WHO Technical Consultation on Postpartum and Postnatal Care

World Health Organization

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Department of Making Pregnancy Safer

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This document was prepared by Mathai Matthews, von Xylander Severin and Zupan Jelka based on the WHO Technical consultation on postpartum and postnatal care held in Geneva, October 29-31, 2008.

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Department of Making Pregnancy Safer

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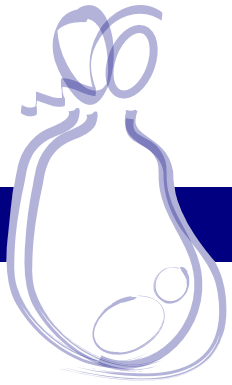
Contents

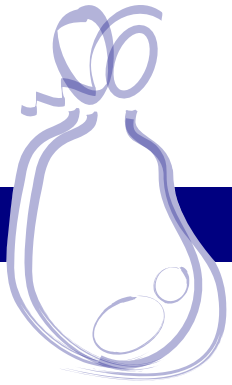
	Preface	**1**
1	**Introduction**	**2**
2	**Providing postpartum and postnatal care: towards a new concept**	**3**
3	**Updating WHO guidelines on postpartum and postnatal care**	**5**
4	**Scope of the updated WHO guidelines**	**6**
5	**Preparations for the WHO Technical Consultation on Postpartum and Postnatal Care**	**7**
5.1	Identifying existing guidelines and epidemiological evidence	7
	5.1.1 Criteria for review	7
	5.1.2 Identification of existing guidelines	7
5.2	Clinical and programmatic guidelines	9
	5.2.1 Clinical and programmatic guidelines	9
	5.2.2 Clinical and programmatic questions on postpartum and postnatal care	10
5.3	Formation of the international panel of experts	10
6	**WHO Technical Consultation on Postpartum and Postnatal Care**	**11**
6.1	Objectives	11
6.2	Participants and proceedings	11
6.3	Defining terms	12
6.4	Assessment of existing guidelines and information on the postnatal period	12
	6.4.1 Epidemiological considerations in the postnatal period	12
	6.4.2 Timing of postnatal care provision	13
	6.4.3 Content of the postnatal care package	14
6.5	Conclusions	14
7	**Next steps**	**16**
References		**17**
Figure 1-3		**19**
Tables 1-4		**23**
	1. List of participants	52
	2. Glossary	**56**



Preface

The period soon after childbirth poses substantial health risks for both mother and newborn infant. Yet the postpartum and postnatal period receives less attention from health care providers than pregnancy and childbirth. Models of postpartum and postnatal care have changed little since first developed a century ago.

The World Health Organization (WHO) is in the process of revising and updating its guidance on postpartum and postnatal care delivered by skilled providers. The purposes of revision are to encourage and support broader provision of care and to foster a new, woman-centred concept of care that promotes health as well as maintains vigilance against dangerous complications. In October 2008 an expert consultation took place in Geneva to advise WHO on the coverage, form and content for revised and updated guidance. This meeting, which is documented here, prepared for an upcoming technical consultation to develop the guidance itself.

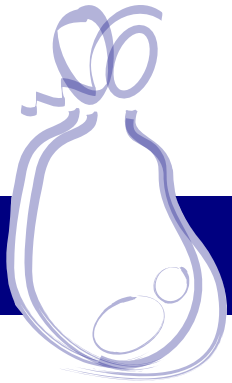


Introduction

The first hours, days and weeks after childbirth are a dangerous time for both mother and newborn infant. Among the more than 500 000 women who die each year due to complications of pregnancy and childbirth *(1)*, most deaths occur during or immediately after childbirth *(2)*. Every year three million infants die in the first week of life, and another 900 000 die in the next three weeks *(3)*.

Bleeding and infection following childbirth account for many maternal deaths *(4)*, while preterm birth, asphyxia and severe infections contribute to two thirds of all neonatal deaths *(5)*. Appropriate care in the first hours and days after childbirth could prevent the great majority of these deaths. Thus, it has been recommended that skilled health professionals attend all births, to assure the best possible outcome for both mother and newborn infant *(6)*. A large proportion of women continue to lack such care, however. On average, skilled birth attendants cover 66% of births worldwide, and some parts of Africa and Asia have much lower coverage rates *(7)*. The fact that two thirds of maternal and newborn deaths occur in the first two days after birth *(5,8)* testifies to the inadequacy of care.

Care in the period following birth is critical not only for survival but also to the future of mothers and newborn babies. Major changes occur during this period that determine their well-being and potential for a healthy future.



2. Providing postpartum and postnatal care: towards a new concept

In developed countries virtually all women and their infants receive postpartum and postnatal care, albeit the nature and frequency of this care varies considerably. In developing countries the need for care and support after birth was, until recently, less well recognized. Despite its importance, this period is generally the most neglected. Rates of provision of skilled care are lower after childbirth than during pregnancy or childbirth, even though both the risks for illness and the potential to improve longer-term outcomes are as great *(2)*.

There are few data on early postnatal care specifically, but clearly many women do not receive optimal care. Many women who give birth in facilities are discharged within hours after childbirth without any indication where they can obtain further care or support. Also, harmful health care practices are still prevalent and contribute to mortality. For example, care providers or institutions may not promote, protect and support early initiation of breastfeeding, and they may even delay or discourage breastfeeding, thus undermining successful exclusive breastfeeding. More than half of infants are not exclusively breastfed *(9)*, contributing to malnutrition and infections.

Current models of postpartum care in developed countries originated in the beginning of the 20th century in response to the high maternal and neonatal mortality rates of the time *(2)*. Postpartum care for the mother has conventionally focussed on routine observation and examination of vaginal blood loss, uterine involution, blood pressure and body temperature. Guidance for health-care professionals on other postpartum practices has been limited *(10)*. Similarly, postnatal care for the baby has conventionally focussed on cord care, hygiene and weight monitoring and feeding and/or immunizations, without systematic, comprehensive assessment and care of newborns.

The timing and content of this care has remained more or less unchanged since the beginning. Only recently have there been any suggestions for change. Attention to the dramatic reduction in maternal and newborn mortality rates in developed countries that occurred around the middle of the 20th century, accompanied by the increased involvement and participation of women themselves in the nature of their care, has led to interest in revising the current remit for provision of care.

Research into the current coverage and content of postpartum and postnatal care has been limited. The average and the range in the number of visits or contacts that women and their infants have with their health-care providers are not well documented. Even in developed countries there has been little evaluation to assess whether current models of care meet individual women's and babies' physical and emotional health needs and whether they make the most appropriate use of the skills and time of the relevant health care professionals and of financial resources. The needs of fathers/partners have not been thoroughly evaluated. Neither have the concerns of women from diverse cultures been adequately explored. Nor has there been comprehensive study of the requirements of women with specific needs, such as women with physical disabilities or following complications of childbirth.

The major purposes of postpartum and postnatal care are to maintain and promote the health of the woman and her baby and to foster an environment that offers help and support to the extended family and community for a wide range of related health and social needs. These needs can involve physical and mental health as well as social and cultural issues that can affect health and well-being. Also, new parents need support for parenting and its responsibilities. Thus, the conceptual

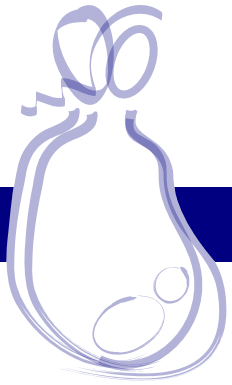
framework for guidance on postpartum and postnatal care should place the woman and her baby at the centre of care provision. This concept promotes the appreciation that all postpartum and postnatal care should be delivered in partnership with the woman and her family and should be individualized to meet the needs of each mother-infant dyad.

While this concept of care does not directly relate to the management of a condition or an acute situation, recognizing danger signs and taking timely action if they appear are crucial. Delays can be fatal. Therefore, guidance also should reflect the epidemiological pattern of health conditions occurring in the postpartum and postnatal period and thus address important public health needs at the appropriate times.

It is important to identify the essential, or core, care that every woman and her newborn baby should receive during the first six weeks after birth, based upon the best evidence available. Besides clinical interventions, core care will include providing information to support the woman in caring for herself and her baby and also building the support of family and community. For most women and babies the postpartum and postnatal periods are uncomplicated. Still, core postpartum and postnatal care also should include recognizing, evaluating and intervening appropriately if any deviation occurs from the expected course of events after childbirth.

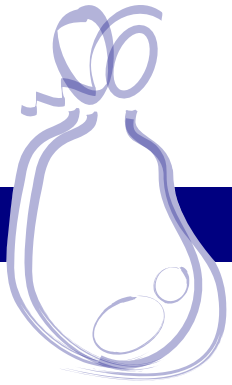
In broader context, most care in the postpartum and postnatal period takes place at home, where the woman is caring for herself and her baby, supported by her family. One objective of postpartum and postnatal care delivered through the health system is to encourage mothers and families to adopt evidenced-based practices at home and to build sustaining community support for these practices.

Increasingly, women (and mothers) are formally employed. These women need maternity protection, which should include maternity leave. Maternity Protection Conventions of the International Labour Organization *(11)* specify the maternity benefit package, which includes 14 weeks of paid maternity leave to ensure exclusive breastfeeding. For women who have given birth but do not have a live infant, the Conventions specify six weeks of paid maternity leave.



3. Updating WHO guidelines on postpartum and postnatal care

In 1998 WHO published *Postpartum care of the mother and newborn: a practical guide (12)*, based on the best available evidence and the consensus of experts at that time. This guidance was relatively weak in a number of areas, particularly where a more quantified, measurable standard or recommendation might have facilitated both understanding and implementation. For example, there were no recommendations on the optimal length of stay in the postnatal ward, on the optimal number and timing of subsequent contacts between the mother-infant dyad and the health worker or on just what needs to be done at each contact. Such guidance now seems important to managing and improving care. Also, these guidelines provided relatively little information on issues related to HIV infection, adolescent pregnancy and mental health. As a follow-up to the 1998 guidelines, in 2003 WHO published *Pregnancy, childbirth, postpartum and newborn care: a guide for essential practice (13)* to provide more detailed guidance on delivering evidence-based interventions at the primary care level. WHO recommendations on guideline development *(14)* call for updating all guidelines periodically to include current best evidence-based practices. Thus, in 2008 WHO began the process of updating the guidance to assure that it reflects practices based on current evidence.



4. Scope of the updated WHO guidelines

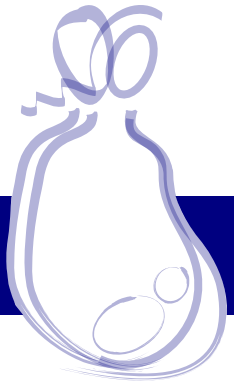
The updated guidelines will focus on births taking place with skilled attendance, since skilled attendance is so important to maternal and perinatal survival *(8,15)*. Recommendations on postpartum and postnatal care should include clinical guidance for health care providers, guidance for care of the woman and newborn in the home, and programmatic guidance for delivering postpartum and postnatal services and developing community activities.

As previously noted, however, skilled care at birth is far from universal, and particularly limited when birth takes place at home, and more efforts to achieve universal coverage are necessary. Hence, needs for care following home births will be reviewed separately, and guidelines will be developed through the appropriate process.

The updated guidelines will advise policy-makers, programme managers and health-care providers on the content and timing of the core care that should be offered to all women and their infants during the postpartum and postnatal period. The guidelines will address:

- appropriate objectives, purpose, content and timing of postpartum and postnatal contacts and care for the woman and her baby;
- best health care practices and competencies for assessment of postpartum and postnatal health and management of postpartum and postnatal problems in the woman and/or her infant;
- the information and support that women and their families require during the postpartum and postnatal period;
- planning of postpartum and postnatal care;
- good practices in communication between health-care providers and women, their partners and other family and community members.

These guidelines will focus on the overall needs of a healthy woman and her healthy baby. The guidelines will identify complications and advise appropriate referral, but they will not provide detailed advice on managing medical complications that occur before, during or after the birth; on existing pregnancy-related or other diseases or conditions; or on any aspect of antenatal or intrapartum care, including procedures immediately following the birth. Furthermore, these guidelines will not cover special care that a woman or her baby may require in rare circumstances or aim to provide guidance on neonatal screening programmes for metabolic or other diseases. Instead, the guidelines will refer to other documents that provide guidance on these matters.



5. Preparations for the WHO Technical Consultation on Postpartum and Postnatal Care

In accord with the recommended process for development of WHO guidelines *(14)*, a core group was formed to work on guidelines development. The core group comprises staff from different WHO programmes working in the area of maternal and newborn health and related fields. Approval for development of guidelines came from the Assistant Director General, Family and Community Health cluster, and the Guidelines Review Committee.

