saving governments money while saving lives.

Almost 30 years ago, the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) came together to advocate for the protection, promotion and support of breastfeeding in facilities providing maternity and newborn services. The 1989 Joint WHO-UNICEF statement included a list of measures that came to be known as the Ten Steps.

Translated into more than 25 languages, the joint WHO–UNICEF Statement became the centrepiece for the Baby Friendly Hospital Initiative. Since 1991, maternity wards and hospitals applying the Ten Steps have been designated "Baby-friendly" to draw public attention to their support for sound infant-feeding practices.

To date, nearly all the countries of the world have implemented the BFHI, helping save infants' lives and support mothers' health. But many countries still struggle to maintain the programme and take it to full scale.

Starting in 2015, WHO and UNICEF coordinated a process to review the scientific evidence behind the Ten Steps and to strengthen implementation of the Initiative, which included systematic literature reviews, a thorough examination of the success factors and challenges of the BFHI, and a BFHI Congress in 2016, at which 130 countries came together to discuss the new directions needed to reach universal coverage and sustainability of the BFHI.

The updated guidance published here reflects this collaborative effort to build a more robust programme that will sustain improved quality of care over time. It describes practical steps that countries can and must take to protect, promote and support breastfeeding in facilities providing maternity and newborn services. The guidance emphasizes the importance of applying the Ten Steps in all facilities, for all babies, whether premature or full term, born in private or public facilities, or in rich or poor countries.

WHO and UNICEF are committed to supporting breastfeeding as an effective and cost-effective way to promote the survival, nutrition, growth and development of infants and young children, to protect the health and well-being of their mothers, and to help all children to reach their full potential. We believe the Ten Steps offer health facilities and health workers around the world the guidance they need to help more mothers to successfully breastfeed. Together, we can give every newborn the healthiest start in life.

ed follo

Dr. Tedros Adhanom Director-General of the World Health Organization (WHO)

Henrietta H. Fore Executive Director of the United Nations International Children's Fund (UNICEF)

Acknowledgements

The development of this guidance document was coordinated by the World Health Organization (WHO) Department of Nutrition for Health and Development and the United Nations Children's Fund (UNICEF) Nutrition Section, Programme Division. Dr Laurence Grummer-Strawn and Ms Maaike Arts oversaw the preparation of this document.

We gratefully acknowledge the technical input, planning assistance and strategic thinking of the external review group throughout the process (in alphabetical order): Ms Genevieve Becker, Dr Ala Curteanu, Dr Teresita Gonzalez de Cosío, Dr Rukhsana Haider, Dr Miriam H Labbok, Dr Duong Huy Luong, Dr Chessa Lutter, Dr Cria G Perrine, Ms Randa Saadeh, Dr Isabella Sagoe-Moses and Ms Julie Stufkens.

Over 300 participants in the 2016 Baby-friendly Hospital Initiative (BFHI) Congress, representing 130 countries and numerous non-governmental organizations, donors and professional associations, provided invaluable insights to the successes of and challenges for the BFHI, and outlined many of the priorities for future activity. We would like to thank the members of the BFHI Congress planning committee for their insights in shaping this useful meeting (in alphabetical order): Ms Maite Hernández Aguilar, Ms Funke Bolujoko, Dr Anthony Calibo, Ms Elsa Giuliani, Ms Trish MacEnroe and Ms Agnes Sitati.

We would like to express our gratitude to the following colleagues for their assistance and technical input throughout the process (in alphabetical order): WHO – Ms Shannon Barkley, Dr Francesco Branca, Ms Olive Cocoman, Dr Bernadette Daelmans, Ms Diana Estevez, Ms Ann-Lise Guisset, Dr Frances McConville, Ms Natalie Murphy, Dr Lincetto Ornella, Dr Juan Pablo Peña-Rosas, Dr Pura Rayco-Solon, Mr Marcus Stahlhofer, Dr Helen Louise Taylor, Dr Wilson Were and the WHO regional nutrition advisers; UNICEF – Dr Victor Aguayo, Dr France Bégin, Mr David Clark, Dr Aashima Garg, Dr David Hipgrave, Ms Diane Holland, Ms Irum Taqi, Ms Joanna Wiseman Souza Dr Marilena Viviani, Dr Nabila Zaka, and the UNICEF regional nutrition advisers and regional health advisers.

We gratefully acknowledge the input from the 300 external reviewers who commented on the draft document in October 2017, and the staff, volunteers and members of the BFHI Network, La Leche League (LLL), the International Baby Food Action Network (IBFAN), the International Lactation Consultants' Association (ILCA) and the World Alliance for Breastfeeding Action (WABA), who provided additional input. We are grateful for the input of Dr Pierre Barker on quality-improvement processes.

Finally, we would like to thank the many BFHI coordinators and hospital administrators who have implemented the BFHI at national, regional and facility levels over the past 27 years. Their hard work and passion for the health of mothers and babies has strengthened the initiative throughout the world.

Executive summary

The first few hours and days of a newborn's life are a critical window for establishing lactation and for providing mothers with the support they need to breastfeed successfully. Since 1991, the Baby-friendly Hospital Initiative (BFHI) has helped to motivate facilities providing maternity and newborn services worldwide to better support breastfeeding.¹ Based on the Ten Steps to Successful Breastfeeding (the Ten Steps),² the BFHI focuses on providing optimal clinical care for new mothers and their infants. There is substantial evidence that implementing the Ten Steps significantly improves breastfeeding rates.

The BFHI has been implemented in almost all countries in the world, with varying degrees of success. After more than a quarter of a century, coverage at a global level remains low. As of 2017, only 10% of infants in the world were born in a facility currently designated as "Baby-friendly".³ Countries have found it difficult to sustain a BFHI programme, with implementation often relying on specific individual and external resources. The programme has characteristically been implemented as a vertical intervention focused on designating facilities that volunteer to take part in the programme and can document their full adherence to the Ten Steps. Facilities may make changes in their policies and procedures to obtain the designation, but these changes are not always sustainable, especially when there are no regular monitoring systems in place.

In 2015, the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) began a process to re-evaluate and reinvigorate the BFHI programme. Case-studies, key informant interviews, a global policy survey and literature reviews were conducted to better understand the status and impact of the initiative. Systematic literature reviews were commissioned to carefully examine the evidence for each of the Ten Steps. WHO convened a guideline development group to write the WHO guideline *Protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services*⁴ and an external review group to update the guidance on country-level implementation of the BFHI. The main concepts and outline of the updated implementation guidance were discussed extensively at the BFHI Congress in October 2016, involving approximately 300 participants from over 130 countries. The draft updated guidance document was disseminated through an online consultation in October 2017 and comments from over 300 respondents were considered in the final revisions of the document.

This updated implementation guidance is intended for all those who set policy for, or offer care to, pregnant women, families and infants: governments; national managers of maternal and child health programmes in general, and of breastfeeding- and BFHI-related programmes in particular; and health-facility managers at different levels (facility directors, medical directors, chiefs of maternity and neonatal wards). The document presents the first revision of the Ten Steps since 1989. The topic of each step is unchanged, but the wording of each one has been updated in line with the evidence-based guidelines and global public health policy. The steps are subdivided into (i) the institutional procedures necessary to ensure that care is delivered consistently and ethically (critical management procedures); and (ii) standards for individual care of mothers and infants (key clinical practices). Full application of the *International Code of Marketing of Breast-milk Substitutes*⁵ and relevant World Health Assembly Resolutions (the Code),⁶ as well as ongoing internal monitoring of adherence to the clinical practices, have been incorporated into step 1 on infant feeding policies.

The implementation guidance also recommends revisions to the national implementation of the BFHI, with an emphasis on scaling up to universal coverage and ensuring sustainability over time. The guidance focuses on integrating the programme more fully in the health-care system, to ensure that all facilities in a country implement the Ten Steps. Countries are called upon to fulfil nine key responsibilities through a national BFHI programme, including establishing or strengthening a national coordination body; integrating the Ten Steps into national policies and standards; ensuring the capacity of all health-care professionals; using external assessment to regularly evaluate adherence to the Ten Steps; incentivizing change; providing necessary technical assistance; monitoring implementation; continuously communicating and advocating; and identifying and allocating sufficient resources.

¹ World Health Organization, United Nations Children's Fund. The Baby-friendly Hospital Initiative: monitoring and reassessment: tools to sustain progress. Geneva: World Health Organization; 1991 (WHO/NHD/99.2; http://apps.who.int/iris/handle/10665/65380).

² Protecting, promoting and supporting breast-feeding: the special role of maternity services. A joint WHO/UNICEF statement. Geneva: World Health Organization; 1989 (<u>http://apps.who.int/iris/bitstream/10665/39679/1/9241561300.pdf</u>).

³ National implementation of the Baby-friendly Hospital Initiative. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstre am/10665/255197/1/9789241512381-eng.pdf?ua=1).

⁴ Guideline: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services. Geneva: World Health Organization; 2017 (<u>http://apps.who.int/iris/bitstream/10665/259386/1/9789241550086-eng.pdf?ua=1</u>).

⁵ 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).

⁶ World Health Organization. Code and subsequent resolutions (http://www.who.int/nutrition/netcode/resolutions/en/).

The BFHI focuses on protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services. It is understood that many other interventions are needed to ensure adequate support for breastfeeding, including in antenatal care, postpartum care, communities and workplaces, as well as adequate maternity protection and Code legislation. It is critical that the BFHI programme is integrated with all other aspects of breastfeeding protection, promotion and support.

By reinvigorating the BFHI and ensuring that all facilities adhere to evidence-based recommendations on maternity and newborn care, breastfeeding rates can be substantially increased and the health of mothers and children dramatically improved.

Scope and purpose

This document contains the latest version of the guidance for implementing the Baby-friendly Hospital Initiative (BFHI) (1) in facilities providing maternity and newborn services, as well as guidance for coordination and management of the BFHI at national (or subnational where applicable) level.

The core purpose of the BFHI is to ensure that mothers and newborns receive timely and appropriate care before and during their stay in a facility providing maternity and newborn services, to enable the establishment of optimal feeding of newborns, which promotes their health and development. Given the proven importance of breastfeeding (2), the BFHI protects, promotes and supports breastfeeding, while enabling timely and appropriate care and feeding of newborns who are not breastfed.

This document complements the World Health Organization (WHO) *Guideline: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services* (3). It also complements existing *Standards for improving quality of maternal and newborn care in health facilities* (4), *Guidelines on the optimal feeding of low birth-weight infants in low- and middle-income countries* (5), WHO recommendations: intrapartum care for a positive childbirth *experience* (6) and other guidance documents on maternal and newborn care. It is crucial that the BFHI is implemented within a broader context of support for breastfeeding in families, communities and the workplace. This document does not address these areas specifically.

The intended audience of this document includes all those who set policy for, or offer care to, pregnant women, families and infants: governments; national managers of maternal and child health programmes in general, and of breastfeeding- and BFHI-related programmes in particular; and health-facility managers at different levels (facility directors, medical directors, chiefs of maternity and neonatal wards).

1. Introduction

1.1 Breastfeeding matters

Breastfeeding is the biological norm for all mammals, including humans. Breastfeeding is critical for achieving global goals on nutrition, health and survival, economic growth and environmental sustainability. WHO and the United Nations Children's Fund (UNICEF) recommend that breastfeeding be initiated within the first hour after birth, continued exclusively for the first 6 months of life and continued, with safe and adequate complementary foods, up to 2 years or beyond (7). Globally, a minority of infants and children meet these recommendations: only 44% of infants initiate breastfeeding within the first hour after birth and 40% of all infants under 6 months of age are exclusively breastfed. At 2 years of age, 45% of children are still breastfeeding (8).

Immediate and uninterrupted skin-to-skin contact and initiation of breastfeeding within the first hour after birth are important for the establishment of breastfeeding, and for neonatal and child survival and development. The risk of dying in the first 28 days of life is 33% higher for newborns who initiated breastfeeding 2–23 hours after birth, and more than twice as high for those who initiated 1 day or longer after birth, compared to newborns who were put to the breast within the first hour after birth (9). The protective benefit of early initiation extends until the age of 6 months (10).

Exclusive breastfeeding for 6 months provides the nurturing, nutrients and energy needed for physical and neurological growth and development. Beyond 6 months, breastfeeding continues to provide energy and high-quality nutrients that, jointly with safe and adequate complementary feeding, help prevent hunger, undernutrition and obesity (11). Breastfeeding ensures food security for infants (8).

Inadequate breastfeeding practices significantly impair the health, development and survival of infants, children and mothers. Improving these practices could save over 820 000 lives a year (2). Nearly half of diarrhoea episodes and one third of respiratory infections are due to inadequate breastfeeding practices. Longer breastfeeding is associated with a 13% reduction in the likelihood of overweight and/or prevalence of obesity and a 35% reduction in the incidence of type 2 diabetes (2). An estimated 20 000 maternal deaths from breast cancer could be prevented each year by improving rates of breastfeeding (2). Recent analyses have documented that increasing rates of breastfeeding could add US\$ 300 billion to the global economy annually, by helping to foster smarter, more productive workers and leaders (13). In Brazil, adults who had been breastfed for at least 12 months earned incomes that were 33% higher than for those who had been breastfed for shorter durations (14). Inadequate breastfeeding has a significant impact on the costs of health care for children and women (15, 16). Mothers who feed their infants on formula are absent from work more often than breastfeeding mothers, owing to a higher frequency and severity of infant illness (17).

Recent analyses have documented that increasing rates of breastfeeding could add US\$ 300 billion to the global economy annually

Breastfeeding is a non-polluting, non-resourceintensive, sustainable and natural source of nutrition and sustenance. Breast-milk substitutes add to greenhouse gas emissions at every step of production, transport, preparation and use. They also generate waste, which requires disposal. Greenhouse gases include methane, nitrous oxide and carbon dioxide; a recent report estimated the carbon dioxide emissions resulting from manufacture of infant formula in Asia at 2.9 million tons (*18*).

In humanitarian settings, the life-saving potential of breastfeeding is even more crucial (7). International guidance recommends that all activities to protect, promote and support breastfeeding need to be increased in humanitarian situations, to maintain or improve breastfeeding practices (19). Breastfeeding is a vital component of realizing every child's right to the highest attainable standard of health, while respecting every mother's right to make an informed decision about how to feed her baby, based on complete, evidence-based information, free from commercial interests, and the necessary support to enable her to carry out her decision (20).

Improving breastfeeding can be a key driver for achievement of the Sustainable Development Goals (21). Breastfeeding can be linked to several of the goals, including goals 1 (end poverty in all its forms everywhere); 2 (end hunger, achieve food security and promote sustainable agriculture); 3 (ensure healthy lives and promote well-being for all at all ages) 4 (ensure inclusive and quality education for all and promote lifelong learning); 5 (achieve gender equality and empower all women and girls); 8 (promote sustained, inclusive and sustainable economic growth, employment and decent work for all); 10 (reduce inequality within and among countries); and 12 (ensure sustainable consumption and production patterns).

1.2 The Baby-friendly Hospital Initiative: an overview

The first few hours and days of a newborn's life are a critical window for establishing lactation and providing mothers with the support they need to breastfeed successfully. This support is not always provided, as illustrated by a review of UNICEF data showing that 78% of deliveries were attended by a skilled health provider, but only 45% of newborns were breastfed within the first hour after birth (8, 22). Although breastfeeding is the biological norm, health professionals may perform inappropriate procedures that interfere with the initiation of breastfeeding, such as separation of the mother and infant; delayed initiation of breastfeeding; provision of prelacteal feeds; and unnecessary supplementation. These procedures significantly increase the risk of breastfeeding challenges that lead to early cessation. Families need to receive evidence-based information and counselling about breastfeeding and must be protected from commercial interests that negatively impact on breastfeeding.

In 1989, WHO and UNICEF published the Ten Steps to Successful Breastfeeding (the Ten Steps), within a package of policies and procedures that facilities providing maternity and newborn services should implement to support breastfeeding (23). The Innocenti Declaration on the protection, promotion and support of breastfeeding, adopted in Florence in 1990 (24), called for all governments to ensure that every facility providing maternity and newborn services fully practises all 10 of the Ten Steps. In 1991, WHO and UNICEF launched the Baby-friendly Hospital Initiative (BFHI) (1), to help motivate facilities providing maternity and newborn services worldwide to implement the Ten Steps. Facilities that documented their full adherence to the Ten Steps, as well as their compliance with the International Code of Marketing of Breast-milk Substitutes (25, 26) and relevant World Health Assembly (WHA) resolution (theCode)(27), could be designated as "Baby-friendly". WHO published accompanying evidence for each of the Ten Steps in 1998 (28).

The first few hours and days of a newborn's life are a critical window for establishing lactation and providing mothers with the support they need to breastfeed successfully

Several global health-policy documents have emphasized the importance of the Ten Steps. WHA resolutions in 1994 and 1996 called for specific action related to the BFHI (29, 30). The 2002 Global strategy for infant and young child feeding called upon all facilities providing maternity and newborn services worldwide to implement the Ten Steps (7). At the 15th anniversary of the Innocenti Declaration (24) in 2005, the Innocenti partners issued a call to action, which included a call to revitalize the BFHI, maintaining the global criteria as the minimum requirement for all facilities and expanding the initiative's application to include maternity, neonatal and child health services and community-based support for lactating women and caregivers of young children (31). The BFHI package was updated in 2006 after extensive user surveys, and relaunched in 2009 (32). The updated package reflected the new evidence for some of the steps (steps 4 and 8 for example) and their interpretation, and specifically addressed the situation of women living with HIV. It included guidelines for "mother-friendly care" and described breastfeeding-friendly practices in other facilities and communities. Standards for providing support for "non-breastfeeding mothers" were included, as the initiative encompasses ensuring that *all* mothers, regardless of feeding method, get the feeding support they need. The package included updated training and assessment tools.

