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The evidence and rationale for the UNICEF UK Baby Friendly Initiative standards

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The evidence and rationale for the UNICEF UK Baby Friendly Initiative standards

Forewords

I was delighted to welcome the Baby Friendly Initiative's new standards, published by UNICEF in 2012.

When the 2010 Infant Feeding Survey was published last year, it brought welcome news about breastfeeding rates: more women are starting to breastfeed, and more women are breastfeeding for longer.

This means that more women are getting the help they need to breastfeed, which reflects better care in maternity and community settings. Ultimately, more breastfeeding is good for both mothers and babies.

But we still want to see more increases in breastfeeding initiation and duration, and a greater focus on encouraging mothers to develop a strong, loving bond with their baby. Baby Friendly's new standards support feeding and relationship-building for all mothers and babies, whether breastfeeding or bottle feeding, recognising the importance of the mother-baby relationship as the basis on which all other relationships are built.

And as we move forward and go even further in promoting these improvements, a solid evidence base is crucial. This evidence book is supporting changes to practice that will help deliver better long-term outcomes for mothers and babies.

Improving the health and well-being of mothers and babies through promoting breastfeeding and bonding is an exciting prospect, and I commend this evidence book to all those who are working hard to achieve this goal.

Dr Dan Poulter MP
Parliamentary Under Secretary of State for Health

Much work has been undertaken in implementing the UNICEF UK Baby Friendly Initiative programme in a range of settings across all Northern Ireland Health and Social Care Trusts. This demonstrates a real commitment to promote and support best practice and shows the high respect in which BFI is held.

While our rates of breastfeeding have significantly improved over the years, our rates are still low in comparison to the rest of the UK and other countries. We recognise that there is more to do.

Our regional Breastfeeding Strategy, published this year, highlights the need for multifaceted approaches, improvements to hospital and community support, effective peer support programmes, protection from poor practices and public information campaigns to improve awareness and social acceptability of breastfeeding.

I welcome the revised BFI standards, which are underpinned by a robust evidence base and provide a framework to encourage and support health professionals and services to work together collaboratively and effectively, to deliver the best outcomes for both mother and baby.

This evidence book supports our commitment to improve breastfeeding rates and provide supportive environments to enable mothers and families to establish close relationships and give their babies a good start in life.

Edwin Poots MLA
Minister for Health Social Services and Public Safety, Northern Ireland Executive

Forewords

The Scottish Government is committed to ensuring that every child in Scotland gets the best possible start in life. We know that breastfeeding makes a huge contribution to the health and well-being of babies and mothers, which is why we are committed to its promotion and support throughout Scotland.

Achievement of UNICEF UK Baby Friendly accreditation is an important element of *Improving Maternal and Infant Nutrition: A Framework for Action* (Scottish Government, 2011). We have seen considerable progress in this, as 81 per cent of babies in Scotland are now born in a BFI-accredited unit, with the aim of increasing this to 100 per cent by 2015. In 2012, NHS Greater Glasgow and Clyde was the first health authority in the United Kingdom to achieve BFI accreditation across all acute and community services.

I very much welcome the development of the new BFI standards, with their emphasis on strong parent and child bonds; as well as the introduction of standards for neonatal units, which will help support the aims of our recently launched Quality Framework for Neonatal Care. This evidence book will help provide the support needed for further progress to be made across Scotland.

Michael Matheson MSP
Minister for Public Health, Scottish Government

The Welsh Government was proud to be the first UK country to welcome the new UNICEF UK Baby Friendly Initiative standards, launched in Cardiff in December 2012.

We endorse its emphasis on improving the quality of support for all expectant and new parents; the focus on supporting strong parent-infant bonds; and continued support for increasing breastfeeding rates.

Here in Wales we have embraced the new neonatal breastfeeding standards as part of our vision for health services.

This important book gathers, in one place, the evidence behind the new standards. It will provide invaluable support for practitioners, managers and leaders who are working to ensure that all children in Wales have a bright future.

Mark Drakeford AM
Minister for Health and Social Services, Welsh Government

Introduction

In 2012, I started on a journey to collate the evidence that had been used to support the rationale for, and development of, the new Baby Friendly Initiative standards – the result of which is this book.

Its aim is to bring together the considerable body of knowledge and skills, research, practice and policy into one place. The work critically analyses the available evidence and highlights both good practice and gaps in our information.

I hope that the user-friendly format will inspire and motivate you to use this evidence in your day to day work. I have been given the time to think, reflect and collate the information, worked with many of you and explored the narrative – the result of which is a resource to enable you to better support women to provide the best nutrition and build a close and loving relationship with their baby.

This book captures gold standard evidence presented in systematic reviews and meta-analyses of quantitative and qualitative research. Where these are not available, it has drawn on examples of good and emerging best practice. Case studies are used to inspire and motivate ideas for you to create meaningful change at an individual, cultural and societal level within your local community.

I understand the challenges faced by those involved in infant feeding support: it can be difficult to identify the evidence available, work out what is good quality, current and applicable and then critically analyse how best to commission and apply it. I hope this book will go some way to addressing this, and that you will enjoy, quote, pick up and put down, come back to and use it again and again, in your everyday practice to inform your care.

The new Baby Friendly Initiative standards have been developed based on the latest research. Evaluation of the standards is going to be required over time to analyse whether this new approach yields results. Understanding the evidence that underpins the standards is one thing, implementing them in a way that creates behavioural change at an individual and societal level requires a co-ordinated approach by us all.

I look forward to your feedback and adding to this body of evidence as new information comes to light. The future of this book's success lies in it being a truly collaborative document, based on evidence and your experience. In this way, it will help us now, and in the future, to support mothers and babies in the best possible way.

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Professor Fiona Dykes

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Peer reviewers

This book was peer reviewed to check for accuracy and meaning, and to try and ensure that no seminal text had been omitted. The reviewers were:

- **Professor Pat Hoddinott**, Chair in Primary Care, Nursing, Midwifery and Allied Health Professionals Unit, University of Stirling
- **Professor Mary J Renfrew**, Professor of Mother and Infant Health, School of Nursing and Midwifery, University of Dundee

National policy contribution

- **Janet Calvert**, Regional Breastfeeding Co-ordinator, Public Health Agency, Northern Ireland
- **Sally Tedstone**, Cydlynydd Rhaglen Genedlaethol Cymru Bwydo ar y Fron, Iechyd Cyhoeddus Cymru, Co-ordinator for National Breastfeeding Programme for Wales, Public Health Wales
- **Helen Yewdall**, National Maternal and Infant Nutrition Co-ordinator, Maternal & Infant Health, Scottish Government
- **Department of Health England**, Maternity, First Years and Families team

We are also very grateful for the insights and support of the numerous experts who kindly gave their knowledge and time to contribute to this report: Dr Helen Ball, Carol Bartle, Lisa Dyson, Dr Renée Flacking, Janet Fyle, Sue Henry, Liz Jones, Karla Napier, Gabrielle Palmer, Jane Putsey, Gill Rapley, Dr Magda Sachs and Dr Felicity Savage.

How to reference this book

Entwistle FM (2013) *The evidence and rationale for the UNICEF UK Baby Friendly Initiative standards.* UNICEF UK.

Secondary referencing when citing original research from the book e.g. Renfrew et al, 2012a, cited in Entwistle FM (2013) *The evidence and rationale for the UNICEF UK Baby Friendly Initiative standards.* UNICEF UK, pg. 15.

Abbreviations

BF	Breastfeeding
BFHI	Baby Friendly Hospital Initiative*
BFI	Baby Friendly Initiative
BLW	Baby-led weaning
BMA	Baby Milk Action
BMS	Breastmilk substitute
CCG	Clinical commissioning groups
CQC	Care Quality Commission
CRP	Corticotrophin releasing factor
DfE	Department for Education
DH	Department of Health
DHSSPSNI	Department of Health, Social Services and Public Safety, Northern Ireland
EBM	Expressed breastmilk
ESPGHAN	European Society for Pediatric Gastroenterology, Hepatology and Nutrition
GP	General Practitioner
HIEC	Health Innovation and Education Cluster
HIV	Human immunodeficiency virus
HSCIC	Health and Social Care Information Centre
IBFAN	International Baby Food Action Network
IBCLC	International Board Certified Lactation Consultant
IFIT	Infant Feeding Information Team
IFS	Infant Feeding Survey
KMC	Kangaroo mother care
LBW	Low birth weight
LNA	Local Needs Assessment
MDG	Millennium Development Goal
NEC	Necrotising enterocolitis
NGO	Non-governmental organisation
NHS	National Health Service
NICE	National Institute for Health and Clinical Excellence
NICU	Neonatal Intensive Care Unit
NIDCAP	Newborn Individualized Developmental Care and Assessment Program (US)
PbR	Payment by results
PCT	Primary Care Trust
RCT	Randomised controlled trial
SID(S)	Sudden Infant Death (Syndrome)
SR	Systematic review
SSC	Skin-to-skin contact
UNCRC	United Nation's Convention on the Rights of the Child
UNICEF	United Nation's Children's Emergency Fund
WHA	World Health Assembly
WHO	World Health Organization

Glossary

The Code WHO (1981) International Code of Marketing of Breast-milk Substitutes

Peer/Volunteer/Lay: These terms are used to describe a paid or volunteer worker who is not a health professional but working with women to support them to breastfeed.

* The Baby Friendly Hospital Initiative is how the programme is referred to globally. The Baby Friendly Initiative is a UK-specific programme.

Overview of the UNICEF UK Baby Friendly Initiative Standards

STAGE	STANDARDS
STAGE 1	Building a firm foundation 1. Have written policies and guidelines to support the standards. 2. Plan an education programme that will allow staff to implement the standards according to their role. 3. Have processes for implementing, auditing and evaluating the standards. 4. Ensure that there is no promotion of breastmilk substitutes, bottles, teats or dummies in any part of the facility or by any of the staff.
STAGE 2	An educated workforce Educate staff to implement the standards according to their role and the service provided.
STAGE 3	Parents' experiences of maternity services 1. Support pregnant women to recognise the importance of breastfeeding and early relationships for the health and well-being of their baby. 2. Support all mothers and babies to initiate a close relationship and feeding soon after birth. 3. Enable mothers to get breastfeeding off to a good start. 4. Support mothers to make informed decisions regarding the introduction of food or fluids other than breastmilk. 5. Support parents to have a close and loving relationship with their baby.
STAGE 3	Parents' experiences of neonatal units 1. Support parents to have a close and loving relationship with their baby. 2. Enable babies to receive breastmilk and to breastfeed when possible. 3. Value parents as partners in care.
STAGE 3	Parents' experiences of health-visiting/public health nursing services 1. Support pregnant women to recognise the importance of breastfeeding and early relationships for the health and well-being of their baby. 2. Enable mothers to continue breastfeeding for as long as they wish. 3. Support mothers to make informed decisions regarding the introduction of food or fluids other than breastmilk. 4. Support parents to have a close and loving relationship with their baby.

Overview of the UNICEF UK Baby Friendly Initiative Standards

STAGE	STANDARDS
STAGE 3	Parents' experiences of children's centres or equivalent early years settings in Wales, Scotland and Northern Ireland 1. Support pregnant women to recognise the importance of breastfeeding and early relationships for the health and well-being of their baby. 2. Protect and support breastfeeding in all areas of the service. 3. Support parents to have a close and loving relationship with their baby.
RE-ACCREDITATION	Building on good practice Demonstrate innovation to achieve excellent outcomes for mothers, babies and their families.

Note: The document maps and cross references the above standards to each chapter of the book.

Chapter 1: **Introduction and background**

Introduction

This book explores the evidence that underpins the revised UNICEF UK Baby Friendly Initiative (BFI) Standards (launched in 2012). It is written for use by those implementing the standards, including clinicians; policy leads; commissioners/planners; academics; and infant feeding support workers – peer, voluntary and professional.

Since the 1990s, evidence-based care has been informed by a growing body of systematic reviews, which are seen as the gold standard for informing policy makers and enabling positive change in clinical practice. Over the years, development of the systematic review process has moved away from purely clinical practice and now incorporates models that address socio-cultural behavioural and educational fields with the aim of reducing health inequality and promoting public health. Increasing breastfeeding prevalence has been extensively researched and reported in this body of knowledge.

As this evidence base increases, the challenge of identifying 'what works' has become ever more complex. Based on the best available evidence and trying to turn 'interventions into successful outcomes', the revised Baby Friendly Initiative standards draw on wider evidence, including observational studies and controlled evaluations of interventions. In this way, the standards capture the broader context and process of interventions: political, legal, social, cultural, economic and organisational structures (Asthana and Halliday, 2006). Some interventions are generalisable to the population – for example, promotion of skin-to-skin contact – whereas others are only replicable in certain conditions and contexts – for example, antenatal education that meets individual needs.

Infant feeding practice takes place within complex social systems and it is recognised that other outcomes are important and influence infant feeding patterns in the UK. By implementing a broad approach to the available evidence – including using systematic reviews and other sources of evidence – the needs of the user and the contextual features that impact on women's lives informed the revised standards.

Building on the work of the World Health Organization's *Evidence for the ten steps to successful breastfeeding* (1998), the main purpose of the revised standards is to continue to increase breastfeeding initiation and prevalence **and** to support health professionals in enabling mothers and families to establish close relationships with their baby.

Available evidence and rationale

Where possible, the evidence presented in this book (see Figure 1) has drawn on the findings from higher ranking research (i.e., systematic reviews and meta-analysis). This methodology synthesises the results of a number of studies to produce results of higher statistical power. This hierarchy of evidence is widely accepted in the medical literature. However, it often focuses on quantitative methodologies and therefore is not absolute or fixed. The complexity of applying evidence to clinical practice, particularly in relation to behaviour change (the Baby Friendly Initiative Standards) means that 'lower' ordered evidence, such as case studies, may be used to explore and inform practice development (Barratt, 2009).

There are places in the book where randomised controlled trials (RCT) or systematic review (SR) evidence needs to be augmented, or where we do not have RCT or SR evidence. In those places, we have drawn on a range of other methods, including expert opinion and experience, which has been utilised as a valuable resource to inform the rationale for the standards.

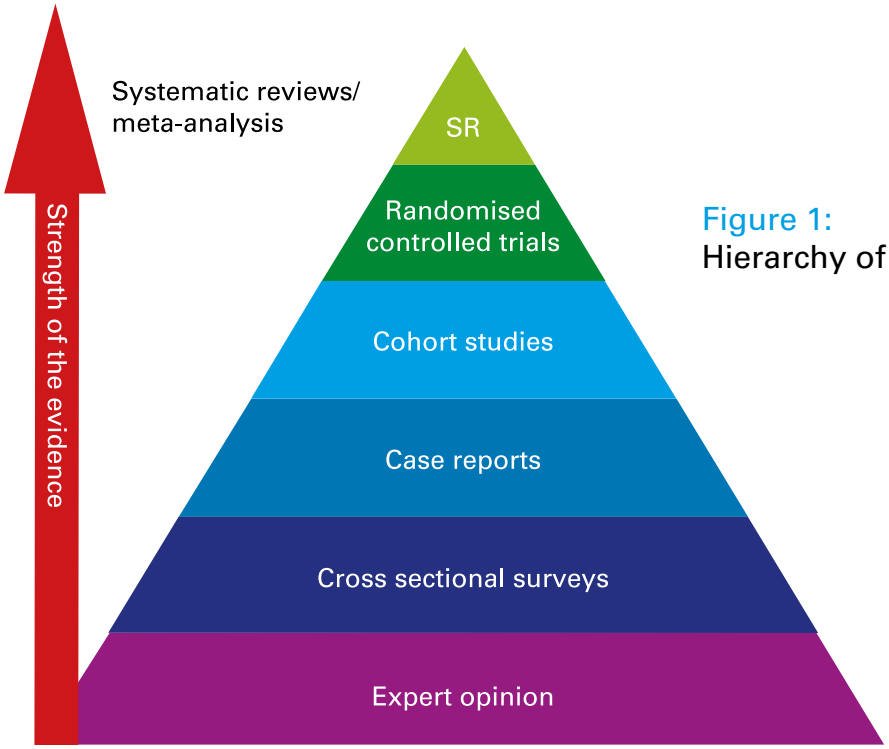


Figure 1:
Hierarchy of evidence

Electronic searches

Electronic databases were searched for evidence to inform the development of the standards. Each section of the standards – Building a firm foundation; An educated workforce; Parents' experiences; and Building on good practice – was researched independently of the other. Where there was some crossover of information, an editorial decision was made about where best to present the information to ensure that the book did not become repetitive.

Reviews, trials, method studies, technology assessments, economic evaluations and grey literature were searched using CINHALPlus, PubMed, The Cochrane Library, NHS Evidence, OpenGrey, Google Scholar, MIDIRS and Scopus. The information retrieved was then hand searched for meaningful references, which were accessed via individual journals. Search terms and retrieval dates were applied specifically to each section until no new and relevant resources were found.

How to use this book

This book has been developed to inform practice in implementing the revised Baby Friendly Initiative standards. It is recognised that for some, current service delivery structures may inhibit implementation. For example, not all health visitors in their current role have access to pregnant women and therefore implementation of Standard 1 (Support pregnant women to recognise the importance of breastfeeding and early relationships for the health and well-being of their baby), may require service reconfiguration for this to become reality. However, this does not change the evidence informing implementation of the standards. Indeed, the health visiting and midwifery partnership pathway for pregnancy and the early weeks encourages integration of health visiting and maternity services (DH, RCM, CPHVA, 2012). Collaborative working, health professionals, peer and volunteer workers, together with women and their families, provide a framework to support infant feeding and the promotion of breastfeeding (DH, 2009b, DH and PHE, 2013).

Chapter 1: **Introduction and background**

The book is divided into sections that can be read independently or as a whole. The content covers the standards thematically across the wide scope of practice, including:

- How to build a firm foundation
- Educating the workforce
- Preparing pregnant women for feeding and caring for their newborn baby
- Supporting mothers to build a close and loving relationship with their baby at birth and long term
- Discussing the use and introduction of other foods including formula feeds
- Neonatal care
- The marketing of breastmilk substitutes.

The evidence is applicable to all settings, including maternity settings, neonatal units, community health care services and children's centres.

At the end of each section, a short summary brings together key information that will help to inform practice development. References are presented as a comprehensive reference list at the end of the book. Further information is available in the Appendices, which builds on the information in the text.

A PDF version of this book is available to download from the UNICEF UK Baby Friendly Initiative website and will be updated periodically: www.babyfriendly.org.uk

Background

For generations in the UK, formula feeding and routinised care has been the cultural norm (Crossland & Dykes, 2011). As a consequence, the physiological norm of breastfeeding, and subsequently emotional attachment and parenting skills, has been interrupted. In addition, continuous media attention and social trends undermine women's confidence in their ability to breastfeed (Groskop, 2013; Martyn, 2011; Pollard, 2011; Rumbelow, 2009; Wolf, 2010). For some women living in this environment, breastfeeding can be very challenging. Women make decisions about their infant feeding choices for a variety of reasons, including their own cultural expectations and personal circumstances (Marshall et al, 2007). If they then choose not to breastfeed, they need the best possible evidence-based information to help them to minimise the risks of formula feeding (Crawley & Westland, 2012; DH, 2011a; UNICEF, 2010a/b).

Overview of why breastfeeding is important

Evidence regarding the key contribution that breastfeeding makes to health and development continues to increase. The substantiated effects on health are well documented. If a mother chooses not to breastfeed, this can pose significant risks for both mother and child. In the short term, there is an increased risk to the infant of admission to hospital for gastroenteritis and respiratory disease. Recently published Infant Feeding profiles (DH, 2013a) show a correlation at Primary Care Trust level between higher rates of breastfeeding prevalence and lower rates of inpatient admissions among infants under one year old for 10 conditions: lower respiratory tract infections, infant feeding difficulties, wheezing, gastroenteritis, non-infective gastroenteritis, eczema, otitis media, infant feed intolerance, lactose intolerance and asthma. In the longer term, infants who are not breastfed tend to have higher blood pressure and are at greater risk of type 2 diabetes and obesity (American Academy of Paediatrics, 2012; Arenz et al, 2004; Bartok & Ventura, 2009; Cathal & Layte, 2012; Chivers et al, 2010; Harder et al, 2005;

Hoddinott et al, 2008; Horta et al, 2007; Ip et al, 2007; Quigley, 2007; Renfrew et al, 2012a; Scott et al, 2012; Shields et al, 2006). In addition, the impact on outcomes such as IQ and other measures of development is being consistently seen in high-quality studies (Horta & Victoria, 2013; Iacovou & Sevilla-Sanz, 2010; Kramer et al, 2008). Breastfeeding provides a unique opportunity for attachment between mother and baby and can protect the child from maternal neglect (Strathearn et al, 2009). For mothers, breastfeeding is associated with a reduction in breast and ovarian cancers (DH, 2009a; WCRF/AICR, 2009). No other health behaviour has such a broad-spectrum and long-lasting impact on public health. The child's road to success and subsequent life chances begin in pregnancy and strong emotional bonds between a parent and their baby are built on good foundations in the early postnatal period and through breastfeeding (Allen and Duncan Smith, 2008; Allen, 2011a; Centre for Excellence and Outcomes in Children and Young People's Services, 2010; DH, 2009b; Field, 2010; Heikkila et al, 2011; Hosking & Walsh, 2010).

We know that some vulnerable mothers – including young mothers and mothers from lower socio-economic groups, who are least likely to breastfeed (McAndrew et al, 2012; SACN, 2008) – have the worst health and social outcomes for themselves and their babies. Breastfeeding provides one solution to this long-standing problem, as an intervention to help tackle health inequality. One study found that those low-income mothers who breastfed for 6-12 months had the highest scores of any group on quality of parenting interactions at age five (Gutman et al, 2009). Evidence has also demonstrated that a child from a low-income background who is breastfed is likely to have better health outcomes than a child from a more affluent background who is formula-fed (Wilson et al, 1998). In line with previous Infant Feeding Surveys, in 2010, low maternal age and low educational level are the strongest predictors of infant feeding outcomes, other than previous feeding experience, even when other factors are taken into consideration (McAndrew et al, 2012).

Low breastfeeding rates in the UK lead to increased incidence of illness, which has significant cost implications for the health service. Recent research commissioned by UNICEF UK (Renfrew et al, 2012a) demonstrates that investing in effective services to increase and sustain breastfeeding would make a significant contribution to reducing health inequalities. The report asks the UK government and policy makers to recognise that:

- Breastfeeding is a major public health issue
- Low breastfeeding rates result in significant costs to the National Health Service (NHS).

And that they respond accordingly by:

1. Ensuring public services are fit for purpose
2. Strengthening legislation to protect breastfeeding
3. Supporting further research into the impact of breastfeeding on health.

A summary of the report is included in Appendix 1

> *"Immunisation is preventative medicine par excellence. If a new vaccine became available that could prevent 1 million or more child deaths a year and that was moreover cheap, safe, administered orally and required no cold chain, it would become an immediate public health imperative. Breastfeeding could do this and more..."*
>
> Lancet, Editorial, A warm chain for breastfeeding, Lancet, 5 November 1994; 344(893Z):1239–41.

Policy context – national and international

UK national policy

Since the recording of breastfeeding statistics began in the UK through the National Infant Feeding Surveys, breastfeeding initiation rates have risen steadily: 62 per cent in 1990 to 76 per cent in 2005 to 81 per cent in 2010 (McAndrew, 2012). However, the socio-demographic profiles of the women who are breastfeeding remain the same and young, non-professional, low-income women who leave school early continue to be those who are least likely to initiate breastfeeding.

As deprivation levels rose, women were less likely to initiate breastfeeding; only three-quarters of women (73 per cent) living in the most deprived areas in England initiated breastfeeding, compared to nine out of ten (89 per cent) of women living in the most affluent areas – a difference of 13 per cent. In the other UK nations, the percentage differences were even higher: 25 per cent in Wales; 22 per cent in Scotland and 30 per cent in Northern Ireland.

Encouragingly though, between 2005 and 2010, the greatest increase in breastfeeding initiation rates was seen in women from routine and manual occupations, 65 per cent to 74 per cent, narrowing the socio-economic gap.

Over this same period, all four UK nation governments invested in promoting breastfeeding, financially and through national, regional and local policy. Research evidence and policy guidance now consistently recommends the implementation of the UNICEF UK Baby Friendly Initiative as the best mechanism to raise breastfeeding initiation (Bartington et al, 2006; Beake et al, 2012; Broadfoot et al, 2005; Cattaneo and Buzzetti, 2001; Del Bono and Rabe, 2012; DH, 2009b; Dyson et al, 2006; Ingram et al, 2011; Kramer et al, 2001; McNeill et al, 2010; Merton et al, 2005; NICE, 2011a; NICE 2013; Perrine et al, 2012; Venancio et al, 2011). For example, between 2008 and 2010 the Department of Health (England) invested £7 million into local services to support breastfeeding, including the BFI accreditation process (DH, 2009a). While the evidence cannot support direct attribution, within this time breastfeeding initiation rates in England increased from 78 per cent to 83 per cent (McAndrew, 2012) along with a marked increase in engagement with the BFI.

In 2012, public health policy across all four UK nations continued to recognise the significant impact that breastfeeding can have on the short- and long-term outcomes for women and their children: *A Public Health Outcomes Framework for England* (DH, 2012a); *Improving Maternal and Infant Nutrition: A Framework for Action* (Scottish Government, 2011a); *The Framework for Preventing and Addressing Overweight and Obesity in Northern Ireland 2012-2022* (DHSSPSNI, 2012); and *Reproductive and Early Years Pathfinder progress report* (Public Health Wales, 2012); and *A Strategic Vision for Maternity Services in Wales* (Welsh Government, 2011).

English national policy

In England, the Department of Health (DH) measures a broad range of indicators under *A Public Health Outcomes Framework for England* (2012), enabling them to monitor progress year on year against key health outcomes. These are grouped under four domains:

1. Improving the wider determinants of health
2. Health improvement
3. Health protection and
4. Health care public health and preventing premature mortality.

As a specific indicator, monitoring breastfeeding (under Domain 2) requires local authorities to prioritise breastfeeding support locally and to increase breastfeeding initiation and prevalence. The outcome recognises that this will: reduce illness in young children; reduce hospital admissions and thus costs to the NHS, in the longer term; reduce obesity and type 2 diabetes in childhood and in adults; and reduce high blood pressure and blood cholesterol levels (DH, 2012a).

To achieve these outcomes, multidisciplinary working is seen as key to successful implementation (Leadsom et al, 2013). DH and DfE have published various policy documents that, with feedback from women and their families (DH, 2011b), demonstrate ways of working to deliver improved local service delivery (DH, 2009a). These include: an enhanced health visitor service (DH, 2011c); more health visitor and midwife partnerships (DH, 2010a; DH 2010b; DH, 2011d; DH, 2012c); and further development of the Family Nurse Partnership Programme for vulnerable teenage mothers (DH, 2011e). Broadly, English national policy is based on an understanding of the strong evidence supporting the importance of initiatives targeted at the first years of life in improving a child's future outcomes (Wave Trust and DfE, 2013). These include support in pregnancy to achieve positive health and well-being behaviours, such as smoking cessation and positive nutrition, as well as the promotion of breastfeeding to enhance the quality of relationships between parents and their babies, recognising how attachment behaviours in these early years influence a child's future educational attainment, social skills, self-efficacy and self-worth (NICE, 2012a; NICE 2013; DfE and DH, 2011; DfE, 2011).

In June 2013, the Department of Health, Public Health England, NHS England and the RCM set out the actions to be taken by individual nursing and midwifery groups in order to maximise well-being and improve health outcomes as part of an action area to improve compassion in practice. The strategy highlights the importance of supporting women to breastfeed and recommends implementation of the Baby Friendly Initiative standards (DH and PHE, 2013, DH et al, 2013a, DH et al 2013b).

Scottish national policy

Improving Maternal and Infant Nutrition: A Framework for Action was published by the Scottish Government in January 2011. It is a framework for action that can be taken by NHS boards, local authorities and others to improve the nutrition of pregnant women, babies and young children. It is the first framework to look at the nutrition of mothers before and during pregnancy. It supports and promotes the benefits of breastfeeding and the importance of a healthy diet throughout early childhood.

Statistics published in October 2011 indicate that breastfeeding rates in Scotland continue to vary widely by geographical area and are strongly linked to deprivation and maternal age. Although the NHS in Scotland has done some excellent work on increasing breastfeeding rates to help meet the target to increase overall exclusive breastfeeding rates at six to eight weeks to 32.7 per cent, rates have remained static since 2006/07. In 2010/11, 26.5 per cent of babies were exclusively breastfed at the six-eight week review.

However, breastfeeding rates in the most deprived areas of Scotland have increased over the last decade, with the overall breastfeeding rates at the first visit increasing from 24.3 per cent in 2001/02 to 30.9 per cent in 2010/11, and the rates at six to eight weeks also improving from 18.1 per cent to 22.3 per cent.

As part of *Improving Maternal and Infant Nutrition: A Framework for Action*, NHS boards are required to detail how they are implementing the framework, including specific areas of work around antenatal education, postnatal breastfeeding support and accredited breastfeeding peer support.

With recognition of the important contribution made by UNICEF UK Baby Friendly accreditation, *Improving Maternal and Infant Nutrition: A Framework for Action* requires that all maternity units and 80 per cent of community health partnerships in Scotland should achieve Baby Friendly accreditation by 2015/16. In order to support this, the Scottish Government has funded a Professional Officer and has provided financial support to assist boards with the accreditation process. At present, 81 per cent of babies in Scotland are born in Baby Friendly accredited hospitals.

Welsh national policy

In Wales, one of the priorities of *A Strategic Vision for Maternity Services* in Wales is optimising nutrition from birth. A specific outcome indicator for the strategy is the proportion of babies exclusively receiving breastmilk at 10 days following birth. Recent changes to the collection of breastfeeding data in Wales via the Child Health Database will enable the effective capture of robust data for this outcome, and more broadly for other stages throughout the first six months of a child's life. This will also facilitate better monitoring and service planning more widely.

The National Breastfeeding Programme targets support at three levels: the NHS, the community and families. A key part of the National Breastfeeding Programme is the support of, and participation in, the UNICEF UK Baby Friendly Initiative for all maternity services and community health care facilities. The Initiative identifies standards of care for pregnant and breastfeeding women, thus ensuring health professionals receive clear and consistent training in supporting breastfeeding.

The Welsh Government provides support to maternity care facilities for the costs of training and assessment to support the implementation of the Baby Friendly Initiative standards across health services in Wales.

Grants are also provided to all Health Boards for local strategic co-ordination of support groups, peer supporter training and the Breastfeeding Welcome Scheme.

The Welsh Government is committed to robust evaluation to ensure that the programme evolves and delivers improved outcomes for the children of Wales.

Northern Irish national policy

The Department of Health Social Services and Public Safety for Northern Ireland (DHSSPS) issued a draft breastfeeding consultation document in June 2012, *A Ten Year Breastfeeding Strategy for Northern Ireland* (DHSSPS, 2012a). This strategy's approach seeks to: improve knowledge about the effects of breastfeeding; support mothers to initiate and establish breastfeeding; provide supportive environments to breastfeeding mothers and their children; and strengthen community support programmes by creating supportive environments for breastfeeding.

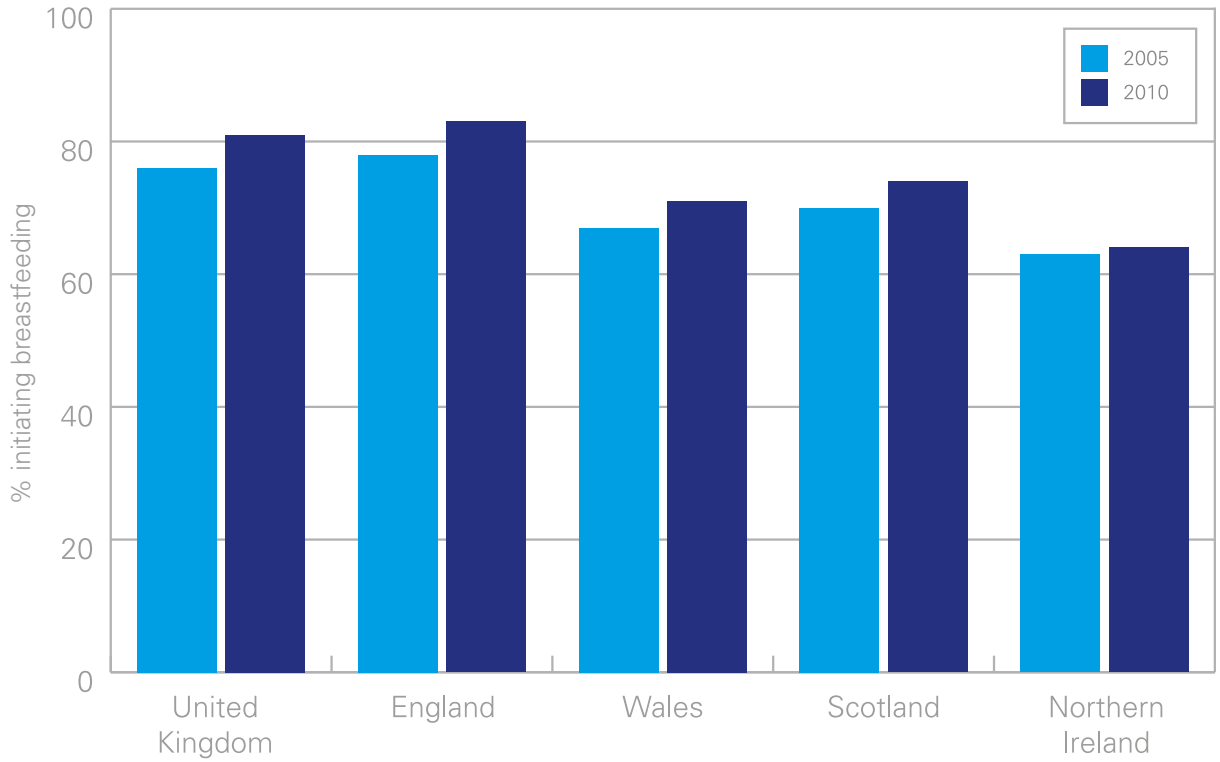
The maternity strategy for Northern Ireland, *A Strategy for Maternity Care in Northern Ireland 2012–2018*, was published in July 2012 (DHSSPS, 2012b). This strategy recognises the importance of breastfeeding to health and alludes to the link with normalising childbirth and increased positive breastfeeding experiences.

Also in 2012, Department of Health, Social Services and Public Health (DHSSPS) issued the *Framework for Preventing and Addressing Overweight and Obesity in Northern Ireland 2012-2022: 'A Fitter Future for All'* (DHSSPS, 2012c). This obesity framework requires a life course approach to tackling obesity and recognises the need to provide consistent information and support to all parents in line with the UNICEF UK Baby Friendly Initiative.

DHSSPS have produced a public health strategy consultation document, *Fit and Well Changing Lives 2012-2022 (*DHSSPS 2012d). This overarching strategy includes a key policy aim: to give every child the best start. Outcomes required to meet this policy aim include providing breastfeeding advice and support before and during pregnancy to women and their partners. A further outcome specifies increasing breastfeeding rates, particularly for those least likely to breastfeed, including young mothers and those in lower socio-economic groups.

In June 2013, Northern Ireland lunched their breastfeeding strategy *Breastfeeding – A Great Start: A Strategy for Northern Ireland 2013-2023*. The purpose of the strategy is to improve the health and well-being of mothers and babies in Northern Ireland through breastfeeding. It sets out the strategic direction to protect, promote, support and normalise breastfeeding in Northern Ireland for the next ten years.

Figure 2: Comparative breastfeeding initiation data from all four UK nations



Chapter 1: **Introduction and background**

Global policy

More than 10 years ago, world leaders established goals to free the world's populations from extreme poverty, hunger, illiteracy and disease. The eight United Nations Millennium Developmental Goals (MDGs) are varied and include targets to halve extreme poverty and improve nutrition (MDG1), halt the spread of HIV and AIDS (MDG 6) and reduce maternal and child mortality (MDGs 4&5) by 2015. While progress has been made in many areas, a 2011 UN report identifies that "Nutrition must be given higher priority in national development if the MDGs are to be achieved" (UN, 2011). Breastfeeding within an hour of birth, and exclusively for the first six months of a baby's life, is seen as one simple, cost-effective way to achieve this.

> *"Optimal breastfeeding and complementary feeding practices can save the lives of 1.5 million children under five every year."*
>
> World Health Organization, 2010

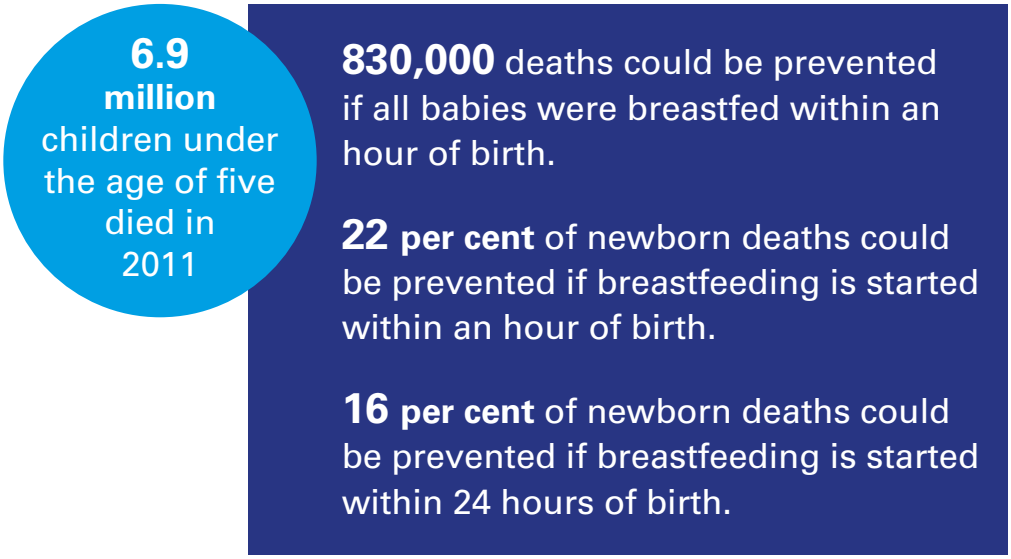
Based on the best available evidence (Kramer & Kukuma, 2009) that is free from any conflict of interest, the World Health Organization (WHO, 2011) reaffirmed their commitment that all infants are breastfed exclusively for six months and thereafter with other foods for up to two years or more, that breastfeeding should begin within an hour of birth and continue on demand day and night. Support for mothers, through the global Baby Friendly Hospital Initiative, is seen as an essential element to achieving exclusive breastfeeding. Worldwide there are now more than 20,000 Baby Friendly facilities in 156 countries (WHO/UNICEF, 2009). Some countries have made achievements that surpass all expectations. For example, in Rwanda, exclusive breastfeeding rates at six months are 88.4 per cent and by 20-23 months, 77 per cent of mothers are still breastfeeding their infants in combination with other foods (UNICEF, 2007). However, globally there is wide variation and few women exclusively breastfeed for six months. Within the UK, this remains at 1 per cent (McAndrew et al, 2012).

The health risks to children are constantly being reviewed and in 2012, following a consultation of the World Health Assembly (resolution WHA63.23) on infant and young child nutrition, a draft comprehensive implementation plan was considered by the 130th Executive Board (WHO, 2012). Global targets have been proposed and key priority areas highlighted that can be used as a benchmark for the international community to measure achievements and trigger corrective actions. The targets correspond to international nutrition conditions that are responsible for nutrition-related morbidity and mortality ranging from low birth weight to the changing trend of increasing worldwide childhood obesity. 'Target 4' proposes to halt the increase in childhood overweight and 'Target 5' to increase exclusive breastfeeding rates in the first six months of life from 36 per cent to at least 50 per cent by 2022. Both targets recognise breastfeeding as an effective behaviour that is highly protective for the mother and baby, as well as an effective activity to reduce the risk of worldwide childhood obesity. Each nation is responsible for translating these into their own national targets, based on their own epidemiology, risk factors and trends.

In 2013, UNICEF called for the breastfeeding debate to be re-energised, in order to transform how the issue is perceived and addressed and "conveying that it is doable and important to improve [infant and young child feeding] practices" (UNICEF, 2013). For breastfeeding promotion policy to be successful several key elements have been identified: advocacy; code compliance; maternity legislation; workplace support; BFI hospital and community accreditation, training and education; communication and community-based promotion. For the targets to be achieved, countries are recommended to implement the WHO/UNICEF Global Strategy for Infant and Young Child Feeding (2003) and the Innocenti Declaration (2005), to protect, promote and support breastfeeding.

Save the Children (Mason et al, 2013) called for more support for breastfeeding within the community and changes in cultural practices, through trained health workers, changes to maternity legislation and enforcement of the International Code of Marketing of Breast-milk Substitutes. The report *Superfood for babies: how overcoming barriers to breastfeeding will save children's lives* estimated more than 800,000 deaths could be prevented each year if babies were given breastmilk in the first hour of birth. This report called for the G8 leaders (who met in Northern Ireland in June 2013) to take action to secure funding for breastfeeding programmes as part of plans to tackle malnutrition worldwide (Mason et al, 2013).

Figure 3: Information from Superfood for babies



Mason et al (2013). *Superfood for babies: how overcoming barriers to breastfeeding will save children's lives.* Save the Children.

European policy

In Europe, the report Protection, promotion and support of breastfeeding in Europe: a blueprint for action (Cattaneo, 2008) recognises that improving breastfeeding practices and rates (initiation, exclusivity and duration) requires a concerted and co-ordinated approach built on clear policies, strong management and adequate financing. In many countries across Europe, formula feeding has been considered the norm for generations. Both low rates and early cessation of breastfeeding, particularly among the poorer communities, means that many children in Europe are still being deprived of the benefits of breastfeeding, both health and social. In times of austerity across Europe (BBC, 2012), the cost to the health care system of treating conditions that are preventable by breastfeeding is estimated at several thousand Euros per child per year and this has important social and economic consequences (Renfrew et al, 2012a).

Cattaneo's blueprint aims for European countries to see:

- A Europe-wide improvement in breastfeeding practices and rates
- A significant increase in the number of parents who are confident, empowered and satisfied with their breastfeeding experience
- An improvement in skills in promoting, supporting and protecting breastfeeding, thus producing greater job satisfaction for the vast majority of health workers.

Importantly, it also recognises that bonding and nurturing between mother and baby imply more than feeding alone and therefore women who decide to formula feed and those who breastfeed should be supported to foster the establishment of an optimal relationship with their child, which extends beyond feeding.

