Protecting, promoting and supporting breastfeeding.

Submission no. 360
AUTHORISED: 23/5/07

SUBMISSION BY THE BABY FRIENDLY HEALTH INITIAITVE (Qld)

TO THE

House Standing Committee on Health and Ageing

Inquiry into Breastfeeding

Table of Contents

Acknowledgements

Editor

Anne Clarke: M Mid., BHSc, Grad. Dip. CE, RN, RM, CA&FH Cert., FP Cert., NP, IBCLC
Australian College of Midwives representative (Australian)
Chair – BFHI Australian Committee
41 Kidman Place
Keperra Q 4054
Ph 0415 697 537

Contributors

Virginia Thorley, OAM,ThA, BA, DipEd, GC TESOL, MA, IBCLC
Australian Lactation College representative
BFHI Australian Committee member.

Denise Fisher: MMP, BN, RM, RN, IBCLC
Australian Lactation Consultants Association representative
BFHI Australian Committee member.

Ruth Cantrill, M Mid (Hons), BN, RM, RN, IBCLC
BFHI Australian Committee member

Executive Summary

Breastfeeding is the normal way to feed infants. Scientific evidence is clear that artificial baby milk and commercially prepared formulas are inferior to breastmilk. Formula feeding is associated with deficits in general health, growth and development of infants and reduced protection from a number of acute and chronic diseases (Oddy, 2001; Howie, Forsyth, Ogston, Clarke & Florey, 1990).

There has long been consensus that breastfeeding protects infants from infectious diseases in developing countries. However, there is now substantial evidence that this protection is also significant in developed countries (Kramer & Chalmers et. al. 2001).

Infants do become ill as a result of being fed artificial baby milk, however, unlike in third world countries they are less likely to die as modern medical technology and hospital treatment regimens have improved the survival rates. While Australia is a well resourced country, advances in health care have not always been accompanied by commensurate attention to the child's right to their own mother's milk for the most appropriate healthy start in life.

International standards for promotion, protection and support of breastfeeding have been developed by the World Health Organisation (WHO) and UNICEF. Key elements of these standards are the International Code for the Marketing of Breastmilk Substitutes, of which Australia is a signatory, and the Baby Friendly Health Initiative (BFHI) a global quality improvement program which guides maternity facilities to be accredited as providers of best practice. At a national level these standards are included in the dietary guidelines developed by the Australian Department of Health & Ageing and the National Health & Medical Research Council (2003).

The BFHI evidence based guidelines are minimum international standards for professional breastfeeding knowledge and care and have recently been incorporated for example in a Queensland's Health's, Optimal Infant Nutrition: Evidence-based Guidelines (2003-2008). However, there is little to no evidence of change in Queensland hospitals indicating follow through of these goals.

Unless maternity facilities and health care professionals actively incorporate all aspects of the BFHI best practice standards into clinical practice of their maternity & child health facilities current high breastfeeding initiation rates may be at risk of decreasing. Furthermore strategic goals to influence breastfeeding mothers in Australia to sustain exclusive breastfeeding for at least six months and to continue breastfeeding for the first year of life and beyond may not be achievable.

It has been demonstrated that implementation of BFHI best practice standards in health facilities improves the standard of care and is an extremely cost-effective health promotion initiative with far reaching protective effects on maternal and child health. Indeed implementing BFHI as a quality initiative into Australian hospitals could potentially improve the health and well-being of all Australian's throughout the lifecycle.

The BFHI recommend that:

