

NSW BABY FRIENDLY HEALTH INITIATIVE (BFHI)

Submission no. 339 AUTHORISED: 30/5/07

1

Protecting, promoting and supporting breastfeeding

9 March 2007

Hon Alex Somlyay MP

Committee Chair Standing Committee on Health and Ageing House of Representatives PO Box 6021 Parliament House CANBERRA NSW 2600

Dear Minister Somlyay,

As the chair of the NSW committee of the Baby Friendly Hospital Initiative (BFHI) I am delighted to forward our submission to the "Inquiry into breastfeeding". The NSW BFHI congratulates you on this inquiry into breastfeeding as it has the potential to see a turning point in the improvement of breastfeeding in Australia and ultimately the health of the nation.

Myself or members of the NSW BFHI would be pleased to make ourselves available to appear before the committee if so desired.

Regards,

Louise Duursma

(Chair NSW BFHI)

Address correspondence to:

NSW BFHI PO Box 165, Newcastle NSW 2300

Executive summary

Breastmilk contains all the nutrients, antibodies, hormones, immune factors, and antioxidants that an infant needs to thrive during the first six months of life. Breast milk continues to provide the basis for normal growth, development and immunological protection and is recommended for at least two years and beyond.

The long term health and psychological benefits of being breastfed for this minimum recommendation should be considered as the norm and the risks associated with not breastfeeding well-known to both health professionals and the public to enable real informed choice.

The lack of understanding of the risks of artificial feeding combined with the lack of skilled support and inappropriate marketing of breast milk substitutes contribute to women in Australia weaning prematurely when they have made the choice to breastfeed.

The Baby Friendly Hospital Initiative (BFHI) Ten Steps to Successful Breastfeeding are the global standard by which health services are assessed and accredited. A 'Baby Friendly' health service is one where mothers' informed choice of feeding is supported, respected and encouraged.

The Baby Friendly Hospital Initiative (BFHI) was developed jointly by WHO & UNICEF. It was launched in 1992 to encourage maternity hospitals to implement the Ten Steps to Successful Breastfeeding and to practise in accordance with the International Code of Marketing of Breastmilk Substitutes.

Currently, its principles are being extended to cover the work of community health care services in the Seven Point Plan for the Promotion, Protection and Support of Breastfeeding in Community Health Care Settings. Following on from the Community health steps will be the steps for paediatric units. In Australia, it is now called the Baby Friendly Health Initiation (BFHI) to acknowledge this expansion.

The BFHI is an international project that aims to give every baby the best start in life by creating a health care environment where:

- Breastfeeding is the norm
- Practices known to promote the health and well being of all babies and their mothers are followed.
- Those who are unable to breastfeed or who choose not to; are supported with individual support for safe infant feeding.

Baby Friendly accreditation is a quality improvement measure. Becoming accredited demonstrates that a hospital offers the higher standard of care to all mothers and babies. Facilities that meet the required standard, can apply to be assessed and accredited as Baby Friendly. Attaining accreditation reflects the commitment of hospital staff.

To achieve the standard, midwives and other carers obtain an increased knowledge of infant feeding, greater skills and commitment to facilitate breastfeeding. This engenders an environment that encourages best practice, improving the health of new generations.

Being born in a hospital that holds the award increases the chance of being breast fed.

We know from breastfeeding initiation rates that it is most mothers' intention to breastfeed their babies, but the drop off over the first few months is considerable. A multifaceted approach is required to address this problem. With this in mind the Australian Federal Government can demonstrate their commitment to the health and wellbeing of Australians for generations to come by the implementation of the following strategies:

- 1. Support for the Baby Friendly Health Initiative
- 2. Social marketing
- 3. Health professional training
- 4. Medicare rebates for lactation services
- 5. Support for the Australian Breastfeeding Association including a 1300 helpline
- 6. Standardised data collection using universal definitions
- 7. Effective compliance with the WHO code of marketing of breastmilk substitutes.
- 8. Adoption of the WHO Growth Standards as the norm.
- 9. Support for the establishment of human milk banks.

3

a. The extent of the health benefits of breastfeeding;

There is a plethora of evidence supporting the major health risks both short and long term of a child not being breastfed inline with the WHO recommendations of exclusive breastfeeding to 6 months and continued feeding with appropriate family foods until beyond the second year of life. The benefits continue into adulthood.