5.1 Identifying existing guidelines and epidemiological evidence

5.1.1 Criteria for review

As part of the approved plan for guidelines development, the core group reviewed both existing guidance and epidemiological evidence. The group reviewed WHO and other guidelines related to postpartum and postnatal care in search of best practices and supporting evidence. The criteria for inclusion in this review were these:

- The guidance addressed clinical care and/or service delivery at any stage during pregnancy, childbirth, or the postpartum and postnatal period.
- *Supporting evidence for the guidance was accessible for review and grading.*
- For WHO guidelines, the guidelines were developed or updated in the preceding 10 years.
- For other, non-WHO guidelines:
  - The guidelines were developed by an international or national organization responsible for providing guidance or by a professionals' organization working in the area of maternal and newborn health.
  - The guideline development process was documented.
  - Recommendations are practical and applicable to a variety of settings worldwide, including those with restricted resources.

The review excluded guidelines and recommendations that cannot be generalized because they are based on a single study, one setting or very similar settings.

The WHO guidelines and other guidelines identified are listed below in section 5.1.2. A limitation of the search method was its restriction to guidelines in English. Also, there was no search in the grey literature. The core group did not contact professionals' organizations to identify other relevant guidelines that they might have developed.

Epidemiological information on the timing of the occurrence of complications came from standard obstetric *(16)* and neonatology *(17)* textbooks, other publications *(18,19)* and WHO sources listed below.

5.1.2 Identification of existing guidelines

With the help of related programmes in WHO, the core group identified all WHO guidelines relevant to postpartum and postnatal care published in the last 10 years. These included:

- *Postpartum care of the mother and newborn: a practical guide.* WHO, 1998.
- *Pregnancy, childbirth, postpartum and newborn care: a guide for essential practice.* 2nd ed. WHO, 2006.

- *Managing newborn problems: a guide for doctors, nurses and midwives*. WHO, 2003.
- *Integrated management of childhood illness*. WHO and UNICEF, 2008 (http://whqlibdoc.who.int/publications/2008/9789241597289_eng.pdf)
- *Pocket book of hospital care for children. Guidelines for the management of common illnesses with limited resources*. WHO, 2005.
- WHO Technical Working Group on Essential Newborn Care. *Essential newborn care*. WHO, 1996.
- *WHO Recommendations for the Prevention of Postpartum Haemorrhage*. WHO, 2007.
- *Family planning. a global handbook for providers*. WHO and Johns Hopkins Bloomberg School of Public Health, 2007.
- *International code of marketing of breast-milk substitutes*. WHO, 1981.
- *Evidence for the ten steps to successful breastfeeding*. WHO, 1998.
- Vaccine Position Papers (http://www.who.int/immunization/documents/positionpapers/en/index.html)
- "Maternal mental health and child health and development" (http://www.who.int/mental_health/prevention/suicide/MaternalMH/en/index.html)
- *Selected practice recommendations for contraceptive use*. WHO, 2004.
- *Iron deficiency anaemia. Assessment, prevention and control*. WHO, 2001.

The initial Internet search for non-WHO guidelines used the following key words: postpartum, postnatal, puerperium, mother care, newborn care, guidelines. The search used the Boolean operators AND, OR, NOT. Guidelines were retrieved from individual web sites or through the web site of the Geneva Foundation for Medical Education and Research (see below).

- Guidelines of UK National Institute for Health and Clinical Excellence (NICE) *(10)* (http://www.nice.org.uk/Guidance/CG/Published/CG37)
- Guidelines of the American Academy of Pediatrics, Committee on Fetus and Newborn *(1)* (http://www.aap.org/visit/cmte17.htm)
- *Family-centred maternity and newborn care: national guidelines* from the Public Health Agency of Canada. (http://www.phac-aspc.gc.ca/dca-dea/publications/fcmc00-eng.php) *(21)*
- National Guidelines Clearinghouse web site (http://www.guideline.gov/browse/guideline_index.aspx)
- American Academy of Family Physicians (http://www.aafp.org/online/en/home/clinical/clinicalrecs.html and http://www.aafp.org/afp/20060301/849.html)
- Auckland, New Zealand, District Health Board Newborn Services (http://www.adhb.govt.nz/newborn/)
- Canadian Paediatric Society (some of their guidelines are presented as joint statements with the American Academy of Pediatrics) (http://www.cps.ca/english/publications/FetusAndNewborn.htm)
- Royal Prince Alfred Hospital (Sydney, Australia) (http://www.cs.nsw.gov.au/rpa/neonatal/)
- Geneva Foundation for Medical Education and Research (http://www.gfmer.ch/Guidelines/Guidelines_topics.htm) (http://www.gfmer.ch/Guidelines/Neonatology/Newborn.htm)
- Indian Academy of Pediatrics (http://www.iapindia.org)
- Perinatal Education Programme (South Africa). *Manual 4: Primary newborn care: a learning programme for professionals*. 2001. (http://pepcourse.co.za/index.php?option=com_content&task=blogcategory&id=21&Itemid=32)
- South African National Department of Health. *Standard treatment guidelines and essential drugs list. Adult, hospital level*. 1998. (http://www.hst.org.za/uploads/files/edladult.pdf)
- Save the Children. *Saving newborn lives: care of the newborn reference manual*. 2004.

(http://www.savethechildren.org/publications/technical-resources/saving-newborn-lives/snl-publications Care-of-the-Newborn-Reference-Manual-Eng.pdf)

Additional queries searched the following databases for updated evidence on certain specific recommendations published after 2006:

- Search by topic in Cochrane Library
  - Pregnancy and childbirth
  - Neonatal
- Search in Centre for Reviews and Dissemination (RD)
  - Database of Abstracts of Reviews of Effects (DARE)
  - National Health Service, National Institute for Health Research

5.2 Review and critical appraisal

5.2.1 Clinical and programmatic guidelines

Only three of the identified guidelines met the selection criteria:

- Guidelines of the UK National Institute for Health and Clinical Excellence (NICE) (*10*) (http://www.nice.org.uk/Guidance/CG/Published)
- Guidelines of the American Academy of Pediatrics, Committee on Fetus and Newborn (*20*) (http://www.aap.org/visit/cmte17.htm)
- Family-centred maternity and newborn care: national guidelines, Public Health Agency of Canada, 2000 (http://www.phac-aspc.gc.ca/dca-dea/publications/fcmc00-eng.php) *(21)*.

Overall, among the guidelines reviewed *(10,13,20,21,22)*, there are inconsistencies in the definitions used, discrepancies in recommendations and lack of specific discharge criteria for mother or baby. None of the guidelines covers mothers and babies with special needs such as mothers delivered by caesarean section, low-birth-weight babies, preterm babies, twins, mothers and babies with certain health problems and special vulnerable groups of mothers such as adolescents and mothers living with HIV. None of the guidelines addresses birth without a skilled attendant and none, except the WHO guideline *(13)*, addresses postnatal care after home birth. The few guidelines that specify levels of evidence come from developed countries and are based on their well-developed health care services for the postnatal period. They are specific to that context, which limits their applicability in less developed settings.

Recommendations for follow-up assessments after discharge from the facility vary among the guidelines. Most guidelines recommend a visit within the first week after discharge, but the exact timing differs. Most also recommend a 6-week follow-up visit for the mother and newborn. For both these recommendations, evidence for the timing and the benefits of such visits is not stated.

Among the guidelines reviewed, only the NICE guideline *(10)* on routine postnatal care provides clear information on the guidelines development process as well as on levels of supporting evidence. The evidence basis for the NICE guideline comes from a comprehensive review of English-language literature, up to the year 2000, on routine postnatal care of women and their babies. The UK National Collaborating Centre for Primary Care, at the University of Leicester, conducted this review.

The care pathway in the NICE guideline provides a practical framework for the development of global guidelines. This care pathway was "designed to indicate the essential steps in the care of mother and baby after birth and the expected progress of both the woman and the newborn through the first six to eight weeks postpartum" *(10)*. Three components of care provide the basic themes for the pathway: maintaining maternal health, infant feeding and maintaining infant health. These themes are very similar to the pathways for postpartum and postnatal care in the WHO guidelines *(13)*, as are the three time bands in the NICE guidelines, which cover the postnatal period: within the 24 hours following birth (12 hours minimum), 2 to 7 days and 8 to 42 days. The interventions covered include assessment of well-being, preventive measures, responding to concerns, information for home/self care and infant feeding, and on care-seeking.

NICE developed the guidelines for a setting with universal access and coverage with skilled care for both birth and postnatal care. Current coverage in most of the world is still far from universal, however. Still, most countries have policies and are accelerating actions to provide skilled care for every birth, with emphasis on facility-based childbirth care wherever feasible.

While acknowledging that there are thus some limitations to the applicability of the NICE guideline, the WHO core group used it as the reference for comparison with other guidelines, both those of WHO and those of other organizations. Comparison tables appeared in the background document for the technical consultation, and they are included in this report as Tables 1–3. In these tables an asterisk indicates that an intervention appears in both NICE and WHO guidelines. Interventions in the WHO guideline but missing in the NICE care pathway appear at the end of each section. The consultation used this framework to identify key clinical interventions and gaps in the current guidelines.

5.2.2 Clinical and programmatic questions on postpartum and postnatal care

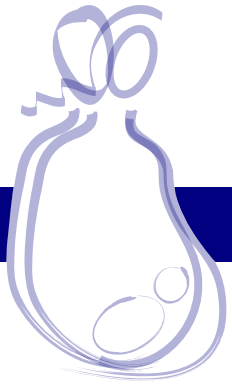
At the October 2008 meeting, participants reviewed the guidelines and other information with an eye to answering the following clinical questions on postpartum and postnatal care:

1. How long following birth and prior to discharge should a woman and her baby be under direct care of a skilled attendant in order to avoid mortality and morbidity and to maintain health? (immediate postnatal care)
   a. How long should immediate postnatal care be provided to a woman and her baby after uncomplicated birth of a healthy baby?
   b. How long should immediate postnatal care be provided for women and/or their babies with special needs (e.g. caesarean section, preterm birth, multiple births)?
2. What care should be provided during the immediate postnatal period to maintain the health of the woman and her baby?
   a. What routine care is required for a woman after uncomplicated birth and for a healthy baby in the immediate postnatal period? What are the criteria for discharge of the woman and her baby?
   b. What additional care is required in the immediate postnatal period for women and babies with special needs? What are the criteria for discharge?
3. After the immediate postnatal period, how often and when should routine care be provide to a woman and her baby to avoid mortality and morbidity and to maintain health?
   a. For all women?
   b. For women with special needs?

- What care should the skilled attendant provide after the immediate postnatal period to avoid mortality and morbidity and to maintain the health of the woman and the baby?

5.3 Formation of the international panel of experts

An international panel of experts was formed to assist the guidelines development process. This panel includes individual experts with appropriate background and experience—as clinicians, researchers, programme managers, or policy-makers. A sub-group of this international panel, balanced for technical expertise and regional representation, was invited to participate in the WHO Technical Consultation on Postpartum and Postnatal Care in Geneva from 29 to 31 October 2008. All participants at this consultation received in advance a background document that described the rationale and the development process for the WHO Recommendations on Postpartum and Postnatal Care, methods for reviews of guidelines and epidemiological issues related to postpartum and postnatal care, a summary of the findings of these reviews, the care pathway tables and a glossary.



6. WHO Technical Consultation on Postpartum Care

6.1 Objectives

The objectives of the technical consultation were:

- To identify key topics for development and/or update of the recommendations for care for mother and baby in the postpartum and postnatal periods;
- To prioritize topics for which available evidence should be reviewed.

More specifically, the technical consultation was planned to address the following questions:

- What postnatal services currently are being offered?
- What are the best practices that can be recommended for postnatal care, based on existing knowledge, to promote the optimal health of the mother and newborn infant dyad and their families?
- In addition to strictly biomedical criteria, what characteristics of the individual woman or baby should be considered to select an appropriate approach to care?
- What approaches seem most promising (in terms of effectiveness and cost, for example)?
- What care is needed after discharge to meet the woman's and the baby's physical and psychosocial needs?
- What are the unmet needs of women and newborn babies after home birth without a skilled attendant?
- How should adherence to standards/guidelines be monitored?
- What modifications could and should be made in existing data systems to permit continuous monitoring of postnatal care in both public and private systems, including, for example, electronic medical records, programme information, vital registration, health surveys?

6.2 Participants and proceedings

Participants in the consultation are listed in Annex 1. They included members of the panel of invited technical experts, representatives of UN agencies, observers and WHO secretariat. Participants in the Technical Consultation represented a wide range of clinical, programmatic and research expertise from the different WHO regions.