The blueprint was updated in 2008, but of the 29 countries that participated, the situation did not change much between 2002 and 2007. For the countries with the lowest breastfeeding initiation rates (Ireland, France and the UK) improvements were seen but rates continued to be lower than other European countries. Higher rates of exclusivity at six months were reported in the Netherlands and Slovakia, but across Europe figures remain lower than recommended by the WHO and UNICEF. However, improvements were seen in the number of countries engaging with the BFHI. In Sweden, all hospitals were reported to be BFHI-accredited. In addition, all countries reported the existence of peer counsellors and mother-to-mother support.

Breastfeeding initiation

Reporting on European national breastfeeding data statistics is challenging, as recording is inconsistent and not always comparable. According to the Organisation for Economic Co-operation and Development (OECD) Family Database, CO 1.5 (2011), in 2005, the proportion of children who were ever breastfed varied widely, ranging from less than 50 per cent in Ireland to almost 100 per cent in Denmark, Sweden and Norway. The UK was sixth from the bottom (see Figure 4).

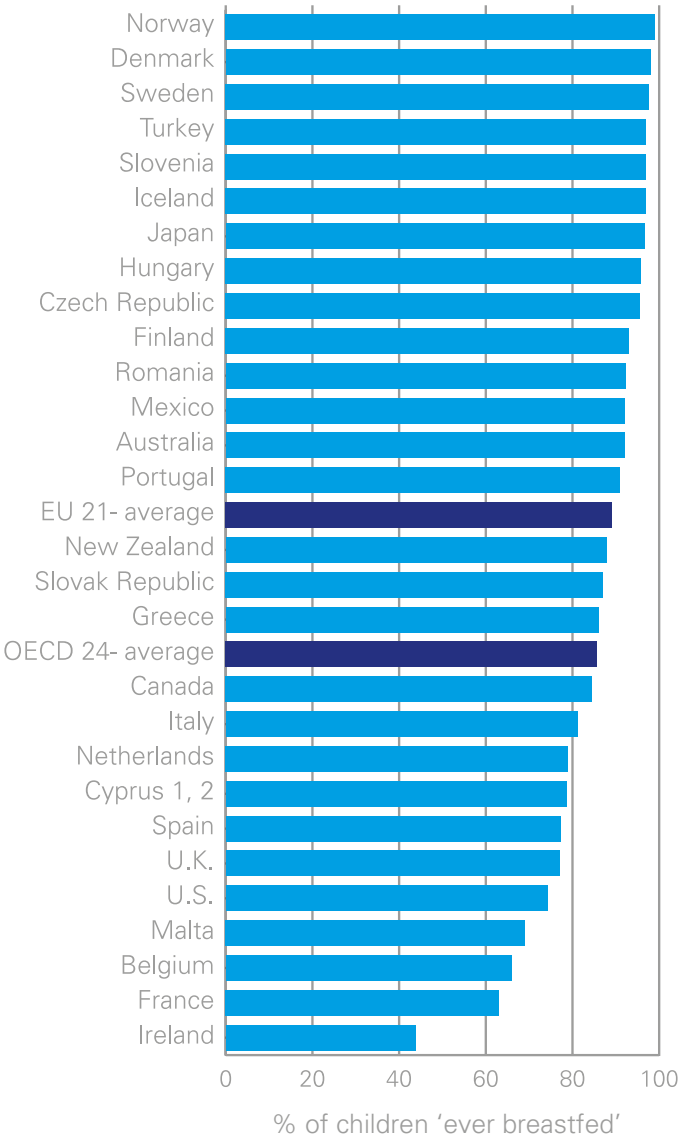


Figure 4: Proportion of children who were 'ever breastfed', worldwide, around 2005

Reproduced from OECD Family Database, 2011
www.oecd.org/els/social/family/database

Between 2005 and 2010, results from the 2010 Infant Feeding Survey demonstrate significant increases in breastfeeding initiation rates in England (78 to 83 per cent), Wales (67 to 71 per cent) and Scotland (70 to 74 per cent). However, in Northern Ireland initiation rates have remained static and demonstrate some of the lowest breastfeeding rates in Europe (64 per cent, the same for 2005 and 2010) (McAndrew et al, 2012; WCRF/AICR, 2009).

Breastfeeding prevalence

Across the UK, in 2010, breastfeeding rates fell from 81 per cent at birth to 69 per cent at one week, and to 55 per cent at six weeks. At six months, just over a third of mothers (34 per cent) were still breastfeeding (see Figure 5). While this does not meet government recommendations, improvements have been seen.

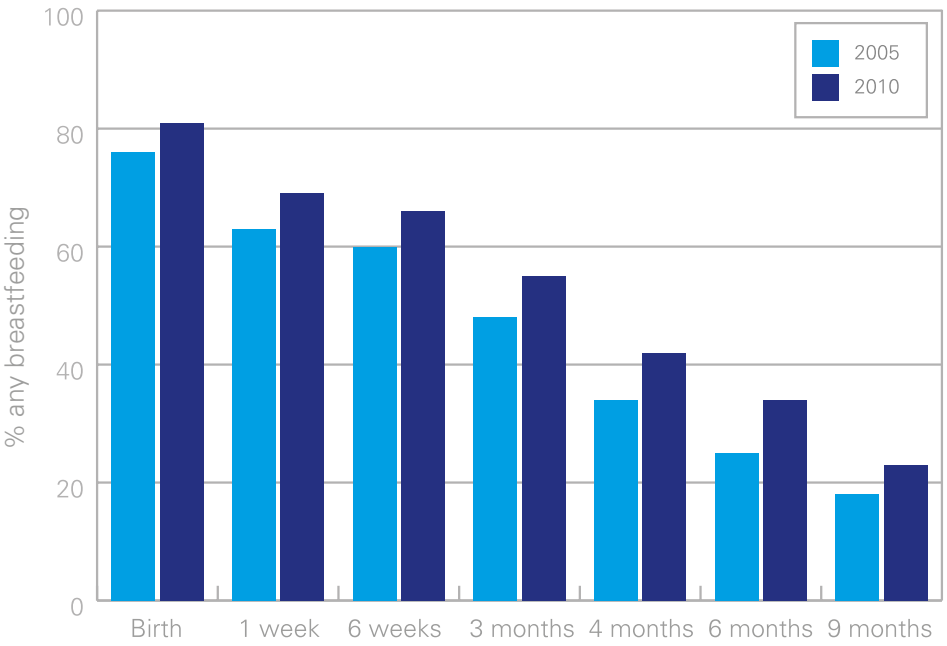


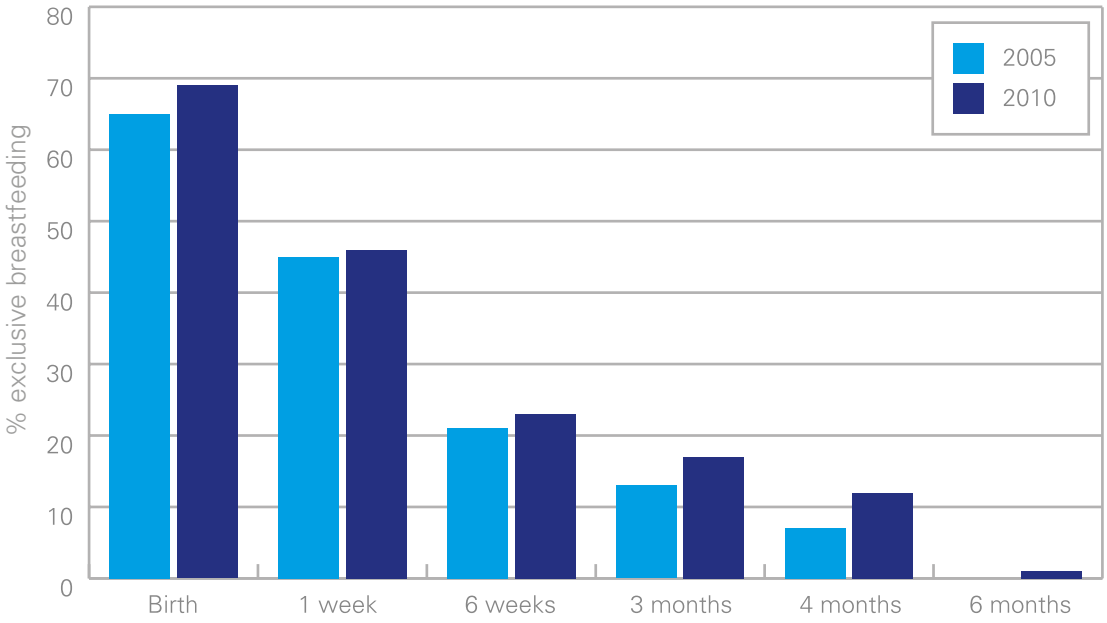
Figure 5: Breastfeeding prevalence, by age, UK-wide, 2005-2010

Data from Infant Feeding Survey 2010 (McAndrew et al, 2012)

Mothers continued to breastfeed for longer in 2010 than in 2005: 9 per cent more women were still breastfeeding at six months (25 per cent in 2005 compared to 34 per cent in 2010). This suggests that policy developments to improve support and information for mothers may have encouraged them to continue to breastfeed for longer.

Figure 6: Breastfeeding prevalence (exclusive), by age, UK wide 2005-2010

Data from Infant Feeding Survey 2010 (McAndrew et al, 2012)



In 2010, at three months, 17 per cent of mothers were still breastfeeding exclusively (up from 13 per cent in 2005) and at four months, 12 per cent of mothers were still breastfeeding exclusively (up from 7 per cent in 2005). At six months, only 1 per cent were still exclusively breastfeeding (no change since 2005) (McAndrew et al, 2012).

Understanding breastfeeding data

Breastfeeding rates from different data sources are not always comparable. For example, the National Infant Feeding Survey tends to slightly overestimate actual percentages of breastfeeding due to the nature of the survey (e.g., self-reported and postal survey). Operational data sources (e.g., local data collection) might possibly have different biases.

Recording local data

All UK nations collect data on infant feeding. An example has been drawn from the English breastfeeding data collection reports. Similar graphs could be produced for all countries that routinely collect infant feeding data.

In England, breastfeeding initiation and prevalence rates at six to eight weeks are collected locally and presented as quarterly statistics by the Department of Health (DH). A benchmarking tool can be used to map data from local areas to national and regional data. In addition, comparisons can be made to other populations of similar demographics (e.g., manufacturing towns). Blank cells indicate reported data that do not pass the data quality checks.

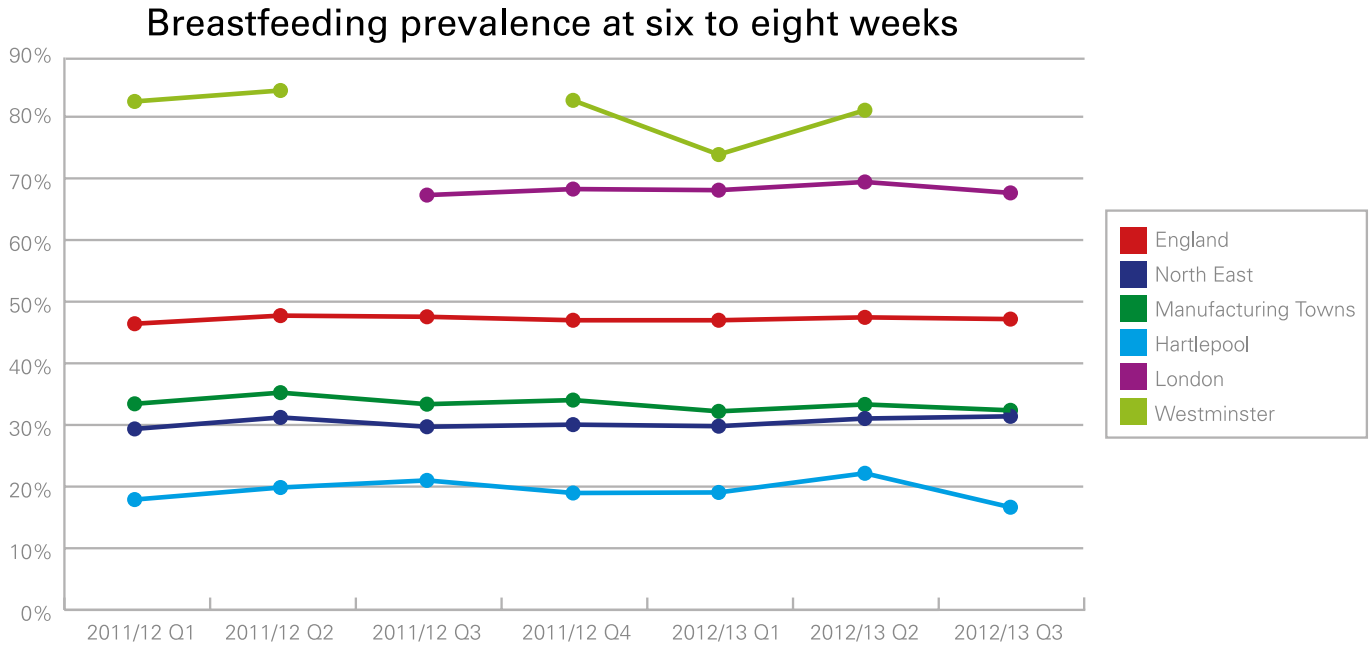
With the permission of the DH, England, information reproduced and presented has been taken from the breastfeeding data downloads:

Statistical release – Breastfeeding initiation and prevalence at six to eight weeks 2012-13 Q3

Information presented was accurate at the time of reporting (accessed 18 March 2013). Updates to data may alter future reporting for this data set. Further information and up-to-date information can be found at: http://bit.ly/UTuDUT

Figure 7: Example of benchmark data demonstrating local, regional and national comparisons: breastfeeding prevalence at six to eight weeks as a percentage of all infants

COMPARATORS	PERCENTAGE OF ALL INFANTS						
	2011/12 Q1	2011/12 Q2	2011/12 Q3	2011/12 Q4	2012/13 Q1	2012/13 Q2	2012/13 Q3
England	46.7%	47.6%	47.4%	46.9%	47.0%	47.4%	47.2%
North East (Q30)	29.6%	31.2%	29.9%	30.1%	30.1%	31.0%	31.8%
Manufacturing Towns (ONS7.12)	33.5%	35.5%	33.4%	34.4%	32.3%	33.4%	32.5%
Hartlepool PCT (5D9)	18.2%	20.0%	21.4%	19.1%	19.3%	22.2%	16.7%
London (Q36)	N/A	N/A	67.9%	68.7%	68.5%	69.7%	68.0%
Westminster PCT (5LC)	83.2%	84.8%	N/A	83.2%	74.4%	81.6%	N/A



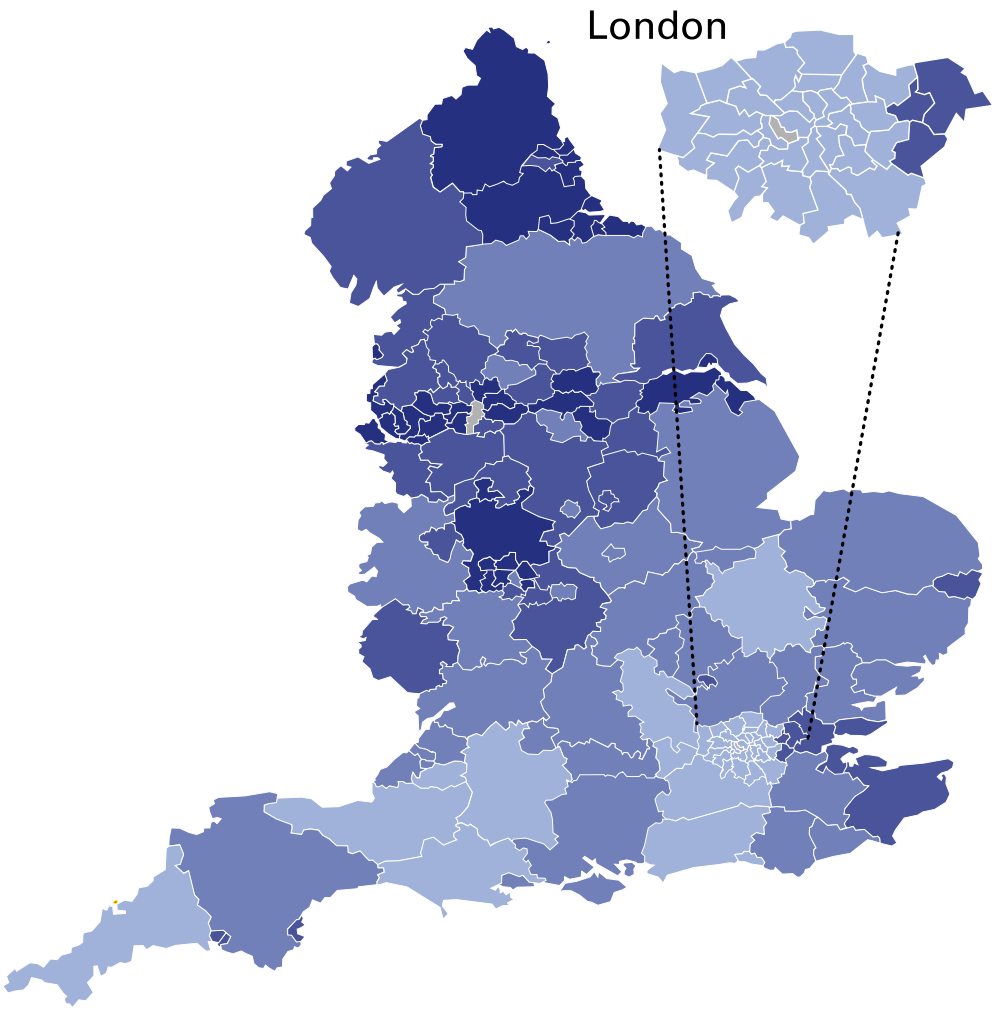
Note: 0% means no data is available or did not meet the quality standard to be recorded.

Geographical maps also illustrate the comparisons.

Figure 8: Percentage of mothers initiating breastfeeding, by PCTs in England by quartile 2011/12

DH (2012) Quarter 4, 2011/12 24 May 2012. The breastfeeding initiation rate was 74 per cent in 2011/12, a slight improvement on 2010/11 (73.7 per cent), 2009/10 (72.8 per cent) and 2008/09 (71.7 per cent). This ranged from 41.8 per cent in Knowsley in the North West of England, to 94.3 per cent in Haringey in London.

This map is based on mothers and is an outturn (annual) map.



Key

- PCTs with breastfeeding initiation data failed validation criteria
- PCTs with breastfeeding initiation rates between 20.9% and 65.6%
- PCTs with breastfeeding initiation rates between 65.6% and 73.1%
- PCTs with breastfeeding initiation rates between 73.1% and 78.9%
- PCTs with breastfeeding initiation rates between 78.9% and 94.3%

Figure 9: Percentage of infants being breastfed at six to eight weeks, by PCTs in England by quartile 2011/12 Q4

The prevalence of breastfeeding at six to eight weeks in 2011/12 Quarter 4 was 46.9 per cent of all infants due a six to eight week check. This was slightly higher than the figure of 45.3 per cent recorded in 2010/11 Quarter 4. Figures ranged from 19 per cent in Redcar & Cleveland in the North East of England to 83.2 per cent in Westminster, London.

Six to eight week breastfeeding prevalence is based on infants and is a quarter actual map.

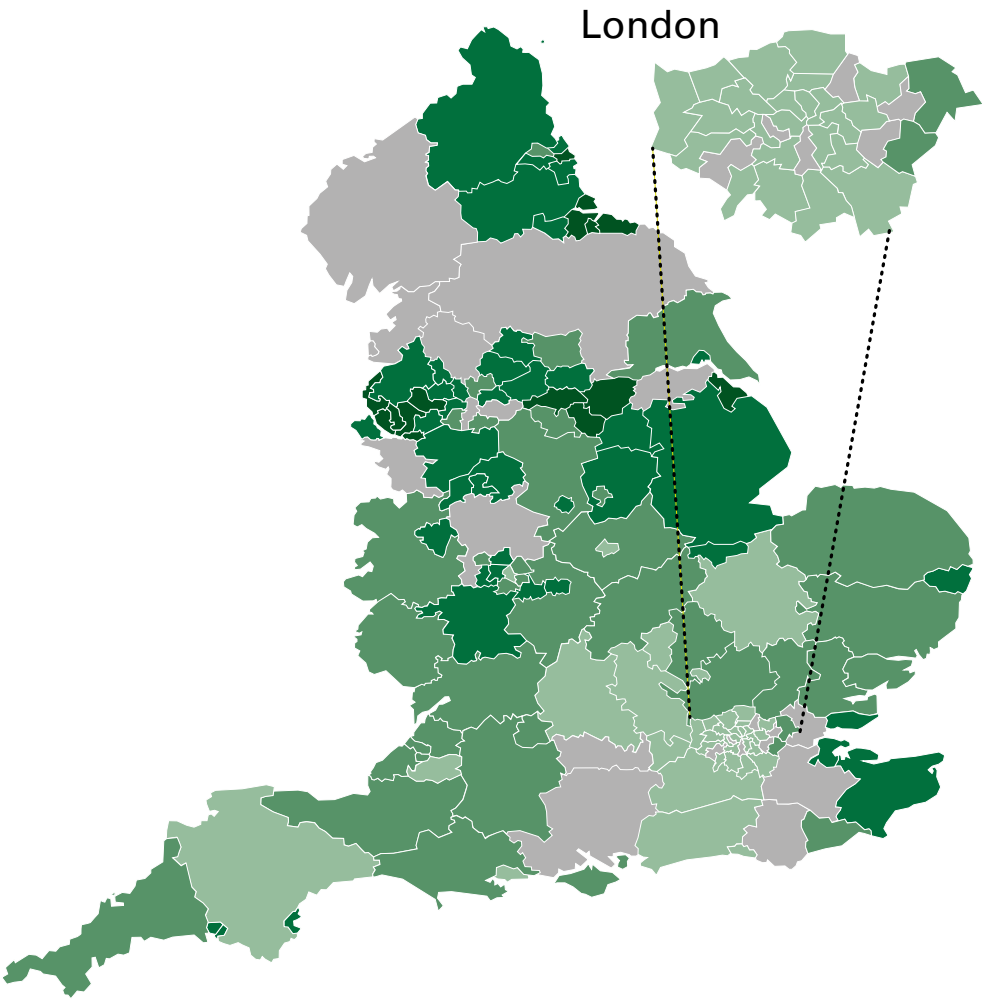
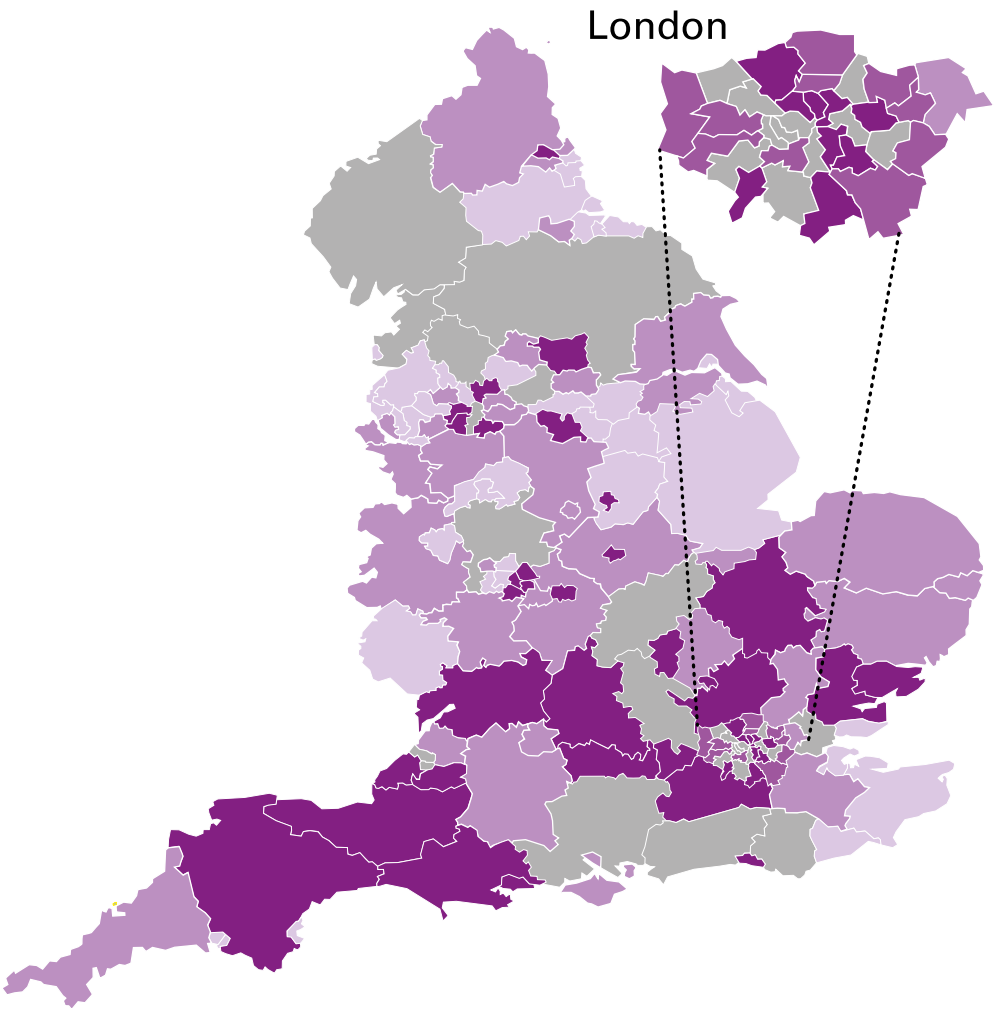


Figure 10: Breastfeeding drop-off rate: difference between percentage of mothers initiating breastfeeding and prevalence of breastfeeding at six to eight weeks (as percentage of those initiating), by PCTs in England, 2011/12 Q4

By six to eight weeks, breastfeeding drop-off rates (as a percentage of mothers initiating breastfeeding) ranged from 3.6 per cent in Westminster, London to as high as 60 per cent in Redcar & Cleveland where only 47.6 per cent of mothers initiated breastfeeding.
http://bit.ly/14NJglj

This drop-off map compares quarterly initiation with quarterly six to eight week prevalence.



Public Health England, 2013, provides a facility to map infant feeding profiles and the quarterly data sets against other child health profiles, (admission to hospital with gastroenteritis, teenage pregnancy etc.). It also compares BFI status. (Child and Maternal Health Intelligence Network www.chimat.org.uk)

The rationale for the review and updating of the Baby Friendly Initiative standards

The UNICEF UK Baby Friendly Initiative (BFI) was introduced in 1994. At this time, breastfeeding initiation and prevalence rates were low and the programme acted as a foundation to implement evidence-based care to support more women to breastfeed their infants. To achieve this, it was recognised that there was a need to update education for health care staff and to implement evidence-based service policy to underpin minimum standards that would support breastfeeding.

The BFI programme used a focused approach to implement significant changes to health care practice and to lift the bar on what was required to improve care. The BFI has succeeded in gaining national recognition for the importance of breastfeeding. It has also created a new 'common knowledge' related to breastfeeding practice within the health service and among policy makers. Once hotly debated topics such as skin-to-skin contact, rooming-in, teaching mothers how to breastfeed and avoiding supplementation are now accepted as good practice. Indeed, for many student midwives, 'normal practice' is offering all women skin-to-skin contact with their baby immediately after birth, and they do not know a time when this did not happen. While not every mother in the UK receives this level of support, overall standards have improved and most health professionals, including pre-registration midwives and health visitors, now have the knowledge and skills of what good care should be and how best to support women.

Since 2004, the strategic aim of the BFI programme has been:

"To support the implementation of recognised best practice in the care of breastfeeding mothers and babies in the NHS as a mechanism to improve breastfeeding rates."

Reflections on the current BFI approach

The focus on the health professional as the conduit for change has been a strength of the BFI. Concentrating on a large national programme across the acute and primary sector, supporting training and practice of the individual has made the programme successful around the UK.

Building this strong foundation has only been possible because of the tenacity and motivation of staff and support workers to improve care for women and their families. However, as breastfeeding rates have improved, so has the wider analysis of what works to sustain breastfeeding prevalence. For some, the perception is that women feel that health professionals are now 'putting too much pressure on women to breastfeed' (Trickey and Newburn, 2012; Hoddinott et al, 2012a) and that in their delivery, support can sometimes become 'task-orientated'. The landscape and the body of evidence has changed significantly since BFI started. New information continues to inform how best to support women to improve breastfeeding rates and the health and well-being of mothers and babies.

The current body of evidence demonstrates that a multitude of interventions, including full implementation of the Ten Steps and the Baby Friendly Initiative standards, is associated with significant improvements in infant feeding practices within relevant health care environments (Broadfoot et al, 2005; Caldeira & Goncalves, 2007; Catteneo and Buzzetti, 2001; Del Bono & Rabe, 2012; Figueredo, 2012; Kramer et al, 2001). Since the BFI was introduced, UK breastfeeding initiation rates have risen from 62 per cent to 81 per cent (McAndrew et al, 2012).

Breastfeeding rates increased most in the maternity units while they were working towards accreditation, peaked at accreditation, then for some plateaued when they had been fully accredited for a number of years (Hoddinott et al, 2009). Focus groups carried out with representatives from these units when developing the new standards described how maintaining them can be challenging. Participants said that the process of working towards something new inspired their innovation and the subsequent improvements. But maintaining the standards did not always create the necessary motivation to sustain the change or the skills set necessary to support the cultural shift required to improve services further.

Revised standards

Having raised the foundation level of knowledge and skills within maternity care in the UK, the time was right to assess how best to improve the current BFI approach. The aim was to build on the success of the BFI, incorporate the new evidence and formulate new additional standards that would further improve the health and well-being outcomes for all women and their infants.

Over the past decade, new and emerging evidence and understanding of what works to support women to breastfeed and respond to their infant's needs has become apparent. Evidence regarding the importance of early care practices and the future well-being of the child indicates that a broader approach to the BFI could result in better outcomes for all children, including strategies that promote a greater emphasis on early brain development, emotional attachment and positive parenting interactions (Gerhardt, 2004; Heikkila et al, 2011; Sacker et al, 2006; Schore, 2000, Schore, 2002; Shonkoff & Phillips, 2000; Zeedyk et al, 2008).

When communities work together, evidence suggests that they can successfully influence behaviour change to achieve multifaceted public health interventions (Chung et al, 2008; Dyson et al, 2006; Kennedy, 2010; NICE, 2007; NICE, 2011a; WHO, 2010a). The benefits of breastfeeding are evidence-based, but the mechanisms for supporting all women, including those who do not breastfeed, to feel confident in their relationship with their baby require practical and emotional support. Understanding the importance of early relationships and the impact this has on the infant's health and well-being requires consideration, from all practitioners, to ensure the best possible outcomes for the mother and baby pair and for the infant's physical, social and emotional development.

The United Nations Convention on the Rights of the Child (UNCRC, see Appendix 6) underpins all UNICEF's work both internationally and in the UK (UNICEF UK, 1992). Evidence suggests that cohesive multi-faceted programmes, working with the UNCRC as the focus, are required to evolve the Baby Friendly Initiative standards into a more holistic mother-baby-centred programme. This updated and enhanced approach ensures implementation of the best possible evidence base around relationship building between mother and baby and between health professionals and parents. Breastfeeding is an essential part, but not the sole aim of the programme.

The new BFI programme reflects changes in the NHS maternity services, reduced antenatal care, shorter hospital stays and fewer community visits. It also responds to the identified need to close the gap between the outcomes of those most affluent and the poorest in society, identifying investment in the 'Foundation Years' as the best time to make these improvements (Aked et al, 2009; Allen 2011a/b; Allen and Duncan Smith, 2008; DHSSPSNI, 2009; Field, 2010; Flying Start Wales, 2010; Kennedy, 2010; Marmot, 2010; Scottish Government, 2011; WCRF/AICR, 2009; WHO, 2008). The Midwifery (DH, 2010a), Health Visiting (DH, 2011c), maternity, community peer and volunteer services within the UK continue to be best placed and strategically positioned to support individual women at the right time and within this social context. If women are nurtured and nourished to care for their infants through a healthy pregnancy and in building safe, strong, emotional bonds with their baby, public health and consequently an individual's life chances will be given the best possible start (RCM, 2012).

Chapter 1: **Introduction and background**

Summary of the rationale for change

The WHO/UNICEF Baby Friendly Hospital Initiative is a globally recognised programme that forms a key strand of the WHO Global Strategy on Infant and Young Child Feeding (WHO, 2003). In the UK, the BFI is recognised as the minimum standard for care provision (NICE, 2011a; NICE 2013). UK-wide government policy has resulted in the majority of maternity and community facilities having made some progress towards achieving Baby Friendly accreditation and improving breastfeeding rates.

Maintaining the momentum and supporting an established infrastructure of infant feeding supporters across the UK requires continuity of a recognisable 'standard, assessment, accreditation' based programme, which builds on the work that already exists.

Over the past decade, new evidence has emerged and as a consequence added to the body of knowledge about what works to support women to breastfeed and respond to their infant's needs. This evidence now informs the enhanced Baby Friendly Initiative standards.

The evidence related to the criticality of experiences in early years in supporting positive outcomes for babies and children led to a consideration of the potential role of health professionals in supporting mothers to develop nurturing relationships with their babies. While breastfeeding continues to form the basis of the programme, the standards have been expanded, based on the evidence to incorporate a more holistic approach to care for mothers and their infants. There is a greater emphasis and focus on the infant's well-being as well as their health.

This book presents the evidence that underpins the UNICEF UK Baby Friendly Initiative standards.

> *"The greatest gift for a baby is maternal responsiveness."*
>
> Allen & Duncan Smith, 2008 , p. 57

Chapter 2: **Building a firm foundation**

The evidence discussed in this chapter relates to:

Stage 1

Standard 1: Have written policies and guidelines in place to support the standards.

This standard applies to maternity, health visiting/public heath, neonatal and children's centres or equivalent.

The evidence also cross references to:

Stage 1

Standard 2: Plan an education programme that will allow staff to implement the standards according to their role (see also Chapter 3).

Standard 3: Have processes for implementing; auditing and evaluating the standards (see also Chapter 3).

Standard 4: Ensure that there is no promotion of breastmilk substitutes, bottles, teats or dummies in any part of the facility or by any of the staff (see also Chapter 7).

These standards apply to maternity, health visiting/public heath, neonatal and children's centres or equivalent.

Introduction

Consistent and sustained improvement in practice is most likely to be achieved if there are appropriate and specific policies/guidelines that are written down and agreed. To create change, a commitment at all levels is required to ensure that the policy is implemented effectively, reviewed and audited.

Why policy development is important

Using policy to change behaviour requires a combination of strategies that can provide a structure for decision-makers to implement initiatives and create an environment to help people make decisions about their actions. Implementing policy, whether as guidance or as protocol at various levels in conjunction with other interventions, can be effective at an individual, community and population level.

In 2003, the Global Strategy for Infant and Young Child Feeding called upon all governments to develop, implement and evaluate national policy on infant feeding and commit to the WHO (1981) International Code of Marketing of Breast-milk Substitutes. Population-level interventions can have the greatest potential if supported by government and implemented effectively at a local level. Worldwide and in Europe, the importance of promoting, protecting and supporting breastfeeding is considered essential to improving children's health and well-being. As part of the Millennium Development Goals (Lassi et al, 2010; WHO, 2010b), the Global Strategy for Women and Children's Health (WHO, 2010c) and Save the Children's call to action (Mason et al, 2013), governments, policy-makers, society, business and academics are asked to work together to improve the health of women and children. Breastfeeding is seen as integral to this. Implementation requires partnership working, knowledge, planning, evaluation and an ability to use emerging evidence to inform research and practice.

A report, *State of children's rights in England* (Children's Rights Alliance for England, 2012), demonstrates that good progress has been made in implementing the BFI, but there are huge regional variations in the percentage of children born in Baby Friendly hospitals (i.e. 53 per cent of babies born in the South West; 42 per cent of babies in the North West; and no babies in the East of England were born in Baby Friendly hospitals). In addition, the report identified that UK governments have continued to fail to fully implement

the International Code of Marketing of Breast-milk Substitutes and reported that the Infant Feeding Survey in 2010 found that the use of follow-on formula in Stage 3 of the survey (when babies are eight to ten months old) had increased from 53 per cent of the women surveyed in 2005 to 69 per cent of women surveyed in 2010. The report considered that this increase may reflect more active marketing of follow-on formula in recent years.

Globally, it is recognised that implementation of policies (Step 1) to support the BFI is integral to its success (Cattaneo, 2008; NICE, 2005; NICE, 2006; NICE 2011a; NICE 2013; Rosenberg et al, 2008; WHO, 2003) and worldwide, over 22,000 facilities in 157 countries are now BFI-accredited (Saadeh, 2012). Evaluation of the impact of the BFI is mainly associated with increases in breastfeeding initiation (Alam, 2002; Broadfoot et al, 2005; Caldeira & Goncalves, 2007; Cattaneo and Buzzetti, 2001; Del Bono and Rabe, 2012; Figueredo, 2012; Kramer et al, 2001; Merton et al, 2005; Philipp et al, 2001; Rosenberg et al, 2008). Many babies throughout the world are not born in an environment that meets this minimum standard of care. In the UK, where the BFI has been implemented in the community alongside other initiatives, breastfeeding prevalence is also seen to increase (Ingram et al, 2011). In Sweden, all babies are now born in a Baby Friendly-accredited hospital and breastfeeding prevalence at six months is 73 per cent (Hofvander, 2005), compared to only a quarter (34 per cent) of women still giving their babies any breastmilk at this time in the UK (McAndrew et al, 2012).

Understanding the specific elements of a policy

In 2011, Dykes reviewed 25 years of breastfeeding research published in one international journal, Midwifery. Her article demonstrates some of the significant changes that have taken place in the past three decades. Six research papers were selected for review, on topics that included: the anatomy and physiology of infant suckling; the psychosocial needs of mothers with low birth weight babies; teaching positioning and attachment; the impact of the postnatal ward environment on breastfeeding outcomes; women's self-efficacy; and the effect of increasing technology in the labour ward on breastfeeding outcomes. This is an important review because it highlights the 'momentous' rise in breastfeeding research that has helped to reverse detrimental infant feeding practices, but significantly it also raises questions about why, despite the evidence, so few women in the UK breastfeed exclusively for six months.

For policy makers looking to support implementation of the new Baby Friendly Initiative standards, there is a need to understand the barriers that affect women's infant feeding experiences. Therefore, evidence that explores the social-cultural context and constraints within the community is required to inform policy development, implementation and evaluation.

"Without this socio-cultural knowledge any interventions may fail due to contradictory cultural beliefs and or/constraints upon families in taking up or implementing designated changes" (Dykes, 2011).

There is a universal agreement on the need for an evidence-based infant feeding policy, but how such policies are developed, supported and implemented requires careful consideration and regular review. The policy will guide everyday working of staff and should be developed in each area to cover best practice. A model of why breastfeeding interventions work in some places and not others can help to understand the complex interactions between an intervention and the context in which it is delivered (Hoddinott et al, 2010a). This model has been applied by the Baby Café movement (Dodds et al, 2010) to understand how and why initiatives vary in different parts of the country.

It is important that the policy does not stand alone, outside of the context of care, whether antenatal, intra-partum or postnatal. Polices developed to guide obstetric and midwifery care will have an impact on the infant feeding policy and breastfeeding outcomes.

For example, when developing guidance on choice of place of birth and midwife-led care, the infant feeding policy should be aligned to the maternity services policy, based on the best available evidence and cross referenced to both.

The National Perinatal Epidemiology Unit, Birthplace in England Research Programme (Birthplace), 2012, concludes that planned place of birth for low-risk women at home or in a midwife-led unit increases breastfeeding initiation rates (Hollowell et al, 2011).

The Infant Feeding Policy should be supported and guide the user to other polices such as: a bed-sharing policy or a hypoglycaemia policy. This approach will provide flexibility so that specific information is available at a personal level, meeting socio-cultural needs, while also being part of the strategic framework. This next example demonstrates how, based on the evidence, the use of dummies/pacifiers requires a policy that is flexible enough to be adapted to the context in which it is applied.

Example

The avoidance of promotion or use of dummies/pacifiers is part of the BFI programme, but their use is known to be common practice in the UK. The impact of their use on breastmilk production and successful breastfeeding has been hotly debated in the literature, both for premature and term babies. In May 2012, the Cochrane Library produced a review analysing the effect of restricted pacifier use in breastfeeding term infants for increasing duration of breastfeeding. They concluded that:

"Pacifier use in healthy term breastfeeding infants, started from birth or after lactation is established, did not significantly affect the prevalence or duration of exclusive and partial breastfeeding up to four months of age. However, evidence to assess the short-term breastfeeding difficulties faced by mothers and long-term effect of pacifiers on infants' health is lacking." *(Jaafar et al, 2012).*

Important key points to consider here when developing a 'flexible' policy are that the review identified a lack of research in some areas and therefore could not conclude that the use of dummies/pacifiers would not affect short-term breastfeeding outcomes if there were breastfeeding difficulties (e.g., cracked nipples, maternal confidence etc.) and whether there would be any long-term effects of using pacifiers on the infant's health. In addition, the review did not consider the use of pacifiers for preterm or sick infants.

Understanding the specific elements of a policy is important so that other practices can be promoted to support breastfeeding (e.g. midwife-led care) and so that the policy is flexible enough to be contextually applied to meet women's and babies' individual needs.

Turning policy into practice, and practice into improved breastfeeding outcomes

In 2013, the NICE Quality Standard 37 on Post Natal Care (NICE, 2013) highlights that "It is important that the quality standard is considered alongside [other] current policy documents". Public Health Guidance (NICE, 2011a) recommended that all health care providers should have "A written, audited and well-publicised breastfeeding policy that includes training for staff and support for those staff who may be breastfeeding. That a health professional responsible for implementation of the policy is identified and it is communicated to all staff and parents.

A policy in itself will not change practice, and the work needed to create a change in breastfeeding prevalence across the UK should not be underestimated. Research calls for a co-ordinated and well supported programme to implement a real change in culture and practice.

This requires:

- co-ordination of national with local policy that is funded, enabled and monitored at all levels; and
- ongoing monitoring of rates in variation in infant feeding combined with socio-demographic data (Renfrew et al, 2005).

In times of austerity and in light of ongoing constraints on public spending and family incomes, it is crucial that we focus resources on things that make a difference to women's breastfeeding outcomes. Understanding the context and complexity in which policies and interventions occur is essential to identifying and understanding the favourable conditions necessary for a successful intervention (Hoddinott et al, 2010a).