> The specific maternity-care practices could reduce the odds of early termination of breastfeeding 13-fold

In 2012, the WHA endorsed six targets for maternal, infant and young child nutrition, including achieving a global rate of exclusive breastfeeding in the first 6 months of life of at least 50% (33, 34). The policy briefs and comprehensive implementation plan for the targets include expansion of the BFHI (34). The 2014 Second International Conference on Nutrition (ICN2) Framework for Action (35), which forms the underpinnings of the United Nations Decade for Action on Nutrition (36), called for policies, programmes and actions to ensure that health services protect, promote and support breastfeeding, "including the Babyfriendly Hospital Initiative". The Global monitoring framework for maternal, infant and young child nutrition, endorsed by the WHA in 2015 (37), includes an indicator on the percentage of births occurring in facilities that have been designated as "Baby-friendly" (38).

Almost all countries in the world have implemented the BFHI at some point in time. Coverage within most countries has remained low, however. In 2011, it was estimated that 28% of all facilities providing maternity and newborn services had been designated as "Babyfriendly at some point in time" (39). However, as of 2017, WHO estimated that only about 10% of babies in the world were born in a facility currently designated as "Baby-friendly" (40). The impact of the initiative is probably greater than this number implies, since facilities might implement several of the Ten Steps without having reached designation as "Babyfriendly", but there are currently no global systems to assess this.

1.3 Strengths and impact of the Baby-friendly Hospital Initiative

Substantial evidence has accumulated that the BFHI has the potential to significantly influence success with breastfeeding. In Belarus, a group-randomized trial undertaken at the end of the 1990s increased the rate of exclusive breastfeeding at 3 months to 43% in hospitals that implemented the Ten Steps, compared to only 6% in the hospitals that did not receive the intervention (41).

A systematic review of 58 studies on maternity and newborn care published in 2016 demonstrated clearly that adherence to the Ten Steps impacts rates of breastfeeding (early initiation immediately after birth, exclusive breastfeeding and total duration of any breastfeeding) (42). This review found a doseresponse relationship between the number of BFHI steps women are exposed to and the likelihood of improved breastfeeding outcomes. Avoiding supplementation of newborns with products other than breast milk (step 6) was demonstrated to be a crucial factor in determining breastfeeding outcomes, possibly because, in order to implement this step, other steps also need to be in place. Community support (step 10) proved crucial to maintaining the improved breastfeeding rates achieved in facilities providing maternity and newborn services (42).

One study based in the United States of America (USA) found that adherence to six of the specific maternitycare practices could reduce the odds of early termination of breastfeeding 13-fold (see Fig. 1) (43).

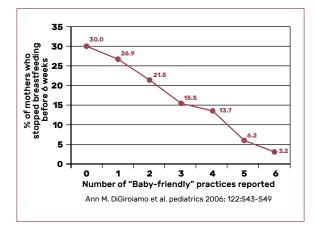


Fig. 1. Among women who initiated breastfeeding and intended to breastfeed for >2 months, the percentage who stopped breastfeeding before 6 weeks, according to the number of Baby-friendly hospital practices they experienced (43)

Experiences in BFHI implementation from that time showed that national leadership (including strong national involvement and support) was key to successful implementation of the BFHI. Nationalor facility-level adaptation, ongoing facility-level monitoring, and making the BFHI part of the continuum of care were also found to be important for BFHI implementation (44).

A recent article about the USA, which reviewed two national policy documents and 16 original studies, confirmed the BFHI's success in facilitating successful breastfeeding initiation and exclusivity (45). The duration of breastfeeding also appears to increase when mothers have increased exposure to Babyfriendly practices. However, current mechanisms for tracking breastfeeding are suboptimal and therefore limited reliable data are available on the duration of breastfeeding. Of the 10 steps of the BFHI, step 3 (antenatal education) and step 10 (postnatal breastfeeding support) were mentioned as the most challenging steps to implement (45); however, these two steps have the potential to significantly impact breastfeeding practices. In anticipation of the 25th anniversary of the BFHI, WHO and UNICEF undertook a broad-based assessment of the current status of the initiative. A global survey among all WHO Member States on the implementation at country level was conducted in June to August 2016, with responses received from 117 countries (40). In-depth case-studies on how the initiative has operated in 13 countries were solicited from ministries of health, non-governmental BFHI coordinators and UNICEF staff; key informant interviews with the BFHI coordinators (including government officials and staff of non-governmental organizations (NGOs) in 22 countries) provided additional insights regarding challenges and lessons learnt over the first 25 years of the initiative (40, 46).

The information gathered in the case-studies and key informant interviews (40, 46) indicates that the implementation of the BFHI has led to improvements in health professionals' capacity, as well as strengthened protection, promotion and support of breastfeeding, in large numbers of facilities providing maternity and newborn services, thereby possibly contributing to increased rates of early initiation of breastfeeding across the globe. The systematic approach to improving facility policies and practices, and the visibility and rewarding nature of the designation "Baby-friendly", are appreciated by many actors.

For facilities that were designated, the process of becoming Baby-friendly was often transformative, changing the whole environment around infant feeding. In many countries, becoming designated has been a key motivating factor for facilities to transform their practices. As a consequence of this, care in these facilities became more patient centred; staff attitudes about infant feeding improved; and skill levels dramatically increased. Use of infant formula typically dropped dramatically, and the use of nurseries for newborn babies was greatly reduced. The quality of care for breastfeeding clearly improved in facilities that were designated as "Baby-friendly".

The case-studies and interviews also captured several challenges, which are described in the next section.

1.4 Challenges in implementing the Baby-friendly Hospital Initiative

Several key challenges in BFHI implementation emerged from the above-mentioned assessments.

In summary, the feedback from the case-studies and key informant interviews indicates that the vertical and often project-type implementation of the BFHI, while a strength in achieving specific and short-term goals, has proved to be a barrier to reaching a high coverage of the practices recommended in the Ten Steps, as well as to the sustainability of these practices and to monitoring of the initiative. Specific challenges mentioned are listed next.

- National and facility-level implementation often depends more on having committed individuals or "champions" and less on building and strengthening sustainable systems. When former champions are no longer associated with the BFHI, continuity of interventions is often affected.
- The processes of providing technical assistance to facilities; training and maintaining assessors; implementing assessments and re-assessments; and communicating about the initiative all require resources on an ongoing basis. For many countries, these resources are provided by external donors and not incorporated in the regular government budget. When donors shift funds to other priorities, this impacts on the BFHI.
- National governments, especially in low- and middle-income countries, have generally focused only on public facilities.
- A key challenge is the building and maintenance of staff capacity of facilities providing maternity and newborn services to protect, promote and support breastfeeding. Although the BFHI guidance mentions the importance of pre-service training as well as in-service training, the assessment processes and tools have a strong focus on in-service training. In virtually all countries and territories that responded to the case-studies or key informant interviews, the incorporation of breastfeeding in pre-service education (including medical and nursing schools and similar institutions for other professions) has been insufficient. This has created barriers for implementation and maintenance of the BFHI, since ongoing in-service training is very humanand financial-resource intensive.

- Additionally, trainers need to be recruited or, when health professionals themselves, spend time away from their regular job, and the trainees are also taken away from their regular tasks. While it is possible to undertake electronic and online courses, it may be costly to develop these, particularly when participant fees need to be paid to a commercial entity; such courses cannot fully replace the need for face-to-face skills-building and skills assessment and they will still keep trainees away from their main task. It has also proven difficult, in a 20-hour course, to change health professionals' behaviour, when they have implemented practices in a certain way for years.
- The focus on individual facilities instead of national standards of care makes it challenging to achieve high coverage of recommended facility practices.
- At the level of individual facilities, the focus of the BFHI has often been on achieving "Baby-friendly" designation. It has frequently been challenging to sustain the changes made. Many facilities appear to make changes in their policies and procedures to obtain the designation, but then drift back into old ways over time, especially when there are no regular monitoring systems in place. As a result, it is difficult to know the extent to which designated facilities continue to adhere to the BFHI criteria.
- Step 10 of the original Ten Steps (23), on fostering the establishment of breastfeeding support groups, has proven very difficult to implement for most facilities providing maternity and newborn services, since many of these do not have sufficient staff to work outside of their own facility. In most settings, maternity and newborn facilities have not been held accountable for outreach into the community.
- Full compliance with the Code (25–27) has also been a challenge for many facilities. Distributors of breast-milk substitutes have often been found to violate the Code by providing free or subsidized supplies to facilities or governments, and/or providing promotional materials to health facilities or health professionals. Facilities often find it difficult to resist these offers in the face of tight operating budgets. Companies that market breastmilk substitutes often exert political influence at multiple levels, to weaken standards on the protection of breastfeeding and make it difficult for facilities to achieve the Baby-friendly standards.

In 2016, the Pan-American Health Organization published a report on the BFHI in the Americas, in which they examined the years in which BFHI designations or re-designations occurred (47). The report showed that for most countries in the region, BFHI designations or re-designations occurred almost exclusively in a single 5-year window of time. Some countries designated many facilities in the 1990s but then stopped; others started later but then stopped; and a few countries have only recently been designating facilities. However, no country conducted more than a handful of designations outside of a peak 10-year period (see Fig. 2 for two examples). These results suggest that it is difficult for countries to sustain an ongoing designation and re-designation programme for more than a few years.

Whereas the Ten Steps were focused on the in-facility care of healthy, full-term infants, many countries have expanded the concept of "Babyfriendly" into other areas of breastfeeding support outside of facilities providing maternity and newborn services, as suggested in the 2009 revision of the BFHI guidance (32). While these programmes have successfully improved the quality of maternal and infant care in many countries, international standards have not been developed to give a specific set of criteria and evaluation tools for programmes, leading to diversity in application worldwide. Guidelines are needed to improve breastfeeding support groups outside of facilities providing maternity and newborn services, as they each have unique aspects that cannot be addressed within the BFHI.

The large numbers of countries implementing the BFHI on the one hand, and the low percentage of designated facilities on the other hand, demonstrate the broad reach the initiative has achieved, but also indicate the need for continued improvement in maternity and newborn care. As long as adherence to the Ten Steps is limited to only selected facilities, inequities in the quality of health care for newborns will persist. Achieving adherence by *all* facilities will require redoubled efforts and new approaches.

It is difficult for countries to sustain an ongoing designation and re-designation programme for more than a few years

The case-studies and key informant interviews (40, 46) showed that countries have adapted the BFHI guidance to their own situation and possibilities. This has resulted in several excellent examples of management and operational processes that can facilitate the sustainable implementation and scaleup of practices that support breastfeeding. These examples, as well as a broad set of general lessons learnt and recommendations for achieving the protection, promotion and support of breastfeeding in facilities providing maternity and newborn services at scale, obtained from the case-studies and key informant interviews, and combined with an intensive consultative process with the external review group (see section 1.5), form the basis for this revised implementation guidance.

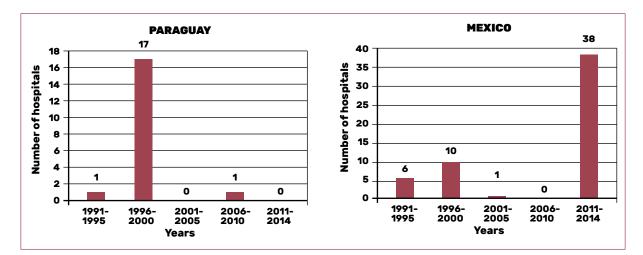


Fig. 2. Number of hospitals designated or re-designated by 5-year period in Paraguay and Mexico (47). Reproduced by permission of the publisher from: Pan American Health Organization, World Health Organization Regional Office for the Americas. The Baby Friendly Hospital Initiative in Latin America and the Caribbean: current status, challenges, and opportunities. Washington (DC): Pan American Health Organization; 2016 (http://iris.paho. org/xmlui/bitstream/handle/123456789/18830/9789275118771_eng.pdf?sequence=1&isAllowed=y)

1.5 Revision of the Ten Steps to Successful Breastfeeding and the implementation guidance

In 2015, WHO and UNICEF began the process of reviewing and revising both the Ten Steps to Successful Breastfeeding and the implementation guidance for countries on how to protect, promote, and support breastfeeding in facilities providing maternity and newborn services. Using the standard WHO guideline development process (48), WHO established a guideline development group. Detailed description of the process for developing the 2017 WHO Guideline: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services (3), including the systematic literature reviews on each step, is published elsewhere (3). In addition, WHO convened an external review group to provide additional expert guidance to the guideline development group and to develop the revised implementation guidance for countries, presented in this document.

The external review group met three times in faceto-face meetings (December 2015, April 2016 and October 2016) and held numerous conference calls and reviewed draft documents via email. The case-studies and interviews with national BFHI leaders described above provided important insights to the external review group in shaping the implementation guidance. An early draft of this guidance was presented at the BFHI Congress in October 2016 (49). Approximately 300 participants from over 130 countries, and 20 development partners (NGOs, international professional associations and donors), discussed the guidance in small workgroups over the course of 3 days, and gave extensive input to the revisions. The updated guidance was disseminated through an online consultation in October 2017 and comments from over 300 respondents were considered in the final revisions of the document.

This updated guidance covers only those activities that are specifically pertinent to the protection, promotion and support of breastfeeding in facilities providing maternity and newborn services. The care of small, sick and/or preterm newborns cannot be separated from that of full-term infants, as they both occur in the same facilities, often attended by the same staff. As such, the care for these newborns in neonatal intensive care units or in regular maternity or newborn wards is included in the scope of this document. However, since this document focuses on global standards and is not a clinical guide, it does not provide in-depth guidance on how to care for small, sick and/or preterm newborns but merely outlines the standards and key steps for breastfeeding and/or the provision of human milk to this group. More specific guidance on the feeding of small, sick and/or preterm newborns is available elsewhere (5, 50).

While the 2009 BFHI guidance suggested including "mother-friendly" actions focusing on ensuring mothers' physical and psychological health (32), this updated BFHI guidance does not include guidance on these aspects. This guidance explicitly recommends countries to integrate the Ten Steps into other programmes and initiatives for maternal and newborn health. In-depth, relevant, evidence-based guidance on the quality of care of maternal health is already available elsewhere (4), but it is important for all health professionals, whether or not they are responsible for delivery or newborn care, to be fully aware of mother-friendly practices and how they can affect the mother, baby and breastfeeding, so that they can ensure these practices are implemented and achieve the intended quality-of-care benefits. For this reason, a summary of this guidance is provided in section 2.

Similarly, this document does not cover criteria for Baby-friendly communities, Baby-friendly paediatric units or Baby-friendly physicians' offices. Support for breastfeeding is critical in all of these settings, but is beyond the scope of this document.

Revision of the Ten Steps to Successful Breastfeeding

The 2017 WHO Guideline: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services (3) examined the evidence for each of the original Ten Steps that were originally published in 1989 (23). Based on the new guidelines, this implementation guidance rewords the Ten Steps while maintaining the basic theme of each step. The core intent of the steps remains the same as the 1989 version of the Ten Steps, namely protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services. The guidance separates the first two steps, which address the management procedures necessary to ensure that care is delivered consistently and ethically, and the other eight steps, which spell out standards for clinical care of mothers and infants. The updated Ten Steps are presented in Box 1.

Step 1 on facility breastfeeding policy has been modified to include three components. Application of the Code (25-27) has always been a major component of the BFHI but was not included as part of the original Ten Steps. This revision explicitly incorporates full compliance with the Code as a step. In addition, the need for ongoing internal monitoring of adherence to the clinical practices has been incorporated into step 1. Internal monitoring should help to ensure that adoption of the Ten Steps is sustained over time. Some of the steps have been simplified in their application, to ensure that they are feasible and applicable for all facilities. To ensure that every infant who is born in a facility has equitable access to the best quality of care, the steps must be within reach of every facility, not just a select few. For example, step 2 on training staff focuses more on competency assessment to ensure that staff have the knowledge, competence and skills to support breastfeeding, rather than insisting on a specific curriculum. Step 5 on providing mothers with practical support on how to breastfeed does not emphasize one type of milk expression, but focuses more on issues of positioning, suckling, and ensuring the mother is prepared for potential breastfeeding difficulties.

Step 9 on the use of feeding bottles, teats and pacifiers now focuses on counselling mothers on their use, rather than completely prohibiting them. The evidence for a complete prohibition of their use was found to be weak, since the systematic review conducted in the guideline development process found little or no difference in breastfeeding rates between healthy term infants who used feeding bottles, teats or pacifiers in the immediate postpartum period and those who did not (51). Among preterm infants, the systematic reviews on non-nutritive suckling did not find a difference in breastfeeding-related outcomes and found a positive impact on the duration of hospital stay (52, 53). For preterm infants, the use of feeding bottles and teats is still discouraged.

Step 10 on post-discharge care focuses more on the responsibilities of the facility providing maternity and newborn services to plan for discharge and make referrals, as well as to coordinate with and work to enhance community support for breastfeeding, rather than the specific creation of mother-to-mother support groups.

The core intent of the Ten Steps... is to protect, promote and support breastfeeding

Box 1. Ten Steps to Successful Breastfeeding (revised 2018)

Critical management procedures

- 1. a. Comply fully with the International Code of Marketing of Breast-milk Substitutes and relevant World Health Assembly resolutions.
 - b. Have a written infant feeding policy that is routinely communicated to staff and parents.
 - c. Establish ongoing monitoring and data-management systems.
- 2. Ensure that staff have sufficient knowledge, competence and skills to support breastfeeding.

Key clinical practices

- 3. Discuss the importance and management of breastfeeding with pregnant women and their families.
- 4. Facilitate immediate and uninterrupted skin-to-skin contact and support mothers to initiate breastfeeding as soon as possible after birth.
- 5. Support mothers to initiate and maintain breastfeeding and manage common difficulties.
- 6. Do not provide breastfed newborns any food or fluids other than breast milk, unless medically indicated.
- 7. Enable mothers and their infants to remain together and to practise rooming-in 24 hours a day.
- 8. Support mothers to recognize and respond to their infants' cues for feeding.
- 9. Counsel mothers on the use and risks of feeding bottles, teats and pacifiers.
- 10. Coordinate discharge so that parents and their infants have timely access to ongoing support and care.

Revision of the country-level implementation guidance

This implementation guidance proposes a number of revisions to the implementation of the BFHI, to facilitate nationwide scale-up and ensure sustainability over time. The guidance focuses on integrating the protection, promotion and support of breastfeeding more fully into the health-care system, including in private and public facilities. The modifications and increased feasibility serve the purpose of increasing newborns' access to breastfeeding in all facilities, not only a select few.