All presentations and most discussions were in plenary sessions (see Annex 2 for agenda). In addition to prior submission of the formal, signed declarations of interests, all participants were asked to declare any conflict of interest related to the issues to be discussed. None of the participants had any conflict of interest to declare. In addition to the background document provided in advance, participants received during the meeting copies of the two key WHO publications on postpartum and postnatal care *(12,13)*.

The meeting participants discussed the information from the reviews. The task of this panel was not to provide final recommendations but rather to guide WHO secretariat's processes for completing the review. The panel made all decisions by consensus.

The four questions and their sub-questions on care pathways (see Section 5.2.2) helped the panel to focus on identifying areas in current WHO guidelines that need revision. The panel agreed that the four questions have practical value to implementation: Answers to questions 1 and 3 are of key importance for policy decisions, particularly in relation to the timing of the provision of care. Answers to questions 2 and 4 will give programme managers sufficient technical details on the content of the care package. Section 6.4, below, summarize the discussions and recommendations and supporting evidence addressing the four questions The panel also agreed on the definitions to be used in the guidelines (see next section).

6.3 Defining terms

The terms "postpartum period" and "postnatal period" are often used interchangeably but sometimes separately, when "postpartum" refers to issues pertaining to the mother and "postnatal" refers to those concerning the baby. The terms "antenatal", "antepartum", "intranatal" and "intrapartum" refer to issues pertaining to events before or during childbirth.

For care after childbirth, the panel agreed that adopting just a single term would aid clarity. Therefore, the panel agreed that the term ***"postnatal"*** should be used for all issues pertaining to the mother and the baby after birth. The ***postnatal period*** begins immediately after the birth of the baby and extends up to six weeks (42 days) after birth. For the purposes of describing care provision, the postnatal period consists of immediate, early and late periods (see following paragraphs). Management of the third stage of labour was considered part of care during labour and hence excluded from the discussions. Also, while physiological changes that occur during pregnancy and childbirth may take longer than six weeks to return to the non-pregnant state, the guidance documents will cover only the first six weeks (42 days) after birth. Usually, the end of this period is associated with the implementation of interventions such as promotion of contraception and infant immunization, although some contraceptive methods, such as the lactational amenorrhoea method, the IUD, vasectomy and female sterilization, should be discussed even before childbirth, and some immunizations, such as those against hepatitis B and tuberculosis (BCG), may be given at birth.

The *immediate postnatal period* refers to the time just after childbirth, during which the infant's physiology adapts and the risks to the mother of postpartum haemorrhage and other significant morbidity are highest. The immediate postnatal period covers the first 24 hours from birth. Close direct or indirect supervision by a skilled attendant is required in this period so that any problems can be identified promptly and appropriate intervention or referral can take place.

Some problems—for example, with infant feeding or infection—may first manifest themselves during the first week after birth (that is, after Day 1, the immediate postnatal period). In order to better organize care, the time frame for the period after the first 24 hours is described in terms of days. While there can be a 23-hour discrepancy in the description of "a day", this framework appears to be generally used and understood. Therefore, the panel agreed to refer to the period from Days 2 through 7 as the ***early postnatal period*** and the period from Days 8 through 42 as the ***late postnatal period***.

Definitions of other terms appear in the Glossary (see Annex 3).

6.4 Assessment of existing guidelines and information on the postnatal period

6.4.1 Epidemiological considerations in the postnatal period

Large numbers of women and newborn babies have no access to health care immediately following birth. Hence, their risks of ill health and death are high. Demographic and Health Surveys (DHS) conducted in 30 developing countries in five regions between 1999 and 2004 reported that a country average of nearly 40% of all women with a live birth in the five years before the survey did not receive any postpartum care

check-ups *(23)*. Among the women who gave birth outside facilities, on average just over 70% received no postpartum care. Among all women who did receive postnatal care, health professionals reportedly provided 57% of postnatal care. The remainder received postnatal care from traditional birth attendants (TBA) (36%) and others (7%).

Some 50% of maternal deaths and 40% of neonatal deaths occur within 24 hours after childbirth *(4)*. The risks decrease after the first few hours but do not vanish entirely. Some problems may arise during the early postnatal period and, less often, in the late postnatal period. Recognizing the clustering of adverse events and risks (see Figures 1–3) helps in selecting the optimal times to provide postnatal care.

Figure 1 presents information on the frequency and severity of conditions for the mother and infant by day for the first week and then by week. Although data on the incidence and severity of these medical conditions in developing countries are scarce, the panel noted that the information provided in this figure was useful to the discussions on optimal timing of contacts and the contents of care. The panel recommended identifying mortality data from different settings to strengthen the information base relevant to the length of stay and timing of contacts. Figure 1 also shows the optimum period for delivering preventive measures.

Some 3% to 4% of women have lost their babies in the first days after delivery *(4)*. It is important to increase awareness that these women need postnatal care as much as women with infants.

6.4.2 Timing of postnatal care provision

In light of the recommendation for skilled care for every birth and universal access to maternity services, the panel's discussions of the timing of postnatal care provision remained focused on settings where skilled attendants provide care. At the same time, the panel fully recognized that home deliveries without skilled attendants remain common in some settings and that guidance for those settings is very much needed.

There is only sparse and low-quality evidence on optimal length of stay under the direct or indirect care of skilled attendants, for the mother, the baby or the dyad. Where a healthy, term baby has been born in an uncomplicated delivery, most guidelines call for the dyad to stay under observation by a skilled attendant for 24 to 48 hours. If mother and baby are discharged from the facility sooner than 48 hours, a qualified professional or skilled attendant should assess them within 24 to 48 hours after discharge. The panel agreed, based on epidemiological data, that the first 24 to 48 hours are the most critical time for the woman and the baby, and thus it is a life-saving policy to provide individualized care during the immediate postnatal period under the direct or indirect supervision of a skilled attendant.

The panel acknowledged the difficulty of defining "healthy mother" and "healthy baby". The panel agreed that, for the purpose of the guidelines, these terms should refer to women and babies without any problems. Practice guidelines should provide specific criteria, related to clinical observations, for deciding when a woman and infant are "healthy" and fit for discharge to home care.

Given the lack of evidence on the precise optimal timing of postnatal care, the panel advised broadening the criteria for the evidence and practice review. The panel also recommended that, before discharge, women (and their families) should receive clear and specific key information and instructions on home care for themselves and their babies, with special attention to breastfeeding and early identification of danger. The panel recognized the importance of community support for such key practices as breastfeeding, general hygiene and use of health services.

The panel also discussed who should provide early postnatal care. There are different types of providers and potential providers of early postnatal care in the community. Which model is best will depend on the structure of the health care system, the quality of care and information provided in the immediate postnatal period and the experiences and expectations of women.

The panel recommended review of evidence on the effectiveness of professional care and support in improving postnatal outcomes. Such evidence would inform more precise guidance and information on the timing of the care provider's contacts with the mother and infant in the first week after childbirth.

The panel agreed that women should have ready access to services any time that they have concerns about themselves or their babies. There is not enough evidence, however (and additional search probably will not yield more), to specify when exactly a *scheduled* contact would be most appropriate to improve outcomes. The consensus was that, towards the end of the late postnatal period, there is probably no need for a "postnatal contact" as such. Instead, this contact should be considered a time for closure of the perinatal period and smooth transition to other programmes such as women's health and family planning, child health and immunization. This late postnatal contact—the closure contact—should be organized to link with ongoing care as currently provided for all women and infants.

6.4.3 Content of the postnatal care package

The panel agreed on the importance of defining the content of the package of care that should be provided in the postnatal period. Once this package is defined, the timing of delivery of the package could be better defined and guidance could be provided on the length of time that mothers and their newborn babies should be under the supervision of health care professionals.

Most postnatal care packages include:

- Identification and management of potentially serious outcomes for the woman and her infant (a focus on "killers");
- Routine measures that have minimal effect on outcomes and, while not costly in themselves, add up to become costly when applied to the whole population;
- Recommendations for special conditions and circumstances.

Most guidelines reviewed include similar interventions. In the NICE guidelines these are categorized as those for maintaining women's health, those for maintaining infants' health, and those for infant feeding *(10)*. Under each of the headings the NICE guidelines describe three types of interventions—*core care, concerns and core information*. Tables 1–3 list the NICE interventions. The panel agreed to use a framework similar to that of the NICE guidelines for its discussions. The panel decided, however, to list the new WHO recommendations under two headings—"mother" and "newborn infant"—thus merging the "infant feeding" and "maintaining infant health" columns.

The panel identified the recommendations for which supporting evidence must be reviewed, those for which no further evidence review is required, and those for which the evidence on wider applicability should be considered. The panel also agreed that, for settings with a high prevalence of malaria, HIV or adolescent pregnancies, routine care should include basic interventions related to prevention and management of those conditions. Approaches appropriate for adolescents will be necessary, as will additional contacts for specific problems, such as prevention of mother-to-child transmission of HIV. Table 4 summarizes the panel's suggestions.

6.5 Conclusions

The panel concluded that the guidelines should consider the needs of the mother-infant dyad. Any recommendation should place the woman and her newborn at the center of health provision and allow women to make informed choices about their own care and their babies'. The panel agreed that the woman and her partner/family require more information than they usually receive on care of the baby and mother within the first week after childbirth.

As for the timing of contacts after discharge, support for exclusive breast feeding (EBF) at the end of the first week, when feeding difficulties most often occur, can prolong EBF. Hence, a visit at this time would be appropriate. Still, the experiences and expectations of women and their families should be considered when deciding the timing of postnatal visits. Barriers to the uptake of services and/or access to services also should be considered when deciding on schedules for postnatal care.

The availability of effective community support after discharge from a facility also is important. The competencies required in the community for postnatal support that improves outcomes should be studied. The formal health sector is responsible for continuing care in the postnatal period after discharge from facilities, but communities can help. Evidence should be evaluated on the effectiveness of current models of collaboration between health services and communities that appear to be transferable to low-resource settings.

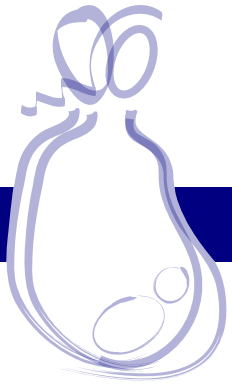
The panel noted that additional information is required to make recommendations on the timing and frequency of postnatal visits. To obtain more information, the panel recommended identification and review of non-English language guidelines as well as review of information and evidence on the following: :

- women's expectations and experiences with care in the postnatal period;
- current practice and best evidence on the timing and number of postnatal visits;
- existing models of collaboration for postnatal care among heath care providers and among levels of care, including the family and the community;
- the closure of the postnatal period for the mother and baby;
- the effect of the competencies of the giver of postnatal care on maternal and infant health outcomes;
- the roles of different types of care providers in reducing maternal and neonatal morbidity and mortality;
- the cost-effectiveness of different types of community support in reducing maternal and neonatal morbidity and mortality;

The panel expressed concerns about the limited amount of evidence and the impossibility of generalizing from it to the variety of settings in the world and in particular to settings with little or no access to skilled and/or facility-based care for childbirth. The panel agreed that a review of qualitative evidence should be considered.

Many interventions in postnatal care are applicable to most countries and settings. Some principles apply in all settings and for all time bands—e.g. standard precautions, maintenance of records, maintaining competencies, monitoring and evaluation. The panel asked the WHO secretariat to identify those common areas and include them in a preamble to the guidelines as "Principles of Good Care". Health system requirements, however, may differ for different time bands and so will need more specific consideration. A tool for countries on how to select appropriate care pathways for specific settings, including health system requirements, would be useful.

The panel noted that some important situations were not addressed. While these situations are not the primary focus of the proposed guidelines, it is important to highlight special considerations in such situations. These include malnourished women (obese and undernourished mothers); domestic and gender-based violence; use of alcohol, tobacco, and illicit drugs; mothers who have lost their babies or have babies with disabilities; mothers with very limited education or with language difficulties; mothers with medical or mental health problems; the small baby; multiple births; sick or disabled infants or infants with congenital anomalies; infants of mothers with tuberculosis, malaria, HIV, or syphilis; and those born to sex workers. Such factors can lead to physical and mental ill health for both the mother and the baby, during the pregnancy and after, or may be linked to a negative nurturing environment with adverse long-term effects on infant health and development.