Internationally, research papers describe challenges with uptake, interpretation and implementation of infant feeding policies, ranging from partial implementation by an organisation to selective implementation by an individual based on personal beliefs and their ability or inability to achieve the required task (Bettinelli, 2012; Hallam, 2008; Jennifer et al, 2012; Moore et al, 2007; Perrine et al, 2012). WHO studies demonstrate that, in the US and Europe, 30-50 per cent of patients fail to receive the care recommended by the evidence (Robertson & Jochelson, 2006). Barriers at individual, organisational and national level can exist and prevent implementation of evidence-based policy. To overcome this, the barriers that present must be understood and addressed, both for the clinician and the user (Hoddinott et al, 2010a).

While there is a large body of evidence that supports why women should breastfeed from a public health perspective, there are profound gaps in the research that inhibit the initiation of evidence-based interventions within the community setting (Hoddinott et al, 2011; Renfrew et al, 2007). Emerging studies highlight some of the reasons why women in the UK and other developed countries are not breastfeeding. Hoddinott et al (2011) explores women's infant feeding experiences and argues that there are clashes between families and the health services at pivotal points in their infant feeding journeys. Some families perceive the only solution is to stop breastfeeding or introduce other foods. This is supported by the work of Lee (2011), who explores women's experiences of formula feeding and details their feelings of 'failure' at turning to the bottle when breastfeeding was unsuccessful. This in turn developed into an 'us and them' relationship between the health professional and the mother. In Australia, a similar dissonance exists, where the professionalisation of breastfeeding and the medicalisation of birth have led to a loss of focus on the embodied nature of breastfeeding and the importance of nurturing the relationship between the mother and baby (Barclay et al, 2012).

Thinking outside the box, a team of Infant Feeding Co-ordinators in the North West of England, led a project with the community to create a socio-cultural shift in breastfeeding behaviours through implementation of the BFI. What is important about this initiative is the application of a 'hearts and minds' approach that aimed to transcend the prescriptive nature of the BFI accreditation process and the challenges described above. The team managed to combine the 'hard' evidence base with the feelings, meanings, attitudes and beliefs of the local population. The passionate, motivational leadership valued, listened and adapted the BFI process so that it was seen and valued as a meaningful and fulfilling innovation that created a 'buzz' and inspired the whole community. This approach made the concerns of the professionals and, crucially, the mothers, visible and legitimate, resulting in the development of mutually trusting relationships between the breastfeeding supporter and the woman. In addition, it emphasised the need to engage the health professional team at an 'emotional' as well as a 'rational' level in order to change beliefs, values and practices of individuals and the organisation (Thomson et al, 2012a). Understanding why behaviour change occurs is complex. When behaviour is rewarded, for example through incentives and celebration (following audit and regular feedback), then change maybe more likely to occur. In the North West, the provision of incentives (gifts and vouchers) did not influence women's intention or motivation to breastfeed, but the connections forged provided psycho-social benefits for both the users and peer supporters (Thomson et al, 2012b).

As well as focusing on individual factors, it is important that policy takes steps to address social, environmental, economic and legislative factors that affect people's ability to change their behaviour (NICE, 2007).

In 2010, NICE published a special report, commissioned by the WHO, to analyse the characteristics of national, regional and local health systems and services that produce and support behaviour change (Swann et al, 2010). The report recognises that health systems will have intended and unintended effects on individuals and the populations in which they work – for example, how the system treats and develops its staff and the impact this has on the environment. The important role of policy and national programmes is to develop effective health systems that can react and adapt to the characteristics of a 'live' evolving system and ways to focus on improving the experiences of those using the services (NICE, 2012b).

From the above literature cited and reflecting on the challenges of implementing the BFI as a public health recommendation and reviewing the evidence, clear messages emerge that should be taken into consideration when implementing an infant feeding policy:

1. Carefully plan interventions and programmes that:
    - employ credible, passionate, inspirational leaders
    - explore the local and national context, with the local population
    - draw on multi-disciplinary teams working with partners, at all levels, across the community and the women, develop networks
    - understand the community and environment you are working with
    - build informal networks at an emotional level
    - develop links for media and marketing
    - adopt a flexible, accessible and appreciative style
    - understand the need for sustainable resources and develop strategies to implement them
    - implement BFI in the hospital, community and university
    - monitor infant feeding prevalence and demographic data in an ongoing way.

2. Equip practitioners with the knowledge and skills based on the evidence base:
    - build upon existing knowledge and skills
    - develop inter-professional training
    - develop and involve BFI champions
    - offer one-to-one support for women on low incomes
    - give consistent messages and maintain a momentum
    - develop a team to co-write the BFI infant feeding policy with shared outcomes
    - invest in training and development.

3. Continually reflect on change, communicate and celebrate feedback:
    - be brave and willing to 'think outside the box' and explore the socio-cultural influences
    - audit progress and adapt processes based on results
    - develop service design and delivery
    - engage in reflective practice with multi-source feedback and diverse service-user involvement
    - ensure that there is no marketing of breastmilk substitutes, formula feed, bottles, teats or dummies, which would interfere with effective implementation of the policy.

Based on the evidence, UNICEF has developed a guide for local planners/commissioners to inform their decision making and priority setting to promote and support local infant feeding initiatives (see Appendix 2).

Chapter 3: **An educated workforce**

The evidence discussed in this chapter relates to:

Stage 1

Standard 2: Plan an education programme that will allow staff to implement the standards according to their role.

This standard applies to maternity, health visiting/public heath, neonatal and children's centres or equivalent.

Stage 2

Standard: Educate staff to implement the standards according to their role and the service provided.

This standard applies to maternity, health visiting/public heath, neonatal and children's centres or equivalent

and cross references to:

Stage 3:

Parents' experiences of maternity services

Parents' experiences of neonatal units

Parents' experiences of health visiting/public health nursing and

Parents' experiences of children's services or equivalent early years settings in Wales, Scotland and Northern Ireland.

The facility should have an education programme that is effectively planned and implemented. The programme equips staff with the knowledge and skills required to implement the standards successfully, according to their role, and that this is audited and evaluated appropriately.

Introduction

Training all health care staff is vital and necessary for the implementation of the infant feeding policy. Staff cannot be expected to support women effectively if they do not have the knowledge, skills and understanding of what works to help women initiate and continue to breastfeed. To be effective, education and training packages must be mandatory for all staff, supported by a strong policy and senior staff. If training is voluntary, attendance is poor and only those motivated and willing to change, adopt and implement new, evidence-based ways of working will attend.

In the Infant Feeding Survey 2010 (McAndrew et al, 2012), three in five women said they would have liked to breastfeed for longer. Many did not receive the help they needed and experienced problems that were not resolved. This led to the introduction of formula feeds and ultimately to the cessation of breastfeeding. The need for practical aspects of breastfeeding and problem-solving skills to be included in basic training is now recognised. Compared to 2005, the number of mothers saying they would have liked to have breastfed for longer did decrease (73 per cent in 2005 to 63 per cent in 2010) suggesting that more mothers were able to follow their own feeding preferences. While there were improvements, the highest levels of problems with breastfeeding were experienced by women who were already using a combination of breastmilk and formula. Those who did not receive support were more likely to stop

breastfeeding. The most common reasons given for stopping breastfeeding included difficulties with positioning and attachment; painful breasts/nipples; insufficient milk; and the baby being ill.

It is necessary to increase knowledge, but it is also necessary to improve communication skills to apply that knowledge. Actual clinical practice often differs from that recommended by the evidence, policy or guidance, and barriers can stand in the way that obstruct the implementation of effective practice. For some staff, a lack of understanding and awareness of why new knowledge is needed, personal beliefs and a lack of the necessary skills may inhibit their adoption of new strategies to effect change. In addition, staff may perceive that they do not have time to change ingrained practices, that the organisational environment does not allow it and that managers do not support it (Robertson and Jochelson, 2006).

The UK remains a country where formula feeding is the norm. While breastmilk is now commonly seen as the ideal nutrition for the infant, formula is seen as a realistic, feasible alternative. The health, emotional and well-being benefits of breastfeeding beyond the early days continue to be undermined by poor practice, poor support and inconsistent or inaccurate information. In addition, a woman's confidence is often weakened, inhibiting her own self-efficacy in her ability to succeed (Entwistle et al, 2010).

Implementing 'standalone' training for staff will not change breastfeeding initiation or prevalence rates. Rather, education should be delivered as part of a multifaceted package. A systematic review found that training alone made no difference to breastfeeding outcomes (Spiby et al, 2009). NICE guidance (2006, 2011a) recommends that health professionals should have the appropriate knowledge and skills to support the nutritional needs of infants, to support breastfeeding management and to implement the BFI as a minimum standard. In addition, practices that have been shown to be effective/beneficial for enhancing breastfeeding duration include skilled, practical, breastfeeding support, at both a peer and professional level, proactively offered to women who want to breastfeed, antenatally, postnatally and in the community (Dyson et al 2006; Renfrew et al, 2005; Renfrew et al, 2012b).

Knowledge, attitudes and practice of staff

Evidence suggests that breastfeeding prevalence increases when support is offered to women. However, how messages around breastfeeding are communicated to women and received by them needs exploring within education programmes.

Following breastfeeding support, some women report feeling confused and undermined in their ability to breastfeed. They may experience conflicting advice and conflicting messages. Information may be given in an autocratic, time-pressured manner. It may be perceived as mechanistic, well-meaning, but overzealous. The outcome is that a woman can feel undermined and her self-confidence to breastfeed is diminished. She can be left with feelings of failure and guilt and, even at this early stage of building a relationship with her infant, she can even have feelings that she is a 'bad mother' (McInnes and Chambers, 2008; Redshaw and Henderson, 2012; Sheehan et al, 2009).

A metasynthesis to explore women's perceptions and experiences of breastfeeding support (Schmied et al, 2011) showed that continuity of caregiver enhances the probability of building a facilitative, trusting relationship between the breastfeeding supporter and the mother. However, if this is not possible, each individual breastfeeding support visit can be developed to be meaningful and positive.

This work highlighted that certain types of communications are more likely to help women to feel supported, self-confident and enabled to continue to breastfeed. These types of communications are:

- positive but realistic

- encouraging, proactive and focused on the benefits, but
- do not create pressure on women, making them feel inadequate or failures.

Furthermore, communications should be:

- 'person-centred'
- facilitated with empathy
- given with detailed problem solving skills
- centred on individual needs and,
- given with encouragement and affirmation.

The Joanna Briggs Institute, Australia (2010) provides systematic review evidence that indicates that support for breastfeeding occurs along a continuum from authentic presence at one end (effective support) to disconnected presence at the other (ineffective support). Based on the findings they made five recommendations:

- services should support relationship-based care that is individualised
- support needs to be practical
- antenatal education and postnatal information needs to be more learner centred, realistic, positive and encouraging
- health professional education needs to develop communication skills
- schemes that offer peer support need further development across all socio-economic groups.

Work by the National Childbirth Trust (Trickey & Newburn, 2012) explored three important infant feeding support problems within the UK:

- mothers who use formula can feel under-supported and judged
- mothers can feel underprepared for problems with breastfeeding
- many mothers who might benefit from breastfeeding support do not access help.

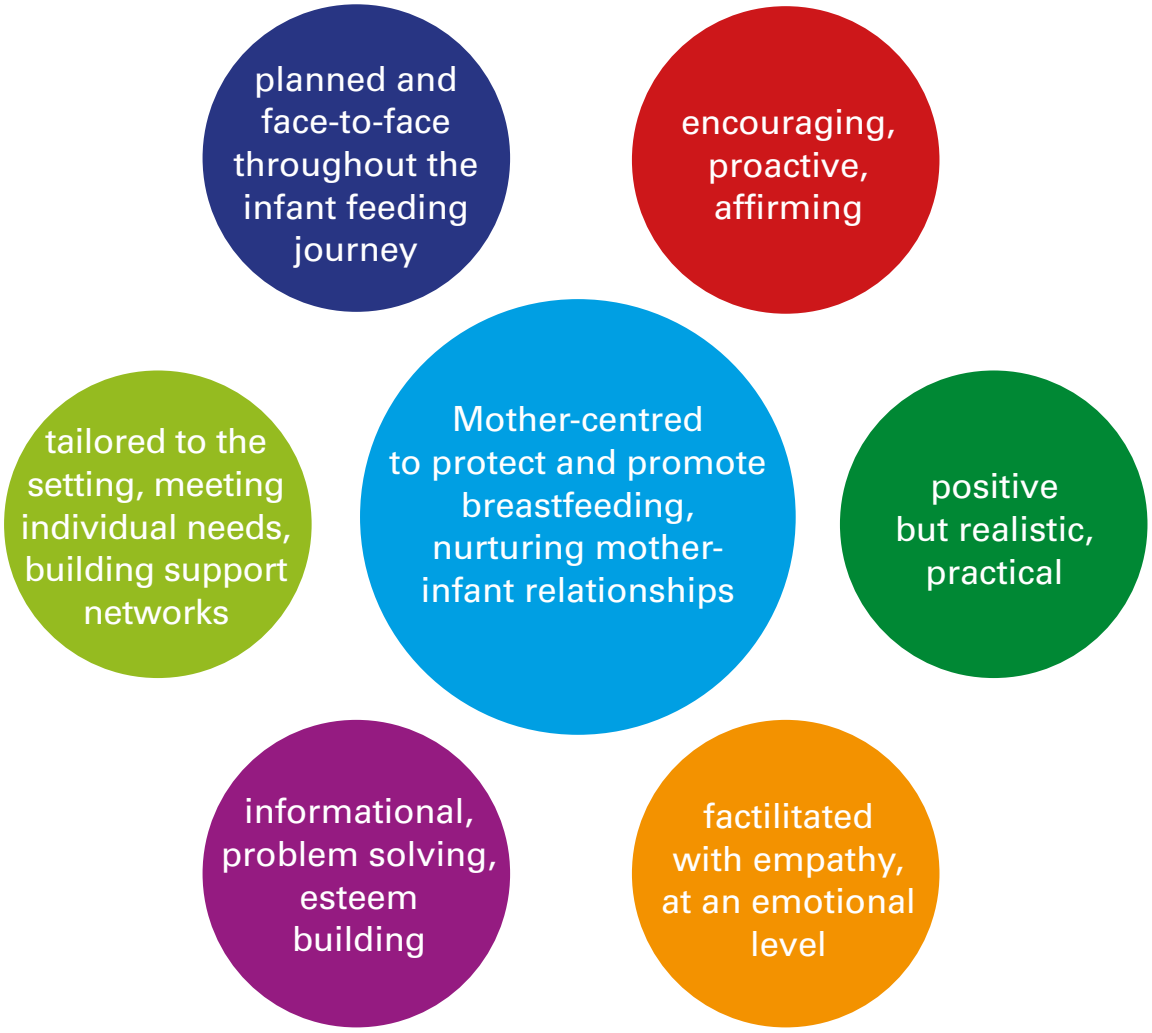
The study analysed conflicts and dilemmas surrounding how education and support are provided to attempt to clarify some priorities for action. The findings identified some key messages, including the need to promote models of support that are proactive, continuous throughout the mother's infant feeding journey and that aim to protect and promote breastfeeding. Most importantly, if the support is to be acceptable, it must be genuinely mother-centred.

Furthermore, a recent Cochrane Review, Support for healthy breastfeeding mothers with healthy term babies (Renfrew et al, 2012b) demonstrates that support should be tailored to the setting and the needs of the population for it to be effective. In addition it should be planned in advance and ideally conducted face-to-face. Support that is only offered if women seek help is unlikely to meet their needs. A pilot randomised controlled trial of proactive telephone support for breastfeeding women living in

disadvantaged areas delivered by a dedicated feeding team with maternity care assistants showed considerable promise in terms of improving breastfeeding rates at six to eight weeks after birth (Hoddinott et al, 2012b).

Work in the UK and abroad calls for the postnatal environment and the language of the breastfeeding supporter to be developed to enable and nurture breastfeeding as part of the process of building a meaningful relationship between the mother and her newborn baby and the mother and the midwife (see Figure 14), not just a mechanism for purely giving information and providing the best nutrition to the child (Burns et al, 2012a; Burns et al, 2012b; Dykes and Flacking, 2010; Furber and Thomson, 2010; Hoddinott and Pill, 2000; Nelson, 2006).

Figure 11: Skills and approach required by the workforce to provide effective infant feeding support



The learning needs of health professionals to promote and support breastfeeding

Many midwives, health visitors and other professionals supporting women to breastfeed trained and practised in times when routinised care discriminated against breastfeeding. Their own knowledge and skills of how to support women to breastfeed was founded on poor practice and the key principles were not clearly understood.

The link between the nature of training and improved breastfeeding outcomes remains unclear. The following sections draw together learning from the literature to inform best practice, based on the best available evidence.

Between 2004-2005, Renfrew et al carried out a five-stage assessment across England and Wales to map out the learning needs of health professionals to promote and support breastfeeding. The findings and recommendations of the studies were published in a special edition of Maternal and Child Nutrition (Volume 2, Issue 4, October 2006 onlinelibrary.wiley.com/doi/10.1111/mcn.2006.2.issue-4/issuetoc), (Renfrew et al, 2006).

Key findings and recommendations from the Learning Needs Assessment (LNA) are presented in Table 1. Paper 6 summarises the findings from the studies and makes recommendations on how best to support effective breastfeeding education packages for professionals. The final paper (7) describes a 'conceptual framework', which could create a cultural shift in breastfeeding behaviour as part of a public health initiative, if implemented across the whole of society. Integral to this concept is the development of effective educational programmes.

> *"Educational strategies will need to be accompanied by changes in practice and policy across the health economy. Unless the whole health care system provides accurate care and helpful support, women's experience of breastfeeding is unlikely to improve, and staff are unlikely to learn how it can be different."*
>
> Renfrew et al, 2006

Table 1: Learning Needs Assessment

The following articles (except where indicated) are published in *Maternal and Child Nutrition*, Volume 2, Issue 4, October 2006, pp 191-262

Authors	Title	Key findings and recommendations
1. McFadden A, Renfrew M, Dykes F & Burt S	Assessing learning needs for breastfeeding: setting the scene	• There is a mismatch between the care professionals provide and the support women desire. • The most popular forms of education provision are workshops, seminars, online and written information. • The content of courses varies, but frequently covers; health benefits, socio-cultural issues, principles of lactation and anatomy, supporting women and dealing with common problems. • Greater knowledge and expertise is required in breastfeeding through multidisciplinary, multi-agency education. • There is support for a multidisciplinary national breastfeeding education initiative.
2. Dykes F	The education of health practitioners supporting breastfeeding women: time for critical reflection	• Informing practitioners of the evidence alone does not necessarily change practice. • Practitioners need to understand breastfeeding as a biopsychosocial process that is dynamic, relational and changes over time. • Education should integrate embodied, vicarious, practice-based and theoretical knowledge to enable practitioners to personally reflect and critically engage with breastfeeding support and wider socio-political issues. • Practitioners need to explore their own personal and vicarious experiences of breastfeeding. When they are 'self-confident', they are more likely to promote and support breastfeeding. • Multi-professional, inter-agency, undergraduate training requires: knowledgeable role models, effective mentorship, involvement of voluntary and peer supporters to help develop skills of active listening, empathetic, non-judgemental acceptance and genuineness for helping women to make their own decisions. • Post-registration; national standards for breastfeeding education, tailored education for specific groups, designated funding and involvement of breastfeeding specialists. • BFHI-based courses have been shown to positively influence knowledge, attitudes, practices, confidence and breastfeeding duration. • All education programmes should incorporate opportunities for deep reflexive learning, personal debriefing, high levels of interaction and teaching of basic person-centred counselling skills. In this way women's individual needs may be met and evidence-based information provided.

Authors	Title	Key findings and recommendations
3. Wallace L & Kosmala-Anderson J	A training needs survey of doctors' breastfeeding support skills in England	• GPs and paediatricians are likely to be influential in supporting mothers to breastfeed and in determining the allocation of resources for training and policy on practice for others in the health care team. • Basic training and continuing professional development cannot be relied upon to produce GPs and paediatricians who are confident in all key skills. • Paediatricians reported more skill areas requiring update compared with GPs. • Organisational barriers to breastfeeding support were experienced by all respondents. • Few medical and paediatric respondents were correct in their knowledge of national and international policy in regard to breastfeeding. • Recommendations include purposively targeting training to those least likely to seek training, and developing effective self-study and observational methods of learning.
4. Abbott S, Renfrew MJ & McFadden A	'Informal' learning to support breastfeeding: local problems and opportunities	• Local learning opportunities to promote and support breastfeeding, for professionals and lay people, are usually provided by a small number of enthusiasts. • Of health care professionals, midwives and health visitors are the most likely to attend, and doctors the least likely. • Support for breastfeeding mothers is provided by the NHS, Sure Start and voluntary organisations. There is limited co-ordination between organisations. • The provision of local learning opportunities is over-dependent on individual champions working in relative isolation and is unlikely to be sustainable. • Training should be funded, co-ordinated, multidisciplinary and multi-agency, harnessing the enthusiasm and commitment of the voluntary sector, including 'debriefing' for staff.
5. Wallace L & Kosmala-Anderson J	Training needs survey of midwives, health visitors and voluntary-sector breastfeeding support staff in England (published Maternal and Child Nutrition Jan. 2007. Vol. 3, Issue 1, pp. 25-39)	• Those already competent were most likely to want more updating. • Only a third to a half of practitioners felt that they were competent in areas almost universally regarded as part of the practitioner's role; they consistently had poor knowledge of evidence-based policy. • Organisational barriers to breastfeeding support were experienced by all, and especially by those with fewer years of experience. • Courses on offer, from NHS and other providers, are not all 'fit for purpose'. • Respondents preferred training with a practical component. • A systematic approach to establishing the training needs of practitioners is required in all health care sectors. Reliance on self-selection will lead to widening skill gaps. Core training is relevant to all practitioners, and practice-based training with access to evidence-based policies is required.

Authors	Title	Key findings and recommendations
6. Renfrew MJ, McFadden A, Dykes F, Wallace L , Abbott S, Burt S, & Kosmala-Anderson J	Addressing the learning deficit in breastfeeding: strategies for change	Summary of findings from the Learning Needs Assessment: • Major deficits were identified in the knowledge and skills of practitioners from all backgrounds and all sectors. • Many professionals reported poor knowledge about breastfeeding and had low levels of confidence and clinical competence. • Organisational constraints and barriers to effective education and practice include fragmentation of care and education, lack of facilities, and a low priority being given to breastfeeding. • There is a range of current educational provision, although not all is fit for purpose. • Voluntary organisations seem to have higher standards than some current professional learning opportunities. • Preferred methods of training include practical observation and mentorship, volunteer counsellor involvement in training programmes, as well as self-study and online opportunities. Recommendations: • A funded, mandatory, inter-agency and multidisciplinary education programme, using a biopsychosocial approach. • Appropriate content involving voluntary organisations, reflexive integration, practice-based with mentorship. • Support at local and national levels; breastfeeding education to be included in clinical governance and audit mechanisms; and further research and evaluation to examine optimum ways of providing education and training. • Organisational barriers could be addressed through a public health policy and evidence-based approach. • Implementation of the UNICEF UK Baby Friendly Initiative standards in hospitals, the community and universities for pre-registration training.
7. Renfrew MJ, Herbert G, Wallace L, Spiby H & McFadden A	Developing practice in breastfeeding	Based on the evidence from the Learning Needs Assessment and informed by the literature, this final paper describes a 'conceptual framework' that could drive a cultural shift in breastfeeding prevalence, if implemented, nationally, specifically in areas of low income. Key points to consider: • The production and dissemination of evidence and guidelines is necessary but not sufficient on its own to effect change in practice. • Review of the evidence and national guidance have shown that multifaceted changes are essential if policy aspirations are to be realised • The model presented provides a structured cross-sectoral approach to developing practice, across the whole health economics, involving professionals and the voluntary sector to create a sustainable change in breastfeeding behaviours and public health. • A key challenge for society is to identify who is responsible for resourcing such a development when a number of sectors and disciplines are involved to realise this public health initiative.

Effectiveness of education programmes

Recognising that education and training is needed, systematic reviews of both the quantitative and qualitative research evaluating programmes of education and training have been carried out to analyse 'what works'. Gaps in the evidence have also been identified for future research (Beake et al, 2012; Hannula et al, 2008; Spiby et al, 2009; Ward and Byrne, 2011). Staff use and draw on a range of different sources of knowledge, both formal and informal, to inform their own practice. A qualitative study by Marshall et al, 2006, observed that midwives and health professionals used their existing knowledge as a reference point to test out new information, including research findings. The process of assimilating and applying knowledge was gradual, which had the positive effect of safeguarding against rapid change, but the drawback of reinforcing current practice. On the whole, the process of building on knowledge over time and in a variety of forms seemed, for the most part, to be successful and in line with current policy. A culture of life-long learning is encouraged across the health professions and highlights the need for ongoing staff education, including regular reflection and updates to discuss the application of new knowledge.

Evaluating education programmes is important to demonstrate whether changes in learning impacts on outcomes in practice. For example, in two areas of England, health professionals were taught specific 'hands-off' breastfeeding techniques to subsequently teach women in their care.

1. In Bristol significant increases were observed in the proportion of mothers breastfeeding at two and six weeks and a decrease in the number of women reporting inadequate milk supply. Importantly it empowered mothers to 'do it for themselves' and helped them to maintain breastfeeding (Ingram et al, 2002).
2. In Coventry, midwives' knowledge of breastfeeding support relevant to the immediate postnatal period increased following a four-hour workshop in a positioning and attachment intervention, using a coaching, 'hands-off' approach (Law et al, 2007).

A systematic review of education and evidence-based practice interventions, 1980-2003, examined breastfeeding outcomes, knowledge, attitude and behaviour change following education programmes undertaken in developed countries (Spiby et al, 2009). Nine studies were identified involving the training of health professionals. Many of the studies reviewed had methodological limitations and lacked comparability. Findings suggest there is not one single way that consistently achieves changes in breastfeeding behaviour. From those studies that were more robust (Cattaneo and Buzzetti, 2001), the UNICEF/WHO Baby Friendly Hospital Initiative training has the potential to influence breastfeeding duration, particularly if implemented alongside BFHI accreditation. A critical review of 15 studies from nine countries carried out in Australia, (Ward and Byrne, 2011) found that continuing breastfeeding education improves knowledge, skills, attitudes and practice. The study also found that there is strong correlation between knowledge and positive support of breastfeeding. In addition, the review found a decrease in non-medically indicated supplementation following education interventions, which is encouraging as early supplementation is associated with early introduction of other foods.

This review concurs with other evaluations that, for the best results, education programmes should:

- Be delivered as both multi-professional and multi-agency
- Form part of a multi-faceted approach to achieve full BFHI accreditation
- Last a minimum of 18-20 hours to achieve the best results
- Be funded across the health economy
- Not be delivered as a standalone intervention, as this will not change practice.

The review highlights that "the ability of [health professionals] to bring about change at an institutional level should never be underestimated" (Ward and Byrne, 2011, p. 391).

In one reviewed study, despite organisation and obstetric resistance, after a critical mass of staff were trained in the WHO/UNICEF 18-hour breastfeeding course, pressure from a group of individuals was put on management to create a change in hospital policy. Skin-to-skin contact and facilitation of early initiation of breastfeeding at birth was subsequently initiated (Wissett et al, 2000).

A further systematic review of qualitative and quantitative studies, 1992-2010, explored how structured and non-structured breastfeeding programmes support the initiation and duration of breastfeeding in health care settings (Beake et al, 2012). A total of 26 studies were involved in the final analysis, including five systematic reviews. Most studies found an improvement in breastfeeding initiation, duration of exclusive breastfeeding and any breastfeeding following the introduction of a structured breastfeeding programme compared with no programme, although this was only statistically significant for increases in initiation. In health care settings where breastfeeding rates are low, structured programmes may have the greatest benefit.

This comprehensive review recommends that:

- Acute maternity settings should implement structured breastfeeding education programmes to support increases in breastfeeding initiation and prevalence.
- The content of education programmes should be structured and should replicate programmes such as the Baby Friendly Initiative and should be adapted to meet local needs (Beake et al, 2012).

Conclusion

Education programmes need to focus on enhancing positive communication skills and include reflexive practice (Clarke and Procter, 1999; Mantzoukas, 2007) developing the health professional's ability to provide women-centred care that is relationship-based. The focus should be to support the mother to build a nurturing relationship with her infant, helping her to become self-confident in her ability to breastfeed and find solutions herself to any problems that may arise.

A range of programmes is available and should be adapted to meet individual needs. It is important that programmes are developed to meet the biopsychosocial needs of women, evaluated for their effectiveness on breastfeeding outcomes and viability from an economic perspective.

A good example of innovation to improve the content of breastfeeding programmes is the use of video narratives of women's lived experience of breastfeeding. Outcomes of this study positively impacted on midwives' attitudes towards supporting breastfeeding women and improved clinical outcomes (Taylor and Hutchings, 2012).

Organisational barriers to creating a cultural change in breastfeeding support need to be addressed. Midwives and health visitors need support through policy, management and the environment to implement evidence-based care and to build their own knowledge and self confidence in their ability to support women effectively (Ingram et al, 2011).

> *"Mothers should have access to skilled support to help them initiate and sustain appropriate feeding practices, and to prevent difficulties and overcome them when they occur. Knowledgeable health workers are well placed to provide this support, which should be a routine part not only of regular prenatal, delivery and postnatal care but also of services provided for the well-baby and sick child."*
>
> WHO, 2003, Global Strategy for Infant and Young Child Feeding. Chap 2.27, p. 12

Chapter 4: **Parents' experiences**

The evidence discussed in this chapter relates to:

Stage 3
Parents' experiences of maternity services

*Standard 1: Support pregnant women to recognise the importance of breastfeeding and early relationships for the health and well-being of their baby**

Standard 2: Support all mothers and babies to initiate a close relationship and feeding soon after birth

Standard 3: Enable mothers to get breastfeeding off to a good start

Standard 4: Support mothers to make informed decisions regarding the introduction of food or fluids other than breastmilk

Standard 5: Support parents to have a close and loving relationship with their baby.

Stage 3
Parents' experiences of health-visiting services

*Standard 1: Support pregnant women to recognise the importance of breastfeeding and early relationships for the health and well-being of their baby**

Standard 2: Enable mothers to continue breastfeeding for as long as they wish

Standard 3: Support mothers to make informed decisions regarding the introduction of food or fluid other than breastmilk

Standard 4: Support parents to have a close and loving relationship with their baby.

Stage 3
Parents' experiences of neonatal units

Standard 1: Support parents to have a close and loving relationship with their baby

Standard 2: Enable babies to receive breastmilk and to breastfeed when possible.

Stage 3
Parents' experiences of children's centres or equivalent early years settings in Wales, Scotland and Northern Ireland

*Standard 1: Support pregnant women to recognise the importance of early relationships and breastfeeding for the health and well-being of their baby**

Standard 2: Encourage infant feeding practices that support health and well-being

Standard 3: Support parents to have a close and loving relationship with their baby

and cross references to

Stage 1

Standard 2: Plan an education programme that will allow staff to implement the standards according to their role.

Stage 2

Standard: Educate staff to implement the standards according to their role and the service provided.

*NB: For implementation of this standard, please refer to the introduction for further guidance.

4.1 Standard 1: Support pregnant women to recognise the importance of early relationships and breastfeeding on the health and well-being of their baby

This standard and the underpinning evidence in this section of Chapter 4 applies across maternity, health visiting/public health services and children's centres' services (or equivalent).

This standard requires that all pregnant women should have the opportunity for a meaningful discussion about caring for their baby, including feeding and recognising and responding to baby's needs in ways that optimise well-being. The discussion should help the pregnant woman to develop a positive relationship with her growing baby, taking into account her individual circumstances and needs, in an environment that is helpful and enabling.

Introduction

The foundation for effective parenting begins before a baby is born and contributes to their later well-being in childhood. Antenatal education, either one-to-one or in groups, should aim to incorporate the social, psychological, biological and economic factors that impact on parents' 'transition to parenthood' (Barlow et al, 2009).

Those providing support and care for women in pregnancy require the knowledge and skills to help parents build a relationship with their baby in utero. Consistent, positive and loving care from mother to foetus, mother to baby, mother to infant and mother to child will help the formation of a life-long relationship that has a lasting impact, including health and well-being as an adult (DH, 2011f; Gerhardt, 2004).

Pregnant women formulate mental images of their baby in utero. Women will often express a range of representations based on memories of their own early relationships, family traditions, hopes, fears and fantasies. If positive, this stimulates the bonding process with their baby. Important foundations are laid down for the mother's later relationship with her newborn baby. Conversely, where a pregnant woman is reluctant to engage with her baby in utero, denies the pregnancy or displays negative mental images, this can adversely impact on the mother-infant relationship and attachment in the postnatal period (RCM, 2012).

Advances in neuroscience demonstrate the links between early brain development and later life outcomes. The prefrontal cortex and orbitofrontal area of the brain are interconnected in a more powerful way if a baby is given love and attention (Gerhardt, 2004). A growing body of evidence suggests that, if the unborn baby is exposed to a negative environment, and where the woman has poor mental health, then this can have sustained effects and life-long consequences (Cuthbert et al, 2011; Glover, 2011; Mensah & Kiernan , 2010; Kinsella & Monk, 2009). In order to build a positive relationship between the unborn baby and the pregnant woman, both the mother and father can be supported to learn, understand and respond to their baby's feelings and needs through the promotion of loving touch, tone of voice and positive feedback (Gerhardt, 2004; RCM, 2011).

Figure 12 suggests ways to start a one-to-one conversation with parents regarding their relationship with their baby. The health professional needs to take time to actively listen and to assess if further support maybe required (e.g., through social and emotional support, antenatal education, peer support, home visiting or referral to mental health services etc.) Helping parents to provide a stable, responsive, nurturing relationship from the prenatal period through to the first years of life can prevent or even reverse the damaging effects of adverse 'early life stresses' resulting in life-long benefits for the child's learning, behaviour and health (Centre on the Developing Child, 2013; Shonkoff et al, 2010).

Figure 12: Starting a conversation with the pregnant woman and/or her partner about the relationship with her baby

RCM (2012) Maternal Emotional Well-being and Infant Development: A Good Practice Guide for Midwives. http://bit.ly/16RWr2E

The role of antenatal education

Pregnancy is a 'magic moment' when parents are uniquely receptive to support and motivated to do the best for their baby (Cuthbert et al, 2011). Evidence from systematic reviews of the best method to deliver antenatal education to improve breastfeeding outcomes is lacking (Gagnon and Sandall, 2011; Lumbiganon et al, 2011). Recent research suggests that traditional antenatal classes aimed at preparing parents for pregnancy and birth are not meeting women's needs. In addition, antenatal education is currently not recognised as a high priority by many of those funding or providing it. In order to deliver 'what women want', a review of the evidence suggests that antenatal education should be developed to support parents in their 'transition to parenthood', rather than purely preparing them for birth. Group-based parenting programmes that focus on emotional changes, couples' relationships, parenting, bonding, attachment and problem-solving skills have been shown to improve maternal psychological well-being, parental confidence and parent-infant relationships. This is particularly true when the communication is responsive to individual needs (Schrader McMillan et al, 2009).

In 2009, the Department of Health, England, carried out a study to explore the views of parents' maternity journey and early parenthood (DH, 2009a). Parents reported pregnancy as an 'emotional rollercoaster' and highlighted some important points that are useful to consider when supporting women in pregnancy:

- First-time parents are likely to need more support from the health service than parents in a subsequent pregnancy
- High-income parents may lack informal support networks
- Teenage parents often feel 'judged'
- Young mothers often want to carry on working or studying
- Fathers may not feel their relationship with the baby starts until s/he is six months old
- Strong informal support networks can become a barrier, preventing ethnic minority parents from accessing services.

There is strong evidence that information and support in pregnancy can make a real difference to children's lives, particularly for those from vulnerable groups (Cuthbert et al, 2011). NICE antenatal care guidelines (2010a) recommend that pregnant women should be offered opportunities for participant-led antenatal classes, including breastfeeding workshops and that these should be interactive, tailored to the needs of individuals (NICE, 2005) and learner-centred (The Joanna Briggs Institute, 2012). Table 2 summarises the research related to the delivery of antenatal education followed by a check list for those delivering programmes.

Table 2: Summary of information that informed the development of the DH's *Preparation for Birth and Beyond: a resource pack for leaders of community groups and activities*
http://bit.ly/oUqwlw

Schrader McMillan A, Barlow J, Redshaw M (2009) Birth and Beyond: a review of the evidence about antenatal education. University of Warwick, University of Oxford. November.

DH (2011) *Preparation for Birth and Beyond: a resource pack for leaders of community groups and activities.*

Childbirth and obstetric outcome	Parents want information about relaxation and pain management; there is some evidence that a combination of antenatal education and music therapy can help women relax in labour. Participation in antenatal education is associated with higher levels of satisfaction with the birth experience and feeling in control.
Health behaviours and breastfeeding	There is an association between group-based antenatal education and decreased risk of smoking, fewer missed antenatal appointments, reduced alcohol consumption and increased breastfeeding. Peer breastfeeding support schemes can help women on low incomes. Interactive learning, sharing experiences with local women, social support and media campaigns combined have been shown to improve breastfeeding prevalence.
Low birth weight	Antenatal parent education that involved and engaged the parent in antenatal care and development of the baby, such as Centering Pregnancy (Manant and Dodgson, 2011), was associated with a reduction in low birth weight and improved breastfeeding prevalence (Westdahl et al, 2008).
Parents in high-risk groups	Women often have difficulty accessing antenatal education. To meet these women's needs, a combination of culturally sensitive support activities is required, tailored to individual needs (e.g., health professional support, peer support, interactive group-based sessions, men-only sessions for fathers, home visiting etc.)
Programmes focusing on a transition to parenthood	Client-led, participative, group-based parenting programmes that focus on emotional changes, couples' relationships, parenting skills, bonding and attachment and problem-solving skills have been well evaluated. Increasing maternal psychological well-being, parental confidence and satisfaction with their parent-infant relationship in the postnatal period.
Social support and mental health	Small antenatal education groups have an important role in creating social support for parents antenatally, especially if they continue beyond childbirth. Social support can improve the mood in women with sub-threshold symptoms of depression/anxiety. If men are involved, they learn to provide emotional and practical support, which enhances the quality of their relationship with their partner and child.

To follow are key points to consider when working with families in the antenatal period:

- Antenatal education can help parents in their transition to parenthood
- Parents value the opportunity to meet and make friends with other parents and this can help support women with low-level symptoms of depression or anxiety
- Parents value participatory, interactive forms of learning, incorporating practical skills
- Interactive learning about the practicalities of breastfeeding and sharing experiences and involving fathers is valued by parents (Hoddinott et al, 2012a)
- Men need opportunities to talk to other men (Henderson et al, 2011)
- Adolescent mothers prefer to learn in peer groups, one-to-one and through home visiting (Dyson et al, 2010)
- Women in prison value the same things as other parents to be (Albertson et al, 2012)
- Parents from minority ethnic groups value culturally sensitive antenatal education
- Parents who have a disability, or who have been told that their child will be born with a disability, may need specialist support.

Group-based programmes that include topics such as relationships, co-parenting, gender, fatherhood, parenting skills, bonding, attachment and problem-solving skills are associated with improved maternal well-being, increased confidence, satisfaction and parent infant relationships. However, a policy of providing separate breastfeeding groups has not been shown to be effective and the costs are the equivalent to providing health visitor home visits to the women who attend (Hoddinott et al, 2009).

Meaningful conversations

Common sense suggests that it must be important to talk to all pregnant women about infant feeding to help them prepare for feeding their baby and responding to their needs. In many communities where breastfeeding is the norm, women do not need to be motivated to choose to breastfeed. Rather, they need to be supported to do so optimally and to overcome any challenges they may face.

Information in pregnancy

Findings from the Infant Feeding Survey 2010 (McAndrew, 2012) demonstrate that four out of five mothers received some information during pregnancy about the health benefits of breastfeeding. Those who received information were more likely to actually initiate breastfeeding. Three-quarters (76 per cent) of mothers discussed breastfeeding at their antenatal check-ups and two out of five mothers (41 per cent) were taught how to position and attach their baby to the breast in pregnancy. Less than three out of ten mothers discussed feeding at antenatal classes (28 per cent). First-time mothers and mothers from managerial and professional occupations were the most likely to attend classes.

In 2010, 7 per cent more women said they intended to breastfeed their baby compared to 2005. Knowing that three-quarters (75 per cent) of all women in the UK want to breastfeed is promising. Understanding how women make decisions about feeding their newborn baby is complex; a review by Jackson et al (2008) of how parents make health decisions on behalf of their child highlights three overarching themes:

1. Parents respond to timely, consistent, up-to-date evidence-based information tailored to their individual needs, delivered in a variety of formats from a trustworthy source.
2. Parents need to talk to others in the same situation and share information, experiences and ideas.
3. Parents need to be in control of their preferred level of involvement in the decision-making process (Jackson et al, 2008).

A growing body of evidence suggests that women want to be involved in a conversation that fits within their own reality (Fenwick et al, 2012; Hoddinott et al, 2012a; Trickey and Newburn, 2012). When the health professional purely 'gives' information (even when the evidence suggested is known to be the 'best choice', e.g. breastfeeding) this fails to address the needs of the parents and fails to take into account the fact that individuals will use and interpret the information differently. Building a relationship with the pregnant woman, sharing information sensitively and actively involving her in a meaningful discussion, will help to ensure that information is received more positively (Marshall et al, 2012).

A conversation about infant feeding in the antenatal period should aim to involve the woman and her partner in a discussion based on their individual needs, hopes and aspirations, including their known and perceived, practical and emotional realities of breast and formula feeding. A meaningful conversation will help to prepare the woman for birth and the postnatal period, equipping her with the self-efficacy and problem-solving skills to overcome the challenges she may experience, or, empowering her with confidence to ask for help when she needs it. The woman and her partner need to feel safe to explore and discover how breastfeeding might be experienced within their own mother-infant relationship and broader social and cultural context. Evidence suggests that parents benefit from knowing how to position and attach their baby at the breast, overcome some common breastfeeding difficulties and learning how to respond to their babies' cues (DH, 2011f; Piscanne, 2005; RCM, 2011).

Interventions to increase the initiation of breastfeeding

A review of the literature on Interventions for promoting the initiation of breastfeeding (Dyson et al, 2008) demonstrated that low-income women in America were more likely to initiate breastfeeding when antenatal sessions were delivered informally, one-to-one, based on individual need, provided by a trained breastfeeding professional or peer supporter and, importantly, without any promotion of breastmilk substitutes. A further review of the literature between 1985 and 2009 (Ibanez et al, 2012) concludes that educational programmes in the context of on-going 'personal contact' with a health professional are effective in promoting the initiation and prevalence of breastfeeding.