The guidance focuses on integrating... more fully into the health-care system The guidance also incorporates, or is aligned with, other WHO or UNICEF technical guidance documents, including the *Guidance on ending the inappropriate* promotion of foods for infants and young children (54), the 2016 WHO/UNICEF Guideline: updates on HIV and infant feeding (55), the WHO Standards for improving quality of maternal and newborn care in health facilities (4) and the WHO Framework on integrated people-centred health services (56).

This updated guidance is aimed at strengthening the health system and proposes a less vertical management and implementation structure, requiring fewer resources dedicated specifically to the initiative. It aims to coordinate the strategies for integrated people-centred health services (56) and strengthen the quality-improvement aspects already present in the BFHI.

Box 2 summarizes the key updated directions for BFHI implementation, as described in detail in section 3 and section 4.

Box 2. Summary of updated directions for implementation of the Baby-friendly Hospital Initiative

- 1. Appropriat e care to protect, promote, and support breastfeeding is the responsibility of every facility providing maternity and newborn services. This includes private facilities, as well as public ones, and large as well as small facilities.
- 2. Countries need to establish national standards for the protection, promotion and support for breastfeeding in all facilities providing maternity and newborn services, based on the updated Ten Steps to Successful Breastfeeding and global criteria.
- 3. The Baby-friendly Hospital Initiative must be integrated with other initiatives for maternal and newborn health, health-care improvement, health-systems strengthening and quality assurance.
- 4. To ensure that health-care providers have the competencies to implement the BFHI, this topic needs to be integrated into pre-service training curricula. In addition, in-service training needs to be provided when competencies are not yet met.
- 5. Public recognition of facilities that implement the Ten Steps and comply with the global criteria is one way to incentivize quality improvement. Several other incentives exist, ranging from compliance with national facility standards to performance-based financing.
- 6. Regular internal monitoring is a crucial element of both quality improvement and ongoing quality assurance.
- 7. External assessment is a valuable tool for validating the quality of maternity and newborn services. External assessments should be sufficiently streamlined into existing mechanisms that can be implemented sustainably.

Implementation guidance: protecting, promoting, and supporting breastfeeding in facilities providing maternity and newborn services

This page is intentionally blank.

2. The role of facilities providing maternity and

newborn services

The core purpose of the BFHI is to ensure that mothers and newborns receive timely and appropriate care before and during their stay in a facility providing maternity and newborn services, to enable the establishment of optimal feeding of the newborn, thereby promoting their health and development. Given the proven importance of breastfeeding, the BFHI protects, promotes and supports breastfeeding. At the same time, it also aims to enable appropriate care and feeding of newborns who are not (yet or fully) breastfed, or not (yet) able to do so.

Families must receive quality and unbiased information about infant feeding. Facilities providing maternity and newborn services have a responsibility to promote breastfeeding, but they must also respect the mother's preferences and provide her with the information needed to make an informed decision about the best feeding option for her and her infant. The facility needs to support mothers to successfully feed their newborns in the manner they choose.

In line with the WHO *Framework on integrated people-centred health services* (56), it is important to ensure that "all people have equal access to quality health services that are co-produced in a way that meets their life course needs and respects social preferences, are coordinated across the continuum of care, and are comprehensive, safe, effective, timely, efficient and acceptable; and all carers are motivated, skilled and operate in a supportive environment". A specific aspect of this is providing care in a culturally appropriate manner, including providing materials in languages that all clients understand.

The Ten Steps do not encompass all aspects of quality maternity and newborn care. "Mother-friendly" birthing and postnatal care practices have been identified that are important for the mother's own wellbeing and the respect of her dignity and her rights (4). Many of these "mother-friendly" practices also help to enable breastfeeding (57). It is important that women are not submitted to unnecessary or harmful practices during labour, childbirth and the early postnatal period. Such practices include, but are not limited to, unnecessary (i.e. without a medical indication) use of the following: episiotomy, instrumental vaginal childbirth and caesarean section. Women should also be encouraged to adopt the position of their choice during labour. In addition, women and newborns must be treated with respect, with their dignity maintained and their privacy respected; they must not be subjected to mistreatment (58); and they must be able to make informed decisions. Women also need to be able to have a birth companion of their choice.

With regard to HIV, the 2016 WHO/UNICEF guideline on HIV and infant feeding (55) recommends that national or subnational health authorities should set recommendations for infant feeding in the context of HIV, and decide whether health services will mainly counsel and support mothers known to be living with HIV to either (i) breastfeed and receive antiretroviral drug interventions; or (ii) avoid all breastfeeding. Where authorities recommend breastfeeding plus antiretroviral therapy, this includes early initiation of breastfeeding, exclusive breastfeeding for the first 6 months of life and continued breastfeeding, with adequate and safe complementary feeding, up to at least 12 months; breastfeeding may be continued up to 24 months or beyond (similar to the general population), while the mother is fully supported for adherence to antiretroviral therapy. Where authorities recommend avoiding all breastfeeding, skilled and coordinated support for infant feeding is needed to improve the safety of replacement feeding. The BFHI can be implemented in both contexts.

Facilities providing maternity and newborn services need to comply with the Ten Steps. The 2018 version of the Ten Steps is separated into critical management procedures, which provide an enabling environment for sustainable implementation within the facility, and key clinical practices, which delineate the care that each mother and infant should receive. The key clinical practices are evidence-based interventions to support mothers to successfully establish breastfeeding. The Ten Steps are outlined in Box 1 and described in detail in section 2.1 and section 2.2. The specific recommendations in the new WHO Guideline: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services (3) are also presented in the text, with the relevant recommendation number added. Annex 1 shows how the revised Ten Steps incorporate all of the new WHO guidelines (3) and how they relate to the original Ten Steps.

While each of the Ten Steps contributes to improving the support for breastfeeding, optimal impact on breastfeeding practices, and thereby on maternal and child well-being, is only achieved when all Ten Steps are implemented as a package. The text that follows should be read in this light.

2.1. Critical management procedures to support breastfeeding

Facilities providing maternity and newborn services need to adopt and maintain four critical management procedures to ensure universal and sustained application of the key clinical practices. The first three of these, application of the Code (25–27), development of written policies, and operation of monitoring and data-management systems, are all part of the first step on facility policies. Step 2 deals with the need to ensure the capacity of all facility staff.

Step 1: Facility policies

The International Code of Marketing of Breastmilk Substitutes and relevant World Health Assembly resolutions (25-27)

Step 1a: Comply fully with the International Code of Marketing of Breast-milk Substitutes and relevant World Health Assembly resolutions.

Rationale: Families are most vulnerable to the marketing of breast-milk substitutes during the entire prenatal, perinatal and postnatal period when they are making decisions about infant feeding. The WHA has called upon health workers and health-care systems to comply with the International Code of Marketing of Breast-milk Substitutes (25, 26) and subsequent relevant WHA resolutions (27) (the Code), in order to protect families from commercial pressures. Additionally, health professionals themselves need protection from commercial influences that could affect their professional activities and judgement. Compliance with the Code is important for facilities providing maternity and newborn services, since the promotion of breast-milk substitutes is one of the largest undermining factors for breastfeeding (59). Companies marketing breast-milk substitutes, feeding bottles and teats are repeatedly found to violate the Code (60). It is expected that the sales of breast-milk substitutes will continue to increase globally, which is detrimental for children's survival and well-being (13, 61). This situation means that ongoing concerted efforts will be required to protect, promote and support breastfeeding, including in facilities providing maternity and newborn services.

Implementation: The Code (25-27) lays out clear responsibilities of health-care systems to not promote infant formula, feeding bottles or teats and to not be used by manufacturers and distributors of products under the scope of the Code for this purpose. This includes the provision that all facilities providing maternity and newborn services must acquire any breast-milk substitutes, feeding bottles or teats they require through normal procurement channels and not receive free or subsidized supplies (WHA Resolution 39.28 (62)). Furthermore, staff of facilities providing maternity and newborn services should not engage in any form of promotion or permit the display of any type of advertising of breast-milk substitutes, including the display or distribution of any equipment or materials bearing the brand of manufacturers of breast-milk substitutes, or discount coupons, and they should not give samples of infant formula to mothers to use in the facility or to take home.

In line with the WHO Guidance on ending the inappropriate promotion of foods for infants and young children, published in 2016 and endorsed by the WHA (54), health workers and health systems should avoid conflicts of interest with companies that market foods for infants and young children. Health-professional meetings should never be sponsored by industry and industry should not participate in parenting education.

Global standards:

- All infant formula, feeding bottles and teats used in the facility have been purchased through normal procurement channels and not received through free or subsidized supplies.
- The facility has no display of products covered under the Code or items with logos of companies that produce breast-milk substitutes, feeding bottles and teats, or names of products covered under the Code.
- The facility has a policy that describes how it abides by the Code, including procurement of breast-milk substitutes, not accepting support or gifts from producers or distributors of products covered by the Code and not giving samples of breast-milk substitutes, feeding bottles or teats to mothers.
- At least 80% of health professionals who provide antenatal, delivery and/or newborn care can explain at least two elements of the Code.

Infant feeding policy

Step 1b: Have a written infant feeding policy that is routinely communicated to staff and parents.

Rationale: Policy drives practice. Health-care providers and institutions are required to follow established policies. The clinical practices articulated in the Ten Steps need to be incorporated into facility policies, to guarantee that appropriate care is equitably provided to all mothers and babies and is not dependent on the preferences of each care provider. Written policies are the vehicle for ensuring patients receive consistent, evidence-based care, and are an essential tool for staff accountability. Policies help to sustain practices over time and communicate a standard set of expectations for all health workers.

Implementation: Facilities providing maternity and newborn services should have a clearly written breastfeeding policy that is routinely communicated to staff and parents (recommendation 12). A facility breastfeeding policy may stand alone as a separate document, be included in a broader infant feeding policy, or be incorporated into a number of other policy documents. However organized, the policy should include guidance on how each of the clinical and care practices should be implemented, to ensure that they are applied consistently to all mothers. The policy should also spell out how the management procedures should be implemented, preferably via specific processes that are institutionalized.

Global standards:

- The health facility has a written infant feeding policy that addresses the implementation of all eight key clinical practices of the Ten Steps, Code implementation, and regular competency assessment.
- Observations in the facility confirm that a summary of the policy is visible to pregnant women, mothers and their families.
- A review of all clinical protocols or standards related to breastfeeding and infant feeding used by the maternity services indicates that they are in line with BFHI standards and current evidencebased guidelines.
- At least 80% of clinical staff who provide antenatal, delivery and/or newborn care can explain at least two elements of the infant feeding policy that influence their role in the facility.

Monitoring and data-management systems

Step 1c: Establish ongoing monitoring and data-management systems.

Rationale: Facilities providing maternity and newborn services need to integrate recording and monitoring of the clinical practices related to breastfeeding into their quality-improvement/monitoring systems (see section 2.4).

Implementation: Recommended indicators for facility-based monitoring of the key clinical practices are listed in Appendix 1, Table 1. Two of the indicators, early initiation of breastfeeding and exclusive breastfeeding, are considered "sentinel indicators". All facilities should routinely track these indicators for each mother-infant pair. Recording of information on these sentinel indicators should be incorporated into the medical charts and collated into relevant registers. The group or committee that coordinates the BFHIrelated activities within a facility needs to review progress at least every 6 months. During concentrated periods of quality improvement, monthly review is needed. The purpose of the review is to continually track the values of these indicators, to determine whether established targets are met, and, if not, plan and implement corrective actions. In addition, if the facility has an ongoing system of maternal discharge surveys for other quality-improvement/qualityassurance assessments, and it is possible to add question(s), one or both indicators could be added for additional verification purposes or periodic checks.

Additional process indicators for monitoring adherence to the key clinical practices are also recommended. These indicators are particularly important during an active process of quality improvement and should be assessed monthly during such a process. Once acceptable levels of compliance have been achieved, the frequency of data collection on these additional indicators can be reduced, for example to annually. However, if the level of the sentinel indicators falls below 80% (or below national standards), it will be important to assess both the clinical practices and all management procedures, to determine where the bottlenecks are and what needs to be done to achieve the required standards. The recommended indicators do not cover all of the global standards listed above because of the need to keep the monitoring system as simple as possible. Countries or individual facilities could include additional indicators where feasible. Two alternative methods for verification are proposed – newborn registries and maternal discharge surveys (which could be done in a written or oral way or via a cell phone [SMS]). Facilities are not expected to use both methodologies at the same time. Depending on what other monitoring systems facilities are using, either may be more practical and feasible.

The frequency of data collection will depend on the method of verification. For example, if questions are added to maternal discharge surveys that are already ongoing, the periodicity will, by default, be a function of the periodicity of the ongoing survey. If the information is collected through newborn registries and the registries are already being reviewed to collect data on the sentinel outcome indicators, collection of data on the key clinical practices for all newborns is recommended. Alternatively, a sample of registries could be reviewed every 6 months to collect this information, to reduce the burden of abstracting, summarizing and reviewing large amounts of data from the registries. If a new system of maternal discharge surveys is put into place, a minimum periodicity of every 6 months is needed. However, monitoring needs to be streamlined and manageable within the facilities' existing resources.

Thus, to the extent possible, it is best to not implement new methods of data collection, unless necessary or for periodic purposes of verification. The same goes for the amount of data collected; more is not necessarily better if systems are not in place to analyse and use the information to improve breastfeeding support.

For the key clinical practice indicators, monitoring is best if based on maternal report. Collection of data for some indicators could be done through electronic medical records or from paper reports on each mother–infant pair, but runs the risk that staff completing these records will over-report practices that they have been taught they are supposed to do. Options for maternal data collection include:

- exit interviews with mothers (preferably by a person not directly in charge of their care);
- short paper questionnaires to mothers for confidential completion upon discharge;
- sending questions to the mother via SMS.

It is recommended that a minimum of 20 motherinfant pairs be included for each indicator, each time the data are reviewed, although small facilities may need to settle for a smaller number if 20 pairs are not available.

The global standards call for a minimum of 80% compliance for all process and outcome indicators, including early initiation of breastfeeding and exclusive breastfeeding. It is recognized that in contexts where many women choose not to breastfeed, these rates may be difficult to attain. Lower standards may need to be set at the national or local level, with the expectation that they should be raised over time, as other aspects of breastfeeding support in the community improve. Each facility should attempt to regularly achieve at least 80% adherence on each indicator, and facilities that do not meet this target should focus on increasing the percentage over time.

Global standards:

• The facility has a protocol for an ongoing monitoring and data-management system to comply with the eight key clinical practices.

• Clinical staff at the facility meet at least every 6 months to review implementation of the system.

Step 2: Staff competency

Step 2: Ensure that staff have sufficient knowledge, competence and skills to support breastfeeding.

Rationale: Timely and appropriate care for breastfeeding mothers can only be accomplished if staff have the knowledge, competence and skills to carry it out. Training of health staff enables them to develop effective skills, give consistent messages, and implement policy standards. Staff cannot be expected to implement a practice or educate a patient on a topic for which they have received no training.

Implementation: Health-facility staff who provide infant feeding services, including breastfeeding should have sufficient knowledge, support, competence and skills to support women to breastfeed (recommendation 13). In general, the responsibility for building this capacity resides with the national pre-service education system. However, if staff capacity is deficient, facilities providing maternity and newborn services will need to take corrective measures to strengthen that capacity, such as by offering courses at the facility or requiring that staff take courses elsewhere. While some material can be taught through didactic lectures (including electronic resources), some supervised clinical experience with testing of competency is necessary. It is important to focus not on a specific curriculum but on the knowledge and skills obtained.

All staff who help mothers with infant feeding should be assessed on their ability to:

- use listening and learning skills to counsel a mother;
- 2. use skills for building confidence and giving support to counsel a mother;
- 3. counsel a pregnant woman about breastfeeding;
- 4. assess a breastfeed;
- help a mother to position herself and her baby for breastfeeding;
- 6. help a mother to attach her baby to the breast;
- explain to a mother about the optimal pattern of breastfeeding;
- 8. help a mother to express her breast milk;
- 9. help a mother to cup feed her baby;
- 10. help a mother to initiate breastfeeding within the first hour after birth;
- 11. help a mother who thinks she does not have enough milk;
- 12. help a mother with a baby who cries frequently;
- help a mother whose baby is refusing to breastfeed;
- 14. help a mother who has flat or inverted nipples;
- 15. help a mother with engorged breasts;
- 16. help a mother with sore or cracked nipples;
- 17. help a mother with mastitis;
- help a mother to breastfeed a low-birth-weight baby or sick baby;
- 19. counsel a mother about her own health;
- 20. implement the Code in a health facility.

Global standards:

- At least 80% of health professionals who provide antenatal, delivery and/or newborn care report they have received pre-service or in-service training on breastfeeding during the previous 2 years.
- At least 80% of health professionals who provide antenatal, delivery and/or newborn care report receiving competency assessments in breastfeeding in the previous 2 years.
- At least 80% of health professionals who provide antenatal, delivery and/or newborn care are able to correctly answer three out of four questions on breastfeeding knowledge and skills to support breastfeeding.

2.2. Key clinical practices to support breastfeeding

The updated BFHI highlights eight key clinical practices, based on the WHO *Guideline: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services* (3), issued in 2017. These key practices are discussed next.

Step 3: Antenatal information

Step 3: Discuss the importance and management of breastfeeding with pregnant women and their families.

Rationale: All pregnant women must have basic information about breastfeeding, in order to make informed decisions. A review of 18 qualitative studies indicated that mothers generally feel that infant feeding is not discussed enough in the antenatal period and that there is not enough discussion of what to expect with breastfeeding (42). Mothers want more practical information about breastfeeding. Pregnancy is a key time to inform women about the importance of breastfeeding, support their decisionmaking and pave the way for their understanding of the maternity care practices that facilitate its success. Mothers also need to be informed that birth practices have a significant impact on the establishment of breastfeeding.