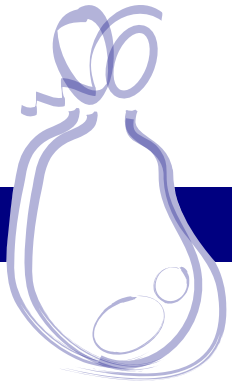


7. Next steps

The technical consultation identified key issues for which recommendations should be developed or updated. These include technical, programmatic and implementation issues.

The next steps for WHO include developing and prioritizing questions to be addressed and assessing potential beneficial and harmful effects of postnatal care interventions. These steps will involve electronic consultation with the international panel of experts. Based on the results of these exercises, systematic reviews of evidence to address these questions will be commissioned.

The panel recommended holding a second technical consultation of a sub-group of the international panel of experts in Geneva to review the evidence on priority questions and make recommendations on guidelines for postnatal care for births with skilled attendants. Issues of implementation and cost implications also will be considered. These new and updated WHO guidelines for postnatal care are scheduled for publication in 2010.



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Figures

Figure 1 Obstetric and neonatal epidemiology: timing of onset of condition or provision of care

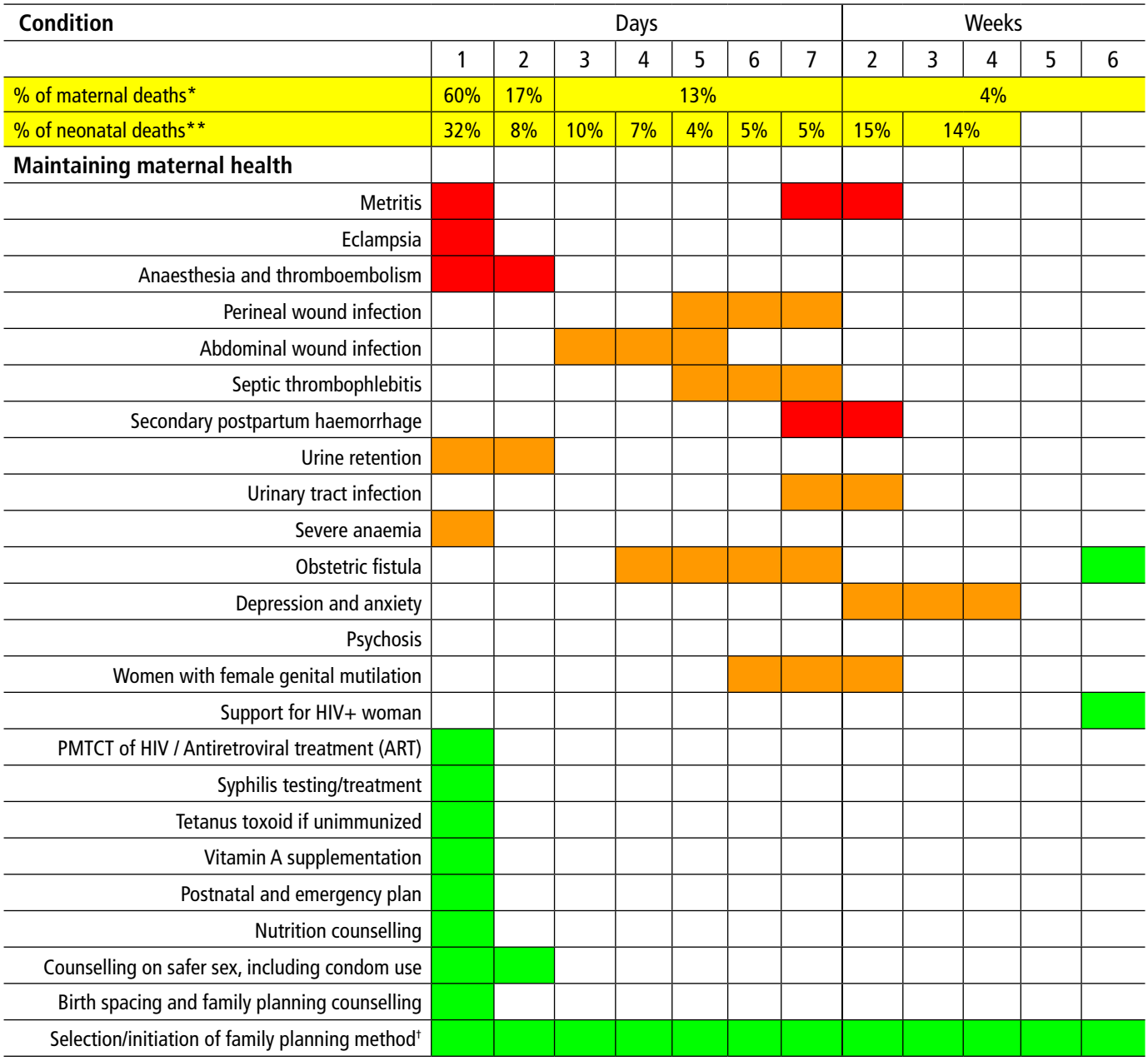


Figure 1 (continued)

Condition	Days							Weeks				
	1	2	3	4	5	6	7	2	3	4	5	6
Infant feeding												
Breast engorgement												
Feeding difficulty												
Mastitis												
Breastfeeding counselling and support												
Teaching mother replacement feeding												
HIV+ mother breastfeeding												
Support for Lactational Amenorrhoea Method												

High fatality rate

Low/medium fatality rate

Care given

Figure 1 (continued)

Condition	Days							Weeks				
	1	2	3	4	5	6	7	2	3	4	5	6
% of maternal deaths*	60%	17%	13%					4%				
% of neonatal deaths**	32%	8%	10%	7%	4%	5%	5%	15%	14%			
Maintaining infant health												
Asphyxia												
Trauma												
Respiratory Distress Syndrome												
Other preterm breathing problems												
Sepsis—early onset												
Sepsis—late onset												
Nosocomial infections (special care)												
Community-acquired severe infection												
Omphalitis												
Local infection												
Serious jaundice												
Malformation (visible/treatable)												
Tetanus												
Congenital syphilis												
ART initiation for HIV-exposed infant												
HIV testing of HIV-exposed infant												
Gonococcal ophthalmia												
Chlamydia infections												
Immunization												
Growth monitoring												
Information and advice on home care												
Postnatal and emergency care plan												

High fatality rate

Low/medium fatality rate

Care given

Figure 2: Proportion of maternal death by days postpartum

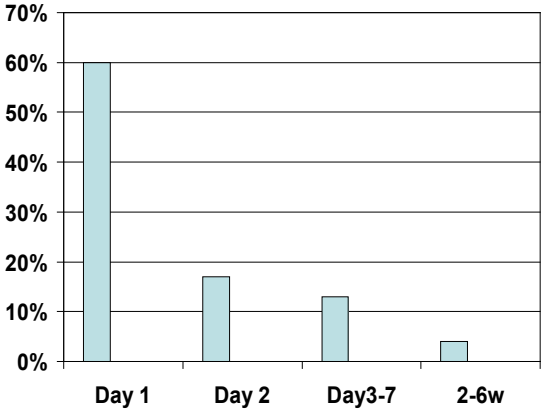
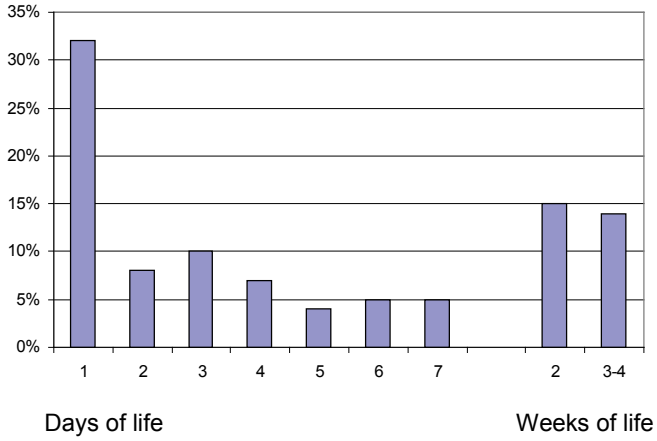


Figure 3: Proportion of neonatal deaths by day



* Hurt LS, Ronsmans C. Time since pregnancy and mortality in women of reproductive age in Matlab, Bangladesh. Presented at the British Society for Population Studies; December 2002; London, UK (See also Ronsmans and Graham, 2006 *(4)*.)

** Baqui AH et al. Rates, timing and causes of neonatal deaths in rural India: implications for neonatal health programmes. Bulletin of the World Health Organization, September 2006, 84(9):706–713.

† Lactational amenorrhea method (LAM): starts with initiation of fully or nearly fully breastfeeding. Condoms and spermicides: can start at any time. Vasectomy: woman's partner can have vasectomy at any time, ideally during her pregnancy. Female sterilization: within seven days; otherwise wait six weeks. Copper-bearing IUD: within 48 hours; otherwise wait four weeks. Hormonal methods: Fully breastfeeding women can start progestogen-only methods at six weeks or combined hormonal methods at six months; women who are partially breastfeeding can start any hormonal method at six weeks; women not breastfeeding can start progestogen-only methods immediately and combined methods at 21 days. (Source: Family planning: a global handbook for providers. WHO & JHSPH, 2007)

Source (Figure 2): Baqui AH et al. Rates, timing and causes of neonatal deaths in rural India: implications for neonatal health programmes. Bulletin of the World Health Organization, September 2006, 84(9): 706–713.

Source (Figure 3): Baqui AH et al. Rates, timing and causes of neonatal deaths in rural India: implications for neonatal health programmes. Bulletin of the World Health Organization, September 2006, 84(9): 706–713.

Tables

Recommendations for routine postnatal care of women and their babies, National Collaborating Centre for Primary Care, 2006

Codes used in Tables 1–3: For NCCPC guidelines in these tables, the strength of evidence is labelled A, B, C, or D, with A being the strongest. All other, unlabelled recommendations are of strength D (good practice point—GPP).

A recommendation labelled with an asterisk (*) appears in both NICE/NCCPC *(10)* and WHO guidelines.

Recommendations that appear in the current WHO guidelines, *Pregnancy, childbirth, postpartum and newborn care* (PCPNC 2006), but not in the NICE/NCCPC guidelines are included in a separate row under each heading. Note that WHO recommendations assume a high prevalence of anaemia (iron deficient, parasitic) and of sexually transmitted infections.

Table 1

Time Band 1: Within the first 24 hours after delivery

Maintaining Maternal Health	Infant Feeding	Maintaining Infant Health
Core Care	Core Care	Core Care
1. * Measure and document blood pressure (BP) once within 6 hours after the last measurement taken soon after birth as a component of labour care. 2. * Toilet facilities that are hygienic and ensure privacy should be provided in the clinical setting. 3. * Document urine void within 6 hours. 4. * All women should be encouraged to mobilize as soon as appropriate following the birth.	1. During the first hour of life: a. (C) * Mother and baby should not be separated. b. (A) * Skin-to-skin contact should be encouraged. c. * Breastfeeding should be initiated. 2. Where postnatal care is provided in a clinical setting, the environment should include: ■ (A) * Round-the-clock rooming-in and continuing maternal skin to baby's skin contact when possible. ■ Privacy. ■ * Adequate rest for the woman without interruption due to clinical routine. ■ Access for the woman to food and drink on demand. ■ (B) * Formula milk should not be given to breastfed babies in hospital unless medically indicated. ■ (A) The distribution of commercial packs, for example those given to women when they are discharged from hospital, which contain formula milk or advertisements for formula should not be used.	1. Assessment for emotional attachment should be carried out at each postnatal contact. 2. (A) Vitamin K should be offered for all infants and (A) administered with a single dose of 1 mg IM. If parents decline IM vitamin K for their baby, oral vitamin K should be offered as second line.

- Breast pumps should be available in the clinical setting, particularly for women who have been separated from their babies, to establish lactation. All women who use a breast pump should be offered instructions on the correct use.

3. (A) * Breastfeeding support to a woman should be made available regardless of the location of care.
4. Women should be offered skilled support including mother-to-mother or peer support from the commencement of breastfeeding.
5. A woman should not be asked about feeding method until after first skin-to-skin contact.
6. Additional support with positioning and attachment to commence breastfeeding should be offered to all women who have had:
   - (C) narcotic analgesia or general anaesthetic, as the baby may not initially be responsive to feeding;
   - a caesarean section, particularly to assist with handling and positioning the baby to protect the woman's abdominal wound;
   - initial contact with their baby delayed.
7. (A) * Unrestricted frequency and duration of breastfeeding should be encouraged.
8. * A health-care professional should discuss a woman's experience with breastfeeding daily after birth, to assess with her if she is on course to breastfeed effectively and identify need for additional support. Breastfeeding progress should then be assessed and documented in the care plan at each postnatal contact.
9. (A) Written breastfeeding education materials as a stand-alone intervention are not recommended.
10. (A) All maternity care providers (whether working in hospital or in primary care) should implement an externally evaluated structured programme that encourages breastfeeding using the Baby Friendly Initiative as a minimum standard.