NICE guidance on maternal and child nutrition (NICE, 2011a) recommends adopting a multifaceted, multidisciplinary, approach providing a co-ordinated programme of proactive and practical interventions across different settings to increase breastfeeding rates. These should start in pregnancy and continue during the postnatal period. Worldwide, meta-analysis findings suggest that involving lay health workers in supporting women increases breastfeeding initiation, any breastfeeding and particularly, exclusive breastfeeding (Lewin et al, 2010).

In common with many service providers across the world, UK maternity services face increasing demands on an already overstretched system. Rising birth rates and financial constraints continue to challenge safety and the way services are delivered. In order to maintain and improve the quality and standard of care, there is a move to deploy more maternity workers to support models of midwife-led care for low- and medium-risk women (Sandall et al, 2011). In one area of the UK where formula feeding is seen as the 'normal way' to feed a baby, appropriately trained maternity care assistants have been used to facilitate antenatal breastfeeding information sessions for women and their families. The results of this small study were positive. Providing social support to fathers and wider family members,

the sessions aimed to break down some of the cultural barriers and equip fathers with strategies of breastfeeding support and encouragement (Ingram & Johnson, 2009).

Due to the methodological weaknesses of current research studies available, a recent Cochrane review of antenatal breastfeeding education (Lumbiganon, 2011) was not able to recommend any activities that demonstrate a significant increase in breastfeeding duration. However, the review did identify that, compared with routine care, peer counselling significantly increases breastfeeding initiation, and that when women receive antenatal information in a variety of formats – written (via leaflet), visual (via DVD) and through personal communication (via a breastfeeding consultant)- exclusive breastfeeding at three months was significantly improved compared to women who had received no formal breastfeeding education. In 2010, a DVD From bump to breastfeeding was issued free to all pregnant women in the UK. Evaluation of the project demonstrated that those women who watched the DVD were significantly more likely to be breastfeeding at six weeks postpartum compared to those that did not (Wilkins et al, 2010). A systematic review by Hannula et al, published in 2008, supported by a further study in Australia, found that women were more likely to initiate and continue to breastfeed if they received information about breastfeeding with an 'individual conversation' (Pannu et al, 2011).

The evidence is mixed and, as with all breastfeeding intervention trials, they are highly dependent on context, culture and country (Hoddinott et al, 2011). Results are often based on single intervention studies that have not been randomised. There is an urgent need for high-quality studies that take into account the context that women and staff live in, particularly when formula feeding is the normative culture. Trials that don't do that risk being completely ineffective. In addition, studies are needed, free from commercial influence, that explore further the effectiveness of antenatal breastfeeding education, particularly around the use of peer support. In contrast to Lewin's findings above, recent interrelated publications, including two systematic reviews (Ingram et al, 2012; Jolly et al, 2012) and a randomised controlled trial (Jolly et al, 2011), conclude that universal peer support did not appear to improve breastfeeding initiation or duration within the UK, compared to the provision of normal health professional care. Targeted peer support may be effective but evaluative evidence is not available. Well-trained peer support has been shown to be effective at enhancing care (Carr et al, 2011) and may be beneficial for specialist groups, such as adolescents (Wambach et al, 2011; Meglio et al, 2010). NICE (2011a) recommends implementation of peer support programmes as part of a multi-faceted approach to increase breastfeeding prevalence for low-income women. Further high-quality research is required to ascertain if targeted, combined, antenatal and postnatal peer support has any long-term effects on breastfeeding outcomes, particularly for those from vulnerable groups (Carr et al, 2011; Dale et al, 2009; Ingram et al, 2012; Jolly et al, 2011 & 2012).

Conclusion

There is some evidence that providing opportunities for women and their partners to learn about breastfeeding and to share experiences either one-to-one or within a group is helpful. Antenatal conversations and education that help women to build a relationship with their baby have positive outcomes for both the mother and her child that are life-long. Parents are more receptive to information if it is given sensitively, if it prepares them for the practicalities of feeding and caring for their baby and if it is considered within their own cultural and social context. Women-centred, group-based antenatal care and pro-active peer support that is individualised and targets specific need e.g., for adolescents or ethnic minority groups, has been shown to increase breastfeeding initiation and prevalence for some women.

Chapter 4: **Parents' experiences**

Key points:

- Advances in neuroscience demonstrate the links between early brain development and later life outcomes.
- Effective parenting through relationship building between the pregnant woman and her baby, begins in pregnancy and contributes to their later well-being in childhood.
- Pregnancy is a 'magic moment' when parents are uniquely receptive to support and motivated to do the best for their baby.
- Woman centred, antenatal education can help parents in their transition to parenthood.
- A growing body of evidence suggests that women want to be involved in a conversation about infant feeding that equips them with the self-confidence and skills to feed and care for their baby within their own social context.

4.2 Standard 2: Support all mothers and babies to initiate a close relationship and feeding soon after birth

This evidence discussed in this section relates to:

Stage 3
Parents' experiences of maternity services

The evidence in this section is also cross referenced to:

Stage 3

Parents' experiences of maternity services

Standard 5: Support parents to have a close and loving relationship with their baby

Parents' experience of health-visiting services

Standard 4: Support parents to have a close and loving relationship with their baby

Parents' experiences of neonatal units

Standard 1: Support parents to have a close and loving relationship with their baby

Parents' experiences of children's centres

Standard 3: Support parents to have a close and loving relationship with their baby

This standard requires that all mothers have skin-to-skin contact with their baby after birth at least until after the first feed and for as long as they wish. Mothers should be encouraged to have the first feed in skin-to-skin contact, when the baby shows readiness. Where a mother and baby are unable to have skin-to-skin contact immediately after birth, they are encouraged to start skin contact as soon as they are able, whenever that may be.

Introduction to the birth environment

Providing an environment that facilitates skin-to-skin contact at birth supports implementation of this standard. If this is not possible, alternative strategies will need to be put in place to ensure the mother and baby are offered the time, place and space to experience skin-to-skin contact for as long and often as they wish, as soon as possible.

The design of the conventional hospital birthing room is similar to the design of any other hospital sick room. In an effort to promote normal labour and birth, many hospitals have developed 'home-like' environments within or alongside the labour ward. Some of the rooms contain a variety of sensory stimuli and furnishings designed to promote feelings of calm, control and freedom. A review of these alternative versus conventional settings for birth (Hodnett et al, 2011) found that women giving birth in alternative environments were more satisfied with their care, had increased spontaneous vaginal births and were more likely to be breastfeeding their baby at one and two months postpartum. These findings are supported by the 'Place of Birth' study in England (Hollowell, 2011). This identified that, by offering low-risk women a choice of birth settings (midwife-led unit, freestanding or alongside a maternity unit), both the mother and baby benefit. Babies born, planned, at home or in midwife-led units are significantly more likely to initiate breastfeeding. Services that provide midwife-led care offer a choice of place of birth, support a birth companion and one-to-one care in labour will improve women's experiences (Dodwell & Newburn, 2010; Hodnett et al, 2011).

When these options are not available, targeted additional support may be required. For example, an analysis of the Millennium Cohort Study (Essex & Pickett, 2008) demonstrates that some vulnerable women are less likely to be accompanied by a companion at birth. At nine months after the baby's

birth, these mothers were less satisfied with life and their babies demonstrated delayed gross motor development. Supporting these women to learn, understand and respond to their baby's feelings and needs through the promotion of skin-to-skin contact may help bonding, attachment and a positive transition to parenthood. Continuous support during the childbirth process can strengthen a mother's self-esteem and her capacity to interact with her baby (Ekstrom and Nissen, 2006).

Skin-to-skin contact after birth

For some mother and baby pairs, in some maternity units, skin-to-skin contact at birth has become normal practice. In the UK, in 2010, 81 per cent of mothers reported skin-to-skin contact with their babies within the first hour of birth, a significant increase since the 2005 Infant Feeding Survey (72 per cent). These mothers were more likely to initiate breastfeeding (McAndrew et al, 2012).

A growing body of evidence suggests that, when skin-to-skin contact is facilitated at birth (the baby lying naked on the mother's bare chest, both of them covered in a warm blanket), the mother is more likely to:

- Interact with her baby, demonstrating love/affection and attachment behaviours and
- Be breastfeeding at one and four months.

In addition, as a result of skin-to-skin contact, the baby:

- Cries less
- Has better cardio-respiratory stability (late preterm babies)
- Has improved temperature control and
- Has better maintenance of blood glucose (Moore et al, 2012; Saloojee, 2008).

Early skin-to-skin contact helps the baby in its transition to extra-uterine life and should continue until the end of the first successful breastfeed to enhance the infant's adaptation to life outside of the womb (Chaparro and Lutter, 2009; Mason et al, 2013). There are no known harmful short- or long-term outcomes associated with skin-to-skin contact. However, in the very early postnatal period, sensible precautions do need to be taken to ensure that very tired new mothers and babies are safe (for example, it is recommended that midwives check on the infant's condition frequently in the first 2-3 hours after birth to make sure the infant's position is safe and their mouth is not occluded).

Irrespective of feeding intention, all mother and baby dyads should be offered skin-to-skin contact at birth, or as soon as possible after birth. After the first two hours post-birth, infants often become sleepy and difficult to arouse (Moore et al, 2012).

Babies who do not have skin-to-skin contact at birth are at greater risk of not being breastfed, of neonatal hypothermia and hypoglycaemia and increased episodes of crying. Understanding and recognising infants' feeding cues (searching, rooting and mouthing) can help parents to recognise and respond to their baby's needs. If these signs are missed, the baby will start to cry to get attention (see Table 3). An effective way to calm a crying baby is to offer skin-to-skin contact.

Table 3: Recognising baby's feeding cues

FEEDING CUE	DESCRIPTION
Rooting	Baby turns the head from side to side, searching and moving the mouth
Increasing alertness	Rapid eye movement under closed eyelids
Flexing	Baby moves arms and legs, stepping, crawling reflex
Hand to mouth	The baby attempts to bring hand to mouth
Sucking reflex	Baby sucks hand and fists
Mouthing	Baby licks lips with tongue and mouths to find nipple

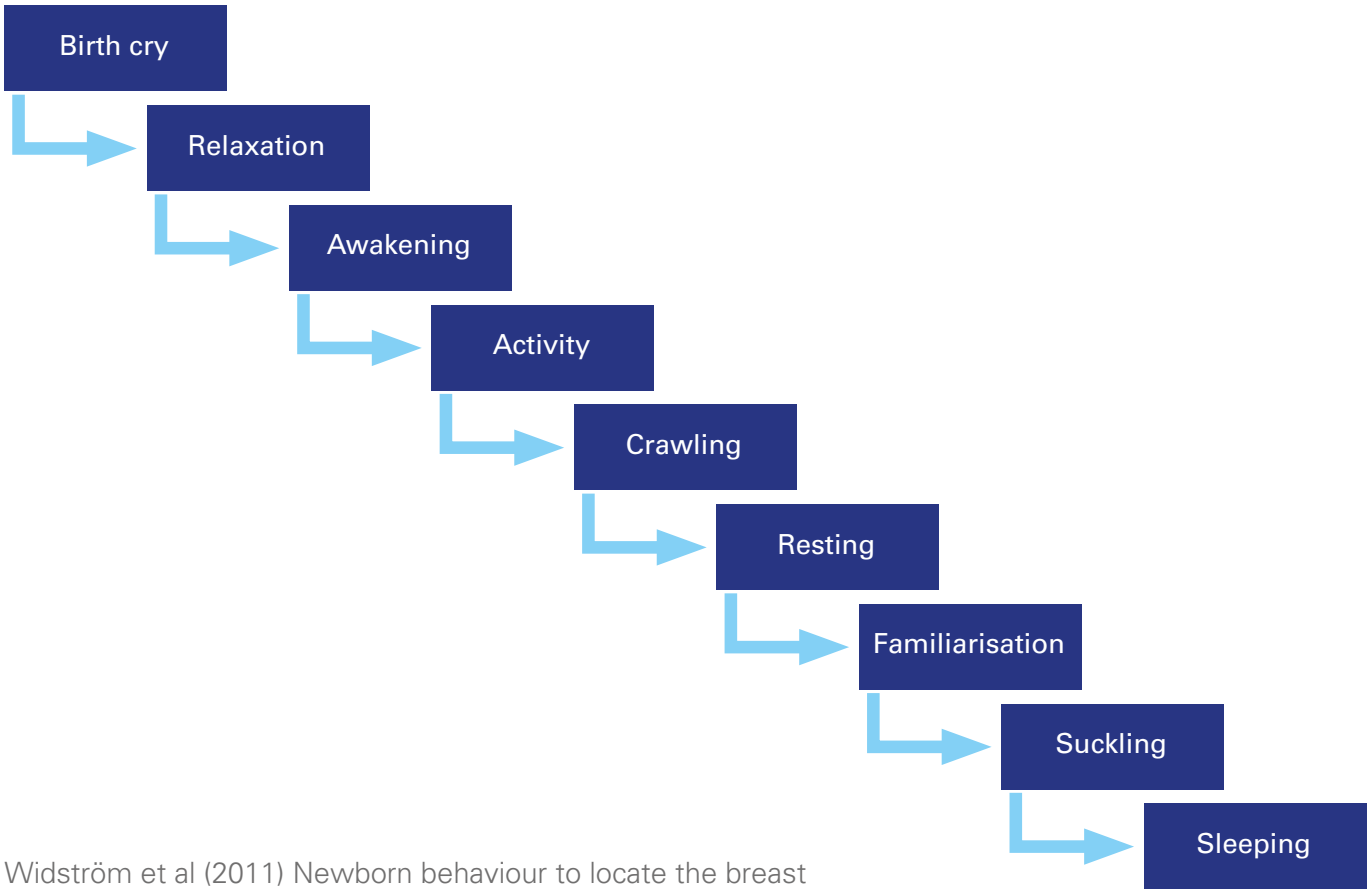
Cadwell K (2007) Latching-on and sucking of the health term neonate: breastfeeding assessment. Journal of Midwifery & Women's Health. 52.6. pp 638 -642. www.jmwh.org

Skin-to-skin contact facilitates and enhances normal physiological processes. Following delivery, the baby is dried, laid on the mother's chest, skin-to-skin and left undisturbed (Puig & Sguassero, 2004). Skin-to-skin contact will elicit pre-feeding behaviours and the baby will move towards the breast, locating the nipple and often self-attach for the first feed (Cadwell, 2007; Colson et al, 2008; Henderson, 2011). The healthy, term newborn baby can see, hear, smell, taste and also respond to touch. The baby's rooting reflex is mature. The baby moves his/her head, bringing hand to mouth, gravity and the use of leg and arm movements enables the baby to 'crawl' to the breast, in search of food. In her communication with the baby, the mother may help the baby to attach. Through touch and massage, she will gently help the baby to find and attach to the breast.

The smell of breastmilk and secretions from the Montgomery's tubercles on the areola stimulate the baby further to search, mouth, grasp and root for the nipple (Porter, 2004). In addition, warmth, massage, stroking, nipple stimulation from the baby's hands 'kneading' the breasts and the baby's legs 'kicking' on the uterus, stimulate the release of oxytocin. Oxytocin levels increase, contracting the myoepithelial cells that surround the alveoli, initiating the milk ejection reflex and moving colostrum towards the nipple (Cadwell, 2007; Smith, 2007).

When undisturbed, a series of behaviours have been identified following the birth that enable the baby to self-regulate their feeding and sleeping (Widström et al, 2011). When the infant is peaceful and in skin-to-skin contact with its mother, it will go through nine behavioural phases: birth cry, relaxation, awakening, activity, crawling, resting, familiarisation, suckling and sleeping. These result in early optimal self-regulation. Interrupting the process before the baby has completed this sequence, or trying to hurry him through the stages, is counterproductive and detrimental to mother and baby. It may lead to problems at subsequent breastfeeds (Brimdyr et al, 2012; Crenshaw et al, 2012).

Figure 13: Nine stages of instinctive newborn behaviour



Widström et al (2011) Newborn behaviour to locate the breast when skin-to-skin: a possible method for enabling early self-regulation. Acta Paediatrica. Volume 100, Issue 1, pages 79–85, January.

Providing an environment that enables the infant to go through the nine behaviour phases while raising the levels of oxytocin in the mother will help to relax them both, promoting bonding and decreasing fear and anxiety. If this happens it will counteract the effects of cortisol, which is released in response to stress (Gitu et al, 2002; Henderson, 2011). Oxytocin enhances parenting behaviours and this early attachment behaviour between the mother and baby promotes women's self-confidence in her ability to produce breastmilk and succeed at breastfeeding (Dennis, 1999 cited in Moore et al, 2012; Uvnäs-Moberg, 2003).

Labour ward practices

Labour ward practices and the type of delivery have an impact on maternal and newborn infant behaviours. All drugs administered for pain relief to the woman in labour cross the placenta (Smith, 2007). The research evidence analysing their effect on breastfeeding outcomes and the mother-infant relationship are inconclusive due to poor research methodology (Jones et al, 2012). Most methods of non-pharmacological pain management are non-invasive and safe for mother and baby. Pharmacological methods of pain relief have more known adverse side effects, including increased incidence of assisted birth (Jones et al, 2012). The 2010 Infant Feeding Survey highlights that mothers who used pethidine for pain relief in labour had the lowest breastfeeding initiation rates (77 per cent) and were less likely to be breastfeeding at one and two weeks post-delivery (McAndrew et al, 2012).

When caring for a mother and her infant at birth, careful consideration needs to be given about how best to facilitate maternal-infant bonding, skin-to-skin contact and the first feed. Some mothers are not able to give skin-to-skin contact post-birth. A study was carried out to explore the use of skin-to-skin care with the father and the effect on newborn crying and pre-feeding behaviour. All the women had caesarean sections. A total of 29 father-infant pairs were randomised to skin-to-skin care or conventional care (the baby in a cot for the first two hours after birth). Infants in the skin-to-skin group stopped crying and became calmer earlier than the conventional group (Erlandsson et al, 2007). While support of the father promotes breastfeeding and the transition to parenthood, as soon as the mother is able, the baby needs to be returned to her in skin contact and breastfeeding encouraged as this will stimulate the release of oxytocin and subsequent lactogenesis.

A review of labour ward practices (Chaparro & Lutter, 2009) led to the recommendation of three simple delivery care practices that have the potential to improve the short- and long-term nutrition and health outcomes for the mother and her infant. They include delayed cord clamping, skin-to-skin contact and exclusive breastfeeding. It is not within the scope of this book to present a review of delayed cord clamping (clamping at the end of cord pulsations, 2-3 minutes after birth). However, it is worth noting that delayed cord clamping may have long-term effects by reducing the risk of the infant developing iron deficiency anaemia, particularly in preterm infants. The Resuscitation Council (UK) now recommends, for uncompromised babies, a delay in cord clamping of a least one minute from the birth of the baby (Resuscitation Guidelines, p14, 2010; RCOG, 2011). This information is important when discussing 'exclusive breastfeeding' for six months in relation to newborn iron stores (McDonald et al, 2013, Kramer and Kakuma, 2012).

A summary of the Cochrane Systematic Review, reported by Moore et al in 2012, on early skin-to-skin contact for mothers and their healthy newborn infants, is summarised in Table 4.

Table 4: Early skin-to-skin (SSC) contact: summary of research findings

Background	Mother-infant separation post-birth is common in Western cultures. Early SSC starts at birth and involves placing the naked baby, head covered with a dry cap and warm blanket across the back, prone on the mother's chest. This evokes neurobehaviours to fulfill basic biological needs. This is a 'sensitive' period for programming future physiology and behaviour.
Objectives	To assess the effects of early SSC on breastfeeding, physiological adaptation and behaviour in healthy mother-newborn dyads.
Methods	Literature search of RCTs up to 30 November 2011.
Main results	34 RCTs, involving 2,177 participants were included. Positive effects of SSC: mothers were more likely to be breastfeeding at one and four months, and tended to breastfeed for longer. Babies exposed to SSC interacted more with their mothers and cried less. Mothers who had early SSC were possibly more likely to have a good early relationship with their baby. Late preterm infants had better cardio-respiratory stability. Blood glucose at 75-90 minutes following birth was significantly higher in SCC infants. SSC has no short- or long-term negative effects.
Discussion	SSC helps to maintain breastfeeding, reduce crying, increase blood glucose and maintains infant temperature – low blood glucose and increased crying causes distress, consuming extra calories. Late preterm infants are at higher risk of hypoglycemia and hypothermia, which can worsen symptoms of respiratory distress. Despite variations in timing and dose, SSC improves the mother/infant relationship. The baby in SSC may take 45-55 minutes to attach to the breast.
Recommendations for practice	1. Early SSC has measurable benefits and should be offered to all mother and baby pairs at birth. There is no benefit in any study from infants and mothers being separated. 2. The benefits of SSC should be discussed antenatally and included in the birth plan. 3. SSC should be offered within the first two hours when the baby is more alert and last until the end of the first feed. 4. Babies in SSC should be dried, wear a dry cap and be covered across the back with a warmed towel. 5. Mothers and babies should not be left alone during this transitional period.

Moore ER, Anderson GC, Bergman N, Dowswell T (2012) Early skin-to-skin contact for mother and their healthy newborn infants (Review). The Cochrane Library. Issue 5. www.thecochranelibrary.com.

Conclusion

The interactions between a mother and her baby immediately after birth are intuitive. The mother and baby are physiologically programmed to interact. Skin-to-skin contact promotes the release of oxytocin, supporting the development of a close loving relationship, bonding and attachment. The mother's intuitive behaviours to feed and care for her baby's well-being are defined, but how a mother responds to her baby's cues is dependent on her own behaviours and can be developed with support and encouragement from those around her (Sunderland, 2007).

The delivery and the immediate postnatal period is a vulnerable time. Simple, cost effective, labour ward practices such as delayed cord clamping, skin-to-skin contact, initiating breastfeeding and promoting the mother-infant relationship, all contribute to improved health and well-being outcomes for the mother and child.

The continued promotion of midwife-led care in birth centres and at home ensures a mother has the best possible opportunity to start a positive relationship with her infant. All women, irrespective of mode of delivery, should be offered uninterrupted skin-to-skin contact with their baby as soon as possible after birth until the end of the first feed. Where a mother is medically unable to have time in skin-to-skin contact, this should be offered to the father until the mother is ready. Skin-to-skin contact should be resumed with the mother as soon as she and the baby are able, wherever they are being cared for.

> *"Early skin-to-skin contact has measurable benefits and should be offered to all mother and baby pairs at birth, irrespective of feeding choice.*
>
> *There is no benefit in a baby being separated from its mother at birth."*
>
> Moore et al, 2012

4.3 Standard 3: Enable mothers to get breastfeeding off to a good start

The evidence discussed in this section relates to:

Stage 3
Parents' experiences of maternity services

Standard 3: Enable mothers to get breastfeeding off to a good start

Parents' experiences of health-visiting services

Standard 2: Enable continued breastfeeding for as long as possible

Parents' experience of neonatal units

Standard 2: Enable babies to receive breastmilk and to breastfeed when possible

Parents' experiences of children's centres

Standard 2: Encourage infant feeding practices which support health and well-being

This standard requires that mothers are enabled to achieve effective breastfeeding according to their needs, including support with positioning and attachment, hand expression, understanding signs of effective feeding and responsive feeding.

A breastfeeding assessment will be carried out as required to ensure effective feeding and well-being of the mother and baby. Where appropriate, additional breastfeeding help will be made available for mothers and they should be guided on how to access this.

All mothers will be given information on local support networks, groups etc. and how to access them. Mothers with a baby in a neonatal unit will be enabled to start expressing their milk as soon as possible after birth and supported to express as effectively as possible.

Introduction

Some mothers breastfeed successfully without help, but many mothers, particularly first-time mothers, do need help. In communities where breastfeeding is still the norm, and where women give birth at home, new mothers are shown what to do by those around them with experience of breastfeeding. Most women in the UK give birth in hospital and within a community environment where formula feeding is the norm, where assistance, knowledge and skills to help them continue to breastfeed are not readily available. It is necessary for health care staff, working together with the wider community, to ensure mothers get the help and support they require that is evidence-based and tailored to individual need.

Women who experience midwife-led care in a birthing centre environment are more likely to start breastfeeding (Hodnett et al, 2011). They are also more likely to be transferred home from hospital early. The duration of stay in hospital for healthy mothers and term infants has dramatically reduced in the last 30 years. Women and their newborn infants transfer home as early as six hours after the birth. A recent Cochrane Review exploring the impact of early discharge from hospital concluded that there do not appear to be any adverse effects on breastfeeding or maternal depression when women go home early, if all women are offered at least one midwife home visit post discharge (Brown et al, 2009).

Management of maternity services is challenging, particularly in times of austerity, when there are competing demands on limited available resources. Postnatal care has not always been considered a priority service within maternity care. As such, helping mothers to breastfeed may not always be seen as a priority by those that commission and manage services (NCT, 2010). Early discharge of healthy mothers and babies has led to a changing dynamic within the postnatal ward environment. Rising birth rates,

rising caesarean sections, an increase in births to women aged over 40 and with complex needs has led to a postnatal environment that often resembles a 'surgical ward' (RCM, 2011). The skill mix is changing; nurses, maternity support workers and nursery nurses are now employed to care for women alongside the midwife (Sandall et al, 2011). This changing dynamic raises different issues and training needs for those caring for women in the postnatal period and should be considered when planning breastfeeding support.

Every three years, the Care Quality Commission, England (CQC), reports on women's experiences of maternity care. Key findings for 2010 demonstrate that 11 per cent of women left hospital without the information they thought they needed about the birth and how to care for their baby. One in five women said that they were not given enough information about the emotional changes they might experience and needed more consistent information, support and encouragement about infant feeding, particularly in the first six weeks after birth (CQC, 2010).

It is imperative to try and understand what mothers need when breastfeeding to determine how best to support them, in whatever emotional or social context they live (Renfrew et al, 2012a). A background in understanding why breastmilk is important will help practitioners understand the implications of breastfeeding practices on women's success in exclusively breastfeeding.

Why breastmilk is important

Gut bacteria play a fundamental role in life-long health and well-being, stimulating the development of the immune system and providing protection against pathogens. Mode of delivery and feeding impact on the development of the gut, for example caesarean delivery disturbs normal colonisation of the infant gut by preventing exposure to maternal microbes. This is important because caesarean section rates are rising. We also know that mode of delivery affects breastfeeding success, women who experience complications at birth are less like to breastfeed (McAndrew et al, 2012).

Two recent studies have advanced understanding of how microbes colonise the infant's gut in the first year of life and how they have been shaped by breastmilk. Breastfeeding promotes a 'healthy' gut microbiota by providing selective metabolic substrates for beneficial bacteria (Azad et al, 2013). Bioactive molecules present in human milk represent one of the significant differences between breastmilk and bovine milk-based formulas. Human milk has an abundance of human milk oligosaccharides and glycoconjugates, which results in bifidobacterium (bifidus factor) as the dominant genus in the intestinal microbiota of breastfed infants (in some cases representing approximately 75 per cent of total bacteria), which explains in part why breastmilk helps to prevent gastroenteritis. Formula-fed infants display higher numbers of bacterium more commonly associated with an adult gut (Garrido et al, 2013).

In the early days, hospital practices, such as giving babies supplementary feeds with infant formula and the use of pacifiers/dummies impacts on breastfeeding outcomes and the mothers intention to exclusively breastfeed (Declercq et al, 2009, Perrine et al, 2011).

Prolonged and exclusive breastfeeding reduces the risk of infectious diseases in infants. A study of 4,164 infants carried out in Holland and the UK Millennium Cohort Study of 18,819 infants examined the associations of duration of exclusive breastfeeding with respiratory and gastrointestinal infections. Data showed that exclusive breastfeeding, compared with not breastfeeding, protects against hospitalisation for diarrhoea and lower respiratory tract infection. The effect of partial breastfeeding is weaker. Breastfeeding, particularly when exclusive and prolonged, protects against severe morbidity (Duijts et al, 2010, Quigley et al, 2007).

Support for breastfeeding

The focus of a recent review examined whether the breastfeeding support women received would reduce the number of mothers who stopped breastfeeding early, rather than the interventions to promote breastfeeding initiation (Renfrew et al, 2012a). What constitutes support is varied and diverse. How and when support is offered and received is individual and complex and involves many elements, including reassurance, praise, information and the opportunity to discuss and respond to questions. Support can be offered in a range of ways; by health professionals; peers or volunteers (trained or untrained); proactively by contacting women; waiting for women to get in touch; a one-off contact; several contacts over a period of time and in various settings; groups of women; one-to-one; mother-to-mother; face-to-face; and over the telephone.

Results of the review included 52 studies between 1979 and 2011, conducted in 21 countries, covering 56,451 mother-baby pairs. The large number of studies and women included reflects the continuing, long standing, international challenge that exists in an effort to support women to breastfeed. It is encouraging that the results provide evidence that breastfeeding support interventions increase the number of women continuing to breastfeed and the number of women continuing to breastfeed exclusively up to six months and up to four and six weeks. Table 5 summarises the results and applies the findings to practice.

Table 5: Support for healthy breastfeeding mothers with healthy term infants: findings applied to practice

FINDINGS	APPLICATION TO PRACTICE
Interventions had more impact in areas where breastfeeding initiation rates are high	Support to increase breastfeeding initiation should be in place in practice.
Face-to-face support was more effective than telephone support for exclusive breastfeeding	Efforts should be put in place to support women, personally, face-to-face.
Exclusive breastfeeding was increased within the first six months and at up to four to six weeks when lay, professional or lay and professional support was used	Support should be offered by trained, professional or lay/peer support or a combination of both.
The duration of the support makes a difference: interventions with four to eight visits have more effect	On-going support should be offered to women, beyond the early days and weeks.
Scheduled, proactive support is more effective	Women should be offered breastfeeding support that is planned, proactive and so they know when to expect it.
Support is more effective when it reflects the local needs	Women should be offered support that is modified and practical to their individual circumstances and needs.

Renfrew MJ, McCormick FM, Wade A, Quinn B, Dowsell T (2012b). Support for healthy breastfeeding mothers with healthy term babies (Review). The Cochrane Library. Issue 5.

Breastfeeding processes

Providing support in the early days requires the supporter to develop a relationship with the mother that is enabling and empowers her to continue to breastfeed with support and information tailored to meet her individual needs. Women's ability to manage their own infant feeding behaviours will be influenced by the nature and emotional response to their birth experience, including skin-to-skin contact and the results of the first infant feed (Thomson and Dykes, 2011). The pathway of infant feeding support will need to reflect and build on the mother's current and past experiences. An infant feeding assessment will help the mother and supporter to reflect on 'what has happened' and develop 'a way forward' together. For this conversation and support to be meaningful, the relationship between the mother and the supporter needs to be authentic, trusting and facilitative. This is summarised in Table 6 (Dykes and Flacking, 2010; Schmied et al, 2011).

Table 6: Qualities that enhance infant feeding conversations between the mother and supporter

FOR THE MOTHER	ROLE OF THE SUPPORTER
The conversation should be 'comprehensible' and the mother should be able to relate to it personally	Openly discuss all the options, based on the best available evidence and tailored to the woman's needs. For example: Real choices for women will be decisions based on their social context, circumstances, rights and preferences.
Time should be afforded to help the mother manage their infant feeding	Listen to the mother; give her time, respect and support to manage and solve any problems she may be having; adopt a 'hands-off' approach to support, positioning and attachment, empowering her to 'do it herself'.
Support offered should be meaningful and encouraging but not pressurised	Positive reinforcement and reassurance are essential to build the mother's confidence and self-efficacy. The conversation should not leave the woman feeling pressurised or guilty when breastfeeding is not successful or sustained.
Supporting a motivation to succeed may help a mother to continue to breastfeed	If the support is meaningful for the mother as an individual, she may be more motivated to invest in strategies, personally, that will help her overcome the challenges of breastfeeding that are real to her in her everyday life.

Adapted from a qualitative study using Antonovsky's Sense of Coherence theory to explore and understand women's experiences of infant feeding and recognition of the socio-cultural influences when implementing the WHO/UNICEF Baby Friendly Initiative Award. Thomson G and Dykes F (2011) Women's sense of coherence related to their infant feeding experiences. Maternal & Child Nutrition. 7. pp. 160-174.

In addition, the supporter needs to be able to help the mother find solutions to any problems and there is a need for both the mother and breastfeeding supporter to be able to recognise when the baby is positioned and attached effectively at the breast, to ensure milk is being transferred from the mother to the baby and breastmilk is being produced. Figure 14 describes the signs of positioning, attachment, milk production and milk transfer.

Figure 14: Signs of successful positioning, attachment, milk production and milk transfer

Adapted from: NICE (2006) Routine postnatal care of women and their babies. July. NICE Clinical

Guidance 37. www.nice.org.uk/CG037 (see also NICE, 2013)

Responsive feeding

Developing an understanding of what is meant by 'responsive feeding' is important because it is associated with child growth and development. Unlike 'demand feeding', 'responsive feeding' recognises the fact that successful breastfeeding is a sensitive, reciprocal relationship between a mother and her baby. Infants display signals about their readiness or otherwise to feed (Mentro et al, 2001). The mother therefore needs to provide an environment that is sensitive to the infant's cues, and be ready and able to alleviate any stress. This environment supports the mother-baby dyad to 'tune-in' with each other, adapting and modifying their behaviours, to meet their needs. A disruption in this synchronous relationship will interfere with feeding and ultimately with growth, development and emotional attachment.

An infant who is ready to feed is:

- Visually attentive to their mother – eye opening, eye contact and gazing
- Smiling (if old enough)
- Making vocal sounds directed towards their mother (no crying)
- Showing relaxed, quiet movements, moulding to the mother's body.

He or she may previously have displayed feeding cues, such as stretching the arms and legs, murmuring, or making rooting or sucking movements.

Breastfeeding can be used to comfort and calm babies, as well as to alleviate hunger. A feed can be initiated when the baby is distressed or appears lonely, when the mother's breasts feel full, or when she would like to sit down and rest. Breastfeeds can be long or short, according to the baby's needs. It is important that parents understand that breastfed babies cannot be overfed or 'spoiled' by too much feeding, and that breastfeeding will not, in and of itself, tire the mother any more than caring for a new baby without breastfeeding.

Disruption of the synchrony between the mother and the baby (e.g., where the infant is sick or the mother has mental health illness) can have a profound effect on infant responsiveness, and on the success of breastfeeding. In such situations both mother and baby may need encouragement to feed frequently. Supporting parents to recognise and respond to their infant's needs requires support to reconstruct expectations and intentions so that they are attuned to the mother and infant's needs and behaviours (Pridham et al, 2001).

Dummies can interfere with this synchrony and responsive feeding by placating babies who would otherwise be breastfed, and this in turn can affect the mother's lactation. A supporter would need to ensure that the mother is aware of this, should she choose to use a dummy.

Encouragingly, when an infant responds as expected, the mother learns that what she does is important. This promotes a progressive relationship between the mother and baby dyad and helps to build the mother's self–confidence as a parent and foster a positive sense of self for the infant (Reyna and Pickler, 2009).

Formula feeding: practical information for parents

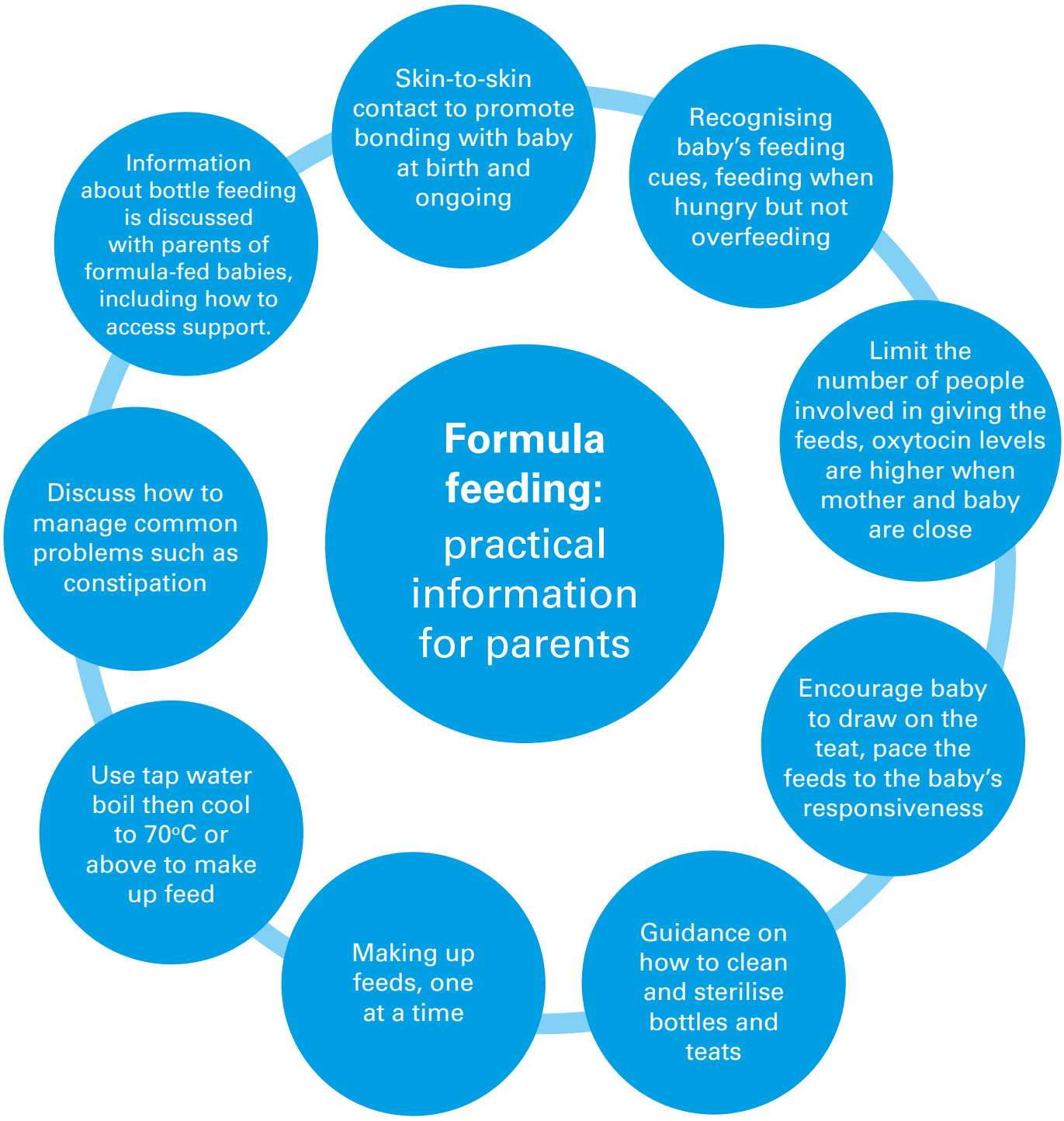
Formula feeding can also be responsive. Indeed, it is particularly important for parents to notice when their baby wishes to stop feeding, because a bottle-feeding baby has less control over the feed than a baby at the breast (Bartok and Ventura, 2009). Parents may need help to recognise their baby's subtle signals that he would like to pause or take the feed more slowly.

All parents and carers who decide to give their baby infant formula should be offered support and information to meet their individual needs. In 2010, formula use was reduced at all points in the Infant Feeding Survey up to six months, with 83 per cent of babies at four months being given formula feed as opposed to 88 per cent in 2005. There was also an increase in the number of women who knew to follow the three key recommendations for making up formula feeds (only make up one feed at a time; make feeds within 30 minutes of the water boiling; and add the water to the bottle before the powder) (McAndrew et al, 2012). Figure 18 describes the information required to minimise the risks of formula feeding (NICE, 2013; UNICEF/DH, 2012; UNICEF, 2010a/b).

Women should not receive hospital discharge packs or any informational material that contains promotion or advertising for formula feeding, including 'follow-on' milks.

(See Chapter 7 for further information).

Figure 15: Practices that have been shown to be effective to support parents using formula feeding, to optimise the process



Supporting women living in low-income households

In 2008 (updated 2011), the Department of Health, England commissioned NICE to produce public health guidance to improve the nutrition of pregnant and breastfeeding mothers and children in low-income households. The aim was to address the gap between the nutrition of disadvantaged groups compared with the general population (NICE, 2011a). The review adds further to the body of evidence on how best to support maternal and infant nutrition and makes several, additional, recommendations that impact on the support of infant feeding, for all women, in the early days.

Summary of the recommendations from NICE 2011a:

- Every parent eligible for the 'Healthy Start' scheme should receive information on how to initiate and maintain breastfeeding.
- Ensure uptake of dietary supplements available within the scheme - e.g., 10 micrograms per day of Vitamin D for pregnant and breastfeeding women (see also UNICEF UK Statement on Vitamin D supplementation for breastfed babies, www.unicef.org.uk/babyfriendly/vitamind2011).
- Implement a multifaceted approach to increase breastfeeding rates, including:
  - Activities to overcome barriers and raise awareness of the benefits
  - Peer support contact within 48 hours of transfer home
  - Joint working between professionals and lay supporters.
- Ensure mothers who breastfeed can demonstrate how to position and attach the baby to the breast and recognise if the baby is feeding well before they leave hospital.
- Provide proactive, targeted, individualised infant feeding support in the home, and information on further accessible support services. Discourage parents from adding sugar or any solid food to bottle feeds and weaning early.
- Consult supplementary sources, Drugs and Lactation Database/UK Drugs and Lactation Advisory Service, when prescribing or dispensing drugs to a breastfeeding mother.
- Provide link workers who can communicate with the mother in her first language.
- Provide additional support for women with physical, communication or learning disability needs.
- Support women to breastfeed when 'out and about'.

A flowchart describing the recommendations of the NICE public health guidance 11, is available and provides a useful, easy-to-read summary of the findings and how these can be implemented to help improve the nutrition of pregnant and breastfeeding mothers and children in low-income households: (NICE, 2011a) *Quick reference guide: Maternal and child nutrition* http://bit.ly/14C8nHy

The decision to give other foods or to stop breastfeeding is a difficult one for many women and a choice they do not always want to make (McAndrew et al, 2012). Women report a clash between what happens in reality (their lived experience of feeding at home) and what is expected of them (exclusive breastfeeding for six months). Some women feel they 'learned the hard way' and those who do not continue feel they are perceived as 'bad mothers' (Hoddinott et al, 2012a; Redshaw & Henderson, 2012). Breastfeeding cafes, groups or clinics can provide an environment for women to discuss the challenges they face feeding and caring for their infants. Breastfeeding support workers are available to help the mother find solutions to her, sometimes complex, problems that are relevant to her everyday life (Berridge et al, 2005; Lamontagne et al, 2008).