Risks for the child

Necrotising enterocolitis

Babies who are fed artificial baby milks (infant formula) are at 500-1000% increased risk of developing NEC and babies fed a mixture of breastmilk and artificial baby milk are at a 200% increased risk of developing NEC¹,². It is thought that components of human milk assist in the maintenance of intestinal health in premature babies and prevent the development of NEC.¹ A recent retrospective study suggested a reduction in death from NEC after the first two weeks may be dose related to the amount of human milk given.²

Obesity

Research has consistently found that children who are not breastfed are more likely to be overweight in childhood and adolescence. The relationship appears to be dose dependent. A recent meta-analysis of research found that children breastfed for less than 1 month have a 32% increased risk of being overweight as compared to children breastfed for 4-6 months and have a **47% increased risk of being overweight** as compared to children breastfed for more than 9 months.³

Diabetes

There is evidence that the likelihood of developing Type 1 diabetes may be **related to early nutrition**. It is thought that sensitisation and development of antibodies to a cow's milk protein may be the initial step in the aetiology of Type 1 diabetes.⁴ A relationship between diarrhoeal disease due to rotavirus infection and Type 1 diabetes has also been identified.⁵

Asthma

In a specifically Australian context, research has found that introduction of milks other than human milk before 4 months of age resulted in a **25%**

increased risk of asthma, an earlier diagnosis of asthma, a 31% increase in wheezing and earlier onset of wheezing.⁶

Allergy

Infants fed infant formula (cow's milk based or soy) have a **higher incidence** of allergy than babies who are breastfed.⁷

Gastroenteritis

Children who are not breastfed have been found to be **3 times more likely** to contract rotavirus infection⁹ and children who are not breastfed will also be sicker than breastfed children who contract rotavirus.¹⁰ One study found that babies who were not breastfed had an **800% increased risk** of being sick enough with rotavirus to require a doctor's visit.¹¹ Other research has found that babies who are not breastfed have a **200-500% risk** of developing gastroenteritis caused by non-viral pathogens.¹²

Respiratory Infection

Australian research has identified that in the first year of life babies not exclusively breastfed for 2 months or at least partially breastfed for 6 months are **4 times more likely to have 4 or more hospital or doctors visits** because of upper respiratory tract infections.¹³ Babies not exclusively breastfed for 6 months are **2 times more likely to have two or more hospital or doctors visits** and are **2.6 times more likely to be hospitalised** for wheezing lower respiratory illness (bronchiolitis or asthma).¹²

Otitis Media

Children not breastfed have between **60 and 100% increased risk** of developing ofitis media ^{14 15 16} and are at about **double the risk** of suffering from recurrent ofitis media.¹⁷

Urinary Tract Infections

Babies who are not breastfed are **5 times more likely** to suffer from urinary tract infection in infancy than children who are breastfed. ¹⁸ They are also more likely to suffer from urinary tract infections up until at least 6 years of age.

Leukaemia and Lymphoma

The incidence of these diseases is much less for breastfed children, with the risk reduction being dose-related. According to Dr Mark Cregan (School of Biomedical, Biomolecular and Chemical Sciences, Faculty of Life and

5

Physical Sciences, The University of Western Australia), lymphoma is 6 times more likely if the child has been artificially fed. ^{19 20}

Mental Health Morbidity

Recent research found that children breastfed for less than 6 months had an increased risk of mental health morbidity at ages 2, 5, 8 and 10, regardless of maternal socioeconomic, demographic or psychological factors.²¹

Dental problems and malocclusion Research suggests that the use of a teat causes malformation of the palate and an increased need for extensive dental work in later life. Increased pressure from the process of bottle feeding causes the palate to narrow and heighten. This has the potential to cause upper airway disturbances such as snoring and sleep apnoea, which are related to serious health consequences.²²

Risks for the Mother

Breast Cancer

Breastfeeding reduces the risk of a woman developing breast cancer in a very strong dose dependent relationship. It has been estimated that each 12 months of breastfeeding reduces the risk of breast cancer development by 4.3% ²³ and that the impact of breastfeeding on breast cancer reduction increases with long-term breastfeeding such that women who breastfeed each of their children for 2 years or more up to **halve their risk of developing breast cancer**. ²⁴