1. Provide leadership and commitment to WHO/UNICEF Baby Friendly Health Initiative as the minimum standard for quality care for pregnant women, new mothers and children in all Australian Hospitals by:
    a. consulting with Lactation Consultants, Midwives, health professionals, health workers and support groups on its implementation,
    b. employing a full-time equivalent qualified International Board Certified Lactation Consultant (IBCLC) in every birthing facility with 1000 or more births per year for clinical support and BFHI project management, and
    c. requiring that BFHI best practice standards be included in the process of hospital accreditation with Australian Council of Hospital Standards (ACHS), as a proven quality tool
2. Facilitate the integration of the 'Key Actions' identified by for example in the Queensland Health publication Optimal Infant Nutrition: evidence-based guidelines 2003 – 2008, and the standards identified by the National Health & Medical Research Council Guidelines on maternity and child health facilities.
3. Support health promotion activities that present breastfeeding as the norm for infant feeding, addressing the barriers to breastfeeding that limit initiation and duration.
4. Develop a standardised system for breastfeeding promotion throughout all health facilities in Australia which embraces indicators for the BFHI best practice standards.
5. Implement a standardised monitoring system throughout all health facilities in Australia to report routinely on population breastfeeding indicators, including regular review of indicators as BFHI is implemented in Australian.
6. Integrate the WHO/UNICEF BFHI breastfeeding guidelines into undergraduate education curriculum as a standard for all health care professionals.
7. Require continuing breastfeeding education in Australian hospitals and child health facilities to meet the requirements of BFHI assessment and reassessment.
8. Provide increased staffing support for combined mother and child care in hospital as the basis for successful initiation of breastfeeding and attachment parenting.

Affordable Health Care Begins with Breastfeeding Support and the Use of Human Milk

Introduction

The Baby Friendly Health Initiative (BFHI) Queensland committee is pleased to provide the House Standing Committee on Health and Ageing - ***Inquiry into Breastfeeding***, with an overview of the current situation regards breastfeeding support needs of women who give birth in Australian hospitals. There is a need to improve protection and support of mothers' breastfeeding decision while they are in hospital so breastfeeding is a positive experience. This submission is backed by supporting documentation from WHO & UNICEF and includes:

- An overview of the Baby Friendly Health Initiative.
- Barriers and inequities in the heath care system experienced by women who choose to breastfeed their babies.
- Identified economic costs to the health care system resulting from health problems of infants and children related to lack of breastfeeding and/or short breastfeeding duration
- The need to restructure health policies in accordance with international evidence-based standards as outlined by the World Health Organization (WHO)/United Nations Children's Fund (UNICEF) Baby Friendly Health Initiative (BFHI, 1992).

Background

During the 1970s there was much concern internationally over the decreasing rates of breastfeeding, the increasing rates of artificial feeding and associated health problems. This culminated in 1979 with a joint WHO/UNICEF meeting on 'Infant and young child feeding'. The meeting recommended the support of breastfeeding and the development of an international marketing code for infant formula and weaning foods. An 'International Code of Marketing of Breast-Milk Substitutes' (WHO Code) was later drafted and adopted in May 1981.

Throughout the 1980's breastfeeding was promoted internationally as the optimal method of infant feeding. In 1989, WHO and UNICEF released a statement on 'Protecting, Promoting and Supporting Breastfeeding: The Special Role of Maternity Services'. In this document, ten steps to successful breastfeeding are outlined. These ten steps have become the basis of the Baby Friendly Hospital Initiative (BFHI).

In 1990, the convention on the Rights of the Child again called international attention to the importance of breastfeeding. In 1991, WHO and UNICEF launched the Baby Friendly Health Initiative to promote the adoption of the Ten Steps to successful breastfeeding in maternity facilities around the world.

In May 2001 WHO updated its infant feeding recommendations (WHO 17 May, 2001a) and developed a Global Strategy for infant and young child feeding as endorsed by the World health Assembly Resolution (WHA, 2002).

These recommendations are based on and recommend continued use of past strategies such as the BFHI (WHO, 1991a) the International Code of Marketing of Breastmilk Substitutes (WHO 1981) and the Innocenti Declaration on the Protection, Promotion and Support of Breastfeeding (WHO, 1990), 1998b). In addition to these, WHO emphasises the need for comprehensive national policies on infant and young child feeding.

Australian policies have been greatly influenced by international policies. However, the evolution of these policies over time has tended to lag slightly behind those of the World Health Organisation (WHO). In 1980 the National Health and Medical Research Council (NHMRC) of Australia endorsed breastfeeding as the most suitable method of feeding Australian infants. 'Increase Breastfeeding' was adopted as one of Australia's dietary goals in 1979. To facilitate public education this goal was later translated into the dietary guideline message of 'promoting breastfeeding'.

Australia was among the 118 member states to vote in favour of the WHO Code at the World Health Assembly in May 1981. Since then, Australian government bodies and manufacturers of artificial baby milks (commonly known as 'infant formula'), have taken steps towards improving the implementation and monitoring of the WHO Code. One such step has been the signing of the Marketing in Australia of Infant Formula (MAIF Agreement) administered by the Department of Health and Ageing. However, the MAIF Agreement is somewhat weaker than the WHO Code and, unlike the WHO Code, does not cover the retail sector and marketing of bottles and teats.