Monitoring infant growth and development

Evidence suggests that early weighing supports breastfeeding continuation. Therefore, the recommendation is that:

> *"As a minimum, ensure babies are weighed at birth and in the first week (at five days and 10 days), as part of an overall assessment of feeding. Thereafter, healthy babies should usually be weighed at 8, 12 and 16 weeks and at 1 year. If there is concern weigh more often, but no more than once a month up to 6 months of age, once every 2 months from 6-12 months of age and once every 3 months over the age of 1 year."*
>
> Recommendation 17: NICE public health guidance 11, pg. 8

In 2006, the World Health Organization published growth standards, the UK-WHO Growth Charts, for children aged less than five years (WHO, 2009). The new standards were developed from data collected from six countries over 15 years. The UK has adopted the WHO standard, as it establishes the breastfed child as the norm. It is suitable for all ethnic groups and defines optimal growth. The Royal College of Paediatrics and Child Health was commissioned to design new growth charts and develop new evidence-based materials to support their implementation (Wright et al, 2010). The new charts replace the UK90 charts for all children born from May 2009 (January 2010 in Scotland). Anyone who uses the charts to monitor infant and child growth should be adequately trained to use them and be able to support parents to monitor their child's growth and development (Cole et al, 2012).

The most obvious changes to monitoring are around data collection at birth:

- There is a new low birth weight chart for infants born before 32 weeks' gestation.
- Children born between 32 and 36 completed weeks' gestation will now be plotted on a separate preterm section until two weeks post-term and then continue on the infancy chart.
- Birth weight for term babies born from 37 completed weeks' gestation are plotted at 'age 0' on the infancy chart.
- There are no centile lines between ages 0-2 weeks (NB: It is difficult to characterise normal patterns of postnatal weight loss; babies who lose more than 10 per cent of their birth weight in the first two weeks require a full well-being assessment and support with feeding).
- UK infants should, on average, be on the same centile at two weeks as at birth (Wright et al, 2010).

Further information and resources can be downloaded from www.growthcharts.rcpch.ac.uk.

Conclusion

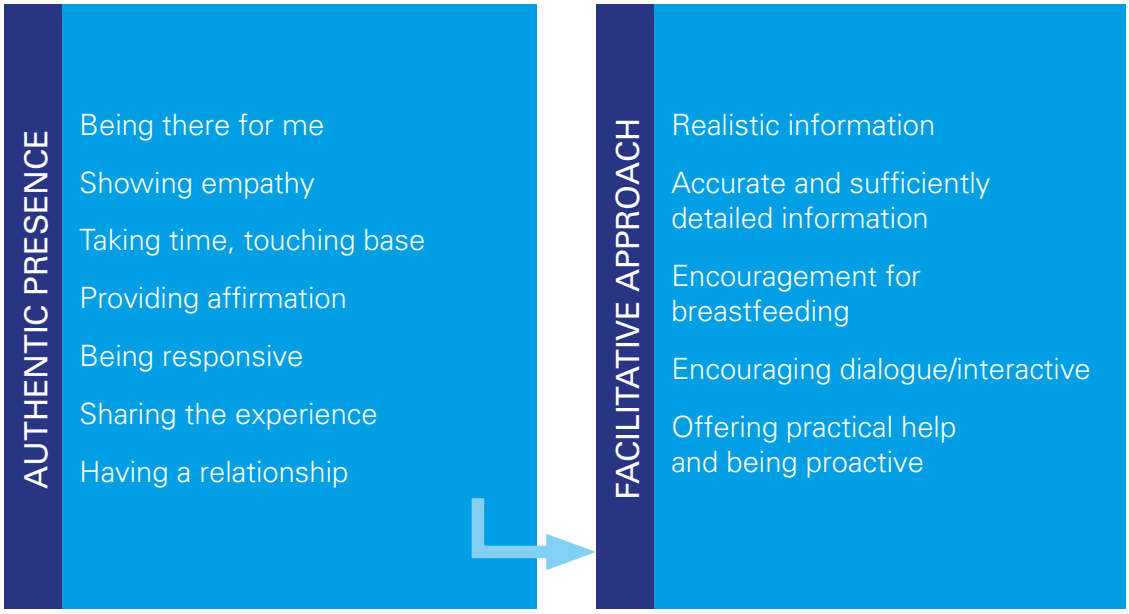
Enabling mothers to get breastfeeding off to a good start builds on foundations laid in pregnancy and immediately post-birth. Support aims to build a mother's confidence and ability to feed her baby based on her individual needs, preferences and desires from a biological, psychosocial and cultural perspective.

- The need for practical skills is recognised and should include: how to recognise baby's feeding cues, positioning, attachment, milk production and milk transfer, responsive feeding, expressing of breastmilk and how to manage common breastfeeding problems.

- Support should be scheduled, predictable, face-to-face and offered by skilled breastfeeding supporters, lay or professional.
- Parents who formula feed their baby, partially or exclusively, should be given information and support, in a non-judgemental way, to minimise the risks and promote mother-infant bonding in a way that does not leave the woman feeling guilty.
- Baby's well-being should be monitored; an infant feeding assessment should be carried out at each consultation; additional help should be sought if appropriate and all mothers should know how to access further support and information.
- Baby's weight should be monitored in accordance with the UK-WHO growth charts.

Adopting a facilitative style to support women to feed and care for their babies will enhance the woman's experience (Figure 16).

Figure 16: **Services should adopt models of care that promote relationship-based support**



Joanna Briggs Institute (2010). *Women's perceptions and experiences of breastfeeding support (Review) Best Practice: evidence based information sheets for health professionals.* 14(7)1-4.

4.4. Standard 4: Support mothers to make informed decisions regarding the introduction of food or fluids other than breastmilk

The evidence discussed in this section relates to:

Stage 3
Parents' experiences of maternity services

Standard 4: Support mothers to make informed decisions regarding the introduction of food or fluids other than breastmilk

Parents' experiences of health-visiting services

Standard 2: Support mothers to make informed decisions regarding the introduction of food or fluids other than breastmilk

Parents' experiences of children's centres

Standard 2: Protect and support breastfeeding in all areas of the service

This standard requires that mothers who breastfeed are provided with information about why exclusive breastfeeding is ideal and why, when babies are not exclusively breastfed, partial breastfeeding is important. Mothers who are partially breastfeeding should be supported to maximise the amount of breastmilk the baby receives.

Mothers who give other feeds in conjunction with breastfeeding are enabled to do so as safely as possible and with the least possible disruption to breastfeeding.

Mothers who bottle feed are enabled to do so as safely as possible.

Mothers who bottle feed are encouraged to hold their baby close during feeds, maintain eye contact and offer the majority of feeds to their babies themselves to help enhance the mother-baby relationship.

Introduction

Based on the evidence (Kramer and Kakuma, 2002), WHO recommends that all infants in the developed and developing world should be exclusively breastfed for six months. Across the world, approximately 35 per cent of 0-6 month old babies are exclusively breastfed and in the UK this is 1 per cent (McAndrew et al, 2012). According to the UN Convention on the Rights of the Child (UNCRC) (see Appendix 6) every infant and child has the right to good nutrition. Optimal breastfeeding and complementary feeding practices could save the lives of 1.5 million children under five every year and could prevent 830,000 deaths if every child were breastfed within the first hour of life (WHO, 2010; Mason et al, 2013).

WHO and UNICEF recommend:

- Early initiation of breastfeeding within one hour of birth
- Exclusive breastfeeding for the first six months of life; and
- The introduction of nutritionally adequate and safe complementary foods at six months, together with continued breastfeeding up to two years and beyond.

WHO (2010) Infant and young child feeding. Fact sheet No. 342
http://bit.ly/al7gUG

Prior to 2001, WHO recommended exclusive breastfeeding for four to six months. Some have called into question the evidence supporting exclusive breastfeeding for six months. There have been several articles challenging this recommendation without convincing evidence (Fewtrell et al, 2007; Fewtrell, 2011). In 2008, the European Society for Pediatric Gastroenterology, Hepatology and Nutrition (ESPGHAN) recommended that all infants should start complementary feeding between 17 and 26 weeks of age (Agostoni et al, 2008). In response to the debate, a further review of controlled clinical trials and observational studies (2001-2011) compared the child and maternal health outcomes with exclusive breastfeeding for six or more months versus exclusive breastfeeding for at least three to four months with mixed breastfeeding until at least six months (Kramer and Kakuma, 2012). The results reaffirm previous findings that "the available evidence demonstrates no apparent risk in recommending, as a general policy, exclusive breastfeeding for the first 6 months of life in both developing and developed country settings" (Kramer and Kakuma, 2012, p2).

These findings are supported by WHO in a statement published in January 2011. Exclusive breastfeeding for six months has several advantages over exclusive breastfeeding for three to four months followed by mixed feeding. These include:

- Lower risk of gastrointestinal infections
- More maternal weight loss after birth
- Delayed return of menstrual periods.

In response to the debate, Cattaneo et al (2011) discuss ESPGHAN's 2008 recommendation for early introduction of solids and further refute the argument. They argue that ESPGHAN's position should be questioned as many members of the society have a 'conflict of interest' having performed consultancy work/accepted research monies from infant formula companies and as such their recommendations in relation to the introduction of other foods into the diet may have been influenced by this association. While some published work by the authors clearly declares where there is a conflict of interest, Cattaneo et al argue that other published work does not. As a consequence, the debate risks 'getting in the way' of helping parents to recognise and be responsive to their infants feeding cues and developmental readiness for other foods. Further, the conflict undermines and confuses parents and may impact on their self-confidence in responding to their infant's needs.

The evidence ESPGHAN presents focuses on disease prevention, has weak evidence and does not consider infant feeding from a social, cultural, health and development perspective. Early introduction of other foods increases the early cessation of breastfeeding. Therefore it is imperative that health professionals help parents to recognise when their baby is ready to start taking foods other than breastmilk.

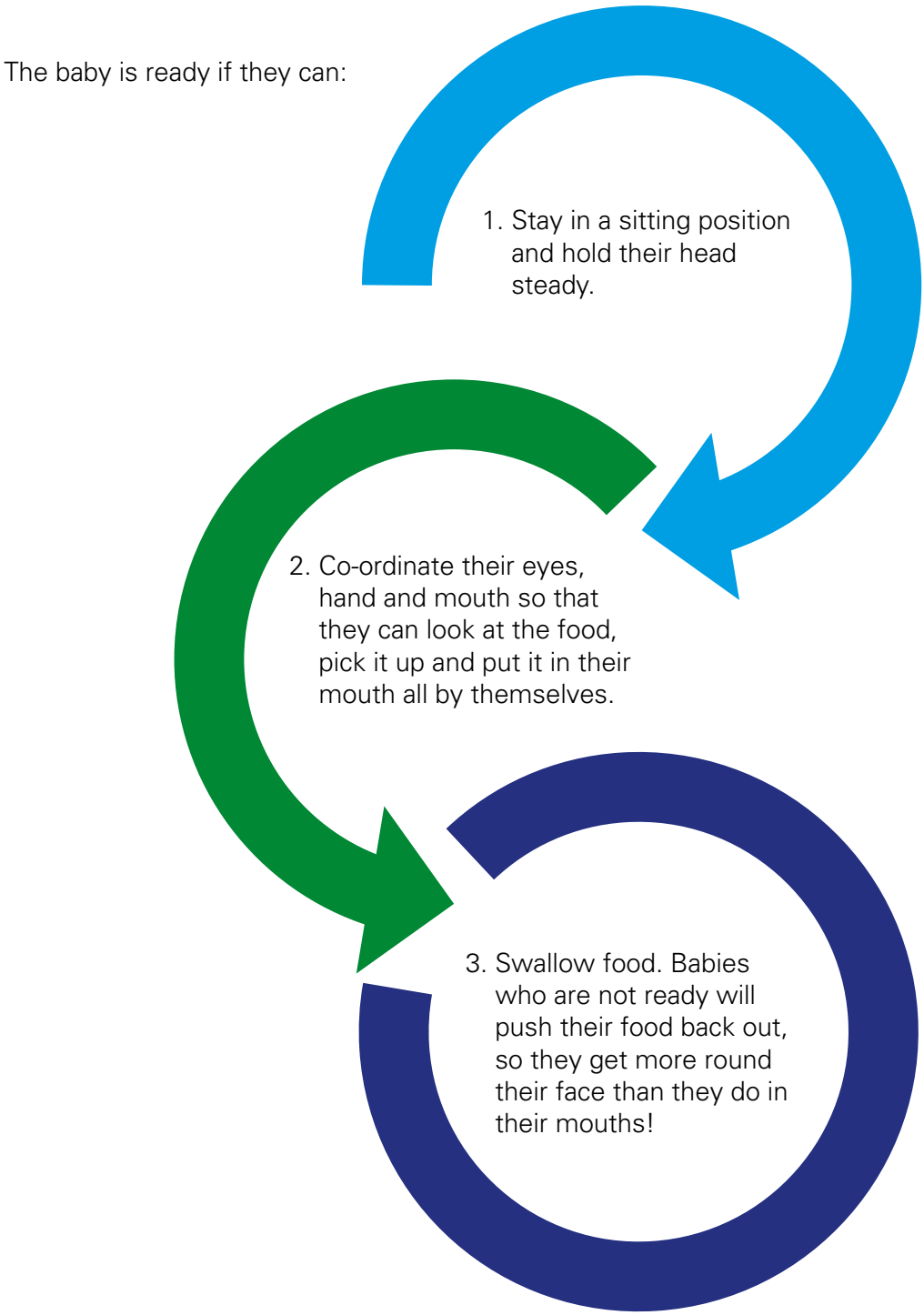
When to introduce foods other than breastmilk to a baby

The nutritional needs of a healthy term infant can be met by exclusively breastfeeding for the first six months. A child's short- and long-term health is not improved by complementary feeding before this time (Dewey and Lutter, 2001) (see also Chapter 4, section 4.3). If a mother's nutritional status is compromised, she and the baby may require vitamin supplementation (for example, vitamin D deficiency can occur among infants who do not receive enough exposure to sunlight). Giving the infant vitamin D drops can resolve this while the mother continues to exclusively breastfeed.

By around six months, most infants are developmentally ready for other foods and human milk alone will not meet the infant's nutritional needs (Dewey and Lutter, 2001). Infants should be offered other foods alongside breastmilk for two years and beyond (WHO, 2010 & 2013b). In terms of their neuromotor

development, the majority of infants will be ready to start other foods after six months of age. Infants become physiologically ready to achieve this milestone, rather like their readiness for walking and talking (Cattaneo et al, 2011). The Start4Life/UNICEF leaflet Introducing solid food (Department of Health/ UNICEF, 2011) sets out guidelines for parents to help them in assessing when their baby is ready to take their first steps to eating other foods alongside breastmilk or infant formula (see Figure 17).

Figure 17: Three signs that indicate that an infant is ready for complementary foods



It is rare for these signs to appear together before six months.

Helping parents respond to their baby's needs will enable them to feel confident as they begin to introduce a variety of foods into the baby's diet. If it is too early, the baby will let the parent(s) know by refusing the food; when the baby is ready he/she will begin to taste, chew and swallow the food. See Figure 18 for guiding principles on the introduction of complementary foods (WHO, 2010).

Figure 18: Guiding principles on the introduction of complementary foods

- Continue frequent, baby-led breastfeeding for two years or beyond
- Practice responsive feeding: feed slowly & patiently, encourage babies to eat but do not force them, talk to the infant and maintain eye contact
- Practice good hygiene and food handling
- Start around 6 months with small amounts and increase gradually
- Increase thenumber of feed times, 2-3 meals per day 6-8 months, 3-4 meals per day 9-23 months, with snacks as required
- Feed a variety of nutrient rich foods
- Use vitamins and minteral supplements as needed e.g. Vit.D
- When baby is sick; increase fluid intake, include more breastfeeding and offer soft, favourite foods.

WHO (2010) *Infant and young child feeding.* Factsheet No. 342

Chapter 4: **Parents' experiences**

The evidence is clear that babies do best if complementary foods are delayed until the infant is six months old (Kramer, 2010). Compared to the 2000 Infant Feeding Survey, the proportion of babies given other foods by four months of age in the UK had reduced significantly (85 per cent in 2000 to 51 per cent in 2005, 30 per cent in 2010). However, nearly all babies (98 per cent) had been introduced to other foods in their diet by six months (McAndrew et al, 2012). The introduction of other foods before four months has negative health outcomes for the infant such as an increase in respiratory illness in childhood (Arden, 2010). In 2003, the UK governments adopted the WHO recommendation that parents should delay the introduction of complementary foods until six months. Health professionals' messages to parents supporting this information are often poor and parents report receiving conflicting information on when and how to introduce other foods into the diet.

An in-depth understanding of the factors involved in parents' decision-making on when and how to give others foods to their infants is needed if support is to improve. A longitudinal qualitative study by Hoddinott et al, 2010b, explored the infant feeding experiences of mothers from disadvantaged families, antenatally until six months postnatal. Findings suggest that parents would like more help interpreting information and a less rigid approach:

"The introduction of solids is often an intuitive process and is triggered by the meanings attached to changes in the baby's behaviour and to parental priorities. The meaning of food is not just about or even about health and nutrient value, but includes comfort, entertainment, pleasure, a desire to demonstrate developmental progress, to be 'advanced' and fit the desired social network, norm for infant growth and development."

Hoddinott et al (2010b)

In 2010, Arden conducted an internet survey of educated women. Open-ended questions were analysed qualitatively using content analysis. This case study approach is used as an example to illustrate factors that influenced women's decision-making processes and actions in relation to their actual infant feeding behaviours.

The results of the study found that mothers faced real conflict over deciding when to feed their baby solids, between the recommendation to wait until six months and perceived signs of when they thought their baby was ready. The later the mother introduced solids, the poorer they rated health visitor advice and support. In support of these findings, Arden (2010) reports that health visitors did not give women consistent advice on when to introduce other foods into the diet. Women receive mixed messages from health professionals and the media. This is compounded by the debate in the literature that continues to question the validity of the evidence (see above) and continues to relay conflicting messages to those responsible for health education.

In addition, the research describes other factors found to influence a woman's decision to introduce other foods. These include:

- The opinion of the infant's maternal grandmother
- Living in a deprived environment
- Lack of support from family and friends
- Returning to work
- External influences such as labelling of baby food jars suitable for four to six months and non-evidence based, non peer-reviewed internet resources.

Other signs that are often misinterpreted as the baby being 'ready' for solids are: slow weight gain of the baby, and a perception that the baby is ready because he/she appears hungry.

For some mothers, these factors can result in a decision to give formula feeds to a baby who is exclusively breastfed. For others, it can mean the introduction of other foods before the baby is ready.

This research (while limited to educated, white women) highlights the need for further research, across the wider population, into the conflicts women face in their decision-making on how best to introduce other foods. It also looks at the education, training and skills required by health professionals to support women to make the best decisions for their baby based on the best available evidence (Arden, 2010).

Baby-led weaning

Observational research carried out by Rapley (2006) investigated babies' responses to the offer of foods, often finger-sized, that the baby could grasp and put into their mouth, exploring for themselves the touch, taste, texture and opportunity of feeding themselves while joining in with family meals. This gives the baby control of what they eat and hence the term 'baby-led weaning' (BLW) as opposed to parent-led weaning, where the baby is fed pureed food with a spoon. Rapley and Murkett (2008) propose that BLW helps the infant learn about healthy family food and develops the babies' chewing skills, manual dexterity and hand-eye co-ordination.

For some parents, BLW has been embraced with enthusiasm. However, training for health care professionals has been slower, resulting in a mismatch between knowledge and skills and support for parents. Health care professionals have expressed concerns about the risks to the child of iron deficiency, inadequate energy intake and choking (Cameron et al, 2012a). Parents who follow BLW are more likely to have breastfed, introduce complementary food later, be more highly educated themselves and express higher levels of confidence in giving their infants complementary foods (Brown and Lee, 2010).

A review of the evidence by Sachs (2010) and Cameron et al (2012b) concludes that babies appear to have the capacity to feed themselves and parents can feel confident in current policy recommendations, as outlined by Start4Life (see Figure 20). However, further research is called for to realise the feasibility of this approach for all parents.

Breastfeeding, breast and formula feeding, formula feeding, breast and/or formula feeding and the introduction of other foods

When a parent decides to give other foods to a baby, they require information and support to do so as safely as possible. Studies on supplementation tend to involve either supplementation with other fluids in the early weeks or supplementation with other foods at four to six months. Various reports document some of the rationale behind these common practices and have been evidenced in a systematic review by Becker et al (2011) exploring the benefits and harms of supplementation for full-term healthy breastfed infants.

Supplements are more likely to be given in particular circumstances:

- Introduction of pre-lacteal formula feeds in the belief that colostrum is harmful.
- Early supplementation is more likely following caesarean section and where mother and baby are separated.
- Supplements may be given in the belief that they reduce maternal fatigue, by the health worker or family.

- Lack of health worker time to assist with breastfeeding.
- As a solution to perceived lack of milk or to make the baby sleep longer.
- Poor weight gain, perceived or real.
- Related to a belief that they will prevent dehydration, hypoglycaemia or neonatal jaundice.
- Early maternal return to work, lack of facilities to express breastmilk in the workplace.
- Disapproval from society for breastfeeding the baby out and about.
- Marketing of infant formula and 'follow-on milk'.

Key points:

- The use of follow-on formulas increased in the UK in 2010 (53% 2005 to 69% 2010). This may reflect more active marketing of follow-on formula in recent years (McAndrew et al, 2012).
- Worldwide, 92 million children under six months of age – two out of three babies – are either artificially fed or fed a mixture of breastmilk and other foods.
- The baby milk formula business is worth £16 billion (Mason et al, 2013).

Where breastfeeding and lactogenesis is delayed, and there is no support provided for the mother to initiate lactation and feed her infant, there is a serious risk of dehydration which could lead to further complications. Research within the UK (Oddie et al, 2013) suggests that severe hypernatraemia in newborn term infants is rare and that infants will present with weight loss, breastfeeding difficulty and no stooling.

Early diagnosis and prevention are key, and practice should include:

- supporting mothers to position and attach the baby at the breast, particularly when there are known difficulties
- weighing babies and taking a skilled breastfeeding history using recognised tools with a focus on stool output in the early days
- full review or cases until feeding difficulties are overcome, weight gain established and baby's well-being assured.

Full implementation of the Baby Friendly standards (UNICEF BFI UK,2012) will help to prevent the onset of this serious condition and admittance to hospital. Breastfeeding mothers should have a full assessment of their breastfeeding by both midwives and health visitors during the first two weeks after birth using a standard assessment tool. This will include: reviews of positioning and attachment, feed frequency, weight gain and urine and stool output. Adequate referral and follow up mechanisms for any mother struggling with her breastfeeding is essential to help prevent dehydration and severe weight loss.

There are few occasions when supplements are actually required; rather the mother requires support to find solutions to continue to breastfeed, as discussed in previous sections. Additional foods or fluids may

be needed for medical reasons in specific situations related to the infant or the mother. Whenever not breastfeeding or stopping breastfeeding is considered, the benefits should be weighed against the risks posed by the presence of the specific condition, donor breastmilk use should be considered as a viable option. Where the mother is taking drugs, compatibility should be checked with breastfeeding prior to use.

For infants born to HIV-infected mothers, antiviral drug interventions now allow exclusive breastfeeding until six months prior to the introduction of other foods. Worldwide, where avoidance of breastfeeding is not acceptable, feasible, affordable, sustainable or safe, exclusive breastfeeding together with antiretroviral drugs helps to prevent HIV transmission (Horvath et al, 2010; WHO, 2010; WHO et al, 2010).

In the UK, where formula milk is available, it is recommended that mothers who are known to be HIV-infected refrain from breastfeeding from birth, except where exceptional circumstances prevail, e.g., a mother who is an asylum seeker may not have access to formula feed, sterilising equipment and may need to return to her own country (Taylor et al, 2011).

In addition to the guidance laid out in Figure 22 and Tables 9 and 10, other factors need to be considered. Evidence suggests that exclusive breastfeeding has a stronger effect on protecting the infant from sudden infant death syndrome (SIDS) (Hauck et al, 2011). Therefore, parents need information on the relationship between caring for their baby at night, breastfeeding, formula feeding, bed-sharing and SIDS (Blair et al, 2010). Table 9 outlines current information available for health professionals and parents on how to minimise the risk of formula feeding.

Table 7: Resources available for health professionals and parents on how to minimise the risks of formula feeding

DETAILS OF INFORMATION	CONTENT
UNICEF (2010a) *A guide to infant formula for parents who are bottle feeding* www.unicef.org.uk/formulaguide	A leaflet is designed to help parents who are not breastfeeding understand about different infant formulas.
UNICEF (2010b) *The health professional's guide to: 'A guide to infant formula for parents who are bottle feeding'.* www.unicef.org.uk/formulaguide	An information guide designed to provide some background for health professionals, when supporting parents and using the parents' leaflet.
First Steps Nutrition Trust (2012) *Infant milks in the UK: A practical guide for health professionals.* Authors: Crawley H & Westland S. http://bit.ly/18xBvx3	A report providing information on the composition of infant milks available for sale in the UK – updated every quarter.
First Steps Nutrition Trust (2013) *Specialised infant formula in the UK: Additional information for health professionals* Authors: Crawley H & Westland S. http://bit.ly/15JkVq8	This report summarises data on specialised formula available in the UK. These milks are not available over the counter and are prescribed for special medical conditions
UNICEF/DH (2012) *Start4Life: Guide to bottle feeding* http://bit.ly/15OPZfe	A leaflet intended to be used as a teaching aid when health professionals are teaching parents how to make up feeds as safely as possible; what formula to use; preparing infant formula and sterilising equipment; storing a feed; and how to bottle feed your baby.
UNICEF (2011) *Caring for your baby at night* www.unicef.org.uk/caringatnight	A leaflet designed to offer helpful, practical advice on coping at night. It covers: getting some rest, night feeding, safe sleeping environments and helping a baby to settle.
UNICEF (2011) *Health professionals' guide to caring for your baby at night.* www.unicef.org.uk/caringatnight	A guide to help health professionals who will be using caring for your baby at night with new parents. It looks at the evidence underpinning the recommendations in the leaflet and offers guidance on discussing these issues.
Scottish Cot Death (2011) *Reduce the risk of cot death* http://bit.ly/1eMrv4B	The Scottish Department of Health has produced a leaflet about reducing the risk of cot death. It explains the safest way for the baby to sleep (on their back, in a cot beside the bed); information on maintaining an even temperature; what blankets or covers to use; the risks associated with smoking, drinking alcohol, drug use; using a dummy at night; and the benefits of breastfeeding.

Enhancing the mother-infant attachment when bottle feeding

Previous sections discuss support for the mother and her baby at birth and in the early days. Building a meaningful relationship with her baby is as important for a mother who is bottle feeding (formula or breastmilk) as a mother who is breastfeeding. Table 10 describes practical ideas that support successful bottle feeding.

Table 8: Ways to enhance a relationship between mother and baby when bottle feeding

- Sit comfortably, always hold baby close, look into the baby's eyes when feeding. This helps the baby to feel safe and loved.
- Hold the baby fairly upright, head supported so that they can breathe and swallow.
- Brush the teat against the baby's lips and when the baby opens their mouth wide, allow them to draw in the teat.
- If the teat becomes flattened while feeding, pull gently on the corner of the baby's mouth to release the vacuum.
- Offer the baby short breaks during the feed, he/she may need to 'burp'.
- The baby will stop feeding when they have had enough.

UNICEF/DH (2012) Start4Life: Guide to bottle feeding
http://bit.ly/14OCbya

Figure 19: Responsive feeding of older infants and children

1. Feed infants directly and assist older children when they feed themselves, being sensitive to when they are hungry and satisfied.
2. Feed slowly and patiently, and encourage infants to eat, but do not force them.
3. If children refuse foods, experiment with different combinations.
4. Minimise distractions at meal times.
5. Remember that feeding times are periods of learning and love – talk to children during feeding with eye to eye contact

> *"Optimal complementary feeding depends not only on what is fed, but also on how, when, where and by whom the child is fed." p. 14*
>
> Dewey & Lutter, 2001

Conclusion

The nutritional needs of a healthy term baby can be met by exclusively breastfeeding for the first six months of life. Advancing understanding, through research, demonstrates how breastmilk contributes to the development of the infants gut and subsequent protection against pathogens. In addition it aids the development of the immune system and thus contributes to the lifelong health and well-being of the infant.

Where exclusive breastfeeding is not achievable, mothers should be supported to continue to partially breastfeed. Setting individual achievable goals for women (Hoddinott et al, 2012a) and preventing and treating problems quickly will support women to breastfeed for longer. When a parent decides to give other foods to a baby, evidence-based information and support should be provided to enable this to happen as safely as possible.

'Responsive feeding' is used to describe positive behaviours when supporting infant and child feeding from a psycho-social perspective and is a useful reference point for all mothers whether feeding by breast, bottle or when introducing complementary feeds (Dewey and Lutter, 2001).

Emerging research suggests that longer breastfeeding duration may increase a mother's responsiveness to their infant's feeding cues, suggesting that the mother may show greater awareness of the infant's ability to communicate fullness after the initiation of complementary feeding (DiSantis et al, 2013). This is important because, as the infant gets older, a chronic mismatch of caregiver responsiveness to infant-feeding cues has been linked to adverse child growth patterns. In particular, nonresponsive feeding, such as feeding when a child is not hungry, is linked to overweight and obesity (DiSantis et al, 2011; Gross et al, 2010; Hurley et al, 2011).

4.5. Standard 5: Support parents to have a close and loving relationship with their baby

The evidence discussed in this section relates to:

Stage 3
Parents' experience of maternity services

Standard 5: Support parents to have a close and loving relationship with their baby

Parents' experience of health visiting services

Standard 4: Support parents to have a close and loving relationship with their baby

Parents' experience of neonatal units

Standard 1: Support parents to have a close and loving relationship with their baby

Parents' experience of children's centres

Standard 3: Support parents to have a close and loving relationship with their baby

and is cross referenced to:

Stage 3
Parents' experience of maternity services

Standard 2: Support all mothers and babies to initiate a close relationship and feeding soon after birth

Building on the previous sections, this standard explores the evidence underpinning practice to support parents to have a close and loving relationship with their baby. This includes encouraging parents to facilitate skin-to-skin contact throughout the postnatal period; learning to recognise and support their baby's developmental abilities and needs and how best to respond to these; including frequent touch, sensitive verbal and visual communication; keeping babies close; baby-led (responsive) feeding; caring for their baby at night; and safe sleeping practice.

Introduction

A growing body of evidence is now available that informs our understanding of how a child's brain develops and the impact the emotional world into which they are born has on their future health and well-being (NICE, 2012a, NICE, 2013). If infants are exposed to a world that is calm and predictable, then their brain will develop in a calm and predictable way, and they will carry that 'motorway system' with them, expecting that the world will be calm and predictable (Grille, 2010; Sunderland, 2007; Zeedyk, 2008).

For decades, the importance of emotional attachment has been understood. John Bowlby explained that attachment theory works on the principle that we all have an innate need for a relationship. This need is met initially by the attachment of mother and baby and this is essential for emotional maturation (Gomez cited in Bertram, 2008).

Bowlby's work builds on the theory that developing a secure base is critical for the child's future. Mary Ainsworth, a colleague of Bowlby's, conducted observational studies of mothers and their one-year-old babies. Her work showed that the type of attachment developed by babies depends on the quality of care they have received:

- The securely attached baby is upset by the mother's disappearance and demands attention from her on her return. The baby then continues to play and explore happily.
- The insecure – avoidant baby does not seem particularly upset when the mother leaves, and ignores her when she returns. However, the baby is unable to get on with his/her play and watches the mother intently after she returns.
- The insecure – ambivalent baby was panicked by the mother's absence, and both clung to her and fought her off when she returned. They too did not return to play.

(Adapted from the work by Mary Ainsworth, cited in Bertrum L (2008) Supporting postnatal women into motherhood: a guide to therapeutic group work for health professionals. Radcliffe. UK. p. 13)

Bowlby believed that early attachments between the mother and the baby are the most important aspects for the child socially, psychologically and biologically. He discussed the importance of facial expression, posture, tone of voice and other physiological changes, believing they were all vital to the development of the mother-baby relationship and vital to survival of the species (Bowlby, 1969).

Later work by the paediatrician Donald Winnicott viewed human beings as having an innate ability to care for their baby and in the 1960s and 1970s encouraged health professionals to "foster the mother's belief in herself". He believed in supporting mothers to be 'good enough', encouraging the mother to hold, touch and respond to her baby when he/she is ready (Bertrum, 2008).

More recently, advances in the understanding of neuroscience demonstrate how good attachment behaviours facilitate the expansion of the child's coping strategies by ensuring efficient right brain development and function. The right brain is responsible for broader aspects of communication, which is not just about 'cold cognition' but emotionally intelligent forms of communication that support the ability of the child to form strong social bonds (Buck, 1994). This is important for the development of empathy and perception and integration of emotional responses in others. Social and emotional intelligence rely heavily on right brain function and early developing right brain circuits are shaped by the type of attachment the baby experiences (Schore, 2001, 2002). Babies are completely in right brain mode and remain in right brain dominance through toddlerhood. New mothers are under the influence of oxytocin (which acts both as a neurotransmitter and peripheral hormone) and if supported to keep their babies close to them, respond instinctively through gazing at and stroking their babies. They often describe themselves as having 'baby brain' because of difficulties remembering instructions and facts. Schore (2002) describes this as the concept of 'affective synchrony', which appears to promote right brain dominance in new mothers in order to help them respond, communicate and form attachments with their babies.

Schore (2011) goes as far as to state that "there is now agreement that the essential task of the first year of human life is the co-creation of a secure attachment bond of emotional communication between the infant and his/her primary caregiver".

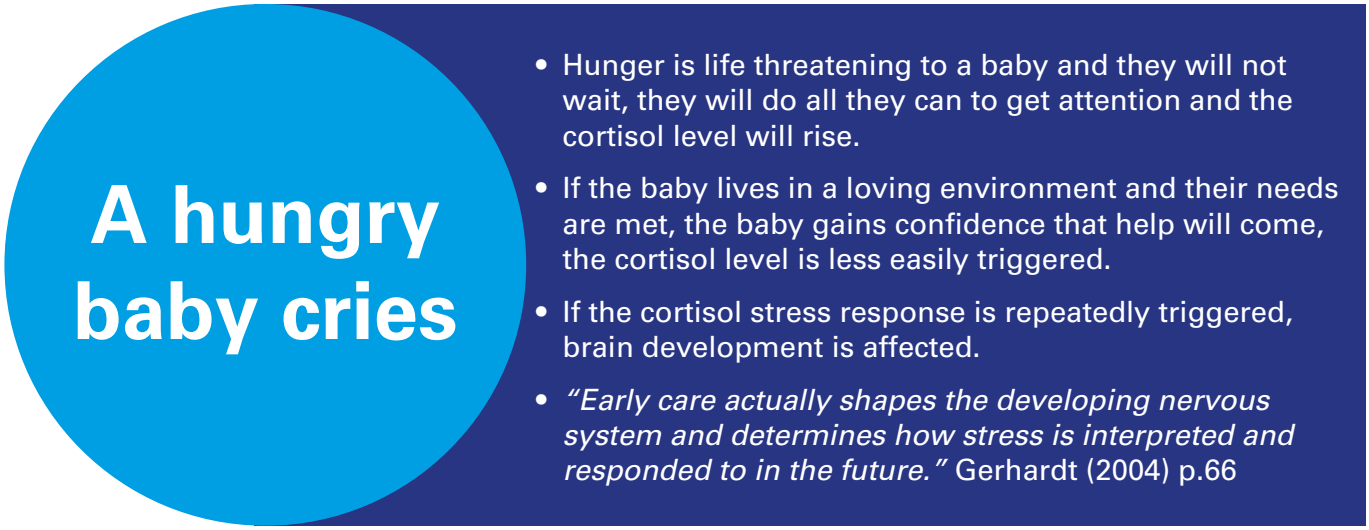
Gerhardt, a psychoanalytic psychotherapist, explains *Why Love Matters* so much for a baby's early development. Supported by others, Gerhardt's work, (2004) explains how the orbitofrontal cortex area of the brain develops postnatally as a result of human interaction and the experience that surrounds the baby (Parsons et al, 2010; Rinaman et al, 2000; Sunderland, 2007). The right brain also controls a person's ability to cope with stress. Through research into neuroscience, Gerhardt goes on to explain how cortisol (the stress hormone) can affect a baby's early emotional development.

Separation from those that we depend on raises cortisol levels. Work with Romanian orphans suggests that there may be a critical period when our stress response systems are set up. Early separation and, importantly, continued separation of the baby from its mother (or significant other caregiver) increases corticotrophin releasing factor (CRP) in the amygdala. Babies from the orphanages who were adopted

before four months of age seemed to be able to regain their normal stress responses to life's situations, whereas babies adopted after four months continued to have high cortisol levels that adversely affected their brain development (Chisholm et al, 1995 and Gunner et al, 2001 cited in Gerhardt, 2004 p.77). CRP is thought to be the biochemical reaction to fear, suggesting that even short separations for a baby from food and protection are very frightening, particularly for breastfed young mammals, including humans.

Children who have the opportunity to build up early secure attachments do not release high levels of cortisol under stress in the long term, whereas insecure children continue to release high levels of cortisol, which adversely affects their brain development and subsequent behaviours (see Figure 20). Investing in a network of support may help to manage stress in infancy and in adulthood. Furthermore, there is a link between emotional insecurity and cortisol dysfunction: "A key feature of insecure attachment is a lack of confidence in others' emotional availability and support" (Gerhardt, 2004).

Figure 20: Meeting baby's needs: keeping cortisol levels low



Adapted from Bertrum L (2008) Supporting postnatal women into motherhood: a guide to therapeutic group work for health professionals. Radcliffe. p.16.

Investing in the future and providing an environment where parents can be supported to build secure attachments with their child at an early age will help to develop a confident child with the emotional ability to regulate their cortisol levels and cope with stress (Shonkoff and Phillips, 2000; Shonkoff and Levitt, 2010; Sunderland, 2007).

Investing in the early years

Research demonstrates the critical impact of a child's early 'environment of relationships' on the developing brain architecture during the first months and years of life (National Scientific Council on the Developing Child, 2004). Infant cues such as smiling, crying or other facial expressions are powerful motivators of human maternal behaviour. In addition, oxytocin (the neurohormone of attachment) is released during breastfeeding and promotes positive maternal behaviours in response to the baby's expressions and activities (Strathearn et al, 2012). In a study of first-time mothers by Strathearn (2009), peripheral oxytocin response was seen to be higher in mothers who demonstrated secure attachments and this positively correlated with brain activation in the child. The authors suggest that individual

differences in maternal attachment may be linked to levels of dopamine and oxytocin within the neuroendocrine systems (Strathearn et al, 2009).

A variety of factors impact on a mother's ability to interact and bond with her baby. Difficulties may be compounded if the mother has a history of other problems such as psychiatric problems, drug/alcohol misuse, domestic violence, post-traumatic stress disorder after the birth or postnatal depression. Maternal mental health and well-being, anxiety and depression, in pregnancy and postnatally, can all impact on the physiological and behavioural functioning of the baby (NICE, 2012a). Maternal depression is associated with increased basal cortisol levels and babies born to mothers with depression are less likely to breastfeed. Mothers with maternal depression have been shown to be less responsive to their infants, and have increased negative reactivity to the infant at two and four months old (Bergner et al, 2008; Bergman et al, 2010; Dennis CL, 2009).

> *"Anecdotal evidence suggests that as many as 1:5 women may experience difficulties in bonding with their baby, and this can be associated with very strong feelings of guilt, shame and inadequacy."*
>
> RCM (2012) *Maternal Emotional Well-being and Infant Development: A Good Practice Guide for Midwives* www.rcm.org.uk/EasySiteWeb/GatewayLink.aspx?alId=306309

Investing in breastfeeding and relationship building is now recognised as a positive, proactive mechanism to promote mother-infant attachment behaviours and the mental health and well-being for the mother and the child (Britton et al, 2011; Ekstrom et al, 2006; Groër, 2005; Gutman et al, 2009; Heikkilä et al, 2011; Kim et al, 2011; Oddy et al, 2009; Oddy et al, 2011; Sacker et al, 2006; Strathearn et al, 2009; Sunderland, 2007; Unite/CPHVA, 2008). Close body contact, skin-to-skin, postnatally improves health and well-being, physiologically and mentally for both the mother and infant (Winberg, 2005). Touch is very powerful. Infant massage may help early interaction and attachment behaviours between a mother with depression and her infant (Onozawa et al, 2001).

Evidence also suggests that exposure to toxic stress in infancy and childhood has significant health consequences in adulthood. Studies report an increased risk of heart disease and depression (Dong et al 2004; Chapman et al 2004). Although the wider role of oxytocin is not fully understood, it does appear to have healing properties for both the brain and the physical body due to its function in regulating the stress response and its ability to lower cortisol levels (Uvnäs-Moberg, 2005).

Supporting healthy relationships

The baby's brain grows rapidly from birth, but at one year will have developed 70 per cent of its 'wiring' for the future and 90 per cent by age three (see figure 22 and Zeedyk, 2008). Much of this is due to neural developments and one of the most significant impacts is the parent-infant relationship (Gerhardt, 2004). Work carried out by the RCM (2012) describes positive actions parents can take to promote attachment and key aspects to understanding how parents interact with their newborn baby (see Figure 21 and Table 11).