Ovarian Cancer

Research has found that breastfeeding for 2-7 months results in an **average 20% reduction** in incidence of ovarian cancer (studies have found up to a 50% reduction with the relationship being dose dependent)²⁵

Diabetes

A recent study found that each year of breastfeeding reduces the risk of developing Type 2 diabetes **by 15% in young and middle aged women** even when BMI and other risk factors are controlled for. It is thought that this may be because breastfeeding improves the stability of glucose levels in women.²⁶

Osteoporosis

Breastfeeding improves bone mineralisation leading to decreased risk of post-menopausal hip fracture.²⁷

Indigenous Health

Life expectance of indigenous Australians still falls well below the national average. The protective benefits of breastfeeding may be more important to the health of indigenous children because of the overall poorer health of aboriginal children. As stated by James Grant the former Director of UNICEF

"Breastfeeding is a natural "safety net" against the worst effects of poverty. If the child survives the first month of life (the most dangerous period of childhood) then for the next four months or so, exclusive breastfeeding goes a long way toward cancelling out the health difference between being born into poverty and being born into affluence.... It is almost as if breastfeeding takes the infant out of poverty for those first few months in order to give the child a fairer start in life and compensate for the injustice of the world into which it was born."

Traditionally aboriginal people breastfed their children for several years and in remote areas of Australia this continues.²⁸ However, in urban and nonremote areas the breastfeeding rates decline significantly. An improvement in breastfeeding in indigenous populations has the potential to see optimal health outcomes for babies, children, mothers and ultimately adults as the preventative effects that breastfeeding has on chronic disease is carried into adulthood..

b. Evaluate the impact of marketing of breast milk substitutes on breastfeeding rates and, in particular, in disadvantaged, Indigenous and remote communities;

All manufacturers promote their products to encourage people to buy them. Manufacturers of artificial baby milks, feeding bottles and teats have been so successful around the world in their marketing campaigns that they have often created the impression among the general public and health professionals that their products are equally as good as breastmilk. The use of the terms breastmilk substitute or baby formula in itself creates the impression that they are special and equivalent to breastmilk. This submission will now refer to breastmilk substitute as artificial baby milk (ABM),

The effects of such marketing include:

- Undermining women's confidence in the superiority of breastmilk and their ability to breastfeed.
- Making health professionals reliant on artificial baby milk manufacturers for infant feeding information.
- Establishing bottle feeding as the norm.

Studies have shown that mothers who receive commercial discharge packs containing the promotion of artificial baby milks are more likely to give up breastfeeding earlier and are less likely to exclusively breastfeed.

Breastfeeding is to be encouraged and needs to be protected from the effects of artificial baby milk (ABM) promotion. This can be best achieved by strengthening the adoption of the WHO Code in Australia. The aim of the WHO Code is to contribute to the provision of safe and adequate nutrition to all infants. This is done by promoting and protecting breastfeeding and regulating artificial baby milk use.

Worldwide, health authorities agree and recommend that breastfeeding should continue until 2 years of life and beyond. The NHMRC 'Dietary Guidelines', suggest that breastfeeding continue until at least 12 months and beyond. This recommendation is frequently misinterpreted to mean only breastfeeding until 12 months. This is not consistent with the evidence and creates confusion. At 12 months, cow's milk can be added safely to a child's diet but it **DOES NOT** and **SHOULD NOT** replace breastmilk. This ambiguity allows the marketing of toddler formulas (which are linked strongly with brand names and packaging to infant formulas) because technically they do not replace breastmilk.

Whilst Australia voted to adopt the WHO Code, it has not translated it into national legislation and monitored compliance with the Code. The Marketing in Australia of

Infant Formula (MAIF) is a voluntary agreement between the Australian Government and ABM manufacturers, importers and distributors. It is not law and does not cover the distribution of infant formula, retailing, feeding bottles and teats.

The whole purpose of the WHO Code is to protect the nutritional wellbeing of infants. Breastfeeding needs to be encouraged and should be protected from practices that undermine it. There needs to be real support and commitment from government for this to occur.