Maintaining Maternal Health	Infant Feeding	Maintaining Infant Health
WHO PCPNC 2006: 1. Give a Home-based Maternal Health Record before discharge and discuss its use. 2. All postpartum women should have regular assessment of vaginal bleeding, uterine contraction, fundal height and temperature measured routinely. 3. All women should be examined one hour after delivery of placenta, including assessment of anaemia. 4. Ensure mother and baby are sleeping under impregnated bed net.	**WHO PCPNC 2006:** 1. Support for breastfeeding at facility should be provided by health professionals. 2. Help mother initiating breastfeeding within 1 hour. 3. Assess breastfeeding regularly and help mother if needed. 4. Only discharge the baby if mother feels competent breastfeeding. 5. Teach all mothers how to relieve engorgement and express breast milk and feed the baby by cup.	**WHO PCPNC 2006:** 1. First clinical examination should be done around an hour after the birth to assess if baby can stay with the mother or needs additional care or referral to special care. 2. Assess for malformations and birth injuries. 3. Ensure thermal protection immediately after birth and subsequently. 4. Teach mother caring for the baby, ensuring hygiene, warmth, cord care, sleeping under a bed net, sleeping position on baby's back or side, in a smoke-free environment. Teach mother how to care for a small baby (preterm and/or low birth weight). 5. Give special support to breastfeeding the small baby or twins. 6. Teach mother to observe for danger signs in the baby and to call health worker if she has concerns. 7. Examine before discharge. Discuss with mother postnatal care and emergency plan. 8. Only discharge small babies if discharge criteria met: exclusive breastfeeding, stable temperature, weight gain, mother feeling competent caring for the baby.

Maintaining Maternal Health	Infant Feeding	Maintaining Infant Health
Concern	Concern	Concern
1. (D) If infection is suspected a woman's temperature should be taken and documented. If a woman's temperature is above 38°C, it should be measured again in 4–6 hours. 2. (B) Assessment of vaginal loss and uterine involution and position should be undertaken if a woman has excessive or offensive vaginal loss, abdominal tenderness or fever. Any abnormalities in the size, tone and position of the uterus should be evaluated. If no uterine abnormality is found, consider other causes of symptoms (urgent action). 3. * If diastolic blood pressure is greater than 90 mm Hg, and there are no other signs and symptoms of pre-eclampsia, the measurement of blood pressure should be repeated within 4 hours. 4. * If a woman has not voided by 6 hours postpartum and measures to encourage micturition, such as taking a warm bath or shower, are not immediately successful, bladder volume should be assessed and catheterisation considered. (urgent action) 5. * If a woman is obese, she will require individualised care. 6. * Immediate referral (emergency action) is required if there is: a. Sudden or profuse blood loss or loss accompanied by any of the signs and symptoms of shock, including tachycardia, hypotension, hypoperfusion and change in consciousness, should receive emergency medical action. b. (A) Diastolic BP is greater than 90 mm Hg and accompanied by another sign or symptom of pre-eclampsia, or if diastolic BP is greater than 90 mm Hg and is not reduced below 90 mm Hg within 4 hours.	1. Women with flat or inverted nipples should be advised that these are not contraindications to breastfeeding and support offered as needed. 2. If a woman is experiencing breast or nipple pain, the woman or health-care professional should review positioning and attachment. 3. A baby who is not attaching effectively may be encouraged to open his/her mouth using different stimuli. 4. Skin-to-skin contact or massaging a baby's feet should be used to wake the baby.	1. * Infants who develop jaundice within the first 24 hours should be urgently investigated. (Action level 2)

Maintaining Maternal Health	Infant Feeding	Maintaining Infant Health
c. The temperature remains above 38 °C on the second reading or there are other observable symptoms and measurable signs of sepsis. d. A woman complains of unilateral calf pain, redness, swelling, shortness of breath or chest pain.		
WHO PCPNC 2006: Give preventive measures: 1. Assess the status of tetanus immunization and syphilis and HIV test. 2. Give 3-month supply of iron/folic acid. 3. Give vitamin A. 4. Give mother insecticide-treated bednet. 5. Give supportive care to the women who lost her baby.		**WHO PCPNC 2006:** 1. Resuscitate a baby that is not breathing spontaneously after birth. 2. Assess gestational age and weigh the baby. 3. Teach mother providing additional care for a small baby (preterm, low birth weight).
Core Information	**Core Information**	**Core Information**
1. (C) * All women should be given information about the physiological process of recovery after birth, and that some health problems are common, with advice to report any health concerns to health-care professional, in particular: a. Signs and symptoms of PPH: sudden and profuse blood loss or persistent increased blood loss; faintness; dizziness; palpitations/ tachycardia.	1. Women should be offered information and reassurance on: ■ Colostrum, which will meet the needs of the baby in the first few days after birth. ■ (C) * Timing of the initial breastfeed, including the protective effect of colostrum, which is culturally appropriate. ■ * The nurturing benefits of putting the baby to the breast in addition to the nutritional benefits of breastfeeding.	1. * At each postnatal contact parents should be offered information and guidance to enable them to: ■ Assess their baby's general condition. ■ Identify warning signs to look for if their baby is unwell. ■ Contact a health-care professional or emergency service if required.

Maintaining Maternal Health	Infant Feeding	Maintaining Infant Health
Core Information	**Core Information**	**Core Information**
b. Signs and symptoms of infection: fever; shaking; abdominal pain and/or offensive vaginal loss. c. Signs and symptoms of thromboembolism: unilateral calf pain; *redness or swelling of calves; shortness of breath or chest pain.* d. Signs and symptoms of pre-eclampsia: headaches accompanied by one or more of the symptoms of visual disturbances, nausea, vomiting, feeling faint. 2. Women who have had an epidural or spinal anaesthesia should be advised to report any severe headache, particularly when sitting or standing.	2. A woman should be reassured that brief discomfort at the start of breast feeds in the first few days is not uncommon, but this should not persist. 3. (A) Women who leave hospital soon after birth should be reassured that this should not impact on breastfeeding duration. 4. All women and carers who are giving their babies formula feed should be offered appropriate and tailored advice to ensure this is undertaken as safely as possible, and optimizes infant development, health and nutritional needs. 5. A woman who wishes to feed her baby formula milk should be taught how to make feeds using correct, measured quantities of formula, as based on the manufacturer's instructions, and how to clean/sterilise feeding bottles and teats and store formula milk.	2. During any physical examination of a baby both parents should be present where possible to encourage the participation of both in their baby's care and to provide an opportunity for both to learn more about their baby and his/her needs. 3. Parents should be offered information on vitamin K in order to make an informed decision about its use. 4. (C) Parents should be offered information about physiological jaundice including: ■ That it normally occurs around 3–4 days after birth ■ * Reasons for monitoring and how to monitor.
WHO PCPNC 2006: 1. Advise on safer sex including use of condoms. 2. Advise on postpartum care and hygiene, especially hand washing. 3. Counsel on nutrition. 4. Counsel on birth spacing and family planning with special attention to lactational amenorrhoea method (LAM). 5. Advise on routine postpartum care, on danger signs and postpartum emergency plan.		**WHO PCPNC 2006:** 1. Counselling mothers of low-birth-weight (LBW) infants on discharge: ■ Exclusive breastfeeding ■ Keeping the baby warm ■ Danger signs for seeking care. LBW babies should be followed up for weekly weighing, assessment of feeding and general health until they have reached 2.5 kg.

Table 2

Time Band 2: Between two and seven days (24-168 hours)

Maintaining Maternal Health	Infant Feeding	Maintaining Infant Health
Core Care	Core Care	Core Care
1. Anti-D should be offered as required according to Department of Health guideline within 72 hours of birth. 2. MMR should be offered as required according to Department of Health guideline 3. * Enquires should be made about general well-being and all common health problems including: ■ micturition and urinary incontinence ■ bowel function ■ healing of any perineal wound ■ headache ■ fatigue ■ back pain. 4. * Encourage all women to use self-care techniques, such as taking gentle exercise, taking time to rest, having help to care for her baby, talking to someone about her feelings and that she is enabled to access social support networks. 5. * Ask all women about their emotional well-being, what family and social support they have and their usual coping strategies for dealing with day-to-day matters. All women and their families/partners should be encouraged to tell their health-care professional about any changes in mood, emotional state and behaviour that are outside of the woman's normal pattern. 6. Observe for any risks, signs and symptoms of domestic abuse and know who to contact for advice and management.	1. Health-care professional should discuss a woman's progress with breastfeeding within the first 2 days postpartum to assess if she is on course to breastfeed effectively. 2. Assess for effective feeding as the woman's breast milk comes in. 3. All breastfeeding women should be offered information about how to hand-express their breast milk and advised on how to store and freeze their expressed milk.	1. Complete newborn physical examination should be performed within 72 hours of birth. 2. * The parent-held child record should be provided to all parents within the first three days of birth. 3. The aims of any physical examination should be fully explained by the health-care professional and the findings and results shared with the parents and recorded in the postnatal plan and the parent-held child record. 4. The Newborn Blood Spot Test should be offered to all parents when their infants are 5–8 days of age. Informed consent should be obtained. 5. A hearing screen should be completed prior to discharge or by week 4 in the hospital programme or by week 5 in the community programme. 6. (B) Home visits should be used as opportunities to promote parent- or mother-to-child emotional attachment. 7. (B) All women should be encouraged to develop social networks as these promote positive maternal-infant interaction. 8. (A) Group-based parent education programmes designed to promote emotional attachment and improve parenting skills should be available to parents who wish to access them. 9. (A) All home visits should be used as an opportunity to assess relevant safety issues for all family members in the home and environment and promote safety education and use of basic safety equipment.

Maintaining Maternal Health	Infant Feeding	Maintaining Infant Health
Core Care	Core Care	Core Care
		10. Health-care professionals should be alert to risk factors and signs and symptoms of child abuse and if there is raised concern should follow local child protection policies.

Maintaining Maternal Health	Infant Feeding	Maintaining Infant Health
	WHO PCPNC 2006: 1. Ask mother how the baby is feeding. 2. If necessary, observe breastfeeding, correct positioning and attachment.	
Concern	Concern	Concern
The health-care professional should continue to identify, evaluate and manage common health problems as appropriate: 1. * Carry out assessment of perineum if perineal pain is present. For pain relief advise: ■ (A) topical cold therapy ■ paracetamol ■ (A)Nonsteroidal anti-inflammatory drugs (NSAIDs) if not contraindicated. 2. * Signs and symptoms of infection, inadequate repair, wound breakdown or non-healing should be further evaluated. (Action level 2) 3. * Management of mild postnatal headache should be based on differential diagnosis of headache type and local treatment protocols. 4. If a woman has tension or migraine headaches, the health-care professional should offer advice on relaxation and avoidance of factors associated with the onset of headaches. 5. * Back pain should be managed as in the general population.	1. * If breastfeeding is not progressing, support and assistance with positioning and attachment on the breast should be provided. 2. * If nipple pain persists after repositioning, consider evaluation for thrush. 3. * If signs and symptoms of engorgement are present, a woman should be encouraged to: ■ wear a well-fitting bra; ■ feed frequently, including prolonged breastfeeding from the affected breast; ■ massage breasts and, if necessary, hand express milk; ■ (A) take analgesia if necessary. 4. * If signs and symptoms of mastitis are present, a woman should be advised to: ■ (A) continue breastfeeding and/or hand expression to ensure effective milk removal and, if necessary, gently massage the breast to relieve any blockage; ■ (A) seek assistance with positioning and attachment; ■ take analgesia compatible with breastfeeding, for example, paracetamol; ■ Increase her fluid intake.	1. If no meconium passed in 24 hours, refer for evaluation. (Action level 2) Check with digital examination. 2. (C) * If a baby is suspected of being unwell, a temperature should be taken using an electronic device which has been properly calibrated and is used appropriately. 3. * A temperature of ≥38°C is abnormal and the cause should be evaluated. (Action level 1) 4. Care for jaundice: ■ * After the first 24 hours, if a carer notices that a baby is jaundiced, or that jaundice is worsening, or the baby is passing pale stools, the carer should be advised to report this to a health-care professional ■ * If a baby develops jaundice, the intensity should be monitored 24 hours later and systematically recorded along with the baby's overall well-being with regard to hydration and alertness. ■ A breastfed baby who has signs of jaundice