Figure 21: Practical ways to help parents interact with their infants

Adapted from RCM (2012) *Maternal Emotional Well-being and Infant Development: A Good Practice Guide for Midwives* p.16 www.rcm.org.uk/EasySiteWeb/GatewayLink.aspx?alId=306309

Figure 22: Brain development synapse density over time

(Diagram adapted from Corel JL, The postnatal development of the human cerebral cortex. Cambridge, MA; Harvard University Press; 1975 cited in The Urban Child Institute http://www.urbanchildinstitute.org/why-0-3/baby-and-brain (accessed 25th July, 2013)

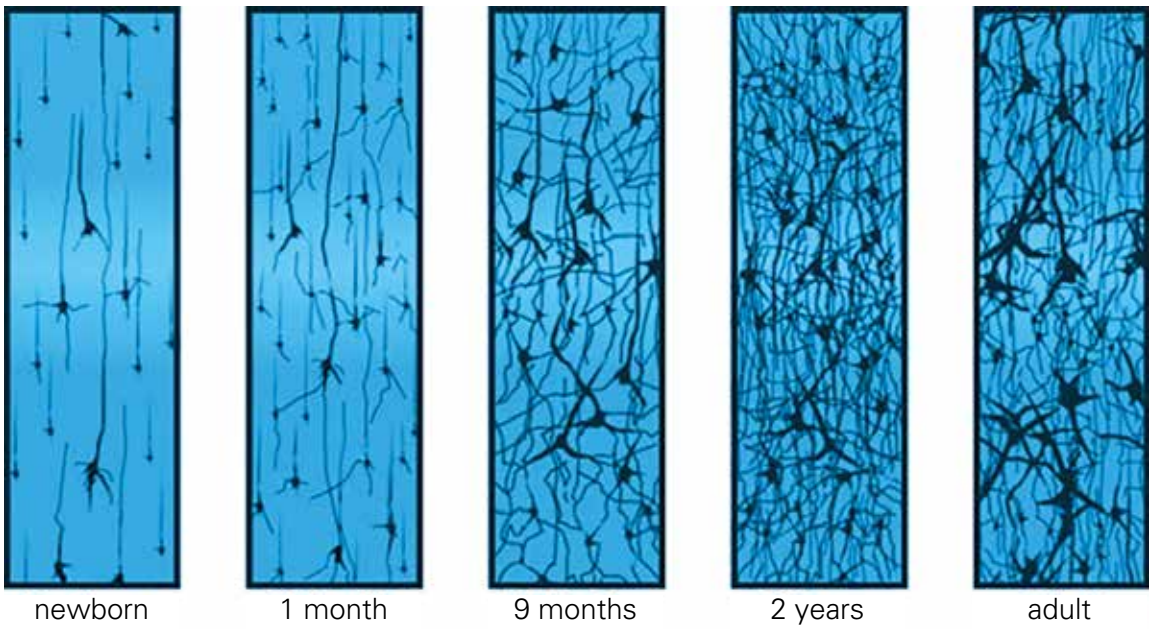


Table 9: Maternal emotional well-being and infant development: key aspects of early parenting

KEY ASPECT OF PARENTING	EVIDENCE BASE	DESCRIPTION
Attunement	Stern D (1985). *The Interpersonal World of the Infant*. London: Karnac Books.	Refers to an empathetic sharing of emotions between parent and infant. Parents and infants are not attuned all the time; it is through healthy 'ruptures' followed by 'repairs' to attunement that learning takes place.
Reciprocity	Brazelton TB, Koslowski B, Main M (1974) *The origins of reciprocity: The early mother-infant interaction.* In: M Lewis and L Rosenblum. The effects of the infant on the care-giver. London: Wiley.	Involves the infant and adult taking turns in the communication, both being involved in initiating, sustaining and terminating the action. Young babies are social and will seek interaction. When babies fail to elicit a response or are overwhelmed by responses, they will eventually stop trying to engage.
Mirroring	Gergely G, Watson J (1996) The social biofeedback model of parent-affect mirroring. *International Journal of Psycho-Analysis* 77, 1181-1212.	Happens when parents mirror the emotion; babies recognise that their feelings are understood (baby cries, mother looks sad). 'Marked mirroring' indicates to the baby that his/her distress is not the parent's distress, and can be understood and contained by them.
Containment	Bion W (1962) *Learning from Experience.* London: Hienemann.	Occurs when the adult tries to take on board the infant's feelings and make them more manageable using touch, gesture and speech. A mother rocking a crying infant and saying sensitively "there, there, I know you have a hunger pain in your tummy but I am just going to feed you now" is helping the baby to manage his or her emotions both now and in the future.
Reflective function	Slade A (2005) Parental Reflective Functioning: An Introduction. *Attachment and Human Development* 7, 769-282	Refers to the parent's capacity to understand their baby's behaviour in terms of their internal states and feelings, and highlights the importance of parents recognising their baby as an individual with their own likes/dislikes and personality traits, rather than just in terms of their physical characteristics and behaviour. Infants need to have their individual gestures and behaviours accepted and to be celebrated as individuals; continuity of carers is essential to achieve this.

Information taken directly from: RCM (2012) *Maternal Emotional Well-being and Infant Development: A good Practice Guide for Midwives.* p.21 www.rcm.org.uk/EasySiteWeb/GatewayLink.aspx?alId=306309

Chapter 4: **Parents' experiences**

In 2012, NICE reviewed the evidence to define how the social and emotional well-being of vulnerable children under five could be effectively supported. They concluded that *"Social and emotional well-being is important in its own right, but it also provides the basis for future health and life chances"* (p. 18, NICE 2012a).

The guidance identifies several factors that impact on social and emotional well-being:

- The child's relationship with their mother
- The mother's ability to provide a nurturing relationship
- Living circumstances, family environment, social networks and employment.

Living in poor circumstances does not prevent parents providing a loving and nurturing environment. However, children living in disadvantage are more likely to be exposed to complex social factors such as parental substance misuse, mental illness and domestic violence. In these circumstances, children are more vulnerable to experiences of social and emotional neglect.

Recommendations of the NICE guidance include adopting a 'Life course perspective' starting before birth with a focus on social and emotional well-being. Health professionals should identify vulnerable infants and children and assess their needs, highlighting factors that pose a risk to the child. If and when a family is identified at risk, a series of antenatal and postnatal home visiting should be offered, including activities that help to achieve specific goals in relation to:

- How sensitive the mother is to her infant's needs
- The mother-infant relationship
- Home learning – language and communication with the infant
- Parenting skills and practice.

Baby massage and video interaction guidance have been shown to improve maternal sensitivity and mother-infant attachment.

To access the full report and further resources relating to the NICE guidance PH40, go to: http://guidance.nice.org.uk/PH40

Caring for the baby at night

Caring for a baby when you are tired and the baby is unsettled, wakeful or sick can be very stressful for parents and carers. In 2011, UNICEF developed an evidence-based leaflet to help parents care for their baby at night, ensuring that the baby sleeps in a safe environment and helping mothers to continue to breastfeed.

www.unicef.org.uk/caringatnight

Infant sleep behaviours

How babies are fed, human milk or cow's milk, and where babies sleep has changed dramatically over generations. In many non-Western populations, mothers and babies still sleep in continuous contact regardless of the time of day, whereas today, in societies such as the UK, mothers and babies are often separated for sleep because of changes in cultural practices or due to individual social circumstances. Parents often feel anxious and frustrated about their infant's sleep requirements and patterns, receiving conflicting messages from families and health professionals.

No matter how the cultural practices and social circumstances affecting infant care have changed, the biological sleep needs of the baby do not change, and neither does the physiology of breastmilk production. Newborn babies sleep for 16-20 hours a day, two to three hours at a time, falling to around 14 hours by one year (Galland et al, 2012). Night waking is normal in order for the infant to feed 'little and often'. This need ensures that the baby stays close to his/her mother for safety, warmth and food (Ball et al, 2006) while the frequent feeding maintains prolactin levels necessary for milk production (Uvnäs-Moberg, 1990).

Much research around infant sleep has been carried out on formula-fed infants or where the feeding method has not been defined within the research criteria (Henderson et al, 2010). This creates challenges when interpreting the evidence, as how the baby is fed has an impact on sleep duration (ISIS, 2012).

Where babies sleep

The environment in which a baby sleeps varies from home to home and recommendations on where babies sleep are made on the premise of increasing safety and reducing the risk of Sudden Infant Death Syndrome (SIDS). However:

> *"Infant safety is not the only issue that might affect where babies sleep, parents regularly make trade-offs between safety and other issues - sometimes on the basis of informed decisions, and sometimes due to unanticipated circumstances."*
>
> Where Babies Sleep isisonline.org.uk

NICE postnatal quality standards (2013) highlight that safer sleep should be discussed at every postnatal contact. This is to ensure that changing family sleep arrangements are discussed and because there are so many issues about baby sleep, not just bedtime but going out, car seats, holiday's etc. all of which should be considered with families to meet their individual needs.

When infants sleep in the same room as their parents rather than sleeping alone, this has been shown to reduce the risk of SIDS (Carpenter et al, 2004). Room sharing helps parents to respond to their baby's needs, facilitating night time feeding, helping them to hear their baby's waking and hunger cues and respond to them more quickly, which subsequently results in more sleep for both the mother and the baby.

A key message is that *"it is not the cot in the parents' room that is protective, but the presence of a parent or caregiver in that room…"* (Blair et al, 2006).

Based on this evidence parents are now advised to share a room with their baby. In addition, it is well known that, intentionally or otherwise, about half of all parents around the (Western) world also share a bed with their baby (47-48 per cent) particularly mothers who are breastfeeding (Ball, 2002; Blair and Ball, 2004; Hauck et al, 2008; Kendall-Tackett et al, 2010; Lahr et al, 2005; Santos et al, 2009; Tuohy et al, 1998; Willinger et al, 2003). Some mothers intend to bed-share in order to breastfeed, for the enjoyment, convenience and closeness to their baby. Others have no choice due to poverty and for others it happens accidentally (Ball, 2002; Ball and Volpe, 2013).

The risks to the baby increase when parents share a bed without ensuring that the environment is as safe as possible. Studies examining infant deaths while bed-sharing often present known risk factors

that could have been avoided, such as a parent bed-sharing under the influence of drugs or alcohol (Blabey and Gessner, 2009; Blair et al, 2009).

Strong messages for all parents to 'stop' bed-sharing to reduce the risks of SIDS can lead to more hazardous behaviours. For example, in the last decade there are indications of an increase in 'sofa-sharing', particularly among white British women (Ball et al, 2012). The sofa is the only sleep environment in which SIDS deaths have increased in recent years, up from 6 per cent in 1993-96 to 16 per cent in 2003-06 (Blair et al, 2009).

Bed-sharing and breastfeeding

There is strong evidence that breastfeeding and bed-sharing have an interdependent relationship (Baddock et al, 2006; Ball, 2003; Ball et al, 2011; Blair and Ball, 2004; Quillin and Glenn, 2004; Rigda et al, 2000; Santos et al, 2009) and the issue of what to discuss with parents regarding parent-infant bed-sharing is controversial and confusing. Bed-sharing has advantages and dangers and views are informed by culture and personal belief.

There is no easy 'one size fits all' advice available for the complex issues surrounding a topic such as bed-sharing. The risks and benefits vary greatly from family to family and infant to infant (Ball and Volpe, 2013; Carpenter et al, 2013; Fetherston and Leach, 2012; Vennemann et al, 2012; Volpe et al, 2013).

In the early postnatal days, mothers will have skin-to-skin contact with their infants in bed and they may fall asleep, which some researchers have argued exposes the infant to risk of collapse (Becher et al, 2012). In order to reduce the risk, it is recommended that midwives check on the infant's condition frequently during the first two to three hours after birth, with particular emphasis on ensuring that the infant's position is safe and the nose and mouth are not occluded. The infant's well-being can then be enhanced without compromising the benefits of close contact for the mother and baby and the establishment of breastfeeding (Fleming, 2013). Using side-car cribs on postnatal wards has also been shown to be a safe means of facilitating proximity during a prolonged hospital stay. Research has indicated these do not impact on breastfeeding duration or exclusivity (Ball et al, 2011).

In the postpartum days and weeks, breastfeeding mothers who sleep near their baby get more sleep and report longer breastfeeding (Ball, 2003; Ball et al, 2006). The role of the health professional and breastfeeding support workers is to have a conversation with parents to help them assess their own individual circumstances and risks, and how these may change from day to day and night to night and the consequences of alternative sleeping locations.

The current body of evidence overwhelmingly supports the following key messages, which should be conveyed to all parents whether breast or formula feeding:

- The safest place for the baby to sleep is in a cot in the same room as the mother/father/carer.
- Sleeping with the baby on a sofa puts the baby at a high risk of SIDS and suffocation.
- We acknowledge that some parents choose to bed-share with their baby, or might do so accidentally, and so it is important to convey to parents that the baby should not share a bed with anyone who:
    - is a smoker
    - has consumed alcohol
    - or has taken drugs (legal or illegal) that make them sleepy.

- The incidence of SIDS is higher in the following groups:
  - Mothers who smoked during pregnancy
  - parents in low socio-economic groups
  - parents who currently abuse alcohol or drugs
  - young mothers with more than one child
  - premature infants and those with low birth weight.

Parents within these groups will need more face-to-face discussion to ensure that these key messages are explored and understood. They may need some practical help, to enable them to put them into practice.

For further information go to:

Caring for your baby at night: A guide for parents. UNICEF UK BFI. 2011 www.unicef.org.uk/caringatnight

Blair P & Inch S (2010) *The Health Professional's Guide to: Caring for your baby at night* www.unicef.org.uk/caringatnight

ISIS Infant Sleep Information Source: *Information for parents and carers* supported by Durham University, UNICEF, LLL and the NCT. http://www.isisonline.org.uk/sleep_health/

Keeping the baby safe and keeping the baby close is an instinctive behaviour, the breastfed baby feeds frequently and will rarely go 'through the night' in the early months. For some parents, expectations from society and from those around them encourages the belief that the baby should be able to tolerate long periods between feeds and that success is measured when the baby starts 'sleeping all night'. Such expectations can lead to a perception that the baby is hungry and not getting 'enough milk' (Ball, 2013; Ball, 2003). The 2010 Infant Feeding Survey continues to show that one of the most common reasons women give for stopping breastfeeding is the perception that they have insufficient milk (17 per cent) (McAndrew et al, 2012).

Understanding human behaviour and breastfeeding can help parents feel confident in their parenting abilities in loving, protecting and caring for their infants (Gonzalez, 2012).

The behaviour of the mother and her baby and the composition of the mother's milk have evolved together. Being close and feeding frequently is normal newborn behaviour. Caring for the baby at night is an essential element to supporting a mother to continue to breastfeed and form a loving relationship with her baby.

Conclusion

Repeated evidence-based reports demonstrate that positive early interventions (pregnancy and beyond) yield the best outcomes for a child's health, mental health and well-being and that intervening early has a lasting effect into adulthood (Aked et al, 2009; Allen, 2011a; Allen, 2011b; Allen and Smith, 2008; Hosking and Walsh, 2010; C4EO, 2010; DfE and DH, 2011; DHSSPSNI, 2009; Kennedy, 2010; Marmot, 2010; Scottish Government, 2012; Welsh Government, 2012).

We have long known that interactions with parents, caregivers and other adults are important in a child's life. However, new evidence shows that these relationships actually shape brain circuitry, and lay the foundation for later developmental outcomes, from academic performance to mental health and interpersonal skills (NSCDC, 2004). The importance of both the mother and the father in building positive relationships and supporting breastfeeding is significant, day and night (Ball & Volpe, 2013; Henderson et al, 2011; RCM et al, 2011; Volpe et al, 2013). However, many of our nation's policies, such as parental leave, childcare, welfare, work requirements and child protection services, fail to take into account the crucial importance of this environment of relationships, despite their recommendations (Gerhardt, 2004; NSCSC, 2004).

The UN Convention on the Rights of the Child puts the family first in society, recognising that the child should grow up in an atmosphere of happiness, love and understanding. Helping parents to build strong and loving relationships with their infants will help achieve these outcomes. Article 24 reminds us that the child has the right to the enjoyment of the highest attainable standard of health (24:1); that measures are taken to diminish infant mortality (24:1a); and ensure appropriate pre- and postnatal health for mothers (24:2d); in particular supporting the advantages of breastfeeding (24:2e) (see Appendix 6).

With scarce resources, it is difficult for the pendulum to swing from interventionist models to preventive models. However, a co-ordinated effort needs to be made across a broad set of policies to help achieve positive mental health outcomes. All children need support to develop optimally, but priority has to be given to support children from vulnerable families. This support needs to be built into all services that touch upon children's lives (DiPietro, 2000; Doyle et al, 2009; Nelson & Mann, 2010). Raising public awareness to improve participation from community groups and being involved in the development of policy recommendations is crucial.

> *"If a mother is finding pleasure in her relationship with her baby, then usually there is very little to worry about, even if there are some problems. When the relationship is dominated by pleasurable interactions, the parent and the baby are, without realising it, building up the baby's prefrontal cortex and developing his capacities for self-regulation and complex social interactions."*
>
> Gerhardt (2004) *Why Love Matters: how affection shapes a baby's brain.* Routledge, p 39

Chapter 5: **Neonatal units**

The evidence discussed in this chapter relates to:

Stage 3
Parents' experiences of neonatal units

Standard 1: ***Support parents to have a close and loving relationship with their baby.***

Standard 2: ***Enable babies to receive breastmilk and to breastfeed when possible.***

Standard 3: ***Value parents as partners in care.***

Refer also to: Chapter 2; Chapter 3; Chapter 4 (sections 4.2, 4.3 and 4.5) and Chapter 7 for further relevant evidence to support implementation of the BFI neonatal standards.

All parents should have unrestricted access to their baby. Parents should be actively encouraged to provide comfort and emotional support for their baby including: skin-to-skin contact, comforting touch and responding to their baby's behavioural cues.

The mother's own breastmilk should always be the first choice of feed for her baby. Mothers should be supported to express and store their breastmilk, introducing breastfeeding as appropriate.

Staff should ensure parents feel welcomed in the unit and enable them to be fully involved in their baby's care.

Introduction

Preterm birth is on the rise in most countries, and is now the second leading cause of death globally. A total of 15 million babies are born too soon every year. More than 1 million babies – 1:10 babies – die every year due to complications, with many others surviving with a disability. Addressing prematurity is an urgent priority for Millennium Development Goal 4, which calls for a reduction of child deaths by two-thirds by 2015, and for a halving of deaths due to prematurity by 2025.

In 2012, 50 international, regional and national organisations developed a report, *Born Too Soon: The Global Action Report on Preterm Birth* (WHO, 2012a), in response to the Every Woman Every Child effort (everywomaneverychild.org), which provides the framework to coordinate action and ensure accountability. Inequalities in survival depend on where the baby is born. At 24 weeks, half of babies survive in high-income countries. However, at 32 weeks, in low-income countries, half of all babies still die. This could change with feasible cost-effective care, such as warmth, breastfeeding and basic care for infections and breathing difficulties.

More than 80 per cent of preterm births occur between 32 to 37 weeks. Most of these babies could survive with essential care. A total of 75 per cent of deaths of preterm births can be prevented without intensive care.

Neonatal care within the UK

Over the last three decades, neonatal care has developed rapidly and technically. In 2007, 68,000 babies born in England were admitted for neonatal care. Of these, 19,500 were admitted for intensive care. Despite this care, 2,127 babies died within the first 28 days of life (41 deaths per week, six deaths per day). As a response to the National Audit Office report *Caring for Vulnerable Babies: The reorganisation of neonatal services in England* (2007), a neonatal taskforce was set up to ensure that premature and sick newborn babies receive the necessary care to produce the best long-term outcomes for them and their families (DH, NHS, 2009).

The taskforce identified eight principles to achieve high-quality neonatal care. Principle 3: Care of the baby and family experience, engenders a philosophy of family-centred care that would help families whose baby is in hospital to cope with stress, anxiety and altered parenting roles. To enhance attachment between the baby and the family, parents are encouraged and supported to participate in their baby's care at the earliest opportunity, including:

- Regular skin-to-skin contact
- Providing comforting touch and comfort holding
- Feeding
- Day-to-day care.

Breastfeeding/breastmilk feeding is encouraged as soon as possible after birth, together with an environment and support that facilitates expressing of breastmilk. Where this is not possible parents should have access to donor milk (DH, NHS, 2009).

In 2010, NICE produced specialist neonatal quality standards (QS4) providing specific, concise quality statements, measures and descriptors to provide parents and the public, health and social care professionals, commissioners and service providers with definitions of high-quality care that services could use as a benchmark for improvement.

This quality standard covers all care for babies in neonatal services, including transfer services. In 2007/08, one in ten babies born alive received specialist neonatal care of some sort and this number is increasing. This quality standard provides a description of what high-quality specialist neonatal care should look like and requires that the physical, psychological and social needs of babies and their families are at the heart of all care given.

http://bit.ly/14NGtZi

The importance of breastmilk/breastfeeding for preterm babies

The strength of evidence associated with the benefits of breastfeeding to mothers and babies provides a strong case for the importance of breastmilk and breastfeeding for preterm babies. As survival rates for preterm infants improve, more attention is being focused on improving the quality of survival through optimal nutritional management.

The nutritional, anti-infective and developmental properties of human milk have been shown to be highly beneficial to help with the growth and protection of preterm babies and its use is linked to a reduction in mortality and morbidity. It can be attributed to decreased lengths of hospital stays with an associated reduction in health care costs. Clinical feeding tolerance is improved and infants move on to full enteral feeds faster if fed human milk. Long-term neurodevelopmental outcomes are also improved when preterm infants receive human milk with long-term studies suggesting that, even at eight years of age, total brain growth and intelligence test results are greater in infants who had received human milk in infancy (American Academy of Pediatrics, 2012; Bonuck et al, 2002; Callen and Pinelli, 2005; Furman et al, 2003; Hylander et al, 1998; Vohr et al, 2007).

A systematic review by Renfrew et al (2009) identified that formula-fed infants cared for in high-risk environments are at greater risk of infection, necrotising enterocolitis, delayed transition from parental to enteral feeding, delayed discharge home and reduced neurodevelopmental attainment. Furthermore, analysis of white children from the UK Millennium Cohort Study found that not breastfeeding is associated with reduced cognitive ability, particularly in children born preterm (Quigley et al, 2012).

Necrotising enterocolitis (NEC) remains one of the most critical complications of prematurity and there is evidence to suggest that the use of breastmilk decreases the incidence and severity of NEC. Breastmilk contains immunoglobulins (IgG), secretory IgA (sIgA), lactoferrin, gut growth factors and other protective substances that appear to promote growth of the intestine and strengthen its immunologic barrier. The longer term implications of NEC not only contribute to increased mortality rates but are also associated with poorer growth and neurodevelopmental outcomes (Cristofalo et al, 2011; Hintz et al, 2005; Lucas et al, 1990; Sullivan et al, 2010; Updegrove, 2004).

Breastfeeding also has long-lasting health benefits for mothers and, by providing milk for their babies within neonatal setting, mothers can make a unique and invaluable contribution to their care. Many mothers report that being able to do this simple yet extraordinary thing helps them to overcome feelings of helplessness and isolation (Ip et al, 2007).

Supporting breastfeeding in neonatal units

Breastfeeding/breastmilk feeding rates are very low in many neonatal units throughout the world. This has a direct impact on the short- and long-term health outcomes for both the mother and her baby. Implementing the Baby Friendly Initiative in US neonatal intensive care units, ten years after designation, continues to show positive rates for breastfeeding initiation and any breastfeeding at two weeks of age (Parker et al, 2013).

Initiation of lactation

Initiating and sustaining long-term lactation is a challenge within the neonatal setting. Mothers of infants in neonatal units are more likely to have experienced complicated labour and/or birth and may be unwell in the immediate postnatal period. Depending on how preterm the birth is, breast development may be delayed as it has not undergone the full 40 weeks of gestation. Separation and concern about the well-being of the baby can result in high levels of stress hormones, which may impact on the mother's desire and or ability to express breastmilk in the early hours and days after the birth. Prolactin and oxytocin (responsible for milk production and delivery) levels may also be reduced if the mother does not have contact with her baby. Drugs such as betamethasone (a corticosteroid used to help the baby's lungs mature) may have been given to the mother in preparation for the impending preterm birth. This can delay the onset of lactation (Lactogenesis 2) (Henderson et al, 2008).

In order to maximise a mother's potential to provide milk for her sick or preterm infant, it is essential to try to mimic what would happen if she had her 'term' baby with her from birth. A term baby would usually feed within one to two hours after birth and would then continue to feed frequently in the early postnatal days and weeks. Therefore mothers of preterm babies should be encouraged to begin expressing as soon as possible after birth (within the first one to two hours) and continue to express a minimum of eight times in 24 hours, including once at night time. The Baby Friendly Initiative promotes early, frequent and effective milk expression as the most important factors to support the initiation and establishment of lactation. There is not a great deal of empirical evidence to suggest frequency of expression. However, extensive clinical experience recommends that a mother expresses between eight to ten times in a 24 hour period, not leaving a gap of more than six hours between expressions at night time. The aim is to establish a milk supply of between 750-900 millilitres per day, by day 10, as this will effectively 'set the ceiling' for long-term milk production (Furman et al, 2002; Hill et al, 2001; Hill et al, 2005; Hill et al, 2007; Jones, 2008; Meier, 2001; Smith et al, 2003).

The Baby Friendly Initiative recommends that mothers are taught how to express their milk both by hand and by pump, with the main aim of ensuring that, whichever method is used, effective expression takes place.

Hand expression in the early postpartum period appears to improve breastfeeding rates at two months for mothers of term babies (Flaherman et al, 2012). It is an important skill for all mothers and is particularly useful in the early postnatal period for collecting colostrum. Preterm colostrum is particularly viscous and hand expression ensures that it can be collected without fuss or risk of loss within pump tubing. Mothers are also able to express as frequently as they wish without having to 'ask' staff to bring them a breast pump. Breast massage and the skin-on-skin technique associated with hand expression may also enhance prolactin and oxytocin levels during the stressful immediate postnatal period (Flaherman et al, 2012).

A Cochrane Review of methods of milk expression for lactating women (Becker et al, 2011) concluded that early initiation, relaxation, hand expression and lower cost pumps may be as effective, or more effective, than large electric pumps for some outcomes, but the most suitable method may depend on the time since the birth. As volumes of milk increase, mothers may choose to use hospital grade electric pumps. Double pumping has been shown to decrease expression time and increase prolactin levels. Therefore milk production and, where possible, double pumping sets should be available for all mothers (Jones et al, 2001).

However, some studies suggest that continuing to combine hand and pump expression may result in higher calorie, fat-rich milk and may improve continued milk production (Morton et al, 2009).

Breastfeeding or feeding a baby breastmilk in the neonatal unit is not always easy; mothers are often separated from their baby and are frightened and anxious. Added to this there is often a lack of skilled breastfeeding support and opportunities for positive emotional attachment and learning baby's behaviour cues (Renfrew et al, 2009a; Renfrew et al, 2009b).

Renfrew et al (2009a) conducted a review with the primary aim to evaluate the effectiveness of clinical, public health and health promotion interventions that may promote or inhibit breastfeeding/breastmilk feeding in neonatal units (a concurrent cost-effectiveness analysis was conducted). Studies were identified from searches of 19 electronic databases. Evidence-based effective interventions that were identified included: kangaroo skin-to-skin contact; simultaneous milk expression; peer support in hospital and community; multidisciplinary staff training; and implementation of the BFI standards within the associated maternity unit. Importantly, the review identified that interventions seem less likely to be effective if implemented individually. This supports previous evidence for term infants (Dyson et al, 2006).

In the context of neonatal care settings, the researchers propose the following definitions to assist national and local surveillance of infant feeding to inform future policy and practice development.

- Initiation of breastfeeding: The mother has put the infant to the breast and the infant has demonstrated nutritive suckling.
- Initiation of feeding with breastmilk: The infant has received breastmilk enterally (the mother's own or donor milk). The mother has attempted to express breastmilk by any method.

Table 10 summarises the evidence underpinning practice that supports parents with a baby in the neonatal unit to facilitate breastfeeding/breastmilk feeding and relationship building.

Table 10: Evidence underpinning the practical support for parents with a baby in the neonatal unit

REFERENCE	RECOMMENDATIONS	PRACTICE IMPLICATIONS
Becker GE, Cooney F, Smith HA (2011) *Methods of milk expression for lactating women.* The Cochrane Library. Issue 12. www.thecochranelibrary.com	This updated review included 23 randomised controlled studies (632 mothers). The available evidence indicates that low-cost measures such as early initiation of expressing, relaxation, hand expression and lower cost pumps may be as effective or more effective than large electric pumps for some outcomes.	The most suitable method for expression may depend on time since birth, purpose of expression and the individual mother/infant. The diversity of interventions argues caution in applying results beyond a specific method tested.
Conde-Agudelo A, Belizan JM, Diaz-Rossello J (2011) *Kangaroo mother care (KMC) to reduce morbidity and mortality in low birth weight (LBW) infants.* The Cochrane Library. Issue 3. www.thecochranelibrary.com	A review of 16 studies (including 2,518 infants) fulfilled the inclusion criteria for the study. • The evidence supports the use of KMC in LBW infants. • KMC was associated with a reduction in risk of mortality, severe infection/sepsis, hypothermia, severe illness, lower respiratory tract disease and length of stay in hospital. • KMC was found to increase infant growth, breastfeeding and mother-infant attachment and the mother's satisfaction with care.	Further information is required in the early onset of continuous use of KMC in unstabilised LBW infants, the effect on long-term neurodevelopmental outcomes and costs of care. (see also: Bergman et al, 2003)
Donovan TJ, Buchanan K (2012) *Medications for increasing milk supply in mothers expressing breastmilk (EBM) for their preterm hospitalised infants.* The Cochrane Library. Issue 3. www.thecochranelibrary.com	Currently no studies support the prophylactic use of galactagogue medication. Two studies (59 mothers) gave women domperidone 10mg, three times a day when the mother had insufficient milk at two to three weeks after birth. Modest improvements in the volume of EBM were seen. These medications should only be considered when full lactation support is received and the mother is >14 days post delivery.	Breastmilk remains the optimal enteral nutrition for infants. Mothers of preterm infants who have not established suck feeds express breastmilk and often have difficulty in maintaining a sufficient supply. NB: Early introduction of KMC has been shown to have positive effects on breastfeeding – see above.

Table 10: Evidence underpinning the practical support for parents with a baby in the neonatal unit

REFERENCE	RECOMMENDATIONS	PRACTICE IMPLICATIONS
Diabetes in pregnancy: Management of diabetes and its complications from pre-conception to the postnatal period. NICE clinical guideline 63, February 2008. www.nice.org.uk/cg63	Recommendations: • Discuss with the mother how diabetes will affect breastfeeding and initial care of the baby in the antenatal period. • Provide information on drugs that can be taken while breastfeeding. • Support the mother to self-monitor her blood glucose and how to avoid hypoglycaemia while breastfeeding (eating snacks while feeding).	Type of diabetes (pre-existing insulin dependent or Type 2 diabetes, gestational diabetes) will dictate management options – provide specialist support for breastfeeding mothers based on the mother's individual needs.
Donor milk banks: the operation of donor milk bank services. NICE clinical guideline 93, February 2010b. www.nice.org.uk/cg93	Clear guidance is given on: • Quality assurance processes, including staff training • Screening and selecting donors • Handling donor milk at the milk bank • Tracking and tracing donor milk.	This guidance is based on the best available evidence and all recommendations are key to the process of donor milk banking and are dependent on each other. The safety of donor milk depends on the implementation of all recommendations.
Multiple pregnancy: The management of twin and triplet pregnancies in the antenatal period. NICE clinical guideline 129, September 2011b. www.nice.org.uk/cg129 (see also: Ostlund et al, 2010)	Recommendations include: • Women-centred care • Nominated multidisciplinary team including an infant feeding specialist offering information and emotional support specific to twin and triplet pregnancy on breastfeeding and parenting.	The incidence of multiple births is rising (16 per 1,000 women) and is associated with higher risks to the mother and babies – preterm birth occurs in 50 per cent of pregnancy, major congenital abnormalities are 4.9 per cent more common in multiple pregnancies.

Table 10: Evidence underpinning the practical support for parents with a baby in the neonatal unit

REFERENCE	RECOMMENDATIONS	PRACTICE IMPLICATIONS
Neonatal Jaundice NICE clinical guideline 98, May 2010c. www.nice.org.uk/cg98	Key priorities: • Offer parents information about jaundice tailored to their needs. • Identify babies more likely to develop jaundice and provide additional support. • Measure bilirubin in all babies with jaundice and use results to determine management options. • Reassure mothers that breastfeeding can continue. • Encourage frequent breastfeeding. • Provide lactation/ feeding support.	Jaundice is one of the most common conditions needing medical attention in newborn babies. Approximately 60 per cent of term and 80 per cent preterm babies develop jaundice in the first week of life. NB: Expressing breastmilk and offering the baby EBM if necessary will help to maintain lactation and maintain exclusive breastmilk feeding for the infant.
Renfrew MJ, Craig D, Dyson L, McCormick F, Rice S, King SE, Misso K, Stenhouse E and Williams AF (2009) Breastfeeding promotion for infants in neonatal units (NNU): a systematic review and economic analysis. Health Technology Assessment 2009; Vol. 13: No. 40. DOI: 10.3310/hta13400 http://www.hta.ac.uk/fullmono/mon1340.pdf	• Interventions inter-relate and should be implemented together: it is unlikely that specific clinical interventions will be effective if used alone. • National surveillance of infant feeding in NNUs is required including health and cost outcomes for infants and mothers. • Development and utilisation of defined definitions of the initiation and duration of breastfeeding/ breastmilk feeding with specific reference to infants admitted to neonatal units and their mothers.	Good practice that has been shown to effectively support breastfeeding in NNUs includes: kangaroo skin-to-skin contact, peer support, simultaneous breastmilk pumping, multidisciplinary staff training and the Baby Friendly accreditation of the associated maternity hospital. When staff are trained to support women in hospital this has been shown to be potentially cost-effective.

Chapter 5: **Neonatal units**

Achieving successful preterm breastfeeding can be challenging and requires an understanding of the physiological development of the baby. The health professional requires knowledge and skills to be able to offer cultural sensitive care practices, practical guidance and the physical environment to facilitate parent-infant closeness (physical and emotional) and family-centred care (Flacking et al, 2012). Optimising care will help promote breastfeeding, relationship building and positive infant brain development.

In 2005, Jones and Spencer developed practical guidance based on the best available evidence for health professionals to help them support parents to breastfeed.

Key elements of the guidance are summarised below.

The challenge

For the baby: prematurity, delayed development of reflexes associated with breastfeeding such as sucking, swallowing, gagging and rooting; neurological immaturity; abnormal muscle tone; and depressed oral reflexes all impact on the baby's ability to breastfeed. Added to this, the baby tires easily.

Development of oral motor skills in the preterm infant:

- Development of sucking (around 28 weeks)
- Maturation of the swallowing process
- Maturation of respiration
- Co-ordination of suck/swallow/breathe (32-36 weeks gestation).

Breastfeeding requires co-ordination of sucking and swallowing and mature oral muscles to create an adequate suckling mechanism and adequate seal at the breast. Where possible, the baby can progress from breastmilk feeding by nasogastric tube to breastfeeding without using bottles. This reduces the risk of nipple/teat confusion and unstable oxygen patterns during the feeding process (Jones and Spencer, 2005).

For the mother: unexpected delivery, stimulation and maintenance of milk supply for many weeks, anxiety of a newborn, sick or premature baby, other commitments (e.g., siblings) all impact on her transition to motherhood and infant feeding.

Skin-to-skin contact should be facilitated as soon as possible, even when the baby is being ventilated. Skin-to-skin, kangaroo care and closeness will promote bonding for the mother and father (Flacking et al, 2012; Nyqvist et al, 2010a; Nyqvist et al, 2010b; Tessier et al, 1998), helping them to gain confidence in handling their baby, providing opportunities for positive touch and promoting lactation, as well as positive breastfeeding behaviours such as rooting and mouthing and progression towards breastfeeding.

Each baby should be assessed individually. A small study in Sweden of 15 infants between 26 and 31 weeks gestation suggests that, using a breastfeeding behavioural scale to assess infants' oral motor competence, some very preterm infants have the ability to establish full breastfeeding (Nyqvist, 2008; Nyqvist, 2013). In addition, non-nutritive sucking, using a dummy or the mother's breast, can encourage the transition from tube to bottle or breastfeeding (Pinelli and Symington, 2010).

Practical support for positioning and attachment of the premature baby at the breast can help mothers when they start to breastfeed. Jones & Spencer (2005) describe some useful techniques:

- Support the baby into a position of flexion to promote a co-ordinated oral response.
- Use of *'football hold'* (underarm position) gives the mother more control of the baby's head, which is often weak due to poor muscle development.

- Ask mother to express breastmilk prior to feeding to soften the breast, stimulate the milk ejection reflex and elongate the nipple.

The availability of milk will encourage the baby to develop the suck-swallow response. As the baby matures, so will his/her breastfeeding ability. The baby's capacity to self-regulate is highly dependent on his/her gestational age at birth. There is evidence that the preterm infant can attain exclusive breastfeeding from 32 weeks with an immature sucking pattern, providing the infant is fed frequently and supplemented with expressed breastmilk by tube or cup (Nyqist, 2013). Many babies can be fully breastfed at 34 weeks and some as late as 42 weeks (if born at 23 weeks).

Bottles should be avoided for mothers who intend to breastfeed. A review of trials using tube feeds and/or cup feeds found that, when cup feeds were used, the length of stay in hospital increased by 10 days, but more women were discharged home fully breastfeeding. In one study where tube feeds were used, breastfeeding was increased at discharge and at three to six months after discharge. However, the quality of the study was poor and further research is required to draw any robust recommendations for future practice (Collins et al, 2010; Flint et al, 2008; Nyqist, 2013).

Kangaroo care and skin-to-skin contact

Providing kangaroo care (KMC), or skin-to-skin contact, as early, as often and for as long as possible will help parents to 'bond' with their baby, as well as supporting better physical and neurodevelopment outcomes for baby (Chow et al, 2002; Ludington-Hoe et al, 2006; Nygvist et al, 2010; Rojas et al, 2003). Conde–Aqudelo et al (2011) reviewed 16 studies involving 2,518 infants and found a reduction in morbidity and mortality through the use of KMC in low birthweight babies as an alternative to conventional neonatal care in resource limited settings.

Kangaroo care is also beneficial in high-income countries, as it promotes cardio-respiratory and temperature stability (Ludington et al, 2006), sleep organisation and duration of quiet sleep and neurodevelopmental outcomes (Jeffries, 2012). KMC is also associated with improved breastfeeding outcomes, reduced stress, enhancement of mother-infant bonding and positive effects on the family environment and the infant's cognitive development (Charpak et al, 2005). Bergman et al (2004) found that preterm babies who had KMC had better physiological outcomes and stability compared to incubator care alone.

The importance of valuing parents as partners in care

As discussed above in section 4.5, supporting parents to develop a loving relationship with their infant enhances short- and long-term well-being outcomes. Preterm, sick or very preterm infants who may be separated from their parents for long periods require special consideration to support the development of an emotional and physical closeness that may be important and powerful for the formation of secure, long-term, attachment relationships. Flacking et al (2012) argue that strategies to optimise the neonatal space and organisational culture are required to welcome parents as 'empowered players' in the care of their infants, providing family rooms, chairs, beds, privacy and culturally sensitive care practices, such as prolonged skin-to-skin contact and family-centred care.

For the premature infant, brain development is vulnerable to disruption from over- or under-stimulation of varying forms. Supported by neuroscience, developmental and family psychology, medicine and nursing, a family-centred, developmentally supportive care programme (Newborn Individualized Developmental Care and Assessment Program – NIDCAP) was developed in the late 1990s in America. Health care professionals are trained to employ responsive care to the infant's needs, reducing their stress levels and promoting sensitive care that empowers the family to be at the heart of their infant's care. NIDCAP involves a change in cultural practices within neonatal units, moving away from task-orientated to individualised care. While requiring considerable investment to implement, findings from recent research demonstrate improvements in outcomes for preterm infants (Als et al, 2012; Legendre et al, 2011; Westrup, 2007; Westrup et al, 2002).

> *The importance of physical and emotional closeness for parents: emotional describes how parents can experience anything from feelings of strong and consistent love, care, affection and/or connection to emotional disconnection and alienation from their infant. Although 'physical closeness' may facilitate 'emotional closeness' and vice versa, there may be occasions when parents can be physically close but feel emotionally detached, or even physically remote but still feel emotionally connected."*
>
> Flacking et al, 2012

Research into the area of parenting in neonatal care has grown significantly over the last decade. However, work has mainly been carried out with white, middle class women. A systematic review by Cleveland (2008) identified the need to explore the needs of other cultures. In her study she identified six needs for parents with infants in neonatal intensive care:

1) The need to be involved in the infant's care and have accurate information.
2) Reassurance that the infant was being vigilantly cared for in order to protect their child.
3) A need to be near and have physical contact.
4) A need to be seen positively by staff.
5) A need for individualised care.
6) A need for a respectful therapeutic relationship with the nursing staff.

Four nursing behaviours were identified to assist parents to meet these needs:

a) emotional support;
b) parent empowerment;
c) a welcoming environment, with supportive policies; and
d) parent education with an opportunity to practise new skills through guided participation

(Cleveland, 2008).

Bliss, a UK charity working to provide the best possible care and support for all premature and sick babies and their families, published the Baby Charter in 2005 (www.bliss.org.uk). This set out the care, respect and support that premature and sick babies should receive. Subsequently, the Bliss Baby Charter Standards (2011) set out how the Baby Charter's principles could be made a reality by providing guidance for health professionals to implement the Charter, and should be used alongside the Neonatal Taskforce Toolkit (DH, NHS, 2009) – in particular, its principle on 'Care of the baby and family experience' and the NICE Quality Standards for specialist neonatal care (2010). The Baby Charter Standards highlight the importance of ensuring that clinical and family-centred care work together to provide the best possible start for babies (see Appendix 3).

Recent work in Scandinavia and Canada (Nyqvist et al, 2013) supports the expansion of the UNICEF Ten Steps to Successful Breastfeeding for neonatal units and reinforces the need for staff to focus on the needs of the individual mother and her situation, to provide family-centred care, supported by the right environment and continuity of care for the family pre-, peri- and postnatal and post discharge.

Figure 23: POPPY principles

- treat parents with dignity and respect, develop a relationship based on trust
- involve parents in all aspects of their infant's care
- be aware of the emotional impact & differences in individual parent's responses and needs
- recognise critical steps for parents on the care pathway
- value the roles of parents, siblings and family members
- provide sensitive and compassionate interaction
- provide practical help, including identification of behavioural cues
- provide psychosocial support
- promote interactive and caring parenting skills
- maximise opportunities for communication with parents/parent groups
- support mothers to nurture and breastfeed their baby
- provide appropriate family facilities

Adapted from: Staniszewska S, Redshaw M, Hamilton K et al (2012) The POPPY Study: Developing a Model of Family-Centred Care for Neonatal Units. Worldviews on Evidence-Based Nursing: Linking Evidence to Action. February. p.5

Implementing policy and guidance is complex. Re-examining family-centred care from a parent perspective, the POPPY Project (Parents of Premature Babies Project – a research project to identify effective interventions for communication, information and support for parents of a premature baby) assessed how UK neonatal units address parent communication, support and information needs during neonatal care and identified variable gaps across units to support family-centred care (Redshaw and Hamilton, 2010; Brett et al, 2011).

The POPPY Project (see Figure 23) identified that successful implementation of family-centred care requires organisational commitment and engagement by individual practitioners, with specific roles and duties that include breastfeeding support, developmental care, home visiting, emotional support and bereavement care. Seven key stages of the parents' journey through the neonatal unit were identified from 'before admission' to 'at home'. A set of principles (see Figure 23) to underpin a model of family-centred care and a set of indicators to guide implementation were developed to help neonatal units better meet parents' needs (Staniszewska et al, 2012).