Implementation: Where facilities provide antenatal care, pregnant women and their families should be counselled about the benefits and management of breastfeeding (recommendation 14). In many settings, antenatal care is predominantly provided through primary health-care clinics or community health workers. If facilities providing maternity and newborn services do not have direct authority over these care providers, they should work with them to ensure that mothers and families are fully informed about the importance of breastfeeding and know what to expect when they deliver at the facility. In other cases, the facility directly provides antenatal care services or offers classes for pregnant women. In this case, provision of breastfeeding information and counselling is the direct responsibility of the facility.

Breastfeeding education should include information on the importance of breastfeeding and the risks of giving formula or other breast-milk substitutes, along with national and health-professional recommendations for infant feeding. Practical skills such as positioning and attachment, on-demand feeding, and recognizing feeding cues are a necessary component of antenatal counselling. Families should be presented with upto-date information on best practices in facilities providing maternity and newborn services regarding skin-to-skin contact, initiation of breastfeeding, supplementation protocols and rooming-in. Women also need to be informed about possible challenges they might encounter (such as engorgement, or a perception of not producing enough milk) and how to address them.

Antenatal breastfeeding counselling must be tailored to the individual needs of the woman and her family, addressing any concerns and questions they have. This counselling needs to be sensitively given and consider the social and cultural context of each family.

Wherever possible, conversations on breastfeeding should begin with the first or second antenatal visit, so that there is time to discuss any challenges, if necessary. This is particularly important in settings where women have few antenatal visits and/or initiate their visits late in their pregnancy. Additionally, women who deliver prematurely may not have adequate opportunities to discuss breastfeeding if the conversations are delayed until late in pregnancy.

Information on breastfeeding should be provided in multiple ways. Printed or online information that is in a language mothers (including illiterate ones) understand is one way to ensure that all relevant topics are covered. However, there is no assurance that all women will read this information, and it may not directly address the key questions they have. Interpersonal counselling, either one-on-one or in small groups, is important to allow women to discuss their feelings, doubts and questions about infant feeding.

The information must be provided free of conflicts of interest. As stipulated in the *Guidance on ending inappropriate promotion of foods for infants and young children (54)*, companies that market foods for infants and young children should not "directly or indirectly provide education to parents and other caregivers on infant and young child feeding in health facilities".

Women at increased risk for preterm delivery or birth of a sick infant (e.g. pregnant adolescents, high-risk pregnancies, known congenital anomalies) must begin discussions with knowledgeable providers as soon as feasible concerning the special circumstances of feeding a premature, low-birth-weight or sick baby (63).

Global standards:

- A protocol for antenatal discussion of breastfeeding includes at a minimum:
 - the importance of breastfeeding;
 - global recommendations on exclusive breastfeeding for the first 6 months, the risks of giving formula or other breast-milk substitutes, and the fact that breastfeeding continues to be important after 6 months when other foods are given;
 - the importance of immediate and sustained skin-to-skin contact;
 - the importance of early initiation of breastfeeding;
 - the importance of rooming-in;
 - the basics of good positioning and attachment;
 - recognition of feeding cues.
- At least 80% of mothers who received prenatal care at the facility report having received prenatal counselling on breastfeeding.
- At least 80% of mothers who received prenatal care at the facility are able to adequately describe what was discussed about two of the topics mentioned above.

Step 4: Immediate postnatal care

Step 4: Facilitate immediate and uninterrupted skin-to-skin contact and support mothers to initiate breastfeeding as soon as possible after birth.

Rationale: Immediate skin-to-skin contact and early initiation of breastfeeding are two closely linked interventions that need to take place in tandem for optimal benefit. Immediate and uninterrupted skinto-skin contact facilitates the newborn's natural rooting reflex that helps to imprint the behaviour of looking for the breast and suckling at the breast. Additionally, immediate skin-to-skin contact helps populate the newborn's microbiome and prevents hypothermia. Early suckling at the breast will trigger the production of breast milk and accelerate lactogenesis. Many mothers stop breastfeeding early or believe they cannot breastfeed because of insufficient milk, so establishment of a milk supply is critically important for success with breastfeeding. In addition, early initiation of breastfeeding has been proven to reduce the risk of infant mortality (10).

Implementation: Early and uninterrupted skin-toskin contact between mothers and infants should be facilitated and encouraged as soon as possible after birth (recommendation 1). Skin-to-skin contact is when the infant is placed prone on the mother's abdomen or chest with no clothing separating them. It is recommended that skin-to-skin contact begins immediately, regardless of method of delivery. It should be uninterrupted for at least 60 minutes.

Initiation of breastfeeding is typically a direct consequence of uninterrupted skin-to-skin contact, as it is a natural behaviour for most babies to slowly squirm or crawl toward the breast. Mothers may be supported to help the baby to the breast if desired. Mothers should be helped in understanding how to support the baby and how to make sure the baby is able to attach and suckle at the breast. All mothers should be supported to initiate breastfeeding as soon as possible after birth, within the first hour after delivery (recommendation 2).

It should be noted that the milk a newborn consumes immediately after birth is colostrum, which is highly nutritious and contains important antibodies and immune-active substances. The amount of colostrum a newborn will receive in the first few feedings is very small. Early suckling is important for stimulating milk production and establishing the maternal milk supply. The amount of milk ingested is a relatively unimportant factor. During immediate skin-to-skin contact, and for at least the first 2 hours after delivery, sensible vigilance and safety precautions should be taken so that health professionals can observe for, assess and manage any signs of distress. Mothers who are sleepy or under the influence of anaesthesia or drugs will require closer observation. When mothers are not fully awake and responsive, a health professional, doula, friend or family member should accompany the mother, to prevent the baby from being hurt accidentally.

Immediate skin-to-skin care and initiation of breastfeeding is feasible following a caesarean section with local anaesthesia (epidural) (64). After a caesarean section with general anaesthesia, skinto-skin contact and initiation of breastfeeding can begin when the mother is sufficiently alert to hold the infant. Mothers or infants who are medically unstable following delivery may need to delay the initiation of breastfeeding. However, even if mothers are not able to initiate breastfeeding during the first hour after birth, they should still be supported to provide skinto-skin contact and to breastfeed as soon as they are able (65).

Skin-to-skin contact is particularly important for preterm and low-birth-weight infants. Kangaroo mother care involves early, continuous and prolonged skin-to-skin contact between the mother and the baby (66), and should be used as the main mode of care as soon as the baby is stable (defined as the absence of severe apnoea, desaturation and bradycardia), owing to demonstrated benefits in terms of survival, thermal protection and initiation of breastfeeding. The infant is generally firmly held or supported on the mother's chest, often between the breasts, with the mother in a semi-reclined and supported position.

Preterm infants may be able to root, attach to the breast and suckle from as early as 27 weeks' gestation (67). As long as the infant is stable, with no evidence of severe apnoea, desaturation or bradycardia, preterm infants can start breastfeeding. However, early initiation of effective breastfeeding may be difficult for these infants if the suckling reflex is not yet established and/or the mother has not yet begun plentiful milk secretion. Early and frequent milk expression is critical to stimulating milk production and secretion for preterm infants who are not yet able to suckle. Transition to direct and exclusive breastfeeding should be the aim whenever possible (50) and is facilitated by prolonged skinto-skin contact.

Global standards:

• At least 80% of mothers of term infants report that their babies were placed in skin-to-skin contact with them immediately or within 5 minutes after birth and that this contact lasted 1 hour or more, unless there were documented medically justifiable reasons for delayed contact.

• At least 80% of mothers of term infants report that their babies were put to the breast within 1 hour after birth, unless there were documented medically justifiable reasons.

Step 5: Support with breastfeeding

Step 5: Support mothers to initiate and maintain breastfeeding and manage common difficulties.

Rationale: While breastfeeding is a natural human behaviour, most mothers need practical help in learning how to breastfeed. Even experienced mothers encounter new challenges with breastfeeding a newborn. Postnatal breastfeeding counselling and support has been shown to increase rates of breastfeeding up to 6 months of age (*68*). Early adjustments to position and attachment can prevent breastfeeding problems at a later time. Frequent coaching and support helps build maternal confidence.

Implementation: Mothers should receive practical support to enable them to initiate and maintain breastfeeding and manage common breastfeeding difficulties (recommendation 3). Practical support includes providing emotional and motivational support, imparting information and teaching concrete skills to enable mothers to breastfeed successfully. The stay in the facility providing maternity and newborn services is a unique opportunity to discuss and assist the mother with questions or problems related to breastfeeding and to build confidence in her ability to breastfeed.

All mothers should receive individualized attention, but first-time mothers and mothers who have not breastfed before will require extra support. However, even mothers who have had another child might have had a negative breastfeeding experience and need support to avoid previous problems. Mothers delivering by caesarean section and obese mothers should be given additional help with positioning and attachment. Practical support for preterm, including late preterm, newborns is particularly critical, in order to establish and maintain the production of breast milk. Many mothers of preterm infants have health problems of their own and need motivation and extra support for milk expression. Late preterm infants are generally able to exclusively breastfeed at the breast, but are at greater risk of jaundice, hypoglycaemia and feeding difficulties than full-term infants, and thus require increased vigilance (*69*). Mothers of twins also need extra support, especially for positioning and attachment.

A number of topics should be included in teaching mothers to breastfeed. It is essential to demonstrate good positioning and attachment at the breast, which are crucial for stimulating the production of breast milk and ensuring that the infant receives enough milk. Direct observation of a feed is necessary to ensure that the infant is able to attach to and suckle at the breast and that milk transfer is happening. Additionally, facility staff need to educate mothers on the management of engorged breasts, ways to ensure a good milk supply, prevention of cracked and sore nipples, and evaluation of milk intake.

Mothers should be coached on how to express breast milk as a means of maintaining lactation in the event of their being separated temporarily from their infants (recommendation 4). There is not sufficient evidence that one method of expression (hand expression, manual pump or electric pump) is more effective than another (70), and thus any method(s) may be taught, depending on the mother's context. However, hand expression does have the advantage of being available no matter where the mother is and of allowing the mother to relieve pressure or express milk when a pump is not available. Pumps can potentially have more microbial contamination if they cannot easily be cleaned. Mothers also need to be supported for collection and storage of expressed milk. **Global standards:**

- At least 80% of breastfeeding mothers of term infants report that someone on the staff offered assistance with breastfeeding within 6 hours after birth.
- At least 80% of mothers of preterm or sick infants report having been helped to express milk within 1-2 hours after birth.
- At least 80% of breastfeeding mothers of term infants are able to demonstrate how to position their baby for breastfeeding and that the baby can suckle and transfer milk.
- At least 80% of breastfeeding mothers of term infants can describe at least two ways to facilitate milk production for their infants.
- At least 80% of breastfeeding mothers of term infants can describe at least two indicators of whether a breastfed baby consumes adequate milk.
- At least 80% of mothers of breastfed preterm and term infants can correctly demonstrate or describe how to express breast milk.

Step 6: Supplementation

Step 6: Do not provide breastfed newborns any food or fluids other than breast milk, unless medically indicated.

Rationale: Giving newborns any foods or fluids other than breast milk in the first few days after birth interferes with the establishment of breast-milk production. Newborns' stomachs are very small and easily filled. Newborns who are fed other foods or fluids will suckle less vigorously at the breast and thus inefficiently stimulate milk production, creating a cycle of insufficient milk and supplementation that leads to breastfeeding failure. Babies who are supplemented prior to facility discharge have been found to be twice as likely to stop breastfeeding altogether in the first 6 weeks of life (43). In addition, foods and liquids may contain harmful bacteria and carry a risk of disease. Supplementation with artificial milk significantly alters the intestinal microflora (71). Implementation: Mothers should be discouraged from giving any food or fluids other than breast milk, unless medically indicated (recommendation 7). Very few conditions of the infant or mother preclude the feeding of breast milk and necessitate the use of breast-milk substitutes. The WHO/UNICEF document on Acceptable medical reasons for use of breast-milk substitutes describes conditions for which breastfeeding is contraindicated (72). In addition, some breastfed infants will require supplementation. The Academy of Breastfeeding Medicine has laid out a clinical protocol for managing situations in which supplementation of the mother's own milk would become necessary (73). Infants should be assessed for signs of inadequate milk intake and supplemented when indicated, but routine supplementation is rarely necessary in the first few days of life. Lack of resources, staff time or knowledge is not justification for the use of early additional foods or fluids.

Mothers who intend to "mixed feed" (a combination of both breastfeeding and feeding with breast-milk substitutes) should be counselled on the importance of exclusive breastfeeding in the first few weeks of life, and how to establish a milk supply and to ensure that the infant is able to suckle and transfer milk from the breast. Supplementation can be introduced at a later date if the mother chooses. Mothers who report they have chosen not to breastfeed should be counselled on the importance of breastfeeding. However, if they still do not wish to breastfeed, feeding with breast-milk substitutes will be necessary. Mothers who are feeding breast-milk substitutes, by necessity or by choice, must be taught about safe preparation and storage of formula (56) and how to respond adequately to their child's feeding cues.

Infants who cannot be fed their mother's own milk, or who need to be supplemented, especially low-birthweight infants, including those with very low birth weight (5, 75) and other vulnerable infants, should be fed donor human milk. If donor milk is unavailable or culturally unacceptable, breast-milk substitutes are required. In most cases, supplementation is temporary, until the newborn is capable of breastfeeding and/ or the mother is available and able to breastfeed. Mothers must also be supported and encouraged to express their milk to continue stimulating production of breast milk, and to prioritize use of their own milk, even if direct breastfeeding is challenging for a period of time.

Global standards:

- At least 80% of infants (preterm and term) received only breast milk (either from their own mother or from a human milk bank) throughout their stay at the facility.
- At least 80% of mothers who have decided not to breastfeed report that the staff discussed with them the various feeding options and helped them to decide what was suitable in their situations.
- At least 80% of mothers who have decided not to breastfeed report that the staff discussed with them the safe preparation, feeding and storage of breast-milk substitutes.
- At least 80% of term breastfed babies who received supplemental feeds have a documented medical indication for supplementation in their medical record.
- At least 80% of preterm babies and other vulnerable newborns that cannot be fed their mother's own milk are fed with donor human milk.
- At least 80% of mothers with babies in special care report that they have been offered help to start lactogenesis II (beginning plentiful milk secretion) and to keep up the supply, within 1–2 hours after their babies' births.

Step 7: Rooming-in

Step 7: Enable mothers and their infants to remain together and to practise rooming-in 24 hours a day.

Rationale: Rooming-in is necessary to enable mothers to practise responsive feeding, as mothers cannot learn to recognize and respond to their infants' cues for feeding if they are separated from them. When the mother and infant are together throughout the day and night, it is easy for the mother to learn to recognize feeding cues and respond to them. This, along with the close presence of the mother to her infant, will facilitate the establishment of breastfeeding.

Implementation: Facilities providing maternity and newborn services should enable mothers and their infants to remain together and to practise rooming-in throughout the day and night (recommendation 5). Rooming-in involves keeping mothers and infants together in the same room, immediately after vaginal birth or caesarean section, or from the time when the mother is able to respond to the infant, until discharge. This means that the mother and infant are together throughout the day and night. Postnatal wards need to be designed so that there is enough space for mothers and their newborns to be together. Facility staff need to visit the ward regularly to ensure the babies are safe. Babies should only be separated from their mothers for justifiable medical and safety reasons. Minimizing disruption to breastfeeding during the stay in the facility will require health-care practices that enable a mother to breastfeed for as much, as frequently and for as long as her baby needs it.

When a mother is placed in a dedicated ward to recover from a caesarean section, the baby should be accommodated in the same room with her, close by. She will need practical support to position her baby to breastfeed, especially when the baby is in a separate cot or bed.

Rooming-in may not be possible in circumstances when infants need to be moved for specialized medical care (recommendation 5). If preterm or sick infants need to be in a separate room to allow for adequate treatment and observation, efforts must be made for the mother to recuperate postpartum with her infant, or to have no restrictions for visiting her infant. Mothers should have adequate space to express milk adjacent to their infants.

Global standards:

- At least 80% of mothers of term infants report that their babies stayed with them since birth, without separation lasting for more than 1 hour.
- Observations in the postpartum wards and wellbaby observation areas confirm that at least 80% of mothers and babies are together or, if not, have medically justifiable reasons for being separated.
- At least 80% of mothers of preterm infants confirm that they were encouraged to stay close to their infants, day and night.

Step 8: Responsive feeding

Step 8: Support mothers to recognize and respond to their infants' cues for feeding.

Rationale: Breastfeeding involves recognizing and responding to the infant's display of hunger and feeding cues and readiness to feed, as part of a nurturing relationship between the mother and infant. Responsive feeding (also called on-demand or babyled feeding) puts no restrictions on the frequency or length of the infant's feeds, and mothers are advised to breastfeed whenever the infant is hungry or as often as the infant wants. Scheduled feeding, which prescribes a predetermined, and usually time-restricted, frequency and schedule of feeds is not recommended. It is important that mothers know that crying is a late cue and that it is better to feed the baby earlier, since optimal positioning and attachment are more difficult when an infant is in distress.

Implementation: Mothers should be supported to practise responsive feeding as part of nurturing care (recommendation 6). Regardless of whether they breastfeed or not, mothers should be supported to recognize and respond to their infants' cues for feeding, closeness and comfort, and enabled to respond accordingly to these cues with a variety of options, during their stay at the facility providing maternity and newborn services (recommendation 8). Supporting mothers to respond in a variety of ways to behavioural cues for feeding, comfort or closeness enables them to build a caring, nurturing relationship with their infants and increases their confidence in themselves, in breastfeeding and in their infants' growth and development.

When the mother and baby are not in the same room for medical reasons (post-caesarean section, preterm or sick infant), the facility staff need to support the mother to visit the infant as often as possible, so that she can recognize feeding cues. When staff notice feeding cues, they should bring the mother and baby together.

Global standards:

- At least 80% of breastfeeding mothers of term infants can describe at least two feeding cues.
- At least 80% of breastfeeding mothers of term infants report that they have been advised to feed their babies as often and for as long as the infant wants.

Step 9: Feeding bottles, teats and pacifiers

Step 9: Counsel mothers on the use and risks of feeding bottles, teats and pacifiers.