In 1991, the Commonwealth government provided in principle support for UNICEF's Baby-Friendly Hospital Initiative (WHO 1991a) now administered in Australia by the Australian College of Midwives Inc. with a national advisory council drawn from relevant professional and consumer organisations. Recently the Baby Friendly Hospital Initiative has had a name change to 'Baby Friendly Health Initiative' to incorporate all health facilities (public and private) in Australia.

Recent funding applications to Federal and State resources by The Australian College of Midwives Inc. have been rejected. Unfortunately any Federal funding provided in the past barely maintained administrative costs and minimal funding received to date excluded basic cost increases. This is disappointing and may indicate the Commonwealth government's view to support the Initiative 'in principle' only.

Current Issues

BFHI promotes optimal infant feeding best practice in hospitals throughout the world by providing comprehensive guidelines to make hospitals centres of support for breastfeeding. BFHI also establishes the necessary political and technical support for breastfeeding promotion activities, draws on the experience of breastfeeding mothers for mother-to-mother support groups, the skills of health professionals. The initiative also embraces evidence-based research to support and benchmark breastfeeding practices including medical practice. The BFHI assessment process is a useful Quality Improvement tool for maternity facilities to demonstrate that best practice standards in infant feeding are followed. (Cadwell, 1997, 1998).

To receive the prestigious BFHI accreditation award, Hospitals must meet the BFHI Global Criteria for each of the *Ten Steps to Successful Breast Feeding (Appendix 1)* to achieve accreditation as a Baby- Friendly Hospital. They must also demonstrate to the BFHI assessors that they do not accept free or subsidised supplies of artificial baby milks from the industry. Note: the Australian Government is a signatory of the World Health Assembly resolution proscribing free/low cost supplies to "any part of the health care system" (WHA, 1994).

The Baby Friendly appraisal is a rigorous process carried out by a team of trained assessors from outside the facility, who report the results of the assessment to a national authority that decides the issue of designation and certification.

Since the launching of BFHI in 1991, 14,584 maternity facilities in 128 countries have been designated Baby-Friendly and the effects of the initiative are being measured by:

- breastfeeding initiation rates
- duration of exclusive breastfeeding
- health care system policy and practise changes
- maternal satisfaction with service delivery
- reduced maternal health care costs and ultimately
- lowered infant mortality and morbidity rates

The WHO/UNICEF Ten Steps to Successful Breastfeeding (Appendix 1) and the WHO/UNICEF International Code of Marketing of Breastmilk Substitutes (Appendix 2) are policies developed to promote exclusive and sustained breastfeeding as a health choice and to safeguard against inappropriate marketing of breastmilk substitutes. These policies are evidence-based and are the basis for the Baby Friendly Hospital Initiative (Vallenas & Savage, 1998).

The Problem: Barriers and Inequities in Health Care System faced by Women Who Choose to Breastfeed their Babies.

The legacy of aggressive marketing of breastmilk substitutes including 'infant formula' since the 1940's, led to false assumptions about formula feeding as nutritionally equivalent, labour saving and necessary for a progressive lifestyle choice for working parents. The provision by industry of free formula in hospital, free educational materials for new parents and educational donations for staff education has been taken for granted as a convenient way to provide patient and staff education. Strains on health care budgets have led health care facilities to depend on formula company donations as though there are no alternatives.

The ability of parents to make informed decisions about exclusive and sustained breastfeeding for their child is often limited by the level of knowledge of their health care providers about the hazards associated with infant formula and skill in providing support for lactation management (Cattaneo & Buzzetti, 2001; Freed, Clark, Sorenson, Lohr, Cefalo & Curtis, 1995).

Institutions do not routinely require breastfeeding education as mandatory when hiring staff to support prenatal and postnatal mothers, for example, maternity or child health nurses, nutritionists, dieticians, physiotherapists, speech pathologists and pharmacists. Health facilities do not require evidence of contemporary breastfeeding knowledge or practice when extending hospital privileges to obstetricians or paediatricians.