Enabling parents to feel confident to care for their baby in the neonatal unit may be enhanced by the introduction of peer supporters, who are able to share their own experiences of caring for their baby in the neonatal unit. They are able to share experiences of providing breastmilk while coping with the stress of having an infant in the neonatal intensive care unit (Rossman et al, 2011).

The transition home can also be challenging for parents. Providing support and home visits by a trained nurse to offer education, support and nursing care is essential (Broedsgaard and Wagner, 2005). A review by Lopez et al (2012) suggests the use of videoconferencing to help the nurse stay in contact with the parents to provide them with a channel of communication. This helps them to maintain their self-confidence, improving coping strategies and reducing anxiety.

Two current studies in the UK, using video images, demonstrate how 'parent to parent' and 'parent to staff' relationships can inform and develop models of care that enhance the value of the parent as a partner in their baby's care. Both studies are currently being implemented and evaluation reports will be published in peer-reviewed journals.

Health Innovation and Education cluster (HIEC) Maternal and Infant Health and Care programme (Yorkshire and Humber Region England) focuses on improving care in neonatal units and in admission in labour. The work includes developing education resources to support infant feeding, workshops and training to support the implementation of sustainable, evidence-based change in key aspects of care in neonatal units.

To view video vignettes of parents, staff and the HIEC team talking about their experiences visit: http://bit.ly/14NGGMe and http://bit.ly/vIdYEM

The Small Wonders DVD and National Change Programme both aim to support families of sick and premature babies so that they are at the centre of their baby's care in ways that are known to improve health outcomes. It is a series of films that follow 14 families on their journey from birth, to first contact with their baby, to one year on. A team of staff has been recruited within each hospital to 'champion' the roll-out of the DVD, including at least one Champion from Neonatal Services and one from Midwifery. Coventry University are undertaking the evaluation of the project.

To watch the Small Wonders videos visit:
http://www.bestbeginnings.org.uk/watch-small-wonders-online

Conclusion

Breastfeeding or breastmilk feeding premature and sick babies improves their short- and long-term health and well-being outcomes, reducing both mortality and morbidity (Renfrew et al, 2009a). Involving parents in their baby's care is essential to achieving the best outcomes. Routine practices within the system sometimes inhibit and may discourage a mother form initiating or continuing to breastfeed (McInnes et al, 2010).

Supporting and educating staff to implement practices that help parents to have a close and loving relationship with their baby and that encourage breastfeeding is essential to changing a unit culture to fully value and support the parent's feeding choices (Flacking et al, 2012).

Neonatal culture within the UK requires a 'sea-change' to implement a transformational cultural shift in the way parents are valued as partners in care. In line with the BLISS Baby Charter Standards, the DH Neonatal Taskforce recommendations and the POPPY principles, the UNICEF UK BFI standards for neonatal units have intentionally 'set the bar high', the aim; to drive a cultural shift, environmentally, socially and philosophically. Only by setting high expectations will mothers and babies be placed at the centre of care and parents valued as partners.

The Baby Friendly Initiative's course 'Breastfeeding and lactation management for neonatal staff' is designed to provide neonatal staff with the background knowledge and practical skills they need in order to support mothers to initiate and maintain lactation within the neonatal setting.
www.unicef.org.uk/babyfriendly/neonatalcourse

Chapter 6: **Building on good practice**

Once accredited as a Baby Friendly, facilities can move on to 'Building on good practice', which is designed to encourage moving on from basic standards to innovations that encourage really excellent care. Facilities that keep moving on from the basic standards can use 'Building on good practice' to achieve Advanced or even Beacon status.

As happens at present, decisions will be made about the support required by individual facilities to maintain standards following the first re-assessment. The principle will be to encourage and enable continued improvement. Facilities that achieve excellent status can move towards becoming an Advanced Baby Friendly facility. To achieve Advanced status, facilities will be required to submit internal audit results and outcome data relating to the basic standards, in order to show that they are maintaining these as required to become an excellent facility. They will also be asked to demonstrate that they have introduced effective innovations to improve the service provided for mothers and babies. The advanced re-assessment will consist of visiting the facility to see the innovations (where this is appropriate) and talking to mothers who have used them.

Facilities can apply to the Designation Committee for Beacon status when they are an Advanced Baby Friendly facility that can demonstrate: consistent improvements in outcomes; innovation; effective joint working across services; and that they have made (or are willing to make) a contribution to increasing the knowledge base. This can be done, for example, by mentoring other services, supporting UNICEF UK with the development of the Baby Friendly Initiative, presenting at conferences or commissioning research.

Figure 24: Working from a firm foundation to Beacon Status

While the details of the journey from full accreditation are not yet fully confirmed, it is clear that progression will require that, in addition to demonstrating that the basic standards continue to be met, facilities will need to be able to demonstrate that they have introduced effective innovations to improve the service provided for mothers and babies, and that these innovations are achieving improvements in outcomes.

This section of the book will present a series of case studies from facilities where innovations have achieved, or contributed to, improved outcomes for mothers and babies. It is anticipated that the information will be further developed as increasing numbers of facilities progress beyond basic Baby Friendly status.

CASE STUDY:
EAST LANCASHIRE HOSPITALS NHS TRUST

East Lancashire Hospitals NHS Trust (ELHT) provides maternity services in an area of mixed ethnicity with significant deprivation, and has around 7,000 births a year. The Trust achieved UNICEF UK Baby Friendly accreditation in 1998 and has continued to improve care and outcomes by responding to feedback and robust monitoring and evaluation. Feedback from service users identified the need for additional support on the 34-bed postnatal ward. Collaborative working with local volunteers, trained in providing infant feeding support by the Trust or the local NCT (National Childbirth Trust), has delivered an additional three to six hours per day of support for mothers on the ward. The volunteers each work three hours a week and spend their time with mothers who have just given birth, listening and supporting and providing evidence-based information.

Since 2011, two infant feeding support workers available for a combination of 50 hours have been employed to support antenatal parenthood education sessions and support for new mothers on the postnatal ward. Evaluation of the support worker posts has demonstrated that the experience of mothers has been consistently positive. One mother said, "I couldn't have continued breastfeeding without the care and support from the Infant Feeding Support Worker". One midwife said, "It makes a massive difference and supports women to have quality time discussing breastfeeding".

Breastfeeding initiation rates in ELHT have continued to rise annually, from 27 per cent in 1995 prior to working towards Baby Friendly accreditation to 70 per cent in 2013. East Lancashire celebrated 15 years of Baby Friendly Accreditation in May 2013.

Further details of the varied and innovative approaches to improving outcomes in East Lancashire are provided below. For more information, contact Sue Henry, Infant Feeding Co-ordinator at: susan.henry@elht.nhs.uk

Innovation 1: Reducing readmissions for excessive weight loss

- 6 month period in 2011 – readmissions = 40 = 1.14 per cent of live births
- 6 month period in 2012 – readmissions = 20 = 0.57 per cent of live births

How this was achieved:

- Amended policy – instead of readmitting all babies who had lost >10 per cent weight – changed to readmit if >12.5 per cent loss or if a clinical reason suggests readmission if under this threshold.
- Further education for midwives to include: assessing a breastfeed; managing the situation at home rather than through readmission; supporting mothers to maintain their self-confidence; and encouraging continued breastfeeding.
- Introduction of a breastfeeding assessment tool that is part of the hand held records.

Results of 2012 audit led to further innovation:

- Recording frequency of feeds in the early days.
- For those mothers going home early, ensuring they receive full information and support to breastfeed; including when to ask for help and how to ask for help.
- No delay in home visits when breastfeeding and recognition of the need for frequent assessment and support.
- Longer initial hospital stay to provide additional support if required.

Innovation 2: NICU interventions

- **Donor breastmilk**
  Donor breastmilk used on NICU when mothers' milk is not available for sick/preterm babies > 30 litres per year are used.
- **Local information leaflet**
  'Believing in breastfeeding' provided for all families on NICU helping them to understand, in a user-friendly way, the importance of breastmilk and how to maximise their supply.
- **Small Wonders DVD and change management programme**
  A 'Best Beginnings champion' coordinates the distribution of this DVD to parents, participating in the innovation to support parents to have a close and loving relationship with their baby and be partners in care. http://www.bestbeginnings.org.uk/small-wonders-champions
- **Breast pump loan scheme**
  Aims to ensure that all mothers who are expressing are able to borrow a suitable breast pump free of charge.

Innovation 3: Mother-centred conversations

- Training for all midwives and health care assistants in how to have 'mother-centred conversations'.
- Expectation that all midwives and support staff will facilitate antenatal conversations using a woman-centred approach to include listening, asking, reflecting, information giving, confidence building.
- The midwives have been issued with a locally developed 'tool kit' to help with challenging conversations.
- Breastfeeding initiation rates monitored monthly.

Innovation 4: Parenting education

- 'Bump, Birth and Beyond programme' – midwives and the infant feeding team are working with health visiting and children's centre staff to deliver this programme. It is very well evaluated by families. Breastfeeding rates in the areas where this programme is delivered have increased, and in some areas they have doubled.
- Blackburn with Darwen footprint: 'Prepare to Parent' programme - midwives and infant feeding team are working with health visiting and children's centre staff to deliver this programme. Currently in 'pilot' year since September 2012 – involving two children's centres, with some bilingual support. Early evaluation is very positive, monitoring and evaluation continues.

Innovation 5: Volunteer peer support

- 15 'Infant feeding volunteers' work across the maternity services giving three hours/week of their time each (45 hours total).
- The volunteers access ELHT two-day 'basic infant feeding support and relationship building course'. The NCT has been commissioned in East Lancashire to train volunteer peer supporters – to date over 100 local women have been trained.
- One volunteer helps facilitate training on the training team.
- The volunteers have a 'one-to-one' assessment of skills and knowledge at the start of their placement and every calendar year thereafter.
- Quarterly support meetings and training opportunities are held for all the volunteers (sharing and learning time). Close working with the NCT enables volunteers to work across hospital and community settings.
- Volunteers are involved in staff audits.

Innovation 6: Specialist breastfeeding support for mothers with challenges

- Two IBCLCs are employed within the trust.
- Well-attended infant feeding support groups, attracting new mothers every week. Women continue to attend long term, to support the new mothers joining the group – the groups are very much mother-led, with IBCLC specialist support when needed.
- Quarterly reports record quantitative and qualitative data from the groups.
- Antenatal home visiting is for women who are worried about breastfeeding due to some complex challenge/previous experience.
- Infant feeding support workers provide support in the maternity ward and birth centres.
- A fall in breastfeeding 'drop-off rates' by 7 per cent has been seen over a four-month period (January to April 2013).

Innovation 7: Frenulotomy (tongue–tie) service

- Introduced in 2011 to enable local parents to access the service.
- Performed by two oral surgeons.
- Evaluation of the service has been positive and appreciated by local families due to the rapid referral with frenulotomy often performed within 24-48 hours of referral.
- Monitoring of the number performed and an audit of outcomes is currently underway.

Innovation 8: Implementing the International Code of Marketing of Breast-milk Substitutes, Lancashire Infant Feeding Information Board (LIFIB)

In order to ensure an effective mechanism for implementation of the Code and filtering new infant feeding information, ELHT have been instrumental in setting up the Lancashire Infant Feeding Information Board (LIFIB) in partnership with other Lancashire Trusts.

The Board has been established to discuss and plan how staff in Lancashire can be better informed and supported in relation to infant feeding information. To include:

- ensuring Code compliance
- informing local policy and guidelines
- addressing questions from frontline staff
- being the sole point of contact for infant formula manufacturer representatives across the Lancashire footprint
- distributing evidenced-based factual information on infant feeding to staff.

The board comprises infant feeding leads across Lancashire and invited members including public health specialists, dietetic staff, clinical leads and voluntary sector representatives.

The first 'formula company representatives' day was chaired by an ELHT Infant Feeding Co-ordinator; each company presented their product in an open forum, to the LIFIB Board and each other. Local public health registrars analysed the data and evidence from the company representatives ahead of the event and presented the analysis for discussion and debate. Action plans were then developed by the group. The event was well evaluated.

DH funding had been provided to evaluate a neighbouring innovation and make further recommendations. Findings are published in a peer-reviewed journal (Dykes F, Richardson-Foster H, Crossland N, Thomson G (2011) 'Dancing on a thin line': Evaluation of an infant feeding information team to implement the International Code of Marketing of Breast-milk Substitutes. Midwifery. Doi:10.1016/j.midw.2011.08.012).

Innovation 9: Return to work policy for staff

- All ELHT staff who return to work breastfeeding are supported to do so in line with the DH guidance on breastfeeding at study or work and the Equality Act, 2010.
- This is a Trust-wide HR policy and managers seek support from the infant feeding team to ensure implementation.
- Staff are provided with protected time, a fridge and space to express and store breastmilk.
- As required, and as appropriate, staff are able to breastfeed their infants at work.

www.unicef.org.uk/babyfriendly/breastfeedingandwork

Innovation 10: Extended training programme

Aiming to create a change in the culture within the Trust and wider population, the training programme has been extended to include: children's ward staff, domestic staff, ward clerks, housekeepers, theatre staff and anaesthetic staff.

Innovation 11: Working across organisations

(Pan Lancashire includes ELHT and two Community Health Trusts)

- **Pan East Lancs training team:** Two-day 'Basic infant feeding support and relationship building course' is delivered across the East Lancashire footprint in collaboration with community partners – so multidisciplinary teams train together. This has proved highly successful and very well evaluated.
- **Pan Lancashire policy/guidelines:** Developed in collaboration with Community Trust partners – all multi-agency staff are able to access the same documents.
- **Pan East Lancashire Infant Feeding Team:** Work together to ensure a seamless service for families from ante to postnatal care in the community – with clear referral pathways. Community breast pump loan schemes operate in each footprint – ELHT managing the Blackburn with Darwen footprint.
- **ELHT infant feeding team lead on the community BFI project in Blackburn with Darwen:** This is quite unique and has proved invaluable in ensuring a seamless, excellent service offered at all stages of the woman's journey.

Chapter 7: **The International Code of Marketing of Breast-milk Substitutes and its implementation in practice**

This evidence discussed in this chapter relates to:

Stage 1
Building a firm foundation

Standard 4: Ensure that there is no promotion of breastmilk substitutes, bottles, teats or dummies in any part of the facility or by any of the staff.

To be met: All facilities will require a written statement signed by the head of service that confirms that the facility is committed to implementing this standard. In addition, there should be no advertising in the facility or by any of the staff.

Background

A combination of entrenched medical practices and social and economic factors has led to the rise in use and marketing of breastmilk substitutes (BMS) as an alternative method of feeding for newborn infants. Hospitalisation and medicalisation of childbirth practices, growing industrialisation, misleading and aggressive marketing of BMS and the removal of breastfeeding from a public activity into a private space, have all impacted on the demise of breastfeeding and the rise in artificial feeding as an accepted norm within society.

The growth of BMS is a historically recent activity that developed due to a number of interlinked factors in the 19th and 20th centuries. Palmer (1993, 2009) summarises the impetus for this growth:

- Separation of mother and baby as working practices meant more women being employed in a separate location to where they raised their family.
- A scientific interest in the analysis of milk (human and animal) and its conversion into formula for administration via a bottle.
- A rise in the dairy industry and availability of large quantities of cow's milk. (The US dairy industry has been heavily subsidised during the whole 20th century, also the EU, Australia and New Zealand. This in turn has supported BMS manufacturers.)
- The development of milk separation techniques and drying processes to produce dried artificial feeds.
- The growth of the cheese industry creating whey products and their use in artificial feeds to utilise the excess/waste.

By the 1970s, within three to four generations, women in industrialised countries around the world had turned from predominantly breastfeeding to largely artificial feeding (Dykes, 2006).

The International Code of Marketing of Breast-milk Substitutes

Growing concerns over the impact of aggressive marketing techniques and their effects across the world resulted in an international response by WHO and UNICEF at the World Health Assembly (WHA). In May 1981, the 34th WHA meeting adopted through WHA Resolution 34.22 the International Code of Marketing of Breast-milk Substitutes (WHO, 1981) to protect and encourage breastfeeding and to control inappropriate marketing practices to sell products for formula feeding. In view of the vulnerability of infants in the early months of life and the risks involved in inappropriate feeding practices, including the unnecessary and improper use of BMS, the marketing of BMS requires special treatment. A summary of the articles and subsequent relevant WHA resolutions of the Code can be found in Appendix 5.

Chapter 7: **The International Code of Marketing of Breast-milk Substitutes and its implementation in practice**

The International Code was endorsed by 118 countries, including the UK, and a coalition of voluntary organisations worldwide committed to ensuring full implementation and monitoring of formula company compliance, known as the International Baby Food Action Network (IBFAN) 1979. The UK sub-group is Baby Milk Action (BMA).

Despite the implementation of other international initiatives to protect, promote and support breastfeeding (WHO/UNICEF, 1989, 1990, 1992, 2005; WHO, 2003) many countries have not fully implemented the Code into their national law. A WHO report (based on figures up to 2011) showed less than a quarter of countries had fully implemented the code and called for further efforts from member states. The report showed that Europe has the fewest number of countries fully implementing the Code of any continental region (WHO, 2013).

As a signatory to the 1990 Innocenti Declaration on the Protection, Support and Promotion of Breastfeeding, the UK Government committed itself to:

"Taking action to give effect to the principles and aim of all the articles of the International Code...in their entirety..." and to enacting *"imaginative legislation protecting the breastfeeding rights of working women...by the year 1995"*.

At the 1994 WHA, UK support for the Code was reiterated once again and the Government 1995 White Paper, The Health of the Nation, called for an increase in breastfeeding rates (DH, 1992).

What the International Code requires

The International Code regulations apply to all substitute feeding products, bottles/teats and related equipment. This means products that can be marketed in a way that suggests they should replace breastfeeding, even if the product is not suitable for that purpose. They may include:

- infant formula
- follow-on formula
- baby foods
- bottles/teats and related equipment.

The Code requires that all of these products should not be marketed to mothers, even if the UK law does not extend to some of their restrictions – notably follow-on formula (WHO, 2013b), bottles and teats.

Key points

The companies may not:

- promote their products in hospitals, shops or to the general public
- give free samples to mothers or free or subsidised supplies to hospitals or maternity wards
- give gifts to health workers or mothers
- promote their products to health workers: any information provided by companies must contain only scientific and factual matters
- promote foods or drinks for babies
- give misleading information
- have direct contact with mothers.

Figure 25: Key aspects of the International Code of Marketing of Breast-milk Substitutes

http://bit.ly/I1H1e

Thomson G, Dykes F, Richardson-Foster H et al (2011) *Evaluation of the Infant Feeding Information Team*. Full report. Maternal and Infant Nutrition and Nurture Unit (MAINN). UCLAN.

Figure 26: Key aspects of the World Health Assembly (WHA) resolutions adopted subsequent to the Code

http://www.ibfan.org/art/WHA_resolutions-from-code-essentials.pdf

Chapter 7: The International Code of Marketing of Breast-milk Substitutes and its implementation in practice

International and national action is required to ensure full implementation of the Code. In their status report, 2011, reporting on country implementation of the Code (WHO, 2013), the WHO identifies key areas where further support and action is required;

- WHO Member States need additional support from international agencies.
- Human rights treaty monitoring bodies must step-up reviews of Code implementation as part of States' obligations under relevant human rights instruments.
- Investment is needed in efforts to disseminate information on Code implementation and create capacity for Code monitoring.
- At a national level, governments should pass legislation, set up functional monitoring and enforcement mechanisms, forge partnerships with civil society and set up documentation and reporting systems for violations.

> *"The Code remains a catalyst for change and a core element in which countries should invest to curb child mortality through improved infant and young child nutrition."*
>
> WHO, 2013, pg. vii

The UK Law

In March 1995, when the Infant Formula and Follow-on Formula Regulations were adopted as law in the UK, they fell short of the Code in several ways. In particular, they continued to allow advertising of products through the health care system, as well as allowing advertising of follow-on formula. New legislation introduced in 2007 remains similarly weak.

Because the law continues to allow advertising of follow-on formula, a product both the WHO and the Government Scientific Advisory Committee on Nutrition (SACN) have said holds no nutritional advantage over standard infant formula, BMS manufacturers can promote their brand by advertising follow-on formula on TV, magazines, online, etc.

Since this brand is the same as that used for standard infant formula, the overall effect is to publicise both infant and follow-on formula at the same time. Previous studies from the Department of Health, UNICEF UK and NCT (NOP for the Department of Health, 2005; research by MORI for UNICEF and the NCT, 2005), and figures from the 2010 Infant Feeding Survey (McAndrew et al, 2012) indicate that parents are often under the impression they have seen advertisements for infant formula. This marketing of infant formula can also take place via the provision of information materials that bear the brand or logo, and can thereby serve as a further advertisement. The Code continues to regard follow-on formula as a breastmilk substitute and subject to the same advertising restrictions as infant formula (WHO, 2013).

Table 11: Summary of UK legislation and guidance on marketing of breastmilk substitutes

DATE	LEGISLATION	IMPLICATIONS
1995	*Infant Formula and Follow-on Formula Regulations* Legislation was enacted in the UK to implement Council Directives • EU Commission Directive of 14 May 1991 on infant formulae and follow-on formulae (91/321/EEC). • EU Commission Directive of 18 June 1992 on infant formulae and follow-on formulae intended for export to third world countries (92/52/EEC)	The legislation **made it illegal to**: • provide free samples of infant formula to mothers • provide free or reduced price breastmilk substitutes to hospitals • provide gifts to promote sales and coupons giving money off infant formula • not provide important information and warnings about formula usage Within the legislation it was **not illegal** to advertise follow-on formula.
1997	The Baby Feeding Law Group (BFLG) consisting of 23 leading health professional organisations and mother support groups.	The BFLG in the UK produces quarterly reports to the Trading Standards Home Authorities responsible for each formula manufacturer and their umbrella body, LACORS. They also send the reports to the Government's Independent Review Panel and to the Advertising Standards Authority (ASA). www.babyfeedinglawgroup.org.uk
2007	Infant Formula and Follow-on Formula (England) Regulations 2007. The 2007 Legislation is based on: • EC Directive 2006/141/EC on infant formula and follow-on formula http://bit.ly/15VQPjH	The Food Standards Agency (FSA) summarises the 2006 EC Directive to ensure that: • the essential composition of infant formulae and follow-on formulae satisfy the nutritional requirements of infants in good health as established by generally-accepted scientific data • the labelling of infant formulae and follow-on formulae allows the proper use of such products and promotes and protects breastfeeding • the rules on composition, labelling and advertising are in line with the principles and aims of the International Code of Marketing of Breast-milk Substitutes ('The Code') • information provided to carers about infant feeding does not counter the promotion of breastfeeding.

Table 11: Summary of UK legislation and guidance on marketing of breastmilk substitutes

DATE	LEGISLATION	IMPLICATIONS
2007	Government Scientific Advisory Committee on Nutrition (SACN)	Following an independent review of the Infant Formula and Follow-on Formula Draft Regulations 2007, SACN stated: • There is no case for allowing the 'advertising' of follow-on formula. • There is no scientific evidence demonstrating nutritional advantage of follow-on formula over infant formula. • Infant formula and follow-on formula should be subjected to the same marketing restrictions. • Regulations should also ensure that infant formula and follow-on formula are clearly distinguishable to consumers. • The case for labelling infant formula or follow-on formula with health or nutrition claims is entirely unsupportable. • The term 'advertising' is too narrow and must include promotion and other marketing communications. http://bit.ly/13nnq7g
2008	NICE Guidance No 11: Improving the nutrition of pregnant and breastfeeding mothers and children in low-income households. Available at: www.nice.org.uk/Guidance/PH11/	Recommendation 14 states: • Commissioners and managers should ensure mothers have access to independent advice from a qualified health professional on the use of infant formula. This should include information on the potential risks associated with formula-feeding and how to obtain ongoing advice at home. • Midwives should ensure mothers who choose to use infant formula are shown how to make up a feed before leaving hospital or the birth centre (or before the mother is left after a home birth). This advice should follow the most recent guidance from the DH. • Avoid promoting or advertising infant or follow-on formula. Do not display, distribute or use product samples, leaflets, posters, charts, educational or other materials and equipment produced or donated by infant formula, bottle and teat manufacturers.
	European Food Safety Authority (EFSA)	EFSA is responsible for evaluating all children's health claims, disease risk reduction claims and claims based on new evidence. Under EU law, claims should not be made on follow-on milks or baby foods unless they are cleared, or are awaiting clearance, by EFSA.

Receiving information on infant formula and interacting with formula company representatives

In 2011, the Maternal and Infant Nutrition and Nurture Unit (MAINN) in the School of Health at the University of Central Lancashire was commissioned by NHS North Lancashire (through funds provided by the Department of Health) to undertake an evaluation of the Infant Feeding Information Team (IFIT). IFIT operates as the sole point of contact for BMS manufacturers' representatives in order that they can ask questions and ask for written, evidence-based information (e.g. when the ingredient of a product changes). As a team, they can then scrutinise the evidence or ask for more information if required. The team ensures compliance with the Code, develops guidance and disseminates research-based evidence information to health professionals (Dykes et al, 2011). Lessons learnt from this work led to the development of a Lancashire-wide Infant Feeding Information Board (LIFIB). The board comprises of infant feeding leads and invited members including public health specialists, dietetic staff, clinical leads and voluntary sector representatives. LIFIB supersedes IFIT. Findings from the research have been fed into its development. Local public health registrars analyse data and evidence from the formula companies. Action plans are then developed by the group for dissemination. The outcomes have been positively evaluated by practitioners (Henry, 2013).

A recommended source of impartial, evidence-based information about BMS is the First Steps Nutrition Trust, which provides reports including Infant formula in the UK, Specialised infant formula in the UK and Websites and organisations that are funded by the formula milk industry (www.firststepsnutrition.org).

For UNICEF UK's guide to working within the Code please see: www.unicef.org.uk/babyfriendly/formulamarketing

Conclusion

After 32 years, the Code has not been fully implemented, adopted or monitored, nor have sanctions been applied. This continues to be a source of acrimony and conflict between those whose aim should be to protect, promote and support appropriate infant feeding practices together. There is a need for reliable and sustainable systems to generate robust data that will provide reassurance to all relevant parties.

The IFIT project within the UK may be one solution to providing health care providers with a systematic filtering and information service, bridging the gap between BMS manufacturers and health care staff who struggle to negotiate their way through the conflicts of the political, professional and socio-cultural influences on infant feeding practices (Dykes et al, 2011). Individuals can also play an important role as the 'eyes and ears' on the ground, 'whistleblowing' to ensure that the Code is understood and enforced at every level (Mason et al, 2013).

UNICEF UK Baby Friendly Initiative provides guidance for compliance with the requirements for advertising in Baby Friendly health care facilities (UNICEF UK, 2013). The Baby Feeding Law Group provides quarterly updates and feedback to governments on matters that impact on compliance/conflict with the Code.

Implementing the UNICEF Baby Friendly Initiative standards requires organisations to demonstrate how they ensure that there is no promotion of breastmilk substitutes, bottles, teats or dummies in any part of the facility or by any of the staff at all stages of accreditation.

Appendix 1: **Preventing disease and saving resources**

Preventing disease and saving resources: the potential contribution of increasing breastfeeding rates in the UK looks at how raising breastfeeding rates could save the NHS money through improving health outcomes.

The report was commissioned by UNICEF UK and written by a multi-university academic team. The authors' calculations show that moderate increases in breastfeeding could see millions in potential annual savings to the NHS – and that figure might only be the tip of the iceberg.

The report findings show that, for just five illnesses, moderate increases in breastfeeding would translate into cost savings for the NHS of £40 million and tens of thousands fewer hospital admissions and GP consultations.

In addition, analyses on three conditions – cognitive ability, childhood obesity and Sudden Infant Death Syndrome (SIDS) – indicate that modest improvements in breastfeeding rates could save millions of pounds and, in the case of SIDS, children's lives.

The report makes a strong financial case for investing in better support services for women, to enable them to start breastfeeding and continue for as long as they want to.

You can download the report and appendices, plus a summary policy document. Hard copies of the report are also available to buy for £15.

www.unicef.org.uk/breastfeedingreport

Appendix 2: **Commissioning local infant feeding services including breastfeeding**

Introduction

This guidance updates the DH (2009) *Commissioning Guidance to Support Local Breastfeeding Support Services* (http://bit.ly/15j0PYy). It covers the key aspects to consider when commissioning services that support all women to initiate and continue breastfeeding; where this is not desirable or feasible, it ensures that the risks of formula feeding are minimised, and opportunities for mother-infant bonding are maximised; it also promotes maternal and infant emotional attachment and well-being.

Each of the four UK nations, England, Northern Ireland, Scotland and Wales, identifies increasing breastfeeding initiation and prevalence as a priority to improve the health of infants.

> *"A child's first relationship, the one with his mother acts as a template… [that] permanently moulds the individual's capacity to enter into all later emotional relationships."*
>
> Schore AN (2000) pp. 23–47

Breastfeeding is a positive way to improve public health, maternal and infant well-being and mother and infant attachment (Allen, 2011; NICE, 2006, 2011, 2012 & 2013; Renfrew et al, 2012a; RCM, 2012). Breastfeeding protects babies and mothers against short- and long-term ill health. When infant feeding goes wrong, as well as causing distress and misery for families involved, it also has significant economic implications – more illnesses for babies, children and adults, more trips to the GP, and more hospitalisations (DH, 2013a, Ip et al, 2007; McAndrew et al, 2012; Quigley et al, 2007).

The report Preventing Disease and Saving Resources: the potential contribution of increasing breastfeeding rates in the UK looks at how raising breastfeeding rates could save the NHS money through improving health outcomes. Findings show that moderate increases in breastfeeding would translate into cost savings for the NHS of £40 million and tens of thousands fewer hospital admissions and GP consultations per year (Renfrew et al, 2012a).

The last 20 years has shown an increase in mothers initiating and continuing to breastfeed their infants. Early skin-to-skin contact has had a significant impact on supporting women to initiate breastfeeding, but the number of women continuing to exclusively breastfeed to six months, as recommended by national and international policy, remains low (<1 per cent).

Compared to previous data (2005), the UK Infant Feeding Survey (2010) demonstrates that more women who formula feed their infants now follow recommended guidelines on making up feeds. In addition, all mothers, as recommended, are introducing solid foods to their babies later. By four months in 2005, 51 per cent of babies had received other foods. In 2010 this had dropped to 30 per cent (McAndrew et al, 2012).

Appendix 2: **Commissioning local infant feeding services including breastfeeding**

Good commissioning should include:

Effective leadership Essential to achieve measurable outcomes. Must be knowledgeable, visible, sustained and collaborative. Commissioners offer the first line of leadership and their intentions can identify the need for further strategic and local leadership within and across the NHS, local authority and the community.	**Contracts with maternity services** To provide universal services to meet the needs of all women; full implementation of the Baby Friendly Initiative standards. There should be additional specialist support for those: • with complex social needs • least likely to initiate breastfeeding • least likely to sustain breastfeeding and • who are formula feeding.
Clear plans that support collaborative working Shared networks: NHS, public health, social care and service users to work together to inform service providers of local needs and develop local care and referral pathways that meet these needs and are clearly understood. Cross-commissioning with clinical commissioning groups (CCGs) and local authorities into early year's services. Co-commissioning of CCGs to support neonatal services.	**Full implementation of the UNICEF UK Baby Friendly Initiative Standards** Progressive plans in place to implement, monitor and sustain these standards into maternity, health visiting, neonatal and children's centre services and pre-registration midwifery and health visiting curricula.
Workforce development Staff who provide services need sufficient knowledge and skills to support women to breastfeed, formula feed and form a relationship with their baby. Staff should be trained to meet the quality standards set out by UNICEF UK Baby Friendly Initiative, professional bodies, NICE guidelines and Care Quality Commission (CQC) recommendations etc.	**Effective and sustainable data collection** Data collection in line with DH guidance for maternity units, public health and children's centres should be robust and meet minimum requirements. Information should be utilised to inform future commissioning and de-commissioning of services.
Robust evaluation and feedback Lines of accountability should be clear: feedback from women and their families, data reporting and progress should report to Local Health and Wellbeing Boards to inform future commissioning.	**Evidence-based information to support a 'community of care'** The development of a 'community of care' that consistently promotes positive infant feeding practices in the public domain and across public services. This should include alignment of all public services (e.g., maternity, health visiting, children's health care, GP services, children's centres, early years settings and schools) to support both healthy infant feeding choices and early care that supports, and is sensitive to, the importance of early relationship building.

Appendix 2: Commissioning local infant feeding services including breastfeeding

Effective leadership

Improving breastfeeding rates is a complex process that requires a multifaceted approach involving a number of agencies and disciplines. Effective leadership, at all levels, is essential to coordinate strategies to achieve measureable outcomes. Leadership needs to be knowledgeable, visible, sustained and collaborative. Commissioners are in a key position to offer leadership and, where necessary, should signal the need for leadership within and across NHS and local authority services.

Senior strategic leadership: Members of the Health and Wellbeing Boards (Local Health Boards/Local Health and Social Care Trust/Local NHS boards), together with infant feeding specialists, are ideally placed to achieve the NHS and Public Health Outcomes that relate to infant feeding. They can provide a strategic framework that will oversee and ensure the implementation of local policy and implementation strategies based on local needs assessment.

Local infant feeding co-ordinators: Local infant feeding co-ordinators with sufficient seniority, knowledge and strategic project management skills are required to work across the systems and services in health, social care and education. NICE recommends one full-time equivalent co-ordinator per 3,000 births in each setting.

Leaders should plan interventions and programmes that:

- employ credible, passionate, inspirational leaders
- explore the local and national context, with the local population
- work with partners, at all levels, across the community and with women
- develop networks and an understanding of the community and environment that they are working in
- develop links for media and marketing
- adopt a flexible, accessible and appreciative style and understand the need for sustainable resources while developing strategies to implement them.

CASE STUDY:
PENNINE ACUTE HOSPITALS NHS TRUST

In 2011, the UK's first 'Consultant Midwife for Infant Feeding' was appointed in the Pennine Acute Hospitals NHS Trust, which provides maternity services for 11,000 women a year across four hospital sites (The Royal Oldham Hospital, Fairfield General Hospital, North Manchester General Hospital and Rochdale Infirmary). This innovative and dynamic role includes: management of a team of infant-feeding advisers; health care support workers and paid and volunteer peer supporters across the Trust; strategic leadership and development of the service; and teaching and research.

The added value provided by this post is the visible leadership for infant feeding at a senior level. This enables the delivery of high-impact actions, including support for UNICEF UK Baby Friendly accreditation across four maternity units and improved support for more complex challenges, including neonatal care, as well as infants on children's and general wards. Collaborative working with the University of Salford has led to the development of research at operational level, applying theory to practice. The positive culture change within services continues to deliver improved outcomes for mothers and babies with breastfeeding initiation rates rising from 29 per cent in 1995 to 66 per cent in 2012-13.

Appendix 2: **Commissioning local infant feeding services including breastfeeding**

Clear plans that support collaborative working

Commissioning responsive, multi-faceted services needs a truly collaborative approach to ensure that services are 'joined up and seamless' and that commissioning is across the whole of the breastfeeding pathway. Clinical Commissioning Groups (CCGs) and local authorities will need to cross-commission into early years services. Services for babies in neonatal or special care will need to be co-commissioned by a number of CCGs.

Collaboration among a network of clinicians, children's service professionals, community partners and service users is required to contribute to evidence-based infant feeding policy, performance and the practice agenda. Commissioners should ensure that a wide range of clinicians, strategic groups representing them and community partners are able to contribute knowledge and expertise to inform the development and implementation of local care and referral pathways.

These should be clearly understood, should meet local need and should be shared with the multidisciplinary team including: midwives working in hospital and community; heads of midwifery and maternity services liaison committees; neonatal nurses; health visitors; specialist practitioners (e.g., teenage pregnancy midwives; family nurse practitioners; public health practitioners; lay groups; and peer supporters), GPs; dieticians; pharmacists and dentists; early years settings practitioners (including nursery nurses and school nurses); business; and the local media.

GPs are crucial, not only as leads for the CCGs, but in providing practical support and contributing to improving and monitoring breastfeeding prevalence through the six to eight week check for the mother and baby.

Collaborative working, through the Health and Wellbeing Boards, provides a framework to provide consistent messages about infant feeding and the promotion of breastfeeding, actions required to improve prevalence and a mechanism for integrating effective targeting into wider workforce planning and training agendas.

CASE STUDY:
JOINT PLANS AND INVESTMENT IN SERVICES

Harrow Community Services and Northwick Park Hospital are examples of where the establishment of joint plans and investment in support services for women has translated into higher breastfeeding rates and reduced illness in babies. Work towards the UNICEF UK Baby Friendly Initiative standards started in 2005, when the breastfeeding initiation rate was 67 per cent and only 33 per cent of mothers were still exclusively breastfeeding at six-eight weeks. Multidisciplinary training was rolled out for midwives, health visitors and GPs across the acute trust and community services, so that women experienced a joined-up consistent level of care. A widespread network of trained peer supporters has been set up to work with mothers in hospital and in the community and to run breastfeeding support groups on every week day. Harrow now has a breastfeeding helpline, website, Facebook page and Twitter profile, all run by peer supporters.

In 2012, 90 per cent of mothers are initiating breastfeeding and 50 per cent of mothers exclusively breastfeed at six to eight weeks. Along with some other London boroughs, Harrow is seeing a reduction of children under the age of one being admitted to hospital with gastroenteritis. These rates are 16 per cent lower than the current UK average for health authorities.

Appendix 2: Commissioning local infant feeding services including breastfeeding

Workforce development

Postnatal Care Guidance / Quality Standards (NICE, 2006, 2013) and Public Health Guidance (NICE, 2011) recommend that all health care providers should ensure that:

- they have a written, audited and well-publicised infant feeding policy that includes training for staff and support for those staff who may be breastfeeding
- a health professional responsible for implementation of the policy is identified and this is communicated to all staff and parents.

Training all health care staff is vital and necessary for the implementation of the infant feeding policy. Staff cannot be expected to support women effectively if they do not have the knowledge, skills and understanding of what works to help women initiate and continue to breastfeed. To be effective, education and training packages must be mandatory for all staff, supported by a strong policy and senior staff. The need for practical aspects of breastfeeding and problem-solving skills to be included in basic training is now recognised.

Workforce development should equip practitioners with evidence-based knowledge and skills that build upon those that already exist. This should also help to develop inter-professional relationships and promote consistent messaging. Training should be funded, co-ordinated, multidisciplinary and multi-agency, harnessing the enthusiasm and commitment of the voluntary sector. Training is required to support women to make the best decisions for their baby based on the best available evidence (Hannula et al, 2008; Spiby et al, 2009).

CASE STUDY:
NHS BRISTOL

NHS Bristol provides an example of how commissioning an effective education programme, rolled out across the whole of the health visiting services, can have a positive impact on outcomes.

Aiming to increase breastfeeding rates at eight weeks, NHS Bristol (PCT) purchased the Baby Friendly Initiative Breastfeeding Management course for all their health visiting teams. NHS Bristol serves a population of around 400,000 people with 24 health visiting teams across the city. A study by Bristol University evaluated the health visitor team training and explored the impact of the training on: breastfeeding rates at eight weeks; breastfeeding attitudes of staff; knowledge and self-efficacy of staff; and the perceptions of mothers.

The evaluation of the Baby Friendly Initiative training for all the health visitor teams across the PCT found increases in positive staff attitudes towards breastfeeding and improved knowledge and skills to support women. The training also renewed enthusiasm for breastfeeding, improved the consistency of information and raised self-efficacy levels of all staff who help mothers with infant feeding. Mothers also reported an increase in their own self-efficacy to be able to breastfeed their infants.

The study found implementing the Baby Friendly Initiative across NHS Bristol facilitated a significant increase in breastfeeding continuation rates. Regression analysis showed that, compared to 2006, a baby born in 2009 was 1.57 times more likely to be breastfed and 1.46 times more likely to be exclusively breastfed at eight weeks old. These increases were encouraging, as breastfeeding rates at eight weeks had been static in Bristol for many years.

Appendix 2: **Commissioning local infant feeding services including breastfeeding**

Robust evaluation and feedback

As part of shaping services, commissioners are ideally placed to make links to other health and local authority agendas, such as strategies to tackle obesity and improve parenting support. An overall infant feeding strategy should ensure that promoting breastfeeding, supporting safe formula feeding and helping families to develop positive emotional relationships with their infants (NICE, 2012; RCM, 2012) is integrated into delivery plans of existing services.

NICE clinical guidance (NICE, 2006, 2008, 2010a & 2011) and quality statements (NICE, 2010b & 2013) recommend that services should meet minimum standards and report progress to ensure that NHS and public health outcomes are met.

In addition, quality and progress benchmarks could include:

- Improved accuracy and consistency of data and increased sharing of data across services
- Prevalence rates and length of breastfeeding broken down by local demographic information to ensure service meets need
- How many mothers were reached and access to services by targeted groups
- Progress towards Baby Friendly accreditation in the hospital, community and university
- Re-admission to hospital as a result of gastroenteritis and respiratory tract infections
- Experience and feedback of mothers and their families of services what worked and why (Schmied et al, 2009).

Who undertakes monitoring is something that should be agreed at partnership level and be included in partnership specification – midwives, health visitors, GPs and Maternity Service Liaison committees are all in a position to monitor infant feeding support, service effectiveness and barriers to accessing services.

CASE STUDY:
EAST LANCASHIRE HOSPITALS NHS TRUST

East Lancashire Hospitals NHS Trust (ELHT) provides maternity services in an area of mixed ethnicity with significant deprivation, with around 7,000 births a year. The Trust achieved UNICEF UK Baby Friendly accreditation in 1998 and has continued to improve care and outcomes through responding to feedback and robust monitoring and evaluation. Feedback from service users identified the need for additional support on the 34-bed postnatal ward. Collaborative working with local volunteers, trained in providing infant feeding support by the Trust or the local NCT, has delivered an additional three to six hours per day of support for mothers on the ward. The volunteers each work three hours a week and spend their time with newly delivered mothers listening and supporting and providing evidence-based information.

Since 2011, two infant feeding support workers working a combination of 50 hours have been employed to support antenatal parenthood education sessions and support for new mothers on the postnatal ward. Evaluation of the support worker posts has demonstrated that the experience of mothers has been consistently positive. One mother said: *"I couldn't have continued breastfeeding without the care and support from the Infant Feeding Support Worker"*. One midwife said: *"It makes a massive difference and supports women to have quality time discussing breastfeeding."*

Breastfeeding initiation rates in ELHT have continued to rise annually, from 27 per cent in 1995 prior to working towards Baby Friendly accreditation to 70 per cent in 2013. For more information, contact Sue Henry, Infant Feeding Co-ordinator at: **susan.henry@elht.nhs.uk**

Appendix 2: Commissioning local infant feeding services including breastfeeding

Contracts with maternity services

The NHS Outcomes Framework 2013–14, Domain 4: Ensuring that people have a positive experience of care identifies "improving women and their families' experience of maternity services" as an area for improvement. In 2010, the Care Quality Commission (CQC) identified support of infant feeding experiences, consistent advice, information and support as areas of concern (CQC, 2010). Commissioners will want to know that services in pregnancy and at birth enable women to successfully initiate breastfeeding. Full implementation of the Baby Friendly Initiative standards will increase breastfeeding initiation (Del Bono & Rabe, 2012; Kramer et al, 2001).