Maintaining Maternal Health	Infant Feeding	Maintaining Infant Health
6. A woman with some involuntary leakage of a small volume of urine should be taught how to do pelvic floor exercises. 7. If constipation present, advise increased intake of fibre and fluids. If problem persists advise use of gentle stimulant laxative. 8. All women with haemorrhoids should take measures to avoid constipation and should be offered management based on local treatment protocols 9. If a woman has a haemorrhoid which is severe and swollen or prolapsed, or any rectal bleeding, this should be evaluated. (Action level 2) 10. * Once assessed, women with the following conditions should be referred for treatment: a. Persistent urinary incontinence. (Action level 2) b. Faecal incontinence. (Action level 2) c. Severe or persistent headache and/or other symptom of pre-eclampsia. (Action level 1) d. If a woman has sustained a postpartum bleeding, or complains of persistent fatigue, her haemoglobin level should be evaluated and, if low, treated according to local policy.	5. (C) Women should be advised to report any signs and symptoms of mastitis including flu-like symptoms, red, tender and painful breasts to their health-care professional urgently. 6. (B) * If signs and symptoms of mastitis persist more than several hours, a woman should contact her health-care provider and may require antibiotic treatment. (Action level 2) 7. If an insufficiency of milk is perceived by the woman, her breastfeeding technique and her baby's health should be evaluated by an appropriately trained health-care professional. (C) Reassurance should be offered to assist the woman in gaining confidence in her ability to produce enough milk for her baby. 8. (B) * If the baby is not taking sufficient milk directly from the breast and supplementary feeds are necessary, expressed breast milk should be given by a cup or bottle. (C) Supplementation with fluids other than breast milk is not recommended. 9. Evaluation for ankyloglossia (tongue tie) should be made if breastfeeding problems persist after a review of positioning and attachment by a skilled health-care professional or peer counsellor. If ankyloglossia is suspected, further evaluation is required.	should be breastfeed frequently, and the baby awakened to feed if necessary. ■ Breastfed babies should not be routinely supplemented with formula, water or dextrose water for the treatment of jaundice. ■ If a baby is significantly jaundiced or appears unwell, evaluation of serum bilirubin level should be carried out. (Action level 2) 5. If thrush is identified in her baby, the breastfeeding woman should be offered information and guidance about relevant hygiene practices. Symptomatic thrush requires antifungal treatment. 6. (C) If painful nappy rash persists, it is usually caused by thrush (Candida albicans) and anti fungal treatment should be considered and further evaluation [made] if no response. 7. If a baby is constipated and formula-fed, the following should be evaluated: ■ feed preparation technique ■ quantity of fluid taken ■ frequency of feeding ■ composition of feed. 8. A baby who is experiencing increased frequency and/or looser stools than usual should be evaluated. (Action level 3) 9. Care for excessive crying/colic: A baby either drawing its knees up to its abdomen or arching its back, in the absence of another diagnosis, should be assessed for underlying cause, including infant colic. (Action level 2) Assessment of excessive and inconsolable crying should include: ■ general health of the baby

Maintaining Maternal Health	Infant Feeding	Maintaining Infant Health
Concern	Concern	Concern
		■ antenatal and perinatal history ■ onset and length of crying ■ nature of the stools ■ feeding assessment ■ woman's diet if breastfeeding ■ family history of allergy ■ parent's response to the baby's crying ■ any factors which lessen or worsen the crying. Parents of a healthy baby who has colic should be reassured that the baby is not rejecting them and that colic is usually a phase that will pass. Holding the baby through the crying episode, accessing peer support and (A) hypoallergenic formula may be helpful. (A) Dicycloverine should not be used.
WHO PCPNC 2006: 1. Check for anaemia. Give her a 3-month supply of iron/folic acid tablets. 2. If feeling unhappy and crying easily, assess her for depression.	**WHO PCPNC 2006:** 1. Assess breasts if breastfeeding difficulty or complaints.	**WHO PCPNC 2006:** 1. Look for signs of local infections (skin, cord, eyes). Teach mother to treat local infection. 2. Look for jaundice.
Core Information	**Core Information**	**Core Information**
1. (C) The Department of Health Birth to Five handbook, which offers general information about health and well-being after delivery, should be provided to all postpartum women within the first three days after birth and its use discussed. 2. * Women should be offered information and reassurance about: ■ perineal pain and perineal hygiene ■ urinary incontinence and micturition ■ bowel function ■ fatigue ■ headache ■ back pain	1. A woman should be offered information and reassurance: **Feeding patterns:** ■ that her baby may have a variable feeding pattern, at least over the first few days, as the baby takes small amounts of colostrum and then takes increasingly larger feeds as the milk supply comes in; ■ that when the milk supply is established, a baby will generally feed every 2–3 hours, but this will vary between babies and, if her baby is healthy, the baby's individual pattern should be respected; ■ that if a baby does not appear satisfied after a good feed from the first breast, the second breast should be offered. **Attachment and position:** ■ That being pain free during the feed is an indicator of good position and attachment.	1. Parents should be offered information and reassurance on: ■ their infant's social capabilities, as this can promote parent–infant attachment; ■ nappy rash—Frequent nappy changes and cleansing and exposure of the perineal area reduce baby's' contact with faeces and urine. Cleansing agents should not be added to bath water nor should lotions or medicated wipes be used. Where required, the only cleansing agent which should be used is mild non-perfumed soap. ■ (A) * **cord care**—how to keep the umbilical cord clean and dry and that antiseptics should not routinely be used. ■ safety—how to reduce accidents, particularly

Core Information	Core Information	Core Information
■ (B) normal patterns of emotional changes in the postnatal period and that these usually resolve within 10–14 days of giving birth. (This information should be offered by the third day.) ■ contraception ■ contact details for expert contraceptive advice. 3. * All women should be offered advice on diet, exercise and planning activities, including spending time with her baby.	■ Other indicators of good attachment include: ■ less areola visible underneath the chin than above the nipple ■ chin touching the breast, with the lower lip rolled down, with the nose free ■ mouth is wide open ■ the baby is swallowing. **Signs of successful milk transfer:** The baby has: ■ audible swallowing ■ sustained rhythmic suck and swallowing with occasional pauses ■ relaxed arms and hands ■ moist mouth ■ satisfaction after feeding ■ regular soaked/heavy nappies. **The woman:** ■ feels no breast or nipple pain ■ experiences her breast softening ■ may experience uterine discomfort ■ experiences no compression of the nipple at the end of the feed ■ feels relaxed and sleepy. **Engorgement**—* That their breasts may feel tender, firm and painful when milk 'comes in' at or around 3 days after birth. **Safety**—Milk, either formula or expressed breast milk, should not be heated in a microwave as there is a danger of scalding (advise family/partner as appropriate). **Benefits of breastfeeding**—That babies who are exclusively breastfed for 6 months will accrue the greatest health benefits and disease prevention.	scalds and falls. 2. Parents should be advised to report to their health-care professional changes in the baby's established bowel pattern (which will take up to 7 days to establish), including hard stools that are difficult to pass or increased frequency of loose stools. 3. (B) * Parents should be given information in line with the Department of Health guidance about sudden infant death syndrome (SIDS) and co-sleeping. 4. (B) If parents choose to share a bed with their infant, they should be advised never to sleep on a sofa or armchair. They should also be advised that there is increased risk, especially when the baby is less than 11 weeks old, [associated with] sharing a bed all night and cot death if either parent: ■ is a smoker ■ has recently drunk any alcohol ■ has taken medication or drugs that make them sleep more heavily ■ is very tired. 5. (B) Parents should be advised that if a baby has become accustomed to using a pacifier (dummy) while sleeping, it should not be stopped suddenly during the first 26 weeks. 6. All women and their families should be given information about availability, access and aims of all postnatal peer, statutory and voluntary groups and organisations in their local community.

Maintaining Maternal Health	Infant Feeding	Maintaining Infant Health
	Local breastfeeding support groups—How to access and what services and support they provide. 2. A breastfeeding woman who requests information on preparing a formula feed should be advised on how to do this.	
WHO PCPNC 2006: 1. Advise to bring home-based record to health centre, even for an emergency visit. 2. WHO advice on nutrition: ■ Advise to eat a greater amount and variety. Reassure that she can eat all normal food. Spend more time with thin women and adolescents. ■ Advise the woman against taboos. 3. Family planning for breastfeeding women: ■ LAM: For no more than 6 months postpartum, still amenorrhoeic; ■ condoms, spermicide, female sterilization within 7 days or delay 6 weeks, IUD within 48 hours or delay 4 weeks; For non-breastfeeding women: ■ Immediate postpartum: condoms, progestogen-only pills (POPs), progestogen-only injections, implants, spermicides. ■ Female sterilization within 7 days or delay 6 weeks, IUD within 48 hours or delay 4 weeks; ■ After 3 weeks: Combined oral contraceptives, combined injectables, diaphragm, fertility awareness methods.		

Table 3

Time Band 3: Weeks 2- 8 (from day 8 onwards)

Maintaining Maternal Health	Infant Feeding	Maintaining Infant Health
Core Care	**Core Care**	**Core Care**
1. * At any postnatal contact enquires should continue to be made about general well-being and all common health problems (see above). 2. All women should be asked about resumption of sexual intercourse and possible dyspareunia as part of an assessment of overall well-being 2–6 weeks after birth. 3. * At 10–14 days after birth, all women should be asked about resolution of symptoms of maternal blues. If symptoms have not resolved, the woman's psychological well-being should continue to be assessed for postnatal depression, and if symptoms persist, evaluated. (Action level 2) 4. * Continue to observe for any indication of domestic abuse. 5. As part of the woman's individual postnatal care plan, the coordinating health professional should ensure that there is a review of the woman's physical, emotional and social well-being at 6–8 weeks postpartum which takes into account screening and medical history.	1. * Breastfeeding progress should be assessed at each postnatal contact	1. * Physical examination should be repeated at 6–8 weeks of age. 2. * Offer to commence infant immunization programme.

Maintaining Maternal Health	Infant Feeding	Maintaining Infant Health
Concern	**Concern**	**Concern**
Any positive responses to queries about common health problems should be evaluated, treated or referred appropriately: 1. Dyspareunia ■ If a woman expresses anxiety about resuming intercourse, reasons for this should be explored with her. ■ If a woman is experiencing dyspareunia and has sustained perineal trauma, the health-care professional should offer to assess the woman's perineum. ■ A water-based lubricant gel to help to ease discomfort during intercourse may be advised. ■ If a woman continues to express anxiety about sexual health problems, this should be evaluated further. (Action level 3) 2. * A woman whose postpartum bleeding does not cease by the sixth week postpartum should be referred. (Action level 3) 3. If persistent postnatal fatigue is impacting on the woman's care of herself or baby, underlying physical, psychological or social causes should be evaluated. (Action level 2)		1. If jaundice first develops after 7 days or remains jaundiced after 14 days in an otherwise healthy baby and a cause has not already been identified, it should be evaluated. (Action level 2)

Core Information	Core Information	Core Information
1. * Advise women to report any common health problems (see above). 2. Discuss initiation of sexual activity and possible dyspareunia.		
WHO PCPNC 2006: Check preventive measures: 1. As in Time Band 2. In addition: 2. Check woman's supply of prescribed dose of iron and folate. Give 3-month supply. 3. Advise woman to seek help from community if needed.	**WHO PCPNC 2006:** As in Time Band 2.	**WHO PCPNC 2006:** Check preventive measures.
FOR ALL TIME BANDS		
WHO PCPNC 2006: 1. Work with the community in providing support for women. 2. Establish links with traditional providers. 3. Involve community in ensuring quality of care. 4. Address special considerations for caring for pregnant adolescents, women living with violence.		

Table 4

Suggestions for postnatal care guidelines by the expert panel of the Technical Consultation on Postpartum and Postnatal Care, 29–31 October 2008

These suggested guidelines are based largely on the guidelines of the National Collaborating Centre of Primary Care (NCCPC) (10).

In NCCPC guidelines in this table the strength of evidence is labelled A, B, or C, with A being the strongest. All other, unlabelled recommendations are of strength D (good practice point—GPP). A recommendation labelled with an asterisk (*) appears in both NCCPC and WHO guidelines.

Definitions of the panel's conclusions (used in "Status" column):

"Accepted": The expert panel agreed with the NCCPC recommendation as providing global postnatal care guidance, based on available evidence.

"Deleted": The expert panel considered the NCCPC recommendation not appropriate as global postnatal care guidance.

"Added and/or requiring additional evidence": The expert panel considered these additional recommendations important for providing global postnatal care guidance and requested supporting evidence.

"Modified and/or requiring additional evidence": For providing global postnatal care guidance, the expert panel suggested modification of the NCCPC recommendations and requested supporting evidence.