Institutions do not routinely employ professional Lactation Consultants to provide services for mothers or to service the educational needs of staff. Free formula and company sponsored educational materials are too often substitutes for a contingency of well-educated health professionals.

Mothers commonly feel vulnerable after giving birth. Younger mothers under 25 years of age, single women, women with social or economic challenges, Indigenous, Non English Speaking Background women, or women whose infants are born with health problems may be at risk of receiving inadequate support to initiate and maintain breastfeeding and are more likely to wean prematurely, before breastfeeding is established. These groups are two to three times more likely to be influenced by health professionals (Cadwell, 1999).

Mothers who initiate breastfeeding in hospital with aims to establish breastfeeding have identified adverse experiences such as:

- undermining of breastfeeding confidence when formula is used inappropriately to manage common problems.
- lack of complete information about how formula can adversely effect breastfeeding initiation.
- lack of information about the risks of formula to the health of their baby.
- frustration at receiving contradictory information and advice across the continuum of care from health workers who have minimal or inadequate breastfeeding knowledge and skills.
- inadequacies and gaps in the continuum of prenatal and postnatal support between the hospital in which they give birth and community health.
- inequities in their ability to find the support needed to establish and sustain breastfeeding in the postpartum period.
- interpretation of breastfeeding problems or failure to breastfeed as failure or imposing 'guilt' on the part of the mother rather than recognising a possible deficit in health carer knowledge and support.

Ruth Lawrence in her book **Breastfeeding: A Guide for the Medical Profession**, addresses the issue of guilt, page 224.

> *The medical profession has been hesitant to take anything but a neutral position in such discussions for fear of pressuring the mother. The evidence is stronger than ever that there are distinct advantages to the infant and mother in breastfeeding. Parents have the right to hear the data. They can make their own choice. Fear of instilling guilt is a poor reason to deprive a mother of an informed choice.*

The Implications: Unnecessary Cost to the Public Health Care System

Breastfeeding and the use of human milk have major implications for the health of infants and children and for the prevention of infant and childhood illness that require physician care, the use of antibiotics and often hospitalization (Cunningham, Jelliffe, & Jelliffe,1991).

Acute and chronic disease such as diarrhoea, allergies, diabetes and asthma to name a few, may cause death or a lifetime of morbidity in a child with a significant cost to parents, but in developed countries such as Australia, treatment and recovery is expected. Such massive costs to the public health care system are preventable by breastfeeding (Smith 2003, Drane, 1997). Indeed, considerable cost savings through reduced levels of readmission of infants for illness have been identified after a large maternity facility achieved BFHI accreditation. (Philipp, Merewood & Miller et al, 2001; Philipp, Malone, Cimo & Merewood, 2003).

The following table indicates the increased risk incurred when breastfeeding is not supported (Heinz Sight, 2001).

Relative risk for developing selected illnesses throughout life for formula-fed as compared to human milk-fed infants.
(Heinz Sight — Infant Nutrition Newsletter 58, February 2001)

Illness	Neonates 0–1 month	Infants 1–12 months	Children 1–16 years	Young Adults >16 years
Necrotising enterocolitis	2.8			
Diarrhoea	14	4–10		
Septicemia	3.2	4–10		
Meningitis		4–16	3	
Atopic eczema		2.8		
Respiratory illness		2.3–3.5		
Otitis media		8.6	3.3–4.3	
SIDS		3.5–7.7		
Colitis		6.4	2.7	1.8
Crohn's disease			2.1	1.7
Cancer (all types)			1.8	
Lymphoma			6.0	
Brain cancer			1.8	
Soft tissue sarcoma			1.6	

Poor Support for Mothers

Lack of breastfeeding support directly affects infant health. Children carry the burden of unnecessary ill health in infancy and into childhood. This failure is directly affecting the health of children and this is the main reason they are hospitalized during the first year. This costs the public health care system untold dollars (Weimer, 2001):

- Exclusive use of formula is associated with substantial costs to the health care system solely in terms of the three most common illness outcomes in the first year of life: gastrointestinal illness, otitis media, and lower respiratory infections. For each 1000 infants never breastfed, there is in excess of 2033 office visits, greater than 200 days of hospitalization and greater than 600 prescriptions compared to infants breastfed exclusively for at least 3 months. Differences between mothers who breastfed and those who did not are unlikely to account for this excess use of health care services, because figures have been adjusted for maternal education and smoking. This excess use of health care services attributable to inadequate breastfeeding costs between ($AU equivalent) $600 and $1,000 per infant never breastfed (Ball, & Wright, 1999).