A Cochrane Review (Renfrew et al, 2012b) of what works to support healthy breastfeeding mothers with healthy term infants identified that:

- Interventions had more impact in areas where breastfeeding initiation rates are high
- Face-to-face support was more effective than telephone support for exclusive breastfeeding
- Exclusive breastfeeding is increased within the first six months and at up to four to six weeks when lay, professional or lay and professional support was used
- The duration of the support makes a difference: interventions with four to eight visits have more effect
- Scheduled, proactive support is more effective
- Support is more effective when it reflects the local needs.

Parents who formula feed their baby, partially or exclusively, should be given information and support to minimise the risks and promote mother-infant bonding in a way that does not leave the woman feeling guilty.

In addition, adopting an authentic, trusting, facilitative style to support women to feed and care for their babies will enhance the woman's experience and, as a result, improve mental health and self-efficacy.

CASE STUDY:
NHS WIGAN

Innovative commissioning can ensure that the needs of the most vulnerable are met and can deliver improved outcomes. NHS Wigan has commissioned a bespoke peer support service for teenage parents which provides:

- antenatal information on a one-to-one basis and parenting information for teenage parents
- postnatal visits in maternity units and at home
- communication using a teen newsletter, text messaging and Facebook.

The team works closely with Family Nurse Partnership and the Vulnerable Persons Support Team.

Breastfeeding rates among these teenagers are rising from almost nil to 12 per cent at initiation and 5 per cent at six weeks. CCG/Wigan Council: A.Healey@wigan.gov.uk

Appendix 2: **Commissioning local infant feeding services including breastfeeding**

CASE STUDY:
ADDRESSING READMISSIONS IN SHEFFIELD

Sheffield Teaching Hospitals NHS Foundation Trust, providing maternity services for more than 7,400 births a year, identified concerns regarding increasing rates of readmissions for feeding issues. To address this, the infant feeding team has worked closely with the Consultant Neonatal Nurse who leads the Advanced Neonatal Nurse Practitioner (ANNP) team to develop a Rapid Access Clinic. Babies referred by the community midwife with weight loss and/or jaundice issues are seen in this clinic. Since the development of this service, the Trust has seen a reduction in the number of hospital admissions for infant feeding problems (from 100 per cent of referrals to 32 per cent with 71 fewer readmissions over a 10-month period) and increased patient satisfaction with services. For more information contact: sue.cooper@sth.nhs.uk

Full implementation of the UNICEF UK Baby Friendly Initiative Standards

Implementation of Baby Friendly Initiative standards is associated with significant improvements in infant feeding practices within relevant health care environments (Broadfoot et al, 2005; Caldeira & Goncalves, 2007; Catteneo & Buzzetti, 2001; Figueredo et al, 2012; Kramer et al, 2001).

Since the Baby Friendly Initiative was introduced, UK breastfeeding initiation rates have risen from 62 per cent to 81 per cent (McAndrew et al, 2012). Government policy (DH, 2010), underpinned by NICE guidance (NICE 2006, 2011 & 2013), promotes the adoption and implementation of Baby Friendly Initiative standards as the best evidence-based vehicle to raise levels of breastfeeding prevalence. Evidence suggests that mothers delivering in Baby Friendly accredited hospitals are more likely to initiate breastfeeding (Del Bono & Rabe, 2012).

The newly revised Baby Friendly Initiative standards have been developed from the evidence base to inform best practice for infant feeding in the UK and to support women and families to form strong relationships with their babies (UNICEF UK, 2012).

Therefore, the challenge is to commission services that ensure that a minimum standard of care and support is provided for mothers in different settings. The Baby Friendly Initiative provides a comprehensive framework to achieve this.

Further information

The Baby Friendly Initiative is a worldwide programme of WHO and UNICEF that aims to ensure that pregnant women, mothers and babies receive an agreed standard of care in relation to feeding and building strong and loving relationships with their babies. In the UK, the Baby Friendly Initiative works with maternity, health visiting, neonatal and children's centre services, offering strategic support, training and assessment to ensure improvements in practice

When a facility has demonstrated that they have implemented agreed evidence-based standards, they can be accredited as a Baby Friendly service. The Baby Friendly Initiative is the only national intervention to show improvements in breastfeeding initiation and duration rates (Kramer et al, 2001; Broadfoot et al, 2005; Del Bono and Rabe, 2011) and therefore the implementation of the standards is recommended in two sets of NICE guidance (Postnatal Clinical Care Guidelines (2006); improving the nutrition of pregnant and breastfeeding mothers and children in low-income households (2008, in NICE Quality Standard 37, Postnatal Care (2013)) and in 'Evidence into practice' briefings (Dyson et al, 2006).

Appendix 2: Commissioning local infant feeding services including breastfeeding

Training provided by the Baby Friendly Initiative has been shown to improve the consistency of information provided to breastfeeding women and enhance the knowledge and confidence of staff (Ingram et al, 2011).

Effective and sustainable data collection

An infrastructure that tracks mothers from the start of pregnancy and children from birth will facilitate effective monitoring and target support where and when it is needed. Crucially, commissioners will want to ensure that monitoring leads to action.

Commissioners should consider reviewing whether investment in services, training and capacity building is having a positive and measurable impact on outcomes over specified periods, and whether it is being delivered to quality standards as set out by the Baby Friendly Initiative and NICE guidance. This information should be reported to the Health and Wellbeing Board (or equivalent) to inform future planning and investment, and also to decide where services may need to be de-commissioned, and new evidence-based interventions introduced.

Independent evaluation of breastfeeding support services – spanning acute and community – should help commissioners to improve performance and strengthen commissioning. Monitoring and evaluation that is rooted in the direct experiences of local mothers and their families, including women who services are currently struggling to reach, will be most powerful in helping commissioners to shape and influence future services.

Specific data is required to meet the Public Health Outcomes Framework (DH, 2012), Specialist Neonatal Care Quality Statement (NICE, 2010b) and the Children and Young Peoples Forum (Lewis & Lenehan. 2012).

Data collection tools

DH Transparency Breastfeeding quarterly statistical releases

Each primary care trust has been required to submit quarterly data on the number and percentage of mothers initiating breastfeeding and prevalence of breastfeeding at six to eight weeks. These data are submitted to the department through the web-based data collection system called Unify2.

A benchmarking tool is available for commissioners to map progress within their own local population and compare data with similar geographical areas and English national data.

http://bit.ly/X2i1zN

National Infant Feeding Survey 2010

Survey data is collated every five years across the UK and explores infant feeding practices across the infant feeding commissioning pathway, including feedback on Healthy Start.

The last survey was published in 2012 and showed: more women are initiating breastfeeding – 81 per cent compared to 78 per cent in 2005; prevalence falls to 69 per cent breastfeeding by six weeks; by six months only 34 per cent of babies receive any breastmilk and less than 1 per cent breastfeed exclusively.

http://bit.ly/1bkhHjo

Appendix 2: **Commissioning local infant feeding services including breastfeeding**

Evidence-based information to support a 'community of care'

The available evidence suggests that breastfeeding may have long-term benefits in adulthood, such as lower blood pressure and total cholesterol levels. Furthermore, breastfed infants are found to be less likely to be overweight/obese in later childhood and have improved cognitive ability (Harder et al, 2005; Horta et al, 2007; Iacovou and Sevilla-Sanz, 2010; Ip et al, 2007).

Wider social barriers to breastfeeding need to be tackled, so some evidence-based innovative service models should focus on 'big impact'. Voluntary sector organisations are key partners in the delivery of quality services, and should inform the development of quality measures and how progress will be monitored and measured.

What works for women requires support across the whole 'community of care'. The whole system, from schools to employees, needs to be mobilised to create an environment in which breastfeeding succeeds and maternal and infant health improves (Angell et al, 2011; DH/UNICEF, 2011).

All women, including those who do not breastfeed, need practical and emotional support to feel confident in their relationship with their baby, to understand the importance of early relationships and the impact this has on the infant's health and well-being. The mechanisms for supporting all women, practically and emotionally, require consideration to ensure the best possible outcomes for the mother and baby pair and for the infant's physical, social and emotional development. In support of this, the Royal College of Midwives (2012) has developed a good practice guide for midwives, supporting maternal emotional well-being and infant development (RCM, 2012).

Appendix 2: Commissioning local infant feeding services including breastfeeding

CASE STUDY:
JOINED-UP APPROACH

Sheffield City has worked over a number of years to ensure that a joined-up approach delivering high-quality support and consistent messages is delivered across the city. Support for breastfeeding is provided by maternity, health visiting and children's centre services (accredited as Baby Friendly in 2012). A team of breastfeeding peer supporters (paid and voluntary) who work in all settings make contact with every breastfeeding mother within 48 hours of discharge from hospital and work closely with health professionals to ensure that those mothers needing extra support are able to receive it.

A city-wide approach to raising awareness about the importance of breastfeeding and the support available locally is delivered through the Maternal and Infant Nutrition Group, which includes representation from acute, primary care, local council and voluntary sector organisations. Work to widen engagement with breastfeeding across sectors and work towards a community of care is achieved through joint training of a range of staff groups, including health trainers, local doulas, paediatric nurses and GPs; a breastfeeding forum open to all staff to discuss issues, review local breastfeeding rates and consider new research evidence; consistent high-quality promotional materials across the city; a local breastfeeding welcome scheme and the Breastfeeding in Sheffield Facebook page. The Maternal and Infant Nutrition group reports to the Maternal and Child Health Planning and Commissioning Group and is a strand within the Sheffield Infant Mortality Strategy and Delivery Plan. These groups report to the Children's Health and Well-being Partnership Board. This ensures that progress is regularly reported and monitored and ensures senior strategic support is available to address challenges when they arise.

To support effective monitoring, NHS Sheffield CCG has developed a Breastfeeding Prevalence Monthly Monitoring Tool available at: http://www.sheffield.nhs.uk/healthdata/resources/Breastfeeding_Monitoring_Tool_Flyer.pdf

Breastfeeding rates in Sheffield are steadily increasing. Initiation rates have gone up from 76 per cent in 2008/09 to 78 per cent in 2012/13 and prevalence at six to eight weeks has increased from 45 per cent in 2008/09 to 50 per cent in 2012/13. For more information contact: sue.cooper@sth.nhs.uk

Appendix 3: **The Bliss Baby Charter Standards**

The Bliss Baby Charter Standards (2011) provide guidance on implementation of the principles for health professionals and should be used alongside the Neonatal Taskforce Toolkit (DH, NHS, 2009), in particular its principle on 'Care of the baby and family experience' and the NICE Quality Standards for specialist neonatal care (2010).

CHARTER PRINCIPLE	DESCRIPTION	RATIONALE
1	Every baby should be treated as an individual and with dignity, respecting their social, developmental and emotional needs, as well as their medical and surgical needs. This includes respecting the baby and family's right to privacy, time to make attachments and referring to the baby by name.	Respecting the baby's individual rights – including private time for the baby and the family and the provision of care to minimise the stress of the NICU environment can enhance a preterm baby's long-term developmental outcomes, and also support attachment between the baby and the family.
2	Neonatal care decisions are based on the baby's best interest, with parents actively involved in their baby's care. These are based on evidence and best practice, and are informed by parents who are encouraged and supported in the decision-making process and actively participate in providing comfort and emotional support to their baby.	Multidisciplinary neonatal care is responsive to the physiological and psychological needs of babies, and decisions are based on the baby's best interest. Treating parents as partners in their baby's care provides the balance between baby- and family-centred care.
3	Babies receive the nationally recommended level of specialist care in the nearest specialist unit to the baby's family.	Within each unit, trained health professionals with specialist skills are available to work with babies to give parents confidence. Transport arrangements are in place for transfers to the most appropriate unit as close to home as possible.
4	Units encourage parents to be involved in plans and processes for continuous service improvement, and outcomes of care are benchmarked against local and national standards.	Outcomes are monitored against local, national and international benchmarks, developing a culture of continuous improvement that involves and informs parents, maintaining and improving the quality of care for babies and their families.
5	Parents are informed, guided and supported, so they understand their baby's care processes and feel confident in caring for them. Information provided to parents should cover clinical conditions, tests and treatment, as well as practical issues such as breastfeeding, financial support, transferring between units and local facilities.	Taking time to inform parents and provide understandable written information helps to alleviate stress and anxiety experienced by parents. Informing parents on how to get help while on the unit and on discharge aids the development of the parental relationship. Specific relevant information should be given to vulnerable groups.

Appendix 3: **The Bliss Baby Charter Standards**

CHARTER PRINCIPLE	DESCRIPTION	RATIONALE
6	Breastmilk expression and breastfeeding are actively promoted, and mothers receive practical support to achieve successful lactation. Relevant health professionals are equipped with appropriate knowledge and skills to facilitate and support lactation following a preterm birth.	The benefits of breastmilk for nutritional management are recognised. Breastmilk helps with tolerance of enteral nutrition, promotes growth and reduces infections and related complications such as necrotising enterocolitis. Breastfeeding helps promote the role of the mother and improves her self-esteem.
7	Discharge planning is facilitated and co-ordinated from initial admission to discharge date, to ensure both the baby and their family receive the appropriate care and access to resources.	Discharge should be a seamless, supported journey from the unit to home. Co-ordinated plans enable a safe and effective discharge home and provides for any on-going health and social care needs.

Adapted from: Bliss (2011) *The Bliss Baby Charter Standards:* Second edition. www.bliss.org.uk

Appendix 4: **International Code of Marketing of Breast-milk Substitutes (WHO, 1981)**

Summary of articles pertaining to the International Code of Marketing of Breast-milk Substitutes (WHO, 1981) taken from Thomson G, Dykes F, Richardson-Foster H et al (2011) *Evaluation of the Infant Feeding Information Team*. Full report. Maternal and Infant Nutrition and Nurture Unit (MAINN). UCLAN. pp. 29–30.

Article 1

"The aim of this Code is to contribute to the provision of safe and adequate nutrition for infants, by the protection and promotion of breastfeeding, and by ensuring the proper use of breastmilk substitutes, when these are necessary, on the basis of adequate information and through appropriate marketing and distribution."

Article 2

In terms of scope: *"The Code applies to the marketing of breastmilk substitutes, including infant formula; other milk products, foods and beverages, including bottle-fed complementary foods, when marketed or otherwise represented to be suitable, with or without modification, for use as a partial or total replacement of breastmilk; feeding bottles and teats. It also applies to their quality and availability and to information concerning their use"* (Article 2). A definitions section then follows (Article 3).

Key aspects covered by the Code are:

- No advertising of breastmilk substitutes to the public (Article 4)
- No free samples or supplies to mothers (Article 5)
- No promotion of products through health care facilities (including free samples) (Article 6)
- No gifts or personal samples to health workers and information to health workers must be scientific and factual (Article 7)
- No contact between company marketing personnel and mothers/parents (Article 8)
- All information on artificial feeding, including labels, should explain the benefits of breastfeeding and the costs and hazards of artificial feeding; no words or pictures idealising artificial feeding, including pictures of infants, on labels of the products (Article 9)
- Unsuitable products should not be promoted for babies; all products should be of a high quality and take account of the climatic and storage conditions of the country where they are used. All products within the scope of the Code must conform to the Codex Alimentarius standards (Article 10).

The Code and Resolutions include a ban on advertising and promotion of all formulas and give health workers responsibility for advising parents.

Article 11

Refers to the arrangements required for implementation and monitoring; with cooperation between WHO, UNICEF, other agencies of the United Nations system, non-governmental organisations (NGOs), professional groups and institutions being seen as important for ensuring effective implementation. Manufacturers and distributors are also required to monitor their own conduct and marketing practices in accordance with the Code.

Appendix 5: **Summary of WHA resolutions adopted subsequent to the Code**

YEAR	NUMBER	RESOLUTIONS
1981	WHA34.22	• Code overwhelmingly adopted by WHA (118 in favour, 1 no, 3 abstentions) • Stresses that adoption and adherence to the Code is a minimum requirement. Member States are urged to implement the Code into national legislation, regulations and other suitable measures.
1982	WHA35.26	• Recognises that commercial promotion of breastmilk substitutes contributes to an increase in artificial feeding and calls for renewed attention to implement and monitor the Code at national and international levels.
1984	WHA37.30	• Requests that the Director General work with Member States to implement and monitor the Code and to examine the promotion and use of foods unsuitable for infant and young child feeding.

1986	WHA39.28	• Urges Member States to ensure that small amounts of breastmilk substitutes needed for the minority of infants are made available through normal procurement channels and not through free or subsidised supplies.
		• Directs attention of Member States to the following:
		  ◦ Any food or drink given before complementary feeding is nutritionally required may interfere with breastfeeding and therefore should neither be promoted nor encouraged for use by infants during this period.
		  ◦ Practice of providing infants with follow-up milks is "not necessary".

1988	WHA41.11	• Request the Director General to provide legal and technical assistance to Member States in drafting or implementing the Code into national measures.
1990	WHA43.3	• Highlights the WHO/UNICEF statement on "protection, promoting and supporting breastfeeding: the special role of maternity services", which led to the Baby-Friendly Hospital Initiative in 1992. • Urges Member States to ensure that the principles and aim of the Code are given full expression in national health and nutrition policy and action.
1994	WHA47.5	• Reiterates earlier calls in 1986, 1990 and 1992 to end "free or low cost supplies" and extends the ban to all parts of the health care system; effectively superseding the provisions of Art.6.6 of the Code. • Provides guidelines on donation of breastmilk substitutes in emergencies.

1996	WHA49.15	• Calls on Member States to ensure that:
		  ◦ Complementary foods are not marketed for or used to undermine exclusive and sustained breastfeeding
		  ◦ Financial support to health professionals does not create conflicts of interest
		  ◦ Code monitoring is carried out in an independent, transparent manner free from commercial interest.

Based on Code & Resolutions and Code Essentials 3; Responsibilities of Health Workers under the International Code of Marketing of Breast-milk Substitutes and subsequent WHA resolutions. IBFAN Penang, 2011.

Appendix 6: **Summary of the United Nations Convention on the Rights of the Child**

Article 1 (Definition of the child): The Convention defines a 'child' as a person below the age of 18, unless the laws of a particular country set the legal age for adulthood younger. The Committee on the Rights of the Child, the monitoring body for the Convention, has encouraged States to review the age of majority if it is set below 18 and to increase the level of protection for all children under 18.

Article 2 (Non-discrimination): The Convention applies to all children, whatever their race, religion or abilities; whatever they think or say, whatever type of family they come from. It doesn't matter where children live, what language they speak, what their parents do, whether they are boys or girls, what their culture is, whether they have a disability or whether they are rich or poor. No child should be treated unfairly on any basis.

Article 3 (Best interests of the child): The best interests of children must be the primary concern in making decisions that may affect them. All adults should do what is best for children. When adults make decisions, they should think about how their decisions will affect children. This particularly applies to budget, policy and law makers.

Article 4 (Protection of rights): Governments have a responsibility to take all available measures to make sure children's rights are respected, protected and fulfilled. When countries ratify the Convention, they agree to review their laws relating to children. This involves assessing their social services, legal, health and educational systems, as well as levels of funding for these services. Governments are then obliged to take all necessary steps to ensure that the minimum standards set by the Convention in these areas are being met. They must help families protect children's rights and create an environment where they can grow and reach their potential. In some instances, this may involve changing existing laws or creating new ones. Such legislative changes are not imposed, but come about through the same process by which any law is created or reformed within a country. Article 41 of the Convention points out that, when a country already has higher legal standards than those seen in the Convention, the higher standards always prevail.

Article 5 (Parental guidance): Governments should respect the rights and responsibilities of families to direct and guide their children so that, as they grow, they learn to use their rights properly. Helping children to understand their rights does not mean pushing them to make choices with consequences that they are too young to handle. Article 5 encourages parents to deal with rights issues "in a manner consistent with the evolving capacities of the child". The Convention does not take responsibility for children away from their parents and give more authority to governments. It does place on governments the responsibility to protect and assist families in fulfilling their essential role as nurturers of children.

Article 6 (Survival and development): Children have the right to live. Governments should ensure that children survive and develop healthily.

Article 7 (Registration, name, nationality, care): All children have the right to a legally registered name, officially recognised by the government. Children have the right to a nationality (to belong to a country). Children also have the right to know and, as far as possible, to be cared for by their parents.

Article 8 (Preservation of identity): Children have the right to an identity – an official record of who they are. Governments should respect children's right to a name, a nationality and family ties.

Article 9 (Separation from parents): Children have the right to live with their parent(s), unless it is bad for them. Children whose parents do not live together have the right to stay in contact with both parents, unless this might hurt the child.

Article 10 (Family reunification): Families whose members live in different countries should be allowed to move between those countries so that parents and children can stay in contact, or get back together as a family.

Appendix 6: Summary of the United Nations Convention on the Rights of the Child

Article 11 (Kidnapping): Governments should take steps to stop children being taken out of their own country illegally. This article is particularly concerned with parental abductions. The Convention's Optional Protocol on the sale of children, child prostitution and child pornography has a provision that concerns abduction for financial gain.

Article 12 (Respect for the views of the child): When adults are making decisions that affect children, children have the right to say what they think should happen and have their opinions taken into account. This does not mean that children can now tell their parents what to do. This Convention encourages adults to listen to the opinions of children and involve them in decision-making – not give children authority over adults. Article 12 does not interfere with parents' right and responsibility to express their views on matters affecting their children. Moreover, the Convention recognises that the level of a child's participation in decisions must be appropriate to the child's level of maturity. Children's ability to form and express their opinions develops with age and most adults will naturally give the views of teenagers greater weight than those of a preschooler, whether in family, legal or administrative decisions.

Article 12 (Respect for the views of the child): When adults are making decisions that affect children, children have the right to say what they think should happen and have their opinions taken into account.

Article 13 (Freedom of expression): Children have the right to get and share information, as long as the information is not damaging to them or others. In exercising the right to freedom of expression, children have the responsibility to also respect the rights, freedoms and reputations of others. The freedom of expression includes the right to share information in any way they choose, including by talking, drawing or writing.

Article 14 (Freedom of thought, conscience and religion): Children have the right to think and believe what they want and to practise their religion, as long as they are not stopping other people from enjoying their rights. Parents should help guide their children in these matters. The Convention respects the rights and duties of parents in providing religious and moral guidance to their children. Religious groups around the world have expressed support for the Convention, which indicates that it in no way prevents parents from bringing their children up within a religious tradition. At the same time, the Convention recognises that, as children mature and are able to form their own views, some may question certain religious practices or cultural traditions. The Convention supports children's right to examine their beliefs, but it also states that their right to express their beliefs implies respect for the rights and freedoms of others.

Article 15 (Freedom of association): Children have the right to meet together and to join groups and organisations, as long as this does not stop other people from enjoying their rights. In exercising their rights, children have the responsibility to respect the rights, freedoms and reputations of others.

Article 16 (Right to privacy): Children have a right to privacy. The law should protect them from attacks against their way of life, their good name, their families and their homes.

Article 17 (Access to information; mass media): Children have the right to get information that is important to their health and well-being. Governments should encourage mass media – radio, television, newspapers and Internet content sources – to provide information that children can understand and to not promote materials that could harm children. Mass media should particularly be encouraged to supply information in languages that minority and indigenous children can understand. Children should also have access to children's books.

Article 18 (Parental responsibilities; state assistance): Both parents share responsibility for bringing up their children, and should always consider what is best for each child. Governments must respect the responsibility of parents for providing appropriate guidance to their children – the Convention does not take responsibility for children away from their parents and give more authority to governments. It places a responsibility on governments to provide support services to parents, especially if both parents work outside the home.

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Article 19 (Protection from all forms of violence): Children have the right to be protected from being hurt and mistreated, physically or mentally. Governments should ensure that children are properly cared for and protect them from violence, abuse and neglect by their parents, or anyone else who looks after them. In terms of discipline, the Convention does not specify what forms of punishment parents should use. However, any form of discipline involving violence is unacceptable. There are ways to discipline children that are effective in helping children learn about family and social expectations for their behaviour – ones that are non-violent, are appropriate to the child's level of development and take the best interests of the child into consideration. In most countries, laws already define what sorts of punishments are considered excessive or abusive. It is up to each government to review these laws in light of the Convention.

Article 20 (Children deprived of family environment): Children who cannot be looked after by their own family have a right to special care and must be looked after properly, by people who respect their ethnic group, religion, culture and language.

Article 21 (Adoption): Children have the right to care and protection if they are adopted or in foster care. The first concern must be what is best for them. The same rules should apply whether they are adopted in the country where they were born, or if they are taken to live in another country.

Article 22 (Refugee children): Children have the right to special protection and help if they are refugees (if they have been forced to leave their home and live in another country), as well as all the rights in this Convention.

Article 23 (Children with disabilities): Children who have any kind of disability have the right to special care and support, as well as all the rights in the Convention, so that they can live full and independent lives.

Article 24 (Health and health services): Children have the right to good quality health care – the best health care possible – to safe drinking water, nutritious food, a clean and safe environment, and information to help them stay healthy. Rich countries should help poorer countries achieve this.

Article 25 (Review of treatment in care): Children who are looked after by their local authorities, rather than their parents, have the right to have these living arrangements looked at regularly to see if they are the most appropriate. Their care and treatment should always be based on "the best interests of the child" (see Guiding Principles, Article 3).

Article 26 (Social security): Children – either through their guardians or directly – have the right to help from the government if they are poor or in need.

Article 27 (Adequate standard of living): Children have the right to a standard of living that is good enough to meet their physical and mental needs. Governments should help families and guardians who cannot afford to provide this, particularly with regard to food, clothing and housing.

Article 28 (Right to education): All children have the right to a primary education, which should be free. Wealthy countries should help poorer countries achieve this right. Discipline in schools should respect children's dignity. For children to benefit from education, schools must be run in an orderly way – without the use of violence. Any form of school discipline should take into account the child's human dignity. Therefore, governments must ensure that school administrators review their discipline policies and eliminate any discipline practices involving physical or mental violence, abuse or neglect. The Convention places a high value on education. Young people should be encouraged to reach the highest level of education of which they are capable.

Article 29 (Goals of education): Children's education should develop each child's personality, talents and abilities to the fullest. It should encourage children to respect others, human rights and their own and other cultures. It should also help them learn to live peacefully, protect the environment and respect

other people. Children have a particular responsibility to respect the rights of their parents, and education should aim to develop respect for the values and culture of their parents. The Convention does not address such issues as school uniforms, dress codes, the singing of the national anthem or prayer in schools. It is up to governments and school officials in each country to determine whether, in the context of their society and existing laws, such matters infringe upon other rights protected by the Convention.

Article 30 (Children of minorities/indigenous groups): Minority or indigenous children have the right to learn about and practice their own culture, language and religion. The right to practice one's own culture, language and religion applies to everyone; the Convention here highlights this right in instances where the practices are not shared by the majority of people in the country.

Article 31 (Leisure, play and culture): Children have the right to relax and play, and to join in a wide range of cultural, artistic and other recreational activities.

Article 32 (Child labour): The government should protect children from work that is dangerous or might harm their health or their education. While the Convention protects children from harmful and exploitative work, there is nothing in it that prohibits parents from expecting their children to help out at home in ways that are safe and appropriate to their age. If children help out in a family farm or business, the tasks they do should be safe and suited to their level of development and comply with national labour laws. Children's work should not jeopardise any of their other rights, including the right to education, or the right to relaxation and play.

Article 33 (Drug abuse): Governments should use all means possible to protect children from the use of harmful drugs and from being used in the drug trade.

Article 34 (Sexual exploitation): Governments should protect children from all forms of sexual exploitation and abuse. This provision in the Convention is augmented by the Optional Protocol on the sale of children, child prostitution and child pornography.

Article 35 (Abduction, sale and trafficking): The government should take all measures possible to make sure that children are not abducted, sold or trafficked. This provision in the Convention is augmented by the Optional Protocol on the sale of children, child prostitution and child pornography.

Article 36 (Other forms of exploitation): Children should be protected from any activity that takes advantage of them or could harm their welfare and development.

Article 37 (Detention and punishment): No one is allowed to punish children in a cruel or harmful way. Children who break the law should not be treated cruelly. They should not be put in prison with adults, should be able to keep in contact with their families, and should not be sentenced to death or life imprisonment without possibility of release.

Article 38 (War and armed conflicts): Governments must do everything they can to protect and care for children affected by war. Children under 15 should not be forced or recruited to take part in a war or join the armed forces. The Convention's Optional Protocol on the involvement of children in armed conflict further develops this right, raising the age for direct participation in armed conflict to 18 and establishing a ban on compulsory recruitment for children under 18.

Article 39 (Rehabilitation of child victims): Children who have been neglected, abused or exploited should receive special help to physically and psychologically recover and reintegrate into society. Particular attention should be paid to restoring the health, self-respect and dignity of the child.

Appendix 6: **Summary of the United Nations Convention on the Rights of the Child**

Article 40 (Juvenile justice): Children who are accused of breaking the law have the right to legal help and fair treatment in a justice system that respects their rights. Governments are required to set a minimum age below which children cannot be held criminally responsible and to provide minimum guarantees for the fairness and quick resolution of judicial or alternative proceedings.

Article 41 (Respect for superior national standards): If the laws of a country provide better protection of children's rights than the articles in this Convention, those laws should apply.

Article 42 (Knowledge of rights): Governments should make the Convention known to adults and children. Adults should help children learn about their rights, too (see also Article 4.)

Articles 43-54 (implementation measures): These articles discuss how governments and international organisations like UNICEF should work to ensure children are protected in their rights.

Appendix 7: **Summary of findings from the 2010 Infant Feeding Survey**

After initial results showed a rise in the number of women breastfeeding at birth, the full 2010 Infant Feeding Survey shows an increase in exclusive breastfeeding in later months.

Figures show that at three months, the number of mothers breastfeeding exclusively was 17 per cent (up from 13 per cent in 2005) and at four months, it was 12 per cent (up from 7 per cent in 2005).

However, exclusive breastfeeding rates at six months, which is the recommendation from WHO, remained low at around 1 per cent of mothers.

Rates of 'any breastfeeding' also showed a significant rise. At six weeks, the number of women breastfeeding at all was 48 per cent in 2005 and 55 per cent in 2010, while at six months they were 25 per cent in 2005 and 34 per cent in 2010.

Breastfeeding was most common among mothers who were: aged 30 or over; from minority ethnic groups; left education aged over 18; in managerial and professional occupations; and living in the least deprived areas.

The survey also found that mothers are introducing solids later, with a significant fall in the number introducing solids by four months from 51 per cent in 2005 to 30 per cent in 2010.

Other findings included:

- Practices recommended by UNICEF/WHO such as skin-to-skin contact, avoiding supplements and providing accurate information during the antenatal period were associated with increased breastfeeding.
- The use of follow-on formula had increased after six months, from 53 per cent to 69 per cent. The report considers this may reflect active marketing of follow-on formula in recent years.
- For the first time, the survey records whether mothers gave birth in a Baby Friendly accredited hospital and (though not if a unit is working towards Baby Friendly). Although the practices associated with Baby Friendly accreditation were linked to increased breastfeeding rates, the survey showed that breastfeeding rates in accredited units in England and Wales were lower than in non-accredited units, while Scotland showed no significant difference and Northern Ireland showed a higher likelihood of breastfeeding. This reflects the fact that, historically, hospitals with low breastfeeding rates in disadvantaged areas of the UK have been more likely to seek Baby Friendly accreditation than those in more affluent areas such as London and the South East. The result is that Baby Friendly accredited hospitals tend to have lower breastfeeding rates overall due to serving populations that tend not to breastfeed. However, the adoption of Baby Friendly practices has been shown in numerous studies to improve breastfeeding rates within those hospitals.

To read the full UNICEF report, go to:

http://bit.ly/UZItZK

or the full Health and Social Care Information Centre: Infant Feeding Survey 2010:

http://bit.ly/1bkhHjo

Appendix 8: **Further information and useful organisations**

Links to useful resources

Baby Milk Action

Information on the International Code of Marketing of Breast-milk Substitutes

www.babymilkaction.org

Begin before birth: What happens in the womb can last a lifetime

Information on the impact of stress on the growing baby linked to developing relationships in pregnancy, epigenetics and how 'nurture' affects who we become.

www.beginbeforebirth.org/the-pregnancy/emotional-state

C4EO (England)

The Centre for Excellence and Outcomes in Children and Young People's Services provides a range of products and support services to improve outcomes.

www.c4eo.org.uk

Centre for the Developing Child, Harvard University

Drawing on the full breadth of intellectual resources available across Harvard University's graduate schools and affiliated hospitals, the centre generates, translates and applies knowledge in the service of improving life outcomes for children in the United States and throughout the world.

http://developingchild.harvard.edu

Department of Health (England) Pregnancy and early years

All the news from the Department relating to pregnancy and a child's early years.

/www.dh.gov.uk/health/category/policy-areas/public-health/maternity-public-health

First Steps Nutrition

Infant milks in the UK: A practical guide for health professionals. This is a useful resource and guide to different infant milks available across the UK.

www.firststepsnutrition.org

Healthy Start

Healthy Start is a UK-wide government scheme to improve the health of low-income pregnant women and families on benefits and tax credits.

www.healthystart.nhs.uk

Health and Social Care: UK National Statistics Publication Hub

Statistical releases including breastfeeding initiation, breastfeeding prevalence at six to eight weeks, smoking status at time of delivery, GP recorded smoking status and GP recorded obesity status (BMI).

http://bit.ly/eKzHJ8

Appendix 8: Further information and useful organisations

LactMed: Drugs and Lactation Database/UK Drugs and Lactation Advisory Service

A peer-reviewed and fully referenced database of drugs to which breastfeeding mothers may be exposed. Among the data included are maternal and infant levels of drugs, possible effects on breastfed infants and on lactation, and alternative drugs to consider.

http://bit.ly/1a8pEJY

POPPY: Parents of Premature babies Project

POPPY is a three-year research project to identify effective interventions for communication, information and support for parents of a premature baby.

www.poppy-project.org.uk/

Preparation for Birth and Beyond

Preparation for Birth and Beyond: a resource pack for leaders of community groups and activities, which aims to help the NHS, local authorities and the voluntary sector in planning or running groups for expectant and new parents.

http://bit.ly/1aBliuK

RCM (2012) Maternal Emotional Well-being and Infant Development: A good practice Guide for Midwives.

This document explores women's well-being in pregnancy, labour and the postnatal period in relation to their emotions and uses the evidence to demonstrate how this impacts on infant development.

http://bit.ly/16RWr2E

Reaching out: Involving fathers in maternity care RCM/RCOG/DH/Fatherhood Inst.

This document provides an insight to all maternity service staff on how they might encourage the involvement of fathers throughout pregnancy and childbirth and into fatherhood and family life.

http://bit.ly/rXnSO2

Reduce the Risk of Cot Death

The Scottish Department of Health has produced a leaflet about reducing the risk of cot death. This well-designed leaflet explains the safest way for your baby to sleep (on their back, in a cot beside the bed).

http://bit.ly/1eMrv4B

RCPCH Healthy Child Programme e-Learning Curriculum

E-learning resources designed for all healthcare professionals working with pregnancy and the first five years of life are provided to support delivery of the 'Healthy Child Programme - Pregnancy and the first five years of life'.

www.rcpch.ac.uk/hcp

The Scientific Advisory Committee on Nutrition (SACN)

Advisory committee of independent experts that provides advice to the Food Standards Agency and Department of Health as well as other government agencies and departments.

www.sacn.gov.uk/

Start4Life

Information for pregnant women, parents, friends and family. Useful downloads and information for health professionals.

www.nhs.uk/start4life/

UK-WHO Growth charts

These growth charts are based on the WHO Child Growth Standards, which describe the optimal growth for healthy, breastfed children. The charts combine UK90 and WHO data and provide clear instructions on how to measure, plot and interpret the chart.

http://bit.ly/18xAaq5

World Alliance for Breastfeeding Action (WABA)

The World Alliance for Breastfeeding Action (WABA) is a global network of individuals and organisations concerned with the protection, promotion and support of breastfeeding worldwide.

www.waba.org.my

WHO (2003) Global Strategy for Infant and Young Child Feeding

The strategy aims to promote, protect and support appropriate infant and young child feeding. It builds on past initiatives such as the Innocenti Declaration and BFHI, addressing the needs of all children including those living in difficult circumstances (HIV, LBW and infants in emergencies).

http://bit.ly/j0pKcD

WHO Guidelines on HIV and infant feeding 2010

Principles and recommendations for infant feeding in the context of HIV and a summary of evidence.

http://bit.ly/13yI4M2

Peer/volunteer support groups, charity organisations

Association of Breastfeeding Mothers (ABM)

The Association of Breastfeeding Mothers (ABM) is a voluntary organisation founded in 1979 by a group of mothers experienced in breastfeeding counselling. Charity status was awarded to the organisation in 1980 and the association continues to grow steadily throughout the UK.

www.abm.me.uk

Best Beginnings

Best Beginnings is a charity dedicated to ending child health inequalities in the UK. Developers of DVDs from 'From Bump to Breastfeeding' and 'Small Wonders'

www.bestbeginnings.org.uk

BHIVA/CHIVA British HIV Association (Adults & Children)

BHIVA has become the leading UK professional association representing professionals in HIV care. Founded in 1995, it is a well-established and highly respected organisation with national influence committed to providing excellence in the care of those living with and affected by HIV.

www.bhiva.org

Bliss: for babies born too soon, too small, to sick

Bliss is the UK charity working to provide the best possible care and support for all premature and sick babies and their families.

www.bliss.org.uk

Appendix 8: Further information and useful organisations

Breastfeeding Network

The Breastfeeding Network (BfN) aims to be an independent source of support and information for breastfeeding women and those involved in their care.

www.breastfeedingnetwork.org.uk

Caroline Walker Trust (CWT)

The work of the CWT is particularly targeted towards vulnerable groups and people who need special help. Providing evidence-based expert reports and training materials, nutritional and practical guidelines for both young and old.

www.cwt.org.uk

Fatherhood Institute

The Fatherhood Institute is the UK's fatherhood think-tank that aims to give all children a strong bond and relationship with their fathers.

www.fatherhoodinstitute.org

ISIS Infant Sleep Information Source

Information for parents and carers supported by Durham University, UNICEF, LLL and the NCT.

www.isisonline.org.uk

The Institute of Health Visiting

The Institute of Health Visiting launched in November 2012, to promote excellence in health visiting practice to benefit all children, families and communities.

www.ihv.org.uk

Lactation Consultants of Great Britain (LCGB)

Professional organisation for qualified lactation consultants that specialises in promoting, protecting and supporting lactation issues.

www.lcgb.org

La Leche League GB

The LLL aims to help mothers to breastfeed through mother-to-mother support, encouragement, information and education, and to promote a better understanding, of breastfeeding as an important element in the healthy development of the baby and the mother.

www.laleche.org.uk

Multiple Births Foundations – feeding twins, triplets and more

Practical evidence-based advice and information on feeding twins, triplets and higher multiples is now freely available to parents. 'Feeding twins, triplets and more', a comprehensive guide, has been published by the Multiple Births Foundation (MBF).

www.multiplebirths.org.uk

NCT (National Childbirth Trust)

The NCT is the largest charity providing information for parents in the UK: antenatal classes, postnatal, breastfeeding and parenting support.

www.nct.org.uk

The United Kingdom Association for Milk Banking (UKAMB)

A registered charity that gives practical support to milk bank staff who give provision of donor breastmilk to premature babies.

www.ukamb.org

WAVE Trust

Dedicated to making the world safer by reducing the root causes of violence, including child abuse and neglect. The WAVE Trust was commissioned to carry out a rapid review of international literature relating to early intervention that recognises the importance of the near birth period, including breastfeeding and attachment.

www.wavetrust.org

NHS Evidence

NHS Evidence is a service that enables access to authoritative clinical and non-clinical evidence and best practice through a web-based portal. It helps people from across the NHS, public health and social care sectors to make better decisions as a result. NHS Evidence is managed by the National Institute for Health and Clinical Excellence (NICE).

www.evidence.nhs.uk

Keeping up to date

ChiMat

The national Child and Maternal Health Observatory (ChiMat) provides information and intelligence to improve decision-making for high-quality, cost-effective services. It supports policy makers, commissioners, managers, regulators, and other health stakeholders working on children's, young people's and maternal health.

www.chimat.org.uk

The Cochrane Library

The Cochrane Library contains the Cochrane Database of Systematic Reviews, which is the leading resource for systematic reviews in health care. Systematic reviews are widely accepted as the 'gold standard' resource in terms of evidence-based health care information.

www.thecochranelibrary.com

National Institute for Health and Clinical Excellence (NICE)

NICE guidance supports health care professionals and others to make sure that the care they provide is of the best possible quality and offers the best value for money. Their guidance is for the NHS, local authorities, charities, and anyone with a responsibility for commissioning or providing health care, public health or social care services. They also support these groups in putting guidance into practice.

www.nice.org.uk

E-alerts – subscribe to get the latest information sent to your inbox

ChiMat Knowledge Update

A weekly eBulletin highlighting the latest resources added to the ChiMat knowledge hub and covering all aspects of children's, young people's and maternal health.

www.chimat.org.uk

Children, Families and Maternity bulletin (Department of Health)

Provides updates about policy, publications or other relevant developments to anyone with an interest in the policy area of children and maternity health care.

http://bit.ly/18OTIpy

Appendix 8: Further information and useful organisations

Professional bodies

Community Practitioners' and Health Visitors' Association (CPHVA)

UK's leading professional organisation for health visitors, school nurses, nursery nurses and other community nurses working in primary care.

www.unitetheunion.org/cphva

Royal College of Midwives (RCM)

Royal College of Midwives providing support and information to the UK midwifery sector – both NHS and private.

www.rcm.org.uk

Royal College of Obstetricians and Gynaecologists (RCOG)

The RCOG encourages the study and advancement of the science and practice of Obstetrics. In 2008, the RCOG, Royal College of Anaesthetists (RCA) and Royal College of Paediatrics and Child Health (RCPCH) published Standards for Maternity Care, Standard 15: guidance on breastfeeding.

www.rcog.org.uk

Royal College of Paediatrics and Child Health (RCPCH)

The RCPCH has a major role in postgraduate medical education and professional standards. Recent developments include the launch of the WHO-UK Growth Charts.

www.rcpch.ac.uk

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