Rationale: Proper guidance and counselling of mothers and other family members enables them to make informed decisions on the use or avoidance of pacifiers and/or feeding bottles and teats until the successful establishment of breastfeeding. While WHO guidelines (3) do not call for absolute avoidance of feeding bottles, teats and pacifiers for term infants, there are a number of reasons for caution about their use, including hygiene, oral formation and recognition of feeding cues.

Implementation: If expressed milk or other feeds are medically indicated for term infants, feeding methods such as cups, spoons or feeding bottles and teats can be used during their stay at the facility (recommendation 10). However, it is important that staff do not become reliant on teats as an easy response to suckling difficulties instead of counselling mothers and enabling them to attach babies properly and suckle effectively.

It is important that the facility staff ensure appropriate hygiene in the cleaning of these utensils, since they can be a breeding ground for bacteria. Facility staff should also inform mothers and family members of the hygiene risks related to inadequate cleaning of feeding utensils, so that they can make an informed choice of the feeding method.

The physiology of suckling at the breast is different from the physiology of suckling from a feeding bottle and teat (76). It is possible that the use of the feeding bottle and teat could lead to breastfeeding difficulties, particularly if use is prolonged. However, the only study on this did not demonstrate a specific carryover effect from suckling at a feeding bottle and teat to suckling at the breast (77).

Pacifiers have long been used to soothe an upset infant. In some cases, they serve a therapeutic purpose, such as reducing pain during procedures when breastfeeding or skin-to-skin contact are not possible. However, if pacifiers replace suckling and thus reduce the number of times an infant stimulates the mother's breast physiologically, this can lead to a reduction of maternal milk production. The use of teats or pacifiers may interfere with the mother's ability to recognize feeding cues. If the use of a pacifier prevents the mother from observing the infant's smacking of the lips or rooting towards the breast, she may delay feeding until the infant is crying and agitated. For preterm infants, evidence does demonstrate that use of feeding bottles with teats interferes with learning to suckle at the breast. If expressed breast milk or other feeds are medically indicated for preterm infants, feeding methods such as cups or spoons are preferable to feeding bottles and teats (recommendation 11). On the other hand, for preterm infants who are unable to breastfeed directly, non-nutritive sucking and oral stimulation may be beneficial until breastfeeding is established (recommendation 9). Non-nutritive sucking or oral stimulation involves the use of pacifiers, a gloved finger or a breast that is not yet producing milk.

There should be no promotion of feeding bottles or teats in any part of facilities providing maternity and newborn services, or by any of the staff. As is the case with breast-milk substitutes, these products fall within the scope of the Code (25–27).

Global standards:

• At least 80% of breastfeeding mothers of preterm and term infants report that they have been taught about the risks of using feeding bottles, teats and pacifiers.

Step 10: Care at discharge

Step 10: Coordinate discharge so that parents and their infants have timely access to ongoing support and care.

Rationale: Mothers need sustained support to continue breastfeeding. While the time in the facility providing maternity and newborn services should provide a mother with basic breastfeeding skills, it is very possible her milk supply has not been fully established until after discharge. Breastfeeding support is especially critical in the succeeding days and weeks after discharge, to identify and address early breastfeeding challenges that occur. She will encounter several different phases in her production of breast milk, her infant's growth and her own circumstances (e.g. going back to work or school), in which she will need to apply her skills in a different way and additional support will be needed. Receiving timely support after discharge is instrumental in maintaining breastfeeding rates. Maternity facilities must know about and refer mothers to the variety of resources that exist in the community.

Implementation: As part of protecting, promoting and supporting breastfeeding, discharge from facilities providing maternity and newborn services should be planned for and coordinated, so that parents and their infants have access to ongoing support and receive appropriate care (recommendation 15). Each mother should be linked to lactation-support resources in the community upon discharge. Facilities need to provide appropriate referrals to ensure that mothers and babies are seen by a health worker 2–4 days after birth and again in the second week, to assess the feeding situation. Printed and/or online information could be useful to provide contacts for support, in case of questions, doubts or difficulties, but this should not substitute for active follow-up care by a skilled professional.

Facilities providing maternity and newborn services need to identify appropriate community resources for continued and consistent breastfeeding support that is culturally and socially sensitive to their needs. The facilities have a responsibility to engage with the surrounding community to enhance such resources. Community resources include primary health-care centres, community health workers, home visitors, breastfeeding clinics, nurses/midwives, lactation consultants, peer counsellors, mother-to-mother support groups, or phone lines ("hot lines"). The facility should maintain contact with the groups and individuals providing the support as much as possible, and invite them to the facility where feasible.

Follow-up care is especially crucial for preterm and low-birth-weight babies. In these cases, the lack of a clear follow-up plan could lead to significant health hazards. Ongoing support from skilled professionals is needed.

Global standards:

- At least 80% of mothers of preterm and term infants report that a staff member has informed them where they can access breastfeeding support in their community.
- The facility can demonstrate that it coordinates with community services that provide breastfeeding/infant feeding support, including clinical management and mother-to-mother support.

2.3. Coordination

Each facility needs to have a structure in place to coordinate the protection, promotion and support of breastfeeding. It is recommended that this area of work is incorporated into the responsibilities of an existing committee or working group comprising decision-makers in the areas of maternal and newborn health, quality assurance and management. If there is no existing structure that can be utilized for this purpose, it might be appropriate to establish a separate body. This body will need to have strong linkages with maternal and newborn health, quality-assurance and management structures and decision-makers.

2.4. Quality-improvement process

The process of changing health-care practices takes time. There are well-documented methods for implementing changes and building systems to sustain the changes once a specific goal has been reached. Quality improvement is a management approach that health professionals can use to reorganize care to ensure that patients receive good-quality health care (78). Quality improvement can be defined as "systematic and continuous actions that lead to measurable improvement in health care services and the health status of targeted patient groups" (79). The process of quality improvement has been extensively studied and there are well-developed models of quality improvement in health care (including by the WHO Regional Office for South-East Asia (78, 80), the Institute for Healthcare Improvement (IHI) (81, 82) and the US Department for Health and Human Services (79).

Quality-improvement processes are cyclical and comprise the following steps: (i) planning a change in the quality of care; (ii) implementing the changes; (iii) measuring the changes in care practices and/or outcomes; and (iv) analysing the changed situation and taking further action to either further improve or maintain the practices. In the IHI model, these steps are called plan, do, study and act (PDSA) and are visualized in Fig. 3.

In the context of the BFHI, a PDSA cycle can be used to improve implementation of each of the Ten Steps. Application of the quality-improvement methodology is particularly important for steps that the facility has found especially difficult and for which the global standards have not been achieved. Once the desired level is achieved, the implementing team can focus on monitoring the performance of the sentinel indicators. The quality-improvement approach is very relevant for the BFHI, and countries are strongly encouraged to apply this approach. It helps to improve sustainability, since standard processes require fewer external resources or additional staff. The BFHI-related aspects can be combined with other quality-improvement initiatives that are already ongoing in newborn health or maternal and child health at the facility.

Regardless of what model of quality improvement is used, some key principles of quality improvement are central:

- the triad of planning, improvement and control is central to the approach: implementing teams need guidance on how to move through these steps;
- active participation of the main service providers or front-line implementers: a team of staff members in the facility should review their own practices and systems and decide on the processes or actions that need to be changed; the day-to-day service providers like nurses, and possibly one or more physicians, know best what works and which obstacles they face;
- engagement of leadership personnel: facility administrators, heads of medical departments and thought leaders need to be convinced of the importance of the protection, promotion and support of breastfeeding and achieving high rates for early initiation of and exclusive breastfeeding; they need to encourage the front-line implementers to adapt their practices where needed, and facilitate and actively support necessary changes; facility managers also play a pivotal role in implementing the critical management procedures;
- measurement and analysis of progress over time: using data to identify where problems are occurring allows a more focused approach to solving them (see the list of possible indicators in Appendix 1, Table 1); the team needs to decide on the key indicators to measure in addition to the two sentinel indicators;
- external evaluation or assessment: qualityassurance systems implemented by national or decentralized authorities with an agreed regularity can be relevant to validate the results and the maintenance of the agreed standards; the indicators in <u>Appendix 1</u>, Tables 1 and 2 can be used for external assessments.

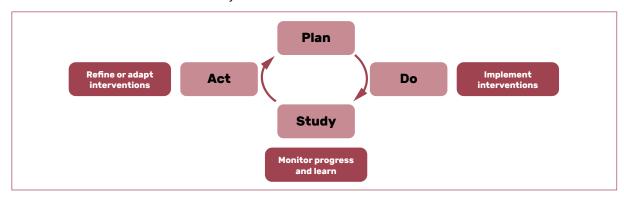


Fig. 3. Visualization of the four steps of quality improvement

Implementation guidance: protecting, promoting, and supporting breastfeeding in facilities providing maternity and newborn services

This page is intentionally blank.

3. Country-level implementation and sustainability

While the changes to clinical care and maintenance of a supportive breastfeeding environment necessarily rest with each facility providing maternity and newborn services, national leadership is needed to ensure that all mothers and newborns receive timely and evidence-based care and services appropriate to their needs. Transforming the quality of services to protect, promote and support breastfeeding in all facilities will require a health-systems approach. WHO has developed a Health Systems Framework that describes six core components, or "building blocks": service delivery, health workforce, health information systems, access to essential medicines, financing, and leadership/governance (*83*). Each of these is relevant for BFHI implementation.

Primary objectives of a national BFHI programme should be to scale-up to 100% coverage of the

programme and sustain recommended practices over time. Countries are called upon to implement nine key responsibilities of a national BFHI programme (see Box 3). These are illustrated in Fig. 4.

National leadership and coordination are critical to achieve both high coverage and sustainability. While all nine responsibilities are interconnected, integration into national policies and standards, improving the training of all health-care professionals, external assessment processes, incentivizing change, and providing necessary technical assistance on the change process are especially important for achieving universal coverage. National monitoring, continuous communication and advocacy, and secure financing are especially important for sustainability over time. These responsibilities are explained in greater detail throughout this section.

Box 3. Nine key responsibilities of a national BFHI programme

- 1. Establish or strengthen a national breastfeeding coordination body.
- 2. Integrate the Ten Steps into relevant national policy documents and professional standards of care.
- 3. Ensure the competency of health professionals and managers in implementation of the Ten Steps.
- 4. Utilize external assessment systems to regularly evaluate adherence to the Ten Steps.
- 5. Develop and implement incentives for compliance and/or sanctions for non-compliance with the Ten Steps.
- 6. Provide technical assistance to facilities that are making changes to adopt the Ten Steps.
- 7. Monitor implementation of the initiative.
- 8. Advocate for the BFHI to relevant audiences.
- 9. Identify and allocate sufficient resources to ensure the ongoing funding of the initiative.



Fig. 4. Key responsibilities of a national BFHI programme.

3.1 National leadership and coordination

Establish or strengthen a national breastfeeding coordination body.

Every country should have an active national coordination body that is responsible for breastfeeding in general and the protection, promotion and support of breastfeeding, specifically in facilities providing maternity and newborn services. The national breastfeeding coordination body should be multisectoral and include representation from government (including health and nutrition, financing and social services), academia, professional organizations, NGOs and community-based organizations. Organizations responsible for maternal and newborn care both within and outside of government need to be part of the breastfeeding coordination body. Some countries have found utility in including representation from consumer organizations or mothers' groups, to ensure that the perspectives of the target populations are considered.

Actors with a conflict of interest, particularly companies that produce and/or market foods for infants and young children, or feeding bottles and teats, cannot be members of the coordination body. The same applies to health professionals, researchers and others who have received funding from producers or distributors of products under the scope of the Code (25-27), or from their parent or subsidiary companies. A conflict of interest is a set of circumstances where the interests of the BFHI may be unduly influenced by the conflicting interest of a partner in a way that affects, or may reasonably be perceived to affect, the integrity, independence, credibility of and public trust in the BFHI in a given country, and its ability to protect, promote and support breastfeeding in facilities providing maternity and newborn services. There is a risk that the aforementioned pressure from the breastmilk substitutes industry will continue to be present and try to undermine BFHI efforts at different levels.

It is most practical when the functions of the coordination body can be added to the functions of an existing governmental department or existing institution or NGO. This helps avoid the BFHI becoming a vertical intervention that is implemented as a stand-alone initiative or "silo", not connected to other maternal and child health and nutrition interventions. It is also recommended that the breastfeeding coordination body is incorporated in the national strategy under which the BFHI is covered.

In countries where the health system is managed in a decentralized manner, members from decentralized levels can be incorporated in one national body, or subnational coordination bodies can be established. Where feasible, WHO and UNICEF can be included as members of the coordinating body, to provide technical support and guidance.

It is recommended to have one clearly identified focal person for the protection, promotion and support of breastfeeding in facilities providing maternity and newborn services. This can either be a government staff member for whom this is part of their duties, or, where needed and feasible, a person appointed only for this task. In some countries, the focal person may be the director of an NGO designated to serve as the BFHI coordinating organization.

The coordination body needs to have terms of reference and a strategic plan with a scope of at least 5 years, with annual workplans. The national breastfeeding coordination body has overall responsibility to plan and coordinate all the key functions of the national BFHI programme as described in Box 3, and ensure they fit the national context.

3.2. Policies and professional standards of care

Integrate the Ten Steps into relevant national policy documents and professional standards of care.

Countries are encouraged to explore all possible avenues for mandating the Baby-friendly standards so that all mother-infant pairs can benefit from timely evidence-based care and services appropriate to their needs. The strongest incentive for facilities providing maternity and newborn services is often a governmental mandate. Through legislation, regulation, accreditation or certification, governments can require health-care facilities to adhere to specific policies and procedures. For example, legislation can require that all facilities have a breastfeeding policy and prohibit them from accepting donations of breast-milk substitutes. Facility accreditation can be made dependent on adherence to a full set of clinical standards and specific management procedures.

The protection, promotion and support of breastfeeding in facilities providing maternity and newborn services need to be integrated into all relevant policy and planning documents, for example in the national nutrition policy and action plans and action plans for maternal, newborn and child health or hospital accreditations.

Broader development plans, such as a national strategy for the reduction of neonatal deaths or a national development strategy, should explicitly include protection, promotion and support of breastfeeding in facilities providing maternity and newborn services. Such inclusion will facilitate the integration of service delivery and inclusion in (national) budgets. It is also important to ensure that other supportive policy documents are developed, including on implementation of the Code (25-27). The key clinical practices and global standards of the revised Ten Steps should be written into the standards of care for professional bodies. At a minimum, standards for nursing, midwifery, family medicine, obstetrics, paediatrics, neonatology, dietetics and anaesthesiology should be laid out as basics of care for all newborns. The national protocols for feeding of infants of mothers who are living with HIV, as well as protocols for the use of donated human milk, also need to be incorporated into these standards. In addition, the management procedures of the revised Ten Steps need to be reflected in relevant guidance documents for clinical professionals, and countries need to develop tools to measure whether the standards of care are being met (see section 3.7).

A relevant guidance document for incorporating the key clinical practices into standards of care is *Standards for improving quality of maternal and newborn care in health facilities (4)*. This document provides clear standards and has incorporated most of the Ten Steps. Several countries are already working to implement these standards in the context of the Quality of Care initiative (84).

It should be clear in the policies and standards of care that the protection, promotion and support of breastfeeding in facilities providing maternity and newborn services need to be maintained and, where necessary, strengthened in humanitarian settings.

3.3. Health professional competency building

Ensure the competency of health professionals and managers in implementation of the Ten Steps.

At all levels of the health-care system, health professionals need to have adequate knowledge, competence and skills to implement globally recommended practices and procedures for the protection, promotion and support of breastfeeding in facilities providing maternity and newborn services. Individual facilities have the responsibility for assessing competencies and ensuring that all of those who work at a facility have appropriate knowledge and skills when these are found to be substandard.

Designated teaching staff with appropriate qualifications, education and experience, will need to be appointed to teach and, if necessary, adapt or develop the new materials and curricula. This is an essential investment for long-term sustainable capacity-strengthening.

Pre-service training for all professions that will interact with pregnant women, deliveries and newborns needs to include adequate time and attention on breastfeeding, including on the Ten Steps, and should include theoretical as well as practical sessions. Since current pre-service training on breastfeeding is inadequate in many countries, new competency-based national curricula may need to be developed and their quality guaranteed. The WHO Model chapter for textbooks for medical students and allied health professionals is a useful basis (85). Curricula on breastfeeding need to include clinical and administrative practices related to the protection, promotion and support of breastfeeding, as well as health-worker responsibilities under the Code (25-27). It is understood that updating a curriculum, especially in the case of national curricula, is often a lengthy process that involves many different stakeholders who are not usually involved in breastfeedingrelated activities (such as the ministry of education and other government institutions where relevant, as well as individual institutions for higher learning and organizations that award professional credentials).

While pre-service training is a critical component of long-term change in maternity practices, all health professionals working with pregnant women, mothers and infants already in practice also need to be educated on timely and appropriate care. Continuing education and in-service training will be important until several batches of newly trained professionals in all the professions and technical areas involved have graduated. Where national guidance or national curricula for in-service training of health professionals exist, the clinical practices and the Code (25-27) need to be incorporated in the curricula. This also ensures that each individual facility does not need to develop its own materials or procedures. Many countries have adapted the 20-hour course of the 2009 BFHI implementation guidance (86). WHO and UNICEF are in the process of revising the course, based on the updated Ten Steps and Global Standards in this document and are also creating an Integrated IYCF [Infant and Young Child Feeding] Counselling Training package.

In-service training must be seen as a short-term solution to a problem, not an ongoing method of capacity-development. On-the-job refresher training sessions and continuing education are needed regularly and can be done in a modular way so that they do not interfere too much with the provision of services. Training needs to be competency based, focusing on practical skills rather than only on theoretical knowledge. The teaching staff in all relevant schools and universities, as well as trainers engaged in in-service training and continuing education, will need to be trained in the new materials. However, this is an essential investment for long-term sustainable capacity-strengthening and an important task of the national breastfeeding coordination body. Train-thetrainer approaches to create a large cadre of BFHI experts across the country are likely to be a costeffective strategy to disseminate in-depth information about the Ten Steps.