- Australian evidence has verified the importance of breastfeeding in decreasing the rate of hospitalization for infants. A retrospective study which traced incidences of respiratory and gastrointestinal illnesses for 776 full term infants to six months according to feeding practices found that those who were breastfed had 47% fewer gastrointestinal episodes, 34% fewer respiratory illness and 56% less ear infections. The rate of hospitalization was 55 times greater for the artificially-fed than for the breastfed infant (Beaudry, 1995).

- Internationally, these findings were largely confirmed by the PROBIT study conducted in Belarus, which was the largest randomized control trial study ever undertaken of the affects of breastfeeding on infant health (Kramer, Chalmers, et al. 2001).

- In Australia Smith and colleagues (2003) calculated the costs to the health care system in the ACT of the sequelae of not breastfeeding. A previous Australian paper by Drane (1997) made an economic analysis of the cost savings to the health system nationally if exclusive breastfeeding at age 3 months were raised from 60% to 80% through reduction in the incidences of just four diseases more prevalent among infants who are not exclusively breastfed. The estimate exceeded $11.5 million. In 1997, Riordan calculated the health care costs for the USA for four infant illness more prevalent in the artificially fed (diarrhoea, respiratory syncytial virus, otitis media, and insulin dependent diabetes) at one billion dollars US annually (Riordan, 1997).

These figures are likely an underestimation of the total savings because they represent cost savings from the treatment of only a few childhood illnesses and do not include the costs of illness associated with women who do not breastfeed, including an increased risk of developing premenopausal breast cancer, ovarian cancer, osteoporosis etc. (Weimer, 2001).

Full cost accounting would identify the economic value of breastfeeding to the sustainability of the services provided at the hospital level and to the health care system in Australia including:

- the full burden of ill health for children and women that comes with the routine use of infant formula in hospital.
- the cost savings in paediatric admissions when exclusive breastfeeding and the use of human milk is fully supported across the continuum of care.
- the cost savings that come with staff education to support breastfeeding.
- the importance of institutional, financial and staffing policies to support combined care (mother and infant rooming in) to facilitate the initiation of successful breastfeeding and attachment parenting in hospital.
- the economic value of human milk banking.
- the cost savings that come with peer support programs e.g. the Australian Breastfeeding Association's telephone counselling line is a well established support method and is a cost-effective measure.

The Need: To Improve the Quality of Care for Mothers and Babies in Australia.

Comprehensive breastfeeding education for staff is needed to overcome barriers and inequities in the system. The WHO/UNICEF Ten Steps to Successful Breastfeeding (Appendix 1) and the WHO International Code of Marketing of Breastmilk Substitutes (Appendix 2) are international standards for care of women in birthing facilities. These standards are evidence-based and form the basis for the Baby Friendly Health Initiative.

The principles of this initiative are:

- to protect and support breastfeeding through institutional policies and staff education
- to provide information, education and assistance to mothers to enable them to breastfeed their infants
- to promote exclusive and sustained breastfeeding.

Where is BFHI in Australia now?

To date there are 58 hospitals in Australia that have met the Global standards for successful breastfeeding support and management and have been designated as a Baby Friendly Hospital. Each year many hospitals indicate a desire to implement Baby Friendly standards. However, they have identified the following barriers to carrying this through:

1. Lack of funding for a project officer to coordinate the initial project.
2. Lack of funding for the necessary initial education and continuing education of staff.
3. Lack of funding for the employment of a Lactation Consultant to supervise and manage its ongoing status.
4. Lack of a requirement by State Health Authorities to implement the minimum evidence-based best practice standards of care for breastfeeding mothers in all of its facilities.

5. No established data base or collection system in place to accurately monitor and report breastfeeding initiation and duration rates or breastfeeding practices and outcomes.