Other questions: Open questions to be addressed during evidence review.

Time Band 1: Immediate postnatal care

Core care		
Status	**Mother**	**Newborn**
Accepted	1. All postnatal women should be examined within one hour after delivery of placenta.	1. Thermal protection should be ensured immediately after birth and subsequently. (From WHO guidelines) 2. Assessment for emotional attachment should be carried out at each postnatal contact. 3. During the first hour of life: ■ (C) * Mother and baby should not be separated. ■ (A) * Skin-to-skin contact should take place. ■ * Breastfeeding should be initiated. 4. Where postnatal care is provided in a clinical setting, the environment should include: ■ (A) * Rooming-in and continuing maternal skin to baby's skin contact, day and night, when possible. ■ * Adequate rest for the woman without interruption due to clinical routine.

Concern		
Status	**Mother**	**Newborn**
		■ (A) * Commercial packs—for example, those intended for distribution to women when they are discharged from hospital—that contain formula milk or advertisements for formula should not be given. ■ Women should be taught to hand-express breast milk, and breast pumps should be available in the clinical setting, particularly for women who have been separated from their babies, to establish lactation. All women who use a breast pump should be offered instructions on its correct use. 5. Women should be offered skilled support, including mother-to-mother (i.e. peer) support, from the start of breastfeeding. 6. Additional support with positioning and attachment to commence breastfeeding should be offered to all women who have had: ■ (C) narcotic analgesia or general anaesthetic, as the baby may not initially be responsive to feeding; ■ a caesarean section, particularly to assist her with handling and positioning the baby so as to protect her abdominal wound; ■ * initial contact with her baby delayed. 7. (A) * Breastfeeding of unrestricted frequency and duration should be encouraged. 8. * A health-care professional [to be changed to "health care provider"] should discuss with the woman daily her experience with breastfeeding, to assess with her whether she is on course to breastfeed effectively and to identify any need for additional support. Breastfeeding progress should then be assessed and documented in the care plan at each postnatal contact. 9. (A) Written breastfeeding education materials can supplement direct instruction and counselling, but they should not substitute for direct instruction. 10. A single dose of monovalent hepatitis B vaccine should be administered within 24 hours of birth depending on the national immunization schedule.

Core care		
Status	**Mother**	**Newborn**
Added and/or requiring additional evidence	Privacy for the woman, hygienic toilet facilities, and infection control measures reflect basic human rights and need to be mentioned up front as a preamble to the guidance on postpartum care.	1. Efforts should be made to resuscitate a baby that is not breathing spontaneously after birth. 2. The baby should be weighed, and gestational age, assessed. 3. A mother should be taught how to provide additional care for a small baby (preterm, low birth weight). 4. Even if the woman is not going to breastfeed, skin-to-skin contact should still be encouraged. 5. Breastfeeding is defined to mean that the baby is receiving only breast milk. 6. Mother and baby may be discharged if the mother is comfortable, breastfeeding is initiated, and the baby is well. 7. If the woman is not comfortable with breastfeeding, she should not be discharged without additional support. 8. (A) All maternity care providers (whether working in hospital or in primary care) should implement an externally evaluated, structured programme that encourages breastfeeding, using the Baby Friendly Initiative as a minimum standard.
Modified and/or requiring additional evidence	1. Blood pressure should be measured within 6 hours and again before discharge. Care providers should look for and record both hypotension and hypertension. Discharge should be delayed until condition stable. 2. Urine void within the first 6 hours should be documented. If plan is to discharge within 6 hours, document urine void before discharge. Check for urine retention if not voided before 6 hours and ensure that fluid intake is adequate. 3. All women should "be encouraged to be ambulant as soon as possible" instead of "mobilize". 4. All postnatal women should be assessed for signs of shock related to excess blood loss. 5. A home-based maternal and child health record should be maintained. 6. In malarial settings mother and baby should be sleeping under an impregnated bednet.	1. (B) * Formula milk should not be given to breastfed babies in hospital unless medically indicated. [Instead of "formula milk", add "any other liquids"]. 2. (A) * Breastfeeding support should be made available to a woman regardless of the location of care. [Add "and in all special circumstances".] 3. (A) Vitamin K should be offered for all infants and (A) administered as a single dose of 1 mg IM. If parents decline IM vitamin K for their baby, oral vitamin K should be offered as second line.
Other questions	1. Should a woman have access to food and drink on demand, without restriction?	1. What should be included in routine care for newborns without mothers?

Status	Concerns	
	Mother	**Newborn**
Accepted	1. If a woman has excessive or malodorous vaginal loss, abdominal tenderness or fever, then vaginal loss and uterine involution and position should be assessed. Any abnormalities in the size, tone and position of the uterus should be evaluated. If no uterine abnormality is found, consider other causes of symptoms. (Urgent action) 2. If diastolic blood pressure is greater than 90 mmHg, and there are no other signs of severe pre-eclampsia, blood pressure should be measured again within 4 hours.	1. A baby who is not attaching effectively may be encouraged to open his/her mouth using various stimuli. 2. Skin-to-skin contact or massaging a baby's feet should be used to wake the baby. 3. * Infants who develop jaundice within the first 24 hours should be evaluated urgently. (Action level 2)
Deleted	1. If a woman is obese, she will require individualized care.	[None]
Added and/or requiring additional evidence	[None]	1. Parents should be educated to recognize danger signs in the baby. 2. Parents should be advised to seek care any time that they are concerned for their newborn's health. 3. Health care providers should treat sore nipples, and women should be educated on self-care (evidence is available). 4. Advise mothers on appropriate duration of breastfeeding.
Modified and/or requiring additional evidence	1. If infection is suspected, body temperature should be taken and documented. If infection is not suspected but, on routine checking, body temperature is above 38°C, temperature should be measured again in 4–6 hours. 2. If a woman has not voided by 6 hours postpartum and measures to encourage micturition have failed, intake of fluids should be checked. Bladder volume should be assessed and catheterization considered. (Urgent action) 3. Immediate referral is required for major complications, and interim life-saving measures should be taken.	
	1. The status of tetanus immunization and results of syphilis and HIV tests should be assessed and treatment initiated as appropriate. If testing was not undertaken before delivery, it should be done at this time. 2. Where iron deficiency anaemia is prevalent, give a 3-month supply of iron. 3. The woman should receive an insecticide-treated bednet in accordance with national policy 4. Give the woman who has lost her baby supportive care, including accommodation in another ward. Provide culturally appropriate grief support.	

Concerns		
Status	**Mother**	**Newborn**
Other questions	1. What is the evidence for postnatal administration of vitamin A?	[None]

Core information		
Status	**Mother**	**Newborn**
Accepted	1. All women should be given information about the physiological process of recovery after birth and health problems that are common, with advice to report any health concerns to health-care providers—in particular: ■ symptoms and signs of postpartum haemorrhage ■ symptoms and signs of infection ■ symptoms and signs of thrombo-embolism ■ symptoms and signs of pre-eclampsia. 2. Women who have had epidural or spinal anaesthesia should be advised to report any severe headache, particularly if it occurs when sitting or standing. From WHO guidelines: 3. Women should be given advice on postnatal care and hygiene, especially hand washing. 4. Women should be counselled on nutrition. 5. Women should be counselled on birth spacing and family planning, with special attention to the lactational amenorrhoea method (LAM).	Women should be offered information and reassurance on: ■ colostrum, which will meet the nutritional needs of the baby in the first few days after birth.; ■ (C) * timing of the initial breastfeed, including the protective effect of colostrum (advised in a culturally appropriate manner); ■ * the nurturing benefits of putting the baby to the breast in addition to the nutritional benefits of breastfeeding. 2. A woman should be reassured that brief discomfort at the start of breast feeds in the first few days is not uncommon, but this should not persist. 3. All mothers and other care-givers who are giving their babies formula feed should be offered appropriate and tailored advice to ensure this is undertaken as safely as possible and in a way that optimizes infant development, health and nutrition. 4. * At each postnatal contact parents should be offered information and guidance to enable them to: ■ assess their baby's general condition ■ identify warning signs that the baby is unwell ■ contact a health-care professional or emergency service if required. 5. During any physical examination of a baby, both parents should be present whenever possible; this will encourage the participation of both parents in their baby's care and provide an opportunity for both to learn more about their baby and his/her needs. 6. Parents should be offered information on vitamin K so that they can make an informed decision about its use. 7. (C) Parents should be offered information about physiological jaundice including: ■ that it occurs normally at around 3–4 days after birth ■ * reasons for monitoring and how to monitor.

Core information		
Status	**Mother**	**Newborn**
Accepted		8. Counselling mothers of low-birth-weight (LBW) infants on discharge should cover: ■ exclusive breastfeeding ■ keeping the baby warm ■ danger signs for seeking care. LBW babies should be followed up for weekly weighing, assessment of feeding and general health until they have reached 2.5 kg.
Deleted	1. Advise on routine postnatal care, on danger signs and postnatal emergency plan. 2. Develop with the woman and the family a postnatal care and emergency plan.	1. (A) Women who leave hospital soon after giving birth should be reassured that early discharge should not affect breastfeeding duration.
Added and/or requiring additional evidence	[None]	1. The father should be encouraged to participate in the care of the baby.
Modified and/or requiring additional evidence	[None]	1. A woman who makes an informed decision to feed her baby formula milk [to be added: "in special circumstances"] should be taught how to make feeds using correct, measured quantities of formula, as based on the manufacturer's instructions, and how to clean/sterilize feeding bottles and teats (to be replaced with "feeding utensils") and store formula milk.
Other questions	[None]	[None]

Time Band 2: early postnatal care

Core care		
Status	**Mother**	**Newborn**
Accepted	1. Enquiries should be made about general well-being and all common health problems including micturition and urinary incontinence, bowel function, healing of any perineal wound, headache, fatigue and back pain. 2. Encourage all women to use self-care techniques, such as gentle exercise and rest. 3. All women should be asked about their emotional well-being, what support for baby care they have from family, partner, and social network; what emotional and psychological support they have. 4. The health-care provider should watch for any risks, signs, and symptoms of domestic abuse and know whom to contact for advice and management.	1. The health-care professional should fully explain the aims of any physical examination, should share the findings with parents and should record the results in the postnatal plan and in the parent-held maternal and child health record. 2. Appropriate immunizations should be provided according to national policies. 3. (B) Home visits should be used as opportunities to promote emotional attachment between mother and child. 4. (B) All women should be encouraged to develop social networks since such networks promote positive maternal-infant interaction. 5. (A) Group-based parent education programmes designed to promote emotional attachment and improve parenting skills should be available to parents who want them. 6. (A) All home visits should be used as opportunities to assess relevant safety issues for all family members in the home and environs and to promote safety education and use of basic safety equipment.
Deleted	[None]	1. Health-care professionals should be alert to risk factors and signs and symptoms of child abuse and, if there is raised concern, should follow local child protection policies.
Added and/or requiring additional evidence	1. Documentation of maternal health should continue. 2. The health-care provider should check whether support for the mother is available at home. 3. The health-care provider should check for gender issues (related to having a girl child) that may result in harm or emotional trauma for the mother. 4. Useful practices for malaria prevention should be reinforced.. 5. Good practices in the home for maternal well-being should be reinforced. 6. Women should be counselled and advised against potentially harmful traditional practices. 7. Women should be advised when supplementation of nutrition would be necessary.	1. If necessary, the health-care provider should observe breastfeeding and correct positioning and attachment.

Core care		
Status	**Mother**	**Newborn**
	8. The emergency plan made during the antenatal period should be reinforced and expanded.9. Parents' competence with infant care should be assessed and reinforced. 10. Assessment should be made of the mother's emotional attachment to the baby (eye contact and stimulation), especially if pregnancy resulted from rape.	
Modified and/or requiring additional evidence	1. The practice of LAM should be reinforced, and options for family planning and birth spacing when LAM is no longer appropriate should be discussed.	1. Breastfeeding support should be provided. Use strategies to support breastfeeding. 2. * The parent-held child [to be modified to "maternal and child"] records should be provided to all parents within the first three days following birth. 3. The Newborn Blood Spot Test should be offered to all parents when their infants are 5–8 days of age, or per local guidelines. Informed consent should be obtained from parents. 4. A hearing screen should be completed before discharge or else by week 4 in the hospital programme or by week 5 in the community programme. [Recommendations 2 and 3 are to be combined and changed to "metabolic and other screenings should be done according to national policy."]
Other questions	1. What additional support and care should be offered to women with special needs?	1. What is the evidence for the benefit of the physical examination performed at about 72 hours after the birth?