Many of the educational materials needed for appropriate maternity and newborn care may be taught through electronic or online courses. This could be an efficient and low-cost means of education, also allowing health professionals to learn at their own pace and review information when they need to refresh their knowledge later on. Existing resources already exist in some countries and could be shared. Health professionals need to be granted study time to undertake self-study courses.

However, teaching some skills will require faceto-face interaction. Some staff will also benefit from face-to-face and group learning, to help them debrief following a difficult personal experience of breastfeeding or because they have worked in situations where they have not been able to provide effective, evidence-based care. In addition, skills assessment will require direct observation. As a result, some one-to-one learning and competency-based assessment will still be needed.

The role of facility managers in the protection, promotion and support of breastfeeding in facilities providing maternity and newborn services is crucial. Performance-based contracts with targets for breastfeeding rates in general, or BFHI implementation in particular, may be useful to strengthen accountability. Facility managers need to have an adequate understanding of breastfeeding and the BFHI, so that they can guide and oversee BFHI implementation at the facility level.

Proactive education of facility administrators and medical directors, combined with technical assistance as needed, may be sufficient to stimulate change in many practices. Implementing most of the Babyfriendly standards does not cost more money (some may even save facilities money, sometimes after an initial investment in adopting a new practice), but require a conscious decision to make a change. If directors understand the rationale for recommended standards, can have their questions answered, and can be helped through challenges, this may be sufficient incentive to make the change.

3.4. External assessment

Utilize external assessment systems to regularly evaluate adherence to the Ten Steps.

All facilities providing maternity and newborn services are responsible for providing timely and appropriate care for mothers and newborns, in line with the Babyfriendly guidelines (32) and national evidence-based quality standards. As described above, facilities need to develop internal monitoring mechanisms to ensure adherence to quality standards. However, external assessment is also critical for quality assurance. The primary purpose of external assessment should be to facilitate technical assistance and correction of inappropriate practices. The technical assistance is not necessarily provided by the external assessors themselves. In some countries, external assessors report back to a specific group, which then provides feedback to the facility.

Monitors from outside the facility are able to validate the results and identify gaps in care and noncompliance with standards much more readily than those within the facility. Therefore, countries need to maintain an ongoing external assessment process (including assessments and re-assessments) to validate adherence to the Ten Steps and to provide feedback to each facility on areas for improvement.

It is recommended that an external assessment process be integrated with other quality-assurance processes, such as facility certification/accreditation or assessments for health insurance schemes. In some certification systems, being designated as a Babyfriendly hospital means that certain aspects of the quality assurances are considered fulfilled, thereby reducing the costs of certification. Incorporation of the BFHI clinical standards into facility certification procedures would help to institutionalize them and would reduce the costs of the overall programme. It must be understood that assessment of the Ten Steps includes a clinical assessment as well as an administrative assessment, and some additional training might be required to incorporate BFHI assessments into existing assessments.

External assessment should review documentation on all of the key clinical practice indicators proposed in <u>Appendix 1</u>, Table 1, including the sentinel indicators. If the data are regularly collected by the facilities, they can be reviewed by the external review team to assess consistent adherence to the clinical steps. External assessment should include some element of validation of the facility's monitoring data via interviews with staff, pregnant women and mothers, at least for some period of time. A particular threshold (e.g. the 80% target) could be applied to decide whether the facility "passes" on each step. In addition, indicators of adherence to the critical management procedures should be assessed with standard indicators. Appendix 1, Table 2 provides a suggested list of indicators for these management practices, and their means of verification. The methods of verification include observation, interviews with clinical staff and review of records. Some of the indicators, such as the facility having a written breastfeeding policy and a summary of the policy being visible to pregnant women, mothers and their families, are easily verifiable.

External assessments should be conducted regularly; this should be done at least every 5 years but preferably more often. The depth and frequency of the external assessments depends on the quality and frequency of internal monitoring, and which information is reported to higher levels.

It might be necessary to select a reduced number of indicators for mainstreaming into other certification/ quality-assurance systems. At a minimum, the sentinel indicators on early initiation of breastfeeding and the rate of exclusive breastfeeding throughout the hospital stay should be included in such systems, since breastfeeding should be the norm in all maternity and newborn care.

If integration of external assessment in other qualityassessment systems is inadequate to guarantee compliance with breastfeeding standards, a vertical stand-alone assessment can be developed instead of, or in addition to, an integrated assessment. An argument in favour of a vertical assessment is that it might be able to include more specific indicators on breastfeeding. Vertical assessments, however, might be more costly and more difficult to sustain in the long term.

Alternatively, spot checks may be used. If adequately resourced, a department of the ministry of health could manage an external assessment system. Embedding it within existing professional organizations or well-functioning NGOs might also be an option in certain settings. In the latter case, it is important that the ministry of health and NGO work together on implementing an effective programme.

3.5. Incentives and sanctions

Develop and implement incentives for compliance and/or sanctions for non-compliance with the Ten Steps.

Health-care facilities make decisions about their policies and procedures, based on a number of considerations, including review of scientific evidence, national or international recommendations, regulations, costs, case-load, client satisfaction and public perceptions. National programmes need to consider what incentives or sanctions are most appropriate to get facilities providing maternity and newborn services to make the necessary changes to fully protect, promote and support breastfeeding. Incentives for change in public and private facilities may be different. Table 1 lists several options for incentivizing compliance with the BFHI standards, which countries are expected to adopt as national standards, and lists key benefits and considerations for each.

A strong incentive would be to financially tie payments for facilities providing maternity and newborn services to an external assessment process in those countries in which this is practised. For example, facilities identified as having more deficiencies in practices might receive a lower rate of reimbursement per delivery compared to those in full compliance with all the standards. This "performance-based financing" or "payment-for-performance" model of healthcare payment is increasingly being used to incentivize quality and efficiency (87). A review of 12 paymentfor-performance case-studies from 10 countries concluded that payment for performance: "did not lead to 'breakthrough' performance improvements in any of the programmes. Most of the programmes did, however, contribute to a greater focus on health system objectives, better generation and use of information, more accountability, and in some cases a more productive dialogue between health purchasers and providers. This also can be described as more effective health sector governance and more strategic health purchasing".(88)

Table 1. Options for incentivizing compliance with the standards of the Baby-friendly Hospital Initiative

Description	Benefits	Challenges	Country type for which this option would be most suitable
Performance-based financing	Meeting the standards would financially benefit the facility	Compliance must be monitored externally Costly if the schema is to pay "extra" for meeting the standards	Countries already applying performance- based financing for other relevant intervention
Inclusion in performance contracts	Clear accountability	Requires indicators that help ensure the sustainability of appropriate facility practices (and not only meeting a specific target)	Countries already using performance contracts
Public recognition of excellence/award/ designation	Staff efforts are acknowledged Motivating for staff Meeting the standards would improve the image of the facility and lead to an increase in the number of clients and therefore revenue	Compliance must be monitored externally Often perceived as an end-point by national and facility managers and staff The meaning of the designation needs to be communicated to the public Only relevant when time-bound and removed when compliance falters Is at odds with the principle that breastfeeding is the norm; allows non- compliance with standards to be seen as "normal care"	Countries with a successful BFHI designation programme
Public reporting of quality indicators and outcomes	Might not need external assessments with specific frequency	Reliance on self- reporting could be biased (although external spot checks could improve quality) Requires public understanding of what practices and outcomes are good	Countries in which public opinion is an important driver of health-care delivery

Alternatively, third-party payers or insurance companies might give preference to facilities with better compliance with the national standards.

Some countries use performance contracts for managers and/or staff of public services that include specific goals to be met. It can be useful to include one or more indicator related to the protection, promotion and support of breastfeeding in facilities providing maternity and newborn services in these contracts.

Public recognition of excellence can also serve as an incentive for improving the quality of care. Hospitals can gain esteem when they achieve certain awards for excellence, as determined by an external assessment. Public recognition of excellence for adherence to the updated Ten Steps might incentivize facilities to comply with the Baby-friendly standards. With this kind of incentive, it is crucial that internal and external quality-assurance systems are in place to sustain the quality of services once the desired level is reached. These need to be designed by national authorities (the national coordination body), so that they are feasible with the available financial and human resources.

The traditional Baby-friendly model was largely organized around the naming of Baby-friendly facilities. While designation is one option that countries can consider to encourage change in facilities providing maternity and newborn services, it is only one of a number of useful options to consider.

Public reporting of quality indicators and outcomes is another way to hold facilities providing maternity and newborn services accountable for the quality of care they provide, and incentivize improvements. A public listing of all facilities in the country providing maternity and newborn services, with their rates of exclusive breastfeeding at discharge, would probably encourage those with the lowest rates to make improvements. Similarly, reporting on rates of skin-to-skin contact would highlight the importance of this practice and call upon individual facilities to catch up with the rest. Consumers' and patients' or clients' groups can also play a role in this accountability process.

Countries need to examine which of these incentives would work best in their context. Some require greater political will but would have long-lasting effects. Others may be more politically feasible but require ongoing engagement and resources.

3.6. Technical assistance to facilities

Provide technical assistance to facilities that are making changes to adopt the Ten Steps.

Facilities will require external assistance to adopt the Ten Steps as the standard of care, from experts who have managed the change process in other facilities or who understand the intricacies of each step in great detail. Providing technical assistance to facilities on an individual basis is likely to be resource intensive and thus it may take years to reach all facilities in the country. This goes for both public and private facilities.

Countries should develop or strengthen and update a cadre of trained professionals to provide technical assistance to facilities working through the change processes. Specific resources and time commitment from the trained professionals and their organizations (where relevant) need to be ensured.

Working with groups of facilities to support one another in the change process can be very effective. The IHI has developed a process for quality improvement through "collaboratives", or groups of similar facilities that engage in policy and practice change through group learning and mutual support (89). Groups may be formed on the basis of geography (e.g. provincial groups), bureaucracy (e.g. all military facilities together), or another relevant grouping. In some countries, hospital systems that own and operate a series of facilities have the power to set policy for many hospitals at once. Such systems provide an opportunity to change many facilities at the same time, with a more streamlined approach.

Where resources are constrained, it may be necessary to phase in technical assistance over time, with a clear plan to achieve national coverage in a set period of time. A variety of strategies for which facilities to target first could be considered:

• A strategic geographic focus, such as starting with one facility in each province, would ensure that throughout the country, all facilities have a nearby facility to look to as a role model in implementing the recommended policies and practices.

• Focusing first on facilities that are most likely to comply with the recommendations (e.g. facilities previously designated as "Baby-friendly", facilities with a history of quality-improvement successes) could provide early wins and demonstrate to other facilities the feasibility of the recommendations.

• Large facilities are also an important early target because the health of a large number of mothers and babies can be improved with changes in only one place. Also, large facilities often serve as a point of comparison for smaller facilities, so having optimal practices in place at these facilities is helpful for scaling up.

• Targeting teaching hospitals may be particularly effective in ensuring that new health professionals are well grounded in the Ten Steps before they are assigned to facilities throughout the country.

3.7 National monitoring

Monitor implementation of the initiative.

Just as individual facilities need to monitor their activities in protecting, promoting and supporting breastfeeding, as well as feeding behaviours, countries need to monitor their activities and breastfeeding outcomes at the national level (and the subnational level where appropriate). Key indicators of breastfeeding outcomes, clinical practices and BFHI programme activities to be monitored at national and subnational levels are listed in <u>Appendix 1</u>, Table 3.

WHO has developed a Global Nutrition Monitoring Framework, which was approved by the WHA in 2015 (37, 38). All countries were recommended by the WHA to report on the indicators in the framework. Two of the indicators are particularly relevant for the BFHI: Prevalence of exclusive breastfeeding in infants aged 6 months or less and Percentage of births in Baby-friendly facilities.

The latter has been defined as the percentage of babies born in a calendar year in facilities that are currently designated as "Baby-friendly". For countries that opt not to operate a "designation" programme, an alternative indicator will be needed to reflect the percentage of babies born in a calendar year that experience care in line with the Ten Steps. This could be calculated from the number of births occurring in facilities that pass national assessment standards, or from reports of mothers on their experiences following birth. In addition to reporting to WHO, countries are recommended to report progress on BFHI coverage in reports to the Committee on the Right to Food, the Committee on the Rights of the Child, and the Scaling Up Nutrition movement. Various data sources can be used for countries to assess adherence to the Ten Steps:

- Household surveys, such as demographic and health surveys, may be used to estimate the percentage of mothers whose maternity experiences adhere to recommended standards. The Demographic and Health Survey (90) already includes questions on early initiation of breastfeeding, exclusive breastfeeding during the facility stay, and skinto-skin contact. Client satisfaction surveys or exit interviews are routinely conducted in many countries and could also provide an opportunity to collect national data on selected aspects of maternity care.
- Where facilities providing maternity and newborn services routinely report data to health management information systems, the data collected at the facility level can be reported to the district, provincial or national database. These reports can be used to document the overall percentage of babies experiencing recommended care, or the percentage of facilities that are meeting a given threshold for acceptable practices.
- Some countries have developed ongoing survey mechanisms in which key informants from facilities report on their adherence to the Ten Steps. The reports may be based on actual clinical records or on perception of usual practice or facility policies. While such surveys could be subject to reporting bias, they may be useful for documenting trends and identifying weak points. These surveys may be based on a random sample of facilities or on a complete assessment of all facilities in the country.

3.8. Communications and advocacy

Advocate for the BFHI to relevant audiences.

The national coordination body will need to undertake ongoing communications and advocacy efforts to ensure sustained implementation of the BFHI. A communications plan should include the elements listed next.

1. Identification of key audiences

- Facility leaders (both governmental and non-governmental), such as hospital directors or chiefs of obstetrics, are critical decision-makers in implementing the Ten Steps.
- Professional associations of nurses, midwives, paediatricians, obstetricians, neonatologists and dietitians are directly affected by changes in standards for breastfeeding care and therefore need to be key targets for communications and advocacy. Hospital associations can become important allies in advocating for systems changes.
- Legislators and funders (including ministries of finance and donors) are an important audience to be kept informed about the BFHI, and breastfeeding programmes more broadly, to ensure their ongoing engagement with and investment in BFHI programmes.
- Pregnant women, their families and other community members are a pivotal audience to increase the demand for improved protection, promotion and support of breastfeeding in facilities providing maternity and newborn services.
- Additional audiences that are important for breastfeeding programmes and the BFHI should be defined by each country.

2. Identification of existing knowledge and attitudes

It is important to understand what the target audiences already understand about breastfeeding and the BFHI before developing communication interventions. Audience research will identify key opportunities where actors are ready to take action, as well as challenging areas where perceptions need to be altered or information gaps filled.

3. Development/adaptation of key messages

The messages need to be tailored to each audience and informed by each audience's knowledge and attitudes, as well as their expected role in supporting and/or implementing the BFHI. An example of a set of messages on the importance of breastfeeding is given in reference (91). For some audiences, it will be important to communicate the Ten Steps in simple language (Annex 2 gives an example of how this could be done). The importance of implementing the Ten Steps for achieving optimal health outcomes is a core message. It is important to emphasize the need to extend the BFHI to all facilities providing maternity and newborn care for countries that have not yet achieved this.

4. Identification of key communication channels

Each audience needs to be reached through the channel(s) they most rely on. For communication to the public, use of mass media communications and social media may be relevant, to complement interpersonal communication channels. Involvement of consumers' and women's organizations, where these exist, and/or work with community leaders, could be important channels for advocating to legislators. Regular presentations at professional association meetings and conferences are needed to maintain the ongoing support of health professionals. Targeted communications messages to facility leaders through direct mailings or at planned (regional) meetings can be useful.

3.9. Financing

Identify and allocate sufficient resources to ensure the ongoing funding of the initiative.

Funding for the protection, promotion and support of breastfeeding in facilities providing maternity and newborn services should primarily come from government resources, with multi-year commitments. The activities need to be incorporated into regular government budget processes so that they can be funded in a sustainable way. Governments need to ensure that strategies and activities are designed in such a way that they can be funded by the government in a sustainable manner, in either the short or medium term. Suggestions for lower-cost and cost-effective approaches include:

- invest in updating and strengthening the coverage of breastfeeding and the skills required for the Ten Steps in the pre-service curricula for all relevant professionals (nurses, midwives, paediatricians, obstetricians, neonatologists, dietitians, etc.); over time, this will reduce the need for in-service training;
- if in-service training is needed, identify options that require less time (including travel time) from trainers, and that are flexible with regard to the hours when they are done (this might include electronic or online training), while ensuring quality and skills-building;
- incorporate BFHI-relevant indicators into existing systems for hospital licensing, monitoring, quality assurance and/or accreditation.

Where practicable, the costs of conducting external assessments of the BFHI standards could be charged to the facilities providing maternity and newborn services themselves. However, it is important that these charges do not create a barrier to participation in the assessment process.

While the BFHI should be a government responsibility, additional funders may be needed if the national budget cannot sustain the initiative because of competing priorities or inadequate resources. External funding sources, such as international donors, foundations or NGOs, may be necessary, either for specific interventions related to the BFHI, or for ongoing operational costs. However, there should be a concerted effort to shift towards government funding wherever possible, since external funding is generally unsustainable. Funding sources for the BFHI cannot have a conflict of interest with breastfeeding and should never be accepted from companies that market foods for infants and young children, or feeding bottles and teats.

4. Coordination of the Baby-friendly Hospital Initiative with other breastfeeding support initiatives outside facilities providing maternity and newborn services

Clearly, facilities providing maternity and newborn services constitute only one of many entry points for protecting, promoting, and supporting breastfeeding. Many other interventions are needed in antenatal care, postpartum care, communities and workplaces. It is critical that those working to improve policies and programmes in facilities providing maternity and newborn services integrate their work with those working in other areas.

For example, health-professional education on breastfeeding is typically quite weak and needs to be strengthened. Training on BFHI standards will need to be integrated into broader pre-service breastfeeding education for health professionals. The WHO *Model chapter for textbooks for medical students and allied health professionals* provides standard information on breastfeeding (85). Development of a medical school curriculum on breastfeeding would not generally be the responsibility of a BFHI coordination body, but contribution of the information on the BFHI standards for such a curriculum probably would.

Similarly, while the BFHI coordination body would not be responsible for improving breastfeeding counselling in primary health-care facilities or antenatal clinics, it would need to ensure that national standards for antenatal care do provide mothers with adequate knowledge about breastfeeding before they enter the facility providing maternity and newborn services.