Breastfeeding is the foundation of health for individuals. Breastfeeding support has a major contribution to make an affordable health care system for Australian families. This vision is supported by:

- Recognition of children's biological need for breastfeeding as critical to the determination of health of the individual and as a basic human right.
- Leadership and commitment by the Federal and State Governments and Australian Health to the WHO/UNICEF Baby Friendly Hospital Initiative and the WHO International Code of Marketing of Breastmilk Substitutes as the minimum standard for quality care for pregnant women, new mothers and children.
- Support for integrating the standards of Australian Health's Optimal Infant Nutrition: Evidence-based Guidelines (2003-2008) and the National Health & Medical Research Council Guidelines.
- Integration of the 18 hours of the WHO/UNICEF Baby Friendly Hospital Initiative breastfeeding education into training curriculum as standard education for health care professionals.
- Adequately trained and staffing support for combined mother and child care in hospital as the basis for successful initiation of breastfeeding and attachment parenting.
- Support for breastfeeding promotion as a health imperative with access to Commonwealth and State funded network of Human Milk Banks initially to ensure all preterm or sick babies have access to human milk and eventually, to be available for other babies unable to receive their own mother's milk, prioritised according to need.

Conclusion:

The benefits of exclusive and sustained breastfeeding are not presently accessible to the majority of children in Australia. This is a quality-of-life issue for children and their mothers. It is a quality-of-care issue for women who give birth in Australian hospitals.

Protection, promotion and support are pivotal to a mother's ability to establish exclusive breastfeeding and primarily to sustain breastfeeding. There is strong evidence that this support directly affects the quality of health for infants and children and quality of life for individuals.

Comprehensive infrastructure support to the level of the WHO/UNICEF international standards is necessary to provide quality of care for breastfeeding mothers and children during the prenatal and postnatal period.

Improved breastfeeding outcomes are dependent on quality care. Quality of breastfeeding care during the prenatal and postnatal period is the foundation for an affordable health care system for all. Implementation of Baby Friendly Health Initiative best practice standards in all Australian maternity and child health institutions would go a long way towards meeting this objective.

Appendix 1

The Ten Steps to Successful Breastfeeding

A Joint WHO/UNICEF Statement, Geneva, Switzerland, 1989

Every facility or agency providing maternity services and care of newborn infants should:

1. Have a written breastfeeding policy that is routinely communicated to all health care staff.
2. Train all health care staff in skills necessary to implement this policy.
3. Inform all pregnant women about the benefits and management of breastfeeding.
4. Help mothers initiate breastfeeding within a half-hour of birth.
5. Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants.
6. Give newborn infants no food or drink other than breast milk, unless medically indicated.
7. Practice rooming-in -- allow mothers and infants to remain together 24 hours a day.
8. Encourage breastfeeding on demand.
9. Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

Appendix 2

Summary of the International Code of Marketing of Breastmilk Substitutes (The Code) and Relevant World Health Assembly (WHA) Resolutions

World Health Organization (WHO), Geneva, Switzerland, 1981, 1986, 1994, 1996, 2001

The Code and WHA Resolutions concerning infant and young child nutrition (The Code) include these important provisions:

1. No advertising of products under the scope of the Code to the public.
2. No free samples to mothers.
3. No promotion of products in health care facilities, including the distribution of free or low-cost supplies.
4. No company representatives to advise mothers.
5. No gifts or personal samples to health workers.
6. No words or pictures idealizing artificial feeding, including pictures of infants, on the labels of the products.
7. Information to health workers should be scientific and factual.
8. All information on artificial feeding, including the labels, should explain the benefits of breastfeeding and all costs and hazards associated with artificial feeding.
9. Unsuitable products such as sweetened condensed milk should not be promoted for babies.
10. All products should be of a high quality and take account of the climatic and storage conditions of the country where they are used.
11. Promote and support exclusive breastfeeding for six months as a global public health recommendation with continued breastfeeding for up to two years of age or beyond.
12. Foster appropriate complementary feeding from the age of six months recognizing that any food or drink given before nutritionally required may interfere with breastfeeding.
13. Complementary foods are not to be marketed in ways to undermine exclusive and sustained breastfeeding.
14. Financial assistance from the infant feeding industry may interfere with professionals' unequivocal support for breastfeeding.

Bibliography & References

Anderson, E.W., Johnstone, & B.M., Remax, D.T. (1999). Breastfeeding and cognitive development: A meta-analysis. *American Journal of Clinical Nutrition,* 70, 525-533.