Corncern		
Status	**Mother**	**Newborn**
Accepted	1. The perineum should be assessed if there are concerns such as pain or swelling. 2. Signs and symptoms of infection should be assessed. 3. Signs and symptoms of pre-eclampsia should be assessed. 4. A woman with involuntary leakage of a small volume of urine should be taught pelvic floor exercises. 5. If constipation is present, increased intake of fibre and fluids should be advised. If the problem persists, use of a gentle laxative should be advised. 6. If a woman has haemorrhoids that are severely swollen and prolapsed or any rectal bleeding, this should be evaluated. 7. Women with the following conditions should be referred for treatment: persistent urinary incontinence, faecal incontinence, severe persistent headache or sustained postpartum bleeding.	1. * If breastfeeding is not progressing, support and assistance with positioning and attachment on the breast should be provided. 2. (C) Supplementation with fluids other than breast milk is not recommended. 3. If no meconium is passed in 24 hours, the baby should be referred for evaluation. 4. If a baby is suspected of being unwell, body temperature should be taken properly using an electronic device that has been correctly calibrated. 5. A temperature of >38°C is abnormal, and the cause should be evaluated. 6. Care for jaundice: ■ The care-giver should be advised to notify a health-care professional if, after the first 24 hours, a baby is jaundiced, jaundice is worsening, or the baby is passing pale stools. ■ If a baby develops jaundice, the intensity should be monitored 24 hours later and systematically recorded along with the baby's overall well-being with regard to hydration and alertness. ■ A breastfed baby who has signs of jaundice should be breastfed frequently, and the baby should be awakened to feed if necessary. ■ Breastfed babies should not be routinely supplemented with formula, water or dextrose water for the treatment of jaundice. ■ If a baby is significantly jaundiced or appears unwell, evaluation of serum bilirubin level should be carried out. (Action level 2) 7. If thrush is identified in her baby, the breastfeeding woman should be offered information and guidance about relevant hygiene practices. Symptomatic thrush requires antifungal treatment. 8. (C) If painful nappy rash persists, it is usually caused by thrush (Candida albicans), and anti-fungal treatment should be considered. The condition merits further evaluation if there is no response to treatment. 9. If a baby is constipated and formula–fed, the following should be evaluated: ■ feed preparation technique ■ quantity of fluid taken

		Corncern
		■ frequency of feeding ■ composition of feed. 10. A baby who is experiencing increased frequency of stools and/or looser stools than usual should be evaluated. (Action level 3) 11. Care for excessive crying/colic: A baby either drawing its knees up to its abdomen or arching its back, in the absence of another diagnosis, should be assessed for underlying cause, including infant colic. (Action level 2) Assessment of excessive and inconsolable crying should include: ■ general health of the baby ■ antenatal and perinatal history ■ onset and length of crying ■ nature of the stools ■ feeding assessment ■ woman's diet, if breastfeeding ■ family history of allergy ■ parents' response to the baby's crying ■ any factors that lessen or worsen the crying. Parents of a healthy baby who has colic should be reassured that the baby is not rejecting them and that colic is usually a phase that will pass. Holding the baby through the crying episode, obtaining peer support and (A) hypoallergenic formula may be helpful. (A) Dicycloverine should not be used.
Deleted	[None]	1. Health-care professionals should be alert to risk factors and signs and symptoms of child abuse and, if there is raised concern, should follow local child protection policies.
Added and/or requiring additional evidence	1. The woman should receive education about the danger signs of deep-vein thrombosis, secondary postpartum haemorrhage, eclampsia, sepsis, and breast problems. 2. The woman should receive education about family planning. 3. The woman should receive education about maternal nutrition.	From WHO guidelines: 1. The baby should be checked for signs of local infections (skin, cord, eyes). 2. Mothers should be taught to treat local infection. 3. The baby should be checked for signs of jaundice.
		1. If necessary, the health-care provider should observe breastfeeding and correct positioning and attachment.

	Corncern	
Modified and/or requiring additional evidence	1. Where iron deficiency anaemia is prevalent, supplement and check for anaemia.	. If the baby is not taking sufficient milk directly from the breast and supplementary feeds are necessary, expressed breast milk should be given by cup or bottle. [Delete "or bottle".] 2. If breastfeeding problems persist after a skilled health-care professional or peer counsellor had reviewed positioning and attachment, evaluation for ankyloglossia (tongue tie) should be made. If ankyloglossia is suspected, further evaluation is required. [Search question will be formulated to look for evidence.]
Other questions	What is the best way to inform women about maintaining their health and well-being and about recognizing and responding to danger signs concerning their health?	[None]

	Core information	
Status	**Mother**	**Newborn**
Accepted	1. Women should be offered information and reassurance about perineal pain and hygiene, urinary incontinence and micturition, bowel function, fatigue, headache, back pain, and normal patterns of emotional changes. 2. All women should be offered advice on diet, exercise, and family planning.	1. Parents should be offered information and reassurance on: ■ their infant's social capabilities, as this can promote parent-infant attachment; ■ nappy rash: Frequent nappy changes and cleansing and exposure of the peri-anal area reduce babies' contact with faeces and urine. Cleansing agents should not be added to bath water nor should lotions or medicated wipes be used. Where required, the only cleansing agent that should be used is mild, unperfumed soap. ■ (A) * cord care: how to keep the umbilical cord clean and dry and that antiseptics should not routinely be used. ■ safety: how to reduce accidents, particularly scalds and falls. 2. Parents should be advised to report to their health-care professional changes in the baby's established bowel pattern (which will take up to 7 days to establish), including hard stools that are difficult to pass and increased frequency of loose stools. 3. (B) * Parents should be given information about sudden infant death syndrome (SIDS) and co-sleeping. 4. (B) If parents choose to share a bed with their infant, they should be advised never to sleep on a sofa or armchair. They should also be advised that the risk of SIDS is increased, especially when the baby is less than 11 weeks old, if either parent: ■ is a smoker ■ has recently drunk any alcohol

Core information		
Status	**Mother**	**Newborn**
		■ has taken medication or drugs that make her/him sleep more heavily ■ is very tired. 5. (B) Parents should be advised that, if a baby has become accustomed to using a pacifier (dummy) while sleeping, this practice should not be stopped suddenly during the first 26 weeks. 6. All women and their families should be given information about the availability of, access to and aims of all postnatal peer, statutory and volunteer support groups and organizations in their community.
Deleted	[None]	[None]
Added and/or requiring additional evidence	1. All women should be told to bring their home-based health records on every visit, even in an emergency.	1. The woman should be informed how to maintain good breastfeeding practice and offered or referred for support (apply strategies for breastfeeding support).
Modified and/or requiring additional evidence	1. The maternal and infant health record should be maintained.	[None]
Other questions	[None]	1. How effective is screening for ill health in newborns by health workers/parents? 2. What is the best way to teach parents about maintaining infant health and well-being and recognizing and responding to danger signs related to infant ill health? 3. What is the benefit of counselling and advising the parents against potentially harmful practices? 4. What is the impact on infant health of certain safety issues: post-conflict situations, sleeping position, violence, neglect? 5. What is the benefit of continuity of documentation and care? 6. What are the benefit of counselling the parents against harmful traditional practices? 7. What is the benefit of assessing and reinforcing the parents' competence with infant care. 8. What is the benefit of assessing emotional attachment (eye contact and stimulation)? 9. What is the impact of Kangaroo Mother Care?

Time Band 3: Late postnatal care

	Core information	
Status	**Mother**	**Infant**
Accepted	1. Enquiries should be made about general well-being. 2. Resumption of sexual intercourse should be discussed and enquiries, made. 3. Women should be asked about resolution of maternal blues. 4. Observation for signs of domestic abuse should continue. 5. A woman's physical, emotional, and social well-being should be reviewed at 6–8 weeks postpartum.	1. Breastfeeding progress should be assessed at each postnatal contact. 2. * Physical examination should be repeated at 6–8 weeks of age.
Deleted	[None]	[None]
Added and/ or requiring additional evidence	1. Documentation in the home-based maternal and child health record should continue.	1. Breastfeeding support should continue.
Modified and/ or requiring additional evidence	1. Maternal nutrition and supplementation should be provided as required. 2. The woman should be reminded of the danger signs, especially of secondary postpartum haemorrhage. 3. Where malaria is prevalent, useful practices for malaria prevention should be reinforced. 4. Good practices in the home for maternal well-being should be reinforced.	1. * Offer to begin the infant immunization programme [to be added: "according to national immunization policy"]
Other questions	[None]	[None]

Corncerns		
Status	**Mother**	**Infant**
Accepted	1. Any positive responses to queries about common health problems should be evaluated and the problem, either treated or referred appropriately—for example, dyspareunia, persistent vaginal bleeding, and persistent postnatal fatigue.	1. If jaundice first develops after 7 days or if an otherwise healthy baby remains jaundiced after 14 days, and a cause has not already been identified, the cause should be evaluated. (Action level 2)
Deleted	[None]	[None]
Added and/ or requiring additional evidence	[None]	[None]
Modified and/ or requiring additional evidence	[None]	[None]
Other questions	[None]	[None]

Core information		
Status	**Mother**	**Infant**
Accepted	1. Women should be advised to report any health problems.	[None]
Deleted	[None]	[None]
Added and/ or requiring additional evidence	1. Women should be advised to seek help from the community if needed.	1. Check preventive measures as specified in WHO guidelines.
Modified and/ or requiring additional evidence	1. Where iron deficiency anaemia is prevalent, supplement and check for anaemia. 2. Useful practices for malaria prevention should be reinforced. 3. The practice of LAM should be reinforced, and options for family planning and birth spacing when LAM is no longer appropriate should be discussed.	[None]
Other questions	[None]	[None]

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Glossary

Assessment	A core health care professional making a judgement about the well-being of a woman or infant.
Breastfeeding counsellor	A woman who has received specific training in counselling skills to provide support to breastfeeding women.
Breastfeeding peer support	Support offered by women who have themselves breastfed, are usually from similar socio-economic backgrounds and locality to the women they are supporting and who have received minimal training to support breastfeeding women.
Coordinating healthcare professional	A named health care professional who is responsible for organizing the care of a woman and her baby during any stage of the postnatal period.
Dyad	Mother and baby as a couple or pair.
Evaluation	Action based upon assessment of a woman or infant which may require referral or additional competencies to provide treatment.
Exclusive/full breastfeeding	Breast milk feeding without supplementation in the form of other solid or liquids.
First postnatal contact	First contact after the end of intrapartum care.
Formula milk/artificial milk	Modified cow's milk or modified soy liquid used for infant feeding in lieu of breast milk.
Healthcare professional	Clinically educated and certified individual who provides postnatal care for a woman and/or her baby; most commonly midwives, general practitioners, health visitors.
Healthy baby	A healthy baby should have normal colour for his/her ethnicity, maintain a stable body temperature, pass urine and open his/her bowels at regular intervals. A healthy baby initiates feeds, sucks well on the breast (or bottle) and settles between feeds. A healthy baby is not excessively irritable or tense and is not excessively sleepy or floppy. The vital signs of a healthy baby should fall within the following ranges: Respiratory rate normally 30–60 breaths per minute Pulse rate, normally between 100–160 in a newborn Body temperature in a normal room environment of around 37 degrees Centigrade (if measured)
Induration	The hardening of a normally soft tissue or organ.
Maternity support worker	An individual who has received appropriate training and work under midwife or health visitor supervision in hospital or community postnatal care teams, providing basic care and support for women and their babies.
Parents	Presumed to be the biological parents and primary carers of an infant, although it is recognized that this term may include other carers, such as grandparents, foster or adoptive parents, etc.
Partners	Individuals in a relationship, who may be of either sexual orientation.
Peer counsellor	A woman who has herself breastfed, is from similar socio-economic background and locality to the women she is counselling and who has received specific training in counselling skills to provide support to breastfeeding women.
Postnatal care	Care during the first 6–8 weeks after birth.

Additional glossary

Follow-up	Planned visit to/by a skilled health professional for a specific problem outside a routine visit.
Readmission	Hospitalization after a discharge from a facility for the same or related condition.
Routine care	Scheduled contacts with women and their babies at periods for estimated maximum impact on maintaining health and providing a package of effective interventions to all women and babies.
Situational care	Care that is required because of incidence or prevalence of public health problems such as malaria, HIV, STIs, FGM, adolescent pregnancy. Care can be clinical or social support.
Skilled health attendant	An individual who has received education and training to provide skilled postnatal care for a woman and/or her baby. These include midwives, general practitioners, and health visitors but may also apply to other health care workers who have acquired appropriate skills in postnatal care.
Uncomplicated vaginal delivery	Unassisted vaginal birth of baby and placenta, with no maternal complications.
Visit	Routine care.

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