The BFHI programme needs to work with existing programmes and initiatives to ensure that there are sufficient breastfeeding-support structures in the community to connect mothers to upon facility discharge, even though the programme itself does not carry out services in the community. Improved community support for breastfeeding, including improved quality of primary health care and strong peer networks, is critically important to ensure that mothers are able to successfully breastfeed. Pérez-Escamilla (2016) identified community support as a critical step for sustaining breastfeeding beyond the first few weeks of life (42). Interventions to increase breastfeeding rates have been shown to be much more effective when health services interventions are combined with community interventions (92).

The UNICEF- and WHO-led Global Breastfeeding Collective (93) has identified linkage between health facilities and communities, and encourages community networks that protect, promote and support breastfeeding as a top priority. The national BFHI coordination body should foster the development of numerous types of community breastfeeding support through primary health-care centres, community health workers, home visitors, breastfeeding clinics, nurses/midwives, lactation consultants, peer counsellors, and mother-to-mother support groups.

Improved community support for breastfeeding... is critically important to ensure that mothers are able to successfully breastfeed

5. Transition of BFHI implementation

This implementation guidance for the BFHI describes substantive changes to the Ten Steps and introduces a number of new strategies for national action and facility implementation. As such, countries will need to examine how to transition existing activities related to the BFHI, in light of these changes.

5.1. Countries with a well-functioning national "Baby-friendly" hospital designation programme

This updated implementation guidance moves the BFHI away from a traditional model that focused on facility designation as a main outcome and driver of practice changes. For those countries that currently have a well-functioning designation programme that is able to reach the majority of facilities providing maternity and newborn services nationwide, this new guidance should not be viewed as a reason to discontinue a successful programme.

The coordinating bodies in the countries in this category should develop a plan to incorporate the updated Ten Steps into the national BFHI standards. A transition plan is needed to indicate when facilities are expected to adhere to the updated standards and to use the new tools. Facilities that have already been designated and those in the pipeline for designation will need to be granted a reasonable amount of time to make changes to their practices before the new standards become mandatory. The coordinating body will need to:

- revise public materials on the Ten Steps;
- revise training courses and materials;
- develop or update materials to assist facilities with internal monitoring;
- revise external assessment standards.

In the past, many countries used Picasso's picture, Maternity, for plaques or posters when designating facilities as "Baby-friendly". WHO and UNICEF will no longer provide reproductions of this image and countries that are using designation as an incentive for BFHI compliance will need to develop their own imagery for this.

Where "mother-friendly" criteria that go beyond the Ten Steps have been incorporated into the designation criteria, these can remain in place, unless there is a reason to update them.

While maintaining a designation programme, these countries also need to work on integration of the Ten Steps into national policies and quality-improvement and maternal and child health programmes, as described in <u>section 3</u>. The responsibilities of a national breastfeeding or BFHI coordinating body summarized in Box 3 are equally applicable whether a country operates a designation programme or not.

5.2. Countries without an active or successful BFHI programme

For countries where the BFHI is currently not implemented, or where it has not been possible for "Baby-friendly" designation to reach a majority of facilities, it is recommended to focus on integration and institutionalization of the Ten Steps, with a quality-improvement approach at facility level and a solid, supportive policy environment and monitoring and accountability mechanisms. The activities in <u>section 3</u> lay out priority actions to revitalize the BFHI in a sustainable way. Staff and management of facilities that were designated a while ago will need to be informed of the policy changes and updated standards and about the actions to undertake to comply with these standards.

Annex 1. Ten Steps to Successful Breastfeeding – revised 2018 version: comparison to the original Ten Steps and the new 2017 WHO guideline

Ten Steps to Successful Breastfeeding – revised 2018	Corresponding recommendations from WHO Guideline: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services (2017) (3)	Ten Steps in Protecting, promoting and supporting breast-feeding: the special role of maternity services (1989) (23)
Critical management procedures		
1a. The International Code of Marketing of Breast-milk Substitutes (25–27): Comply fully with the International Code of Marketing of Breast-milk Substitutes and relevant World Health Assembly resolutions.	N/A	N/A (incorporated in the hospital self-appraisal and monitoring guidelines and the external assessment)
1b. Infant feeding policy: Have a written infant feeding policy that is routinely communicated to staff and parents.	Recommendation 12: Facilities providing maternity and newborn services should have a clearly written breastfeeding policy that is routinely communicated to staff and parents.	Step 1: Have a written breastfeeding policy that is routinely communicated to all health-care staff.
1c. Monitoring and data- management systems: Establish ongoing monitoring and data- management systems.	N/A	N/A
2. Staff competency: Ensure that staff have sufficient knowledge, competence and skills to support breastfeeding.	Recommendation 13: Health- facility staff who provide infant feeding services, including breastfeeding support, should have sufficient knowledge, competence and skills to support women to breastfeed.	Step 2: Train all health-care staff in the skills necessary to implement this policy.
Key clinical practices		
3. Antenatal information: Discuss the importance and management of breastfeeding with pregnant women and their families.	Recommendation 14: Where facilities provide antenatal care, pregnant women and their families should be counselled about the benefits and management of breastfeeding.	Step 3: Inform all pregnant women about the benefits and management of breastfeeding.
4. Immediate postnatal care: Facilitate immediate and uninterrupted skin-to-skin contact and support mothers to initiate breastfeeding as soon as possible after birth.	Recommendation 1: Early and uninterrupted skin-to-skin contact between mothers and infants should be facilitated and encouraged as soon as possible after birth.	

Ten Steps to Successful Breastfeeding – revised 2018	Corresponding recommendations from WHO Guideline: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services (2017) (3)	Ten Steps in Protecting, promoting and supporting breast-feeding: the special role of maternity services (1989) (23)
	Recommendation 2: All mothers should be supported to initiate breastfeeding as soon as possible after birth, within the first hour after delivery.	Step 4: Help mothers initiate breastfeeding within a half-hour of birth.
5. Support with breastfeeding: Support mothers to initiate and maintain breastfeeding and manage common difficulties.	Recommendation 3: Mothers should receive practical support to enable them to initiate and maintain breastfeeding and manage common breastfeeding difficulties.	Step 5: Show mothers how to breastfeed and maintain lactation, even if they should be separated from their infants.
	Recommendation 4: Mothers should be coached on how to express breast milk as a means of maintaining lactation in the event of their being separated temporarily from their infants.	
6. Supplementation: Do not provide breastfed newborns any food or fluids other than breast milk, unless medically indicated.	Recommendation 7: Mothers should be discouraged from giving any food or fluids other than breast milk, unless medically indicated.	Step 6: Give newborn infants no food or drink other than breastmilk, unless medically indicated.
7. Rooming-in: Enable mothers and their infants to remain together and to practise rooming-in throughout the day and night.	Recommendation 5: Facilities providing maternity and newborn services should enable mothers and their infants to remain together and to practise rooming-in throughout the day and night. This may not apply in circumstances when infants need to be moved for specialized medical care.	Step 7: Practise rooming in – allow mothers and infants to remain together – 24 hours a day.
8. Responsive feeding: Support mothers to recognize and respond to their infants' cues for feeding.	Recommendation 6: Mothers should be supported to practise responsive feeding as part of nurturing care.	Step 8: Encourage breastfeeding on demand.
	Recommendation 8: Mothers should be supported to recognize their infants' cues for feeding, closeness and comfort, and enabled to respond accordingly to these cues with a variety of options, during their stay at the facility providing maternity and newborn services.	

Ten Steps to Successful Breastfeeding – revised 2018	Corresponding recommendations from WHO Guideline: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services (2017) (3)	Ten Steps in Protecting, promoting and supporting breast-feeding: the special role of maternity services (1989) (23)
9. Feeding bottles, teats and pacifiers: Counsel mothers on the use and risks of feeding bottles, teats and pacifiers.	Recommendation 9: For preterm infants who are unable to breastfeed directly, non-nutritive sucking and oral stimulation may be beneficial until breastfeeding is established.	Step 9: Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.
	Recommendation 10: If expressed breast milk or other feeds are medically indicated for term infants, feeding methods such as cups, spoons or feeding bottles and teats may be used during their stay at the facility.	
	Recommendation 11: If expressed breast milk or other feeds are medically indicated for preterm infants, feeding methods such as cups or spoons are preferable to feeding bottles and teats.	
10. Care at discharge: Coordinate discharge so that parents and their infants have timely access to ongoing support and care.	Recommendation 15: As part of protecting, promoting and supporting breastfeeding, discharge from facilities providing maternity and newborn services should be planned for and coordinated, so that parents and their infants have access to ongoing support and appropriate care.	Step 10: Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

Annex 2. Ten Steps to Successful Breastfeeding in lay terms

	Hospitals support mothers to breastfeed by	Because
1. Hospital policies	 Not promoting infant formula, bottles or teats Making breastfeeding care standard practice Keeping track of support for breastfeeding 	Hospital policies help make sure that all mothers and babies receive the best care
2. Staff competency	 Training staff on supporting mothers to breastfeed Assessing health workers' knowledge and skills 	Well-trained health workers provide the best support for breastfeeding
3. Antenatal care	 Discussing the importance of breastfeeding for babies and mothers Preparing women in how to feed their baby 	Most women are able to breastfeed with the right support
4. Care right after birth	 Encouraging skin-to-skin contact between mother and baby soon after birth Helping mothers to put their baby to the breast right away 	Snuggling skin-to-skin helps breastfeeding get started
5. Support mothers with breastfeeding	 Checking positioning, attachment and suckling Giving practical breastfeeding support Helping mothers with common breastfeeding problems 	Breastfeeding is natural, but most mothers need help at first
6. Supplementing	 Giving only breast milk unless there are medical reasons Prioritizing donor human milk when a supplement is needed Helping mothers who want to formula feed do so safely 	Giving babies formula in the hospital makes it hard to get breastfeeding going
7. Rooming-in	 Letting mothers and babies stay together day and night Making sure that mothers of sick babies can stay near their baby 	Mothers need to be near their babies to notice and respond to feeding cues
8. Responsive feeding	 Helping mothers know when their baby is hungry Not limiting breastfeeding times 	Breastfeeding babies whenever they are ready helps everybody
9. Bottles, teats, and pacifiers	• Counselling mothers about the use and risks of feeding bottles and pacifiers	Everything that goes in the baby's mouth needs to be clean
10.Discharge	 Referring mothers to community resources for breastfeeding support Working with communities to improve breastfeeding support services 	Learning to breastfeed takes time

Annex 3. External review group members

Ms Genevieve Becker (until June 2016) International Consultant BEST Services – Breastfeeding Education Support and Training Ireland

Dr Ala Curteanu Chief of Perinatology Department Mother and Child Institute Republic of Moldova

Dr Teresita Gonzalez de Cosío (from April 2016) Director of Department of Health Universidad Iberoamericana Mexico

Dr Rukhsana Haider

Founder and Chair Training & Assistance for Health & Nutrition (TAHN) Foundation Bangladesh

Dr Miriam H Labbok (until August 2016) Founding Professor and Director Carolina Global Breastfeeding Institute (CGBI) The University of North Carolina at Chapel Hill United States of America

Dr Duong Huy Luong Deputy Head of Quality Management Division Ministry of Health Viet Nam

Dr Chessa Lutter (from November 2016) Independent Consultant United States of America

Dr Cria G Perrine (from April 2016) Lead, Infant Feeding Team, Nutrition Branch Division of Nutrition, Physical Activity, and Obesity Centers for Disease Control and Prevention (CDC) United States of America

Ms Randa Saadeh Independent Consultant Lebanon

Dr Isabella Sagoe-Moses Deputy Director Reproductive and Child Health, Ghana Health Service Ghana

Ms Julie Stufkens Executive Officer New Zealand Breastfeeding Alliance (NZBA) New Zealand

References

- 1. World Health Organization, United Nations Children's Fund, Wellstart International. The Baby-friendly Hospital Initiative: monitoring and reassessment: tools to sustain progress. Geneva: World Health Organization; 1991 (WHO/NHD/99.2; http://apps.who.int/iris/handle/10665/65380, accessed 7 March 2018).
- 2. Victora CG, Bahl R, Barros AJ, França GV, Horton S, Krasevec J et al. Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. Lancet. 2016;387(10017):475–90. doi:10.1016/S0140-6736(15)01024-7.
- Guideline: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstre am/10665/259386/1/9789241550086-eng.pdf?ua=1, accessed 7 March 2018).
- 4. Standards for improving quality of maternal and newborn care in health facilities. Geneva: World Health Organization; 2016 (http://apps.who.int/iris/bitstream/10665/249155/1/9789241511216-eng.pdf?ua=1, accessed 7 March 2018).
- 5. Guidelines on optimal feeding of low birth-weight infants in low- and middle-income countries. Geneva: World Health Organization; 2011 (http://www.who.int/maternal_child_adolescent/ documents/9789241548366.pdf?ua=1, accessed 7 March 2018).
- 6. WHO recommendations: intrapartum care for a positive childbirth experience. Geneva: World Health Organization; 2018 (http://apps.who.int/iris/bitstream/10665/260178/1/9789241550215-eng.pdf, accessed 7 March 2018).
- World Health Organization, United Nations Children's Fund. Global strategy for infant and young child feeding. Geneva: World Health Organization; 2003 (http://apps.who.int/iris/ bitstream/10665/42590/1/9241562218.pdf, accessed 7 March 2018).
- 8. United Nations Children's Fund. UNICEF data: monitoring the situation of children and women. Access the data: infant and young child feeding (<u>http://data.unicef.org/topic/nutrition/infant-and-young-child-feeding/</u>, accessed 7 March 2018).
- 9. Smith ER, Hurt L, Chowdhury R, Sinha B, Fawzi W, Edmond KM et al. Delayed breastfeeding initiation and infant survival: a systematic review and meta-analysis. PLoS One. 2017;12(7):e0180722. doi:10.1371/ journal.pone.0180722.
- NEOVITA Study Group. Timing of initiation, patterns of breastfeeding, and infant survival: prospective analysis of pooled data from three randomised trials. Lancet Glob Health. 2016;4(4):e266–75. doi:10.1016/ S2214-109X(16)00040-1.
- The optimal duration of exclusive breastfeeding. Report of an expert consultation Geneva, Switzerland, 28–30 March 2001. Geneva: World Health Organization; 2011 (WHO/NHD01.09, WHO/FCH/CAH/01.24; http://apps.who.int/iris/bitstream/10665/67219/1/WHO_NHD_01.09.pdf?ua=1, accessed 7 March 2018).
- 12. Salmon L. Food security for infants and young children: an opportunity for breastfeeding policy? Int Breastfeed J. 2015;10:7. doi:10.1186/s13006-015-0029-6.
- 13. Rollins NC, Bhandari N, Hajeebhoy N, Horton S, Lutter CK, Martines JC et al., *The Lancet* Breastfeeding Series Group. Why invest, and what it will take to improve breastfeeding practices? Lancet. 2016;387:491– 504. doi:10.1016/S0140-6736(15)01044-2.
- 14. Victora CG, Horta BL, Loret de Mola C, Quevedo L, Pinheiro RT, Gigante DP et al. Association between breastfeeding and intelligence, educational attainment, and income at 30 years of age: a prospective birth cohort study from Brazil. Lancet Glob Health. 2015;3:e199–e205. doi: 10.1016/S2214-109X(15)70002-1.
- 15. Colchero MA, Contreras-Loya D, Lopez-Gatell H, González de Cosío T. The costs of inadequate breastfeeding of infants in Mexico. Am J Clin Nutr. 2015;101(3):579-86. doi:10.3945/ajcn.114.092775.

- 16. Bartick MC, Schwarz EB, Green BD, Jegier BJ, Reinhold AG, Colaizy TT et al. Suboptimal breastfeeding in the United States: maternal and pediatric health outcomes and costs. Matern Child Nutr. 2016;13(1). doi:10.1111/mcn.12366.
- 17. Cohen R, Mrtek MB, Mrtek RG. Comparison of maternal absenteeism and infant illness rates among breast-feeding and formula-feeding women in two corporations. Am J Health Promot. 1995;10(2):148–153. doi:10.4278/0890-1171-10.2.148.
- Dadhich JP, Smoth J, Iellamo A, Suleiman A. Report on carbon footprints due to milk formula: a study from selected countries of the Asia- Pacific Region. Delhi: BPNI/IBFAN Asia; 2016 (http://ibfan.org/docs/Carbon-Footprints-Due-to-Milk-Formula.pdf, accessed 7 March 2018).
- 19. Infant and young child feeding in emergencies. Operational guidance for emergency relief staff and programme managers, version 3.0 Oxford: IFE Core Group; 2017 (http://www.ennonline.net/operationalguidance-v3-2017, accessed 7 March 2018).
- 20. Joint statement by the UN Special Rapporteurs on the Right to Food, Right to Health, the Working Group on Discrimination against Women in law and in practice, and the Committee on the Rights of the Child in support of increased efforts to promote, support and protect breast-feeding. Geneva: United Nations Human Rights Office of the High Commissioner; 2016 (http://www.ohchr.org/EN/NewsEvents/Pages/ DisplayNews.aspx?NewsID=20871, accessed 7 March 2018).
- 21. United Nations. Sustainable Develoment Goals: 17 goals to transform our world (http://www.un.org/ sustainabledevelopment/sustainable-development-goals/, accessed 7 March 2018).
- 22. United Nations Children's Fund. UNICEF data: monitoring the situation of children and women. Joint UNICEF/WHO database 2016 of skilled health personnel, based on population based national household survey data and routine health systems (https://data.unicef.org/topic/maternal-health/delivery-care/#, accessed 7 March 2018).
- 23. Protecting, promoting and supporting breast-feeding: the special role of maternity services. A joint WHO/UNICEF statement. Geneva: World Health Organization; 1989 (http://apps.who.int/iris/bitstream/10665/39679/1/9241561300.pdf, accessed 7 March 2018).
- 24. Innocenti Declaration on the protection, promotion and support of breastfeeding. New York: United Nations Children's Fund; 1991 (<u>http://www.who.int/about/agenda/health_development/events/innocenti_</u><u>declaration_1990.pdf</u>, accessed 7 September 2018).
- 25. International Code of Marketing of Breast-milk Substitutes. Geneva: World Health Organization; 1981 (http://www.who.int/nutrition/publications/code_english.pdf, accessed 7 March 2018).
- 26. 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, accessed 7 March 2018).
- 27. World Health Organization. Code and subsequent resolutions (<u>http://www.who.int/nutrition/netcode/</u><u>resolutions/en/</u>, accessed 7 March 2018).
- 28. Evidence for the ten steps to successful breastfeeding. Geneva: World Health Organization; 1998 (WHO/ CHD/98.9; http://apps.who.int/iris/bitstream/10665/43633/1/9241591544_eng.pdf, accessed 7 March 2018).
- 29. Resolution WHA47.5. Infant and young child nutrition. In: Forty-seventh World Health Assembly, Geneva, 2–12 May 1994. Resolutions and decisions, annexes. Geneva: World Health Organization; 1994 (<u>http://www.who.int/nutrition/topics/WHA47.5_iycn_en.pdf</u>, accessed 7 March 2018).
- Resolution WHA49.15. Infant and young child nutrition. In: Forty-ninth World Health Assembly, Geneva, 20–25 May 1996. Resolutions and decisions, annexes. Geneva: World Health Organization; 1996 (http://www.who.int/nutrition/topics/WHA49.15_iycn_en.pdf, accessed 7 March 2018).