Australian Bureau of Statistics (ABS). (2003). *Breastfeeding in Australia*, from http://www.abs.gov.au/ausstats/abs@.nsf/0/8E65D6253E10F802CA256DA40003A07C?Open

Ball, T.M., Wright A.L. (1999). Health care costs of formula-feeding in the first year of life. *Pediatrics,* 103 (4 Pt 2), 870-876.

Binns, C. (2003). Encourage and support breastfeeding. In NHMR. Council (Ed.), *Food For Health: Dietary Guidelines for Children and Adolescents in Australia* (pp. 1-19). Canberra: AusInfo.

Binns, C., & Davidson, G. (2003). Infant Feeding Guidelines for Health Workers. In NH&MRC (Ed.), *Food for Health: Dietary Guidelines for Children and Adolescents in Australia*. Canberra, Australia: AusInfo.

Binns, C., & Scott, J. (2002). Breastfeeding: Reasons for starting, reasons for stopping and problems along the way. *Breastfeeding Review, 10*(2), 13-19.

Cadwell K (1999). Reaching the goals of "Healthy People 2000" regarding breastfeeding. *Clinical Perinatology* (June);26(2):527-537.

Cadwell K.(1998). Bilirubin status as an outcome measure in monitoring adherence to baby- friendly breastfeeding policies in hospitals and birthing centers in the United States. *Journal of Human Lactation* (Sept);14(3):187-189.

Cadwell K (1997). Using the quality improvement process to affect breastfeeding protocols in United States hospitals. *Journal Human Lactation* (March);13(3):5-9.

Cattaneo, A. & Buzzetti, R. (2001). Effect on rates of breastfeeding of training for the Baby Friendly Hospital Initiative. *British Medical Journal* 323 (7235), 1358-1361

Chen A, Rogan WJ (2004). Breastfeeding and the risk of postneonatal death in the United States. *Pediatrics* 113(5):e435-e439.

Cunningham A.S., Jelliffe, D.B. & Jelliffe, E.F.P. (1991). Breast-feeding and health in the 1980's: A global epidemiological review. *Journal of Pediatrics*, 118(5), 659-666.

Department of Health & Ageing document - Towards a National System for Monitoring breastfeeding in Australia: recommendations for population indicators, definitions and next steps. http://www.health.gov.au/internet/wcms/Publishing.nsf/Content/health-pubhlth-strateg-food-pdf-breastfeeding-cnt.htm

Drane D (1997). Breastfeeding and formula feeding: a preliminary economic analysis. *Breastfeeding Review* 5:7-18.

Donath, S., & Amir, L. (2000). Rates of breastfeeding in Australia by State and socioeconomic status: Evidence from the 1995 National Health Survey. *Journal of Paediatrics and Child Health, 36*, 164-168.

Freed, G., Clark, S., Sorenson, J., Lohr, J,. Cefalo, R & Curtis, P. (1995). National assessment of physicians' breast-feeding knowledge, attitudes, training and experience. JAMA, 273(6) 472-476

Heinz Sight (2001) *Infant Nutrition Newsletter* 58, February.

Howie, P., Forsyth, J., Ogston, S., Clark, A. & Florey, C. (1990). Protective effect of breastfeeding against infection. *British Medical Journal* 300: 11-16.

INFACT. (1998). Breastfeeding: The best investment. World Breastfeeding Week Promotion Kit. Toronto: INFACT.
Available from URL: www.infactAustralian.ca

Innocenti Declaration. (1990). *The Protection, Promotion and Support of Breastfeeding.* Adopted at the WHO/UNICEF policy makers' meeting on breastfeeding in the 1990's: A Global Initiative. Held at Spedale degli Innocenti, Italy. Document 10017, New York: UNICEF.

Jack, C., Wilson, J., Windre, V., Day, J., & Blenkinship, L. (2001). Breastfeeding: continuing professional development. *British Journal of Midwifery, 9*(3), 162-166.

Kramer, M.S., Chalmers, B, Hodnett, E.D. et al. (2001). Promotion of breastfeeding intervention trial (PROBIT): A randomized trial in the Republic of Belarus. JAMA, 285: 413-420.

Lawrence, R.A. (1994). *A Guide for the Medical Profession.* (4th Ed.) Mosby. USA.