- 31. Innocenti Declaration 2005 on infant and young child feeding, 22 November 2005, Florence, Italy. Geneva: United Nations Children's Fund; 2005 (http://www.unicef.org/nutrition/files/innocenti2005m_FINAL_ ARTWORK_3_MAR.pdf, accessed 7 March 2018).
- 32. Baby-friendly Hospital Initiative: revised, updated and expanded for integrated care. Geneva: World Health Organization and United Nations Children's Fund; 2009 (http://apps.who.int/iris/handle/10665/43593, accessed 7 March 2018).
- 33. 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, accessed 7 March 2018).
- 34. World Health Organization. Global targets 2025. To improve maternal, infant and young child nutrition (http://www.who.int/nutrition/global-target-2025/en/, accessed 7 March 2018).
- 35. Food and Agriculture Organization of the United Nations, World Health Organization. Second International Conference on Nutrition, Rome, 19–21 November 2014. Conference outcome document: framework for action. Rome: Food and Agriculture Organization of the United Nations; 2014 (http://www.fao.org/3/amm215e.pdf, accessed 7 March 2018).
- 36. Food and Agriculture Organization of the United Nations, World Health Organization. United Nations Decade of Action on Nutrition 2016–2025. Frequently asked questions. Rome: Food and Agriculture Organization of the United Nations; 2016 (http://www.fao.org/3/a-i6137e.pdf, accessed 7 March 2018).
- 38. Indicators for the Global monitoring framework on maternal, infant and young child nutrition. Geneva: World Health Organization; 2014 (<u>http://www.who.int/nutrition/topics/indicators_monitoringframework_miycn_background.pdf?ua=1</u>, accessed 7 March 2018).
- 39. Labbok MH. Global Baby-friendly Hospital Initiative monitoring data: update and discussion. Breastfeed Med. 2012;7:210–22. doi:10.1089/bfm.2012.0066.
- 40. National implementation of the Baby-friendly Hospital Initiative. Geneva: World Health Organization; 2017 (<u>http://apps.who.int/iris/bitstream/10665/255197/1/9789241512381-eng.pdf?ua=1</u>, accessed 7 March 2018).
- Kramer MS, Chalmers B, Hodnett ED, Sevkovskaya Z, Dzikovich I, Shapiro S et al. Promotion of Breastfeeding Intervention Trial (PROBIT): a randomized trial in the Republic of Belarus. JAMA. 2001;285:413–20.
- 42. Pérez-Escamilla R, Martinez JL, Segura-Pérez S. Impact of the Baby-friendly Hospital Initiative on breastfeeding and child health outcomes: a systematic review. Matern Child Nutr. 2016;12(3):402–17. doi:10.1111/mcn.12294.
- 43. DiGirolamo AM, Grummer-Strawn LM, Fein SB. Effect of maternity-care practices on breastfeeding. Pediatrics. 2008;122(Suppl. 2):S43–9. doi:10.1542/peds.2008-1315e.
- 44. Saadeh RJ. The Baby-Friendly Hospital Initiative (BFHI) 20 years on: facts, progress and the way forward. J Hum Lact. 2012. doi:10.1177/0890334412446690.
- Munn AC, Newman SD, Mueller M, Phillips SM, Taylor SN. The impact in the United States of the Baby-Friendly Hospital Initiative on early infant health and breastfeeding outcomes. Breastfeed Med. 2016;11:222–30. doi:0.1089/bfm.2015.0135.

- 46. United Nations Children's Fund, World Health Organization. Country experiences with the Baby-friendly Hospital Initiative: Compendium of case studies from around the world. New York: United Nations Children's Fund; 2017 (https://www.unicef.org/nutrition/files/BFHI_Case_Studies_FINAL.pdf, accessed 7 March 2018).
- 47. Pan American Health Organization, World Health Organization Regional Office for the Americas. The Baby Friendly Hospital Initiative in Latin America and the Caribbean: current status, challenges, and opportunities. Washington (DC): Pan American Health Organization; 2016 (http://iris.paho.org/xmlui/ bitstream/handle/123456789/18830/9789275118771_eng.pdf?sequence=1&isAllowed=y, accessed 7 March 2018).
- 48. WHO handbook for guideline development, 2nd ed. Geneva: World Health Organization; 2014 (http://apps. who.int/medicinedocs/documents/s22083en/s22083en.pdf, accessed 7 March 2018).
- 49. World Health Organization, United Nations Children's Fund. Baby-friendly Hospital Initiative Congress:
 24–26 October 2016. Geneva: World Health Organization; 2016 (http://www.who.int/nutrition/ events/2016_bfhi_congress_24to26oct/en/, accessed 7 March 2018).
- 50. Nyqvist KH, Maastrup R, Hansen MN, Haggkvist AP, Hannula L, Ezeonodo A et al. Neo-BFHI: the Babyfriendly Hospital Initiative for neonatal wards. Three guiding principles and Ten Steps to protect, promote and support breastfeeding. Core document with recommended standards and criteria. Nordic and Quebec Working Group; 2015 (http://www.ilca.org/main/learning/resources/neo-bfhi, accessed 7 March 2018).
- 51. Jaafar SH, Ho JJ, Jahanfar S, Angolkar M. Effect of restricted pacifier use in breastfeeding term infants for increasing duration of breastfeeding. Cochrane Database Syst Rev. 2016(8):CD007202. doi:10.1002/14651858.CD007202.pub4.
- 52. Foster JP, Psaila K, Patterson T. Non-nutritive sucking for increasing physiologic stability and nutrition in preterm infants. Cochrane Database Syst Rev. 2016;(10):CD001071. doi:10.1002/14651858.CD001071.pub3.
- 53. Greene Z, O'Donnell CP, Walshe M. Oral stimulation for promoting oral feeding in preterm infants. Cochrane Database Syst Rev. 2016;(9):CD009720. doi:10.1002/14651858.CD009720.pub2.
- 54. Maternal, infant and young child feeding. Guidance on ending the inappropriate promotion of foods for infants and young children. In: Sixty-ninth World Health Assembly, Geneva, 23–28 May 2016. Provisional agenda item 12.1. Geneva: World Health Organization; 2016 (A69/7 Add 1; http://apps.who.int/gb/ebwha/pdf_files/WHA69/A69_7Add1-en.pdf?ua=1, accessed 7 March 2018).
- 55. World Health Organization, United Nations Children's Fund. Guideline: updates on HIV and infant feeding. The duration of breastfeeding and support from health services to improve feeding practices among mothers living with HIV. Geneva: World Health Organization; 2016 (http://apps.who.int/iris/bitstr eam/10665/246260/1/9789241549707-eng.pdf, accessed 7 March 2018).
- 56. Framework on integrated people-centred health services. In: Sixty-ninth World Health Assembly, Geneva, 23–28 May 2016. Provisional agenda item 16.1. Geneva: World Health Organization; 2016 (<u>http://apps.who.int/gb/ebwha/pdf_files/WHA69/A69_39-en.pdf?ua=1&ua=1</u>, accessed 7 March 2018).
- 57. Smith LJ, Kroeger M. Impact of birthing practices on breastfeeding, 2nd ed. Sudbury: Jones and Bartlett; 2010.
- 58. The prevention and elimination of disrespect and abuse during facility-based childbirth. Geneva: World Health Organization; 2015. (http://apps.who.int/iris/bitstream/10665/134588/1/WHO_RHR_14.23_eng.pdf?ua=1&ua=1&ua=1, accessed 7 March 2018).
- 59. Piwoz E Huffmann S. The impact of marketing of breast-milk substitutes on WHO-recommended breastfeeding practices. Food Nutr Bull. 2015;36:373–86. doi:10.1177/0379572115602174.

- 60. Breaking the rules stretching the rules 2014. Evidence of violations of the International Code of Marketing of Breastmilk Substitutes and subsequent resolutions compiled from January 2011 to December 2013. Penang: International Baby Food Action Network International Code Documentation Centre; 2014 (http://www.ibfan-icdc.org/wp-content/uploads/2017/03/1__Preliminary_pages_5-2-2014.pdf, accessed 7 March 2018 [Executive summary]).
- 61. Baker P, Smith J, Salmon L, Friel S, Kent G, Iellamo A et al. Global trends and patterns of commercial milkbased formula sales: is an unprecedented infant and young child feeding transition underway? Public Health Nutr. 2016;19(14):2540–50. doi:10.1017/S1368980016001117.
- 62. Resolution 39.28. Infant and young child feeding. In: Thirty-ninth World Health Assembly, Geneva, 5–16 May 1986. Resolutions and decisions, annexes. Geneva: World Health Organization; 1986 (http://www.who.int/nutrition/topics/WHA39.28_iycn_en.pdf?ua=1, accessed 7 March 2018).
- 63. US Department of Health and Human Services National Institutes of Health. What are the risk factors for preterm labor and birth? (https://www.nichd.nih.gov/health/topics/preterm/conditioninfo/Pages/who_____risk.aspx, accessed 7 March 2018).
- 64. Stevens J, Schmied V, Burns E, Dahlen H. Immediate or early skin-to-skin contact after a Caesarean section: a review of the literature. Matern Child Nutr. 2014;10:456–73. doi:10.1111/mcn.12128.
- 65. Implications of cesarean delivery for breastfeeding outcomes and strategies to support breastfeeding. Washington (DC): Alive & Thrive; 2014 (A&T Technical Brief Issue 8, February 2014; <u>http://aliveandthrive.org/wp-content/uploads/2014/11/Insight-Issue-8-Cesarean-Delivery-English.pdf</u>, accessed 7 March 2018).
- 66. Kangaroo mother care: a practical guide. Geneva: World Health Organization; 2003 (http://apps.who.int/ iris/bitstream/10665/42587/1/9241590351.pdf, accessed 7 March 2018).
- 67. Nyqvist KH, Sjoden PO, Ewald U. The development of preterm infants' breastfeeding behavior. Early Hum Dev. 1999;55(3):247-64.
- 68. McFadden A, Gavine A, Renfrew MJ, Wade A, Buchanan P, Taylor JL et al. Support for healthy breastfeeding mothers with healthy term babies. Cochrane Database Syst Rev. 2017;(2):CD001141. doi:10.1002/14651858. CD001141.pub5.
- 69. Meier PP, Furman LM, Degenhardt M. Increased lactation risk for late preterm infants and mothers: evidence and management strategies to protect breastfeeding. J Midwifery Womens Health. 2007;52(6):579–87.
- 70. Becker GE, Smith HA, Cooney F. Methods of milk expression for lactating women. Cochrane Database Syst Rev. 2016;(9):CD006170. doi:10.1002/14651858.CD006170.pub5.
- 71. Salvatori G, Guaraldi F. Effect of breast and formula feeding on gut microbiota shaping in newborns. Front Cell Infect Microbiol. 2012;2:94. doi:10.3389/fcimb.2012.00094.
- 72. World Health Organization, United Nations Children's Fund. Acceptable medical reasons for use of breastmilk substitutes. Geneva: World Health Organization; 2009. (WHO/NMH/NHD?09.1, WHO/FCH/CAH/09.1; http://apps.who.int/iris/bitstream/10665/69938/1/WHO_FCH_CAH_09.01_eng.pdf, accessed 7 March 2018).
- Kellams A, Harrel C, Omage S, Gregory C, Rosen-Carole C, Academy of Breastfeeding Medicine. ABM Clinical Protocol #3: Supplementary feedings in the healthy term breastfed neonate, revised 2017. Breastfeed Med. 2017;12)188–98. doi:10.1089/bfm.2017.29038.ajk.
- 74. World Health Organization, Food and Agriculture Organization of the United Nations. Safe preparation, storage and handling of powdered infant formula: guidelines. Geneva: World Health Organization; 2007 (http://www.who.int/foodsafety/publications/micro/pif_guidelines.pdf, accessed 7 March 2018).

- 75. DeMarchis A, Israel-Ballard K, Mansen KA, Engmann C. Establishing an integrated human milk banking approach to strengthen newborn care. J Perinatol. 2017;37(5):469–74. doi:10.1038/jp.2016.198.
- 76. Bu'Lock F, Woolridge MW, Baum JD. Development of co-ordination of sucking, swallowing and breathing: ultrasound study of term and preterm infants. Dev Med Child Neurol. 1990;32:669–78.
- 77. Woolridge MW. Problems of establishing lactation. Food Nutr Bull. 1996;17(4):316–23.
- 78. Improving the quality of hospital care for mothers and newborns: coaching manual. POCQI: point-of-care quality improvement. New Delhi: World Health Organization Regional Office for South-East Asia; 2017 (http://apps.who.int/iris/bitstream/10665/255876/1/9789290225485-eng.pdf, accessed 7 March 2018).
- 79. Quality improvement. Rockville (MD): US Department of Health and Human Services Health Resources and Service Administration; 2011 (https://www.hrsa.gov/quality/toolbox/508pdfs/qualityimprovement.pdf, accessed 7 March 2018).
- 80. Improving the quality of hospital care for mothers and newborns: learner manual. POCQI: point-of-care quality improvement. New Delhi: World Health Organization Regional Office for South-East Asia; 2017 (https://www.newbornwhocc.org/POCQI-Learner-Manual.pdf, accessed 7 March 2018).
- 81. Institute for Healthcare Improvement. How to improve (<u>http://www.ihi.org/resources/Pages/</u> HowtoImprove/default.aspx, accessed 7 March 2018).
- 82. Institute for Healthcare Improvement. Quality Improvement Essentials Toolkit (<u>http://www.ihi.org/</u> resources/Pages/Tools/Quality-Improvement-Essentials-Toolkit.aspx, accessed 7 March 2018).
- 84. Quality, Equity, Dignity. A network for improving quality of care for maternal, newborn and child health. Quality of care (<u>http://www.qualityofcarenetwork.org/network-improve-qoc</u>, accessed 7 March 2018).
- 85. Infant and young child feeding. Model chapter for textbooks for medical students and allied health professionals. Geneva: World Health Organization; 2009 (http://www.who.int/maternal_child_adolescent/ documents/9789241597494/en/, accessed 7 March 2018).
- 86. Baby-friendly Hospital Initiative: revised updated and expanded for integrated care. Section 3: breastfeeding promotion and support in a Baby-friendly hospital. A 20-hour course for maternity staff. Geneva: World Health Organization and United Nations Children's Fund; 2009. (http://www.who.int/ nutrition/publications/infantfeeding/bfhi_trainingcourse_s3/en/, accessed 7 March 2018).
- 87. Baird C. Top healthcare stories for 2016: pay-for-performance. Arlington (VA): Committee for Economic Development; 2016 (https://www.ced.org/blog/entry/top-healthcare-stories-for-2016-pay-for-performance, accessed 7 March 2018).
- 88. Cashin C, Chi YL, Smith P, Borowitz M, Thomson S, editors. Paying for performance in healthcare: Implications for health system performance and accountability. Maidenhead: Open University Press, McGraw-Hill Education; 2014 (<u>http://www.euro.who.int/___data/assets/pdf__file/0020/271073/Paying-____for-Performance-in-Health-Care.pdf</u>, accessed 7 March 2018).
- 89. The Breakthrough Series: IHI's collaborative model for achieving breakthrough improvement. IHI Innovation Series white paper. Boston: Institute for Healthcare Improvement; 2003 (http://www.ihi.org/resources/Pages/IHIWhitePapers/ TheBreakthroughSeriesIHIsCollaborativeModelforAchievingBreakthroughImprovement.aspx, accessed 7 March 2018).
- 90. DHS Program. Demographic and Health Surveys: Model Woman's Questionnaire. Rockville (MD): DHS Program; 2017 (<u>https://dhsprogram.com/pubs/pdf/DHSQ7/DHS7-Womans-QRE-EN-07Jun2017-DHSQ7</u>. pdf, accessed 7 March 2018).

- 91. United Nations Children's Fund, World Health Organization, 1000 Days, Alive & Thrive. Nurturing the health and wealth of nations: the investment case for breastfeeding. New York and Geneva: United Nations Children's Fund and World Health Organization; 2017 (http://www.who.int/nutrition/publications/ infantfeeding/global-bf-collective-investmentcase.pdf?ua=1, accessed 7 March 2018).
- 92. Sinha B, Chowdhury R, Sankar M, Martines J, Teneja S, Mazumder S et al. Interventions to improve breastfeeding outcomes: systematic review and meta analysis. Acta Paediatr. 2015;104:114–34. doi:10.1111/ apa.13127.
- 93. United Nations Children's Fund. The Global Breastfeeding Collective (<u>https://www.unicef.org/nutrition/</u> index_98470.html, accessed 7 March 2018).

For more information, please contact:

Department of Nutrition for Health and Development

World Health Organization

Avenue Appia 20 CH-1211 Geneva 27 Switzerland

Email: nutrition@who.int www.who.int/nutrition