National Health & Medical Research Council (2003). *Food for Health: Dietary Guidelines for Children and Adolescents in Australia.* NH&MRC, Canberra.

Oddy WH (2001). Breastfeeding protects against illness and infection in infants and children: a review of the evidence. *Breastfeeding Rev* 9(2):11-18.

Philipp, BL., Malone, KL., Cimo, S, & Merewood, A. (2003). Sustained breastfeeding rates at a US baby-friendly hospital. Pediatrics 112(3 Pr 1):e234-236.

Philipp, BL., Merewood, A., Miller, LW., Chawla, N., Murphy-Smith, M. & Gomes, J et al (2001). Baby-friendly Hospital Initiative improves breastfeeding initiation rates in the US hospital setting. Pediatrics 108(3):677-682.

Australian Health. (2002) *Growing Strong – Feeding You and Your Baby Manual.* [Standards for quality care developed for Indigenous Women] Available at: http://www.health.qld.gov.au/phs/Documents/tphun/18914dmp.htm

Australian Health. (2003). *Optimal infant nutrition: evidence-based guidelines.* Brisbane, Australia: Australian Health. Available at: http://www.health.qld.gov.au/publications/childhealth/Optimal_Infant_Nutrition.pdf

Riordan, J. (1997). The cost of not breastfeeding: A commentary. *Journal of Human Lactation*, 13(2), 93-97.

Scott, J., Aikin, I., Binns, C., & Aroni, R. (1999). Factors associated with the duration of breastfeeding amongst women in Perth , Australia. *Acta Paediatrica, 88*, 416-421.

Scott, J., & Binns, C. (1999). Factors associated with the initiation and duration of breastfeeding : a review of the literature. *Breastfeeding Review, 7*(1), 5-16.

Scott, J., Landers, M., Hughes, R., & Binns, C. (2001). Factors associated with breastfeeding at discharge and duration of breastfeeding. *Journal of Pediatric Child Health, 37*(3), 254-261.

Sikorski, J., Renfrew, M., Pindoria, S., & Wade, A. (2002). *Support for breastfeeding mothers (Cochrane Review)*, from http://www.updatesoftware.com/abstracts/ab001141.htm

Smith JP, Thompson JF, Ellwood DA (2003). Hospital system costs of artificial infant feeding: estimates for the Australian Capital Territory. *Aust NZ J Public Health* 26(6):543-551.

UN Convention on the Rights of the Child. (1989). Article 24. New York: United Nations General Assembly, 20 Nov.

Vallenas, C., Savage, F. (1998). *Evidence for the ten steps to successful breastfeeding. Family and Reproductive Health, Division of Child Health and Development World Health Organization.* WHO/CHD/98.9.101.

Webb, K., Marks, G., Lund-Adams, M., Rutishauser, I., & Abraham, B. (2001). *Towards a National System for monitoring breastfeeding in Australia: recommendations for population indicators, definitions for the next step.* Canberra, Australia: Commonwealth of Australia.

Weimer, J. (2001) *The economic benefits of breastfeeding: A review and analysis.* Washington: Economic Research Service US Department of Agriculture. Food Assistance and Nutrition Research Report 13

World Health Organization. (1981). *International Code of Marketing of Breast milk Substitutes. Document HA34/1981/REC/1, Annex 3*. Geneva: WHO. Available from URL: http://www.ibfan.org/english/resource/who/fullcode.html

World Health Organization, United Nations Children's Fund. (1989). Protecting, Promoting and Supporting Breast-feeding: The Special Role of Maternity Services. Geneva, Switzerland: World Health Organization/UNICEF.

World Health Assembly WHA Resolutions 32.32; 34.22; 35.26; 37.30; 39.28; 41.11; 43.3; 45.34; 47.5; 49.15; 54.2. Available from URL: http://www.ibfan.org/english/resource/who/whares3332.html

WHO. (2003). *Implementing the Global Strategy for Infant and Young Child Feeding*. Geneva: WHO Document Production Services.

WHO/NHD. (1999). *The Baby-Friendly Hospital Initiative Monitoring and reassessment: Tools to Sustain Progress*. Geneva: World Health Organization. http://www.nhmrc.gov.au/publications/synopses/dietsyn.htm

World Health Organization (2002). *Global Strategies for Infant and Young Child Feeding*. WHO, Geneva.