Commercial freebies and discharge packs are often seen as giving a helping hand to those in need. ABMs are marketed aggressively to the general public. Parents are given the impression that these are as good as, nutritionally equivalent to, and more convenient that breastfeeding. People in rural locations and areas of social deprivation are more susceptible to these aggressive marketing strategies. Mothers are rarely informed of the risks associated with the decision not to breastfeed. In the US, the Government has been taken up this role in the form of a national campaign on the risks of formula (artificial) feeding. The Australian Government needs to follow the lead of the US Government and implement legislation to monitor and control these aggressive marketing strategies as is directed in the WHO Code.

Indigenous Australians

National breastfeeding data for Indigenous Australians are limited. The 1995 National Health Survey found that Indigenous mothers breastfed for longer than non-Indigenous mothers. The 1994 National Aboriginal and Torres Strait Islander Survey confirmed that Indigenous mothers of higher socio-economic status were more likely to breastfeed and to do so for longer than Indigenous mothers from lower socio-economic groups, but that Indigenous babies in rural areas were more likely to be breastfeed for longer than six months compared with those in urban areas. A small study in Melbourne found that although a high number of Indigenous women initiated breastfeeding (98%) only 50% and 32% were still breastfeeding at three and six months respectively.²⁹ 30 31 32 33 34

The nutritional and immunological effects of prolonged breastfeeding are particularly important in communities with a high prevalence of infectious diseases.

Baby Food Labelling

Current food labelling practices are not in line with NHMRC recommendations, leading to confusion and mixed messages for parents. Clarity of breastfeeding duration and timing of introduction of solids is needed. Many brands of infant foods still say 4 months which is very confusing for parents when the recommendation is 6 months. c. The potential short and long term impact on the health of Australians of increasing the rate of breastfeeding;

Economic Impact

There is substantial health costs associated with illnesses linked to not breastfeeding or early weaning:

Using Australian research, the NHMRC noted the high hospital cost of early weaning would be at least \$60 – 120 million a year nationally for just 5 illnesses.³⁵

In Australia, rotavirus infection is thought to account for half of all hospital admissions for severe diarrhoea, the cost of hospitalisation for each case is estimated at \$1700 per episode per child and cost of care in the community is estimated at \$440 per child. ³⁵ 36

When comparing health statistics for 1000 never breastfed infants with 1000 exclusively breastfed infants for at least 3 months,³⁷

The never breastfed infants had:

- 60 more lower respiratory tract illnesses
- 580 more episodes of otitis media
- 1053 more episodes of gastro-intestinal illnesses
- 2033 excess office visits
- 212 excess hospitalisations
- 609 excess prescriptions

Costs of maternal absenteeism on account of their baby's illnesses are significantly higher in mothers who formula feed their infants. ³⁸

There would be an estimated 3.6 Billion \$USD saved if breastfeeding rates whilst still in hospital were increased from 64% to 75% and at six months from 29% to 50%. These are designated targets set by the office of the Surgeon General. Studies showing the economic benefits of improving breastfeeding rates are repeated outside Australia.³⁹

The risks of artificial feeding for infants have been shown to continue throughout their lives. There is strong evidence to show that the benefits of breastfeeding are not just confined to babies and children but are a lifelong legacy to optimal health.

d. Initiatives to encourage breastfeeding;

Women in Australia are making the choice to breastfeed. The problem lies with the maintenance of breastfeeding and meeting the minimum targets of exclusive breastfeeding for 6 months and breastfeeding to continue until 2 years and beyond.

In 2007, breastfeeding rates remain well below the National Breastfeeding Strategy target that 80% of all infants to be at least partially breastfed at six months by the Year 2000.

Given all the evidence so far tabled in this submission, the Australian Federal Government can demonstrate their commitment to the health and wellbeing of Australians for generations to come by the implementation of the following strategies:

- 1. Support for the Baby Friendly Health Initiative (BFHI)
- 2. Social marketing
- 3. Health professional training
- 4. Medicare rebates for lactation services
- 5. Support for the Australian Breastfeeding Association including a 1300 helpline
- 6. Standardised data collection using universal definitions
- 7. Effective compliance with the WHO code of marketing of breastmilk substitutes.
- 8. Adoption of the WHO Growth Standards as the norm.
- 9. The establishment of human milk banks.

1. Support for BFHI

- I. Financial support for the administration and promotion of the BFHI in Australia.
- II. Financial support for the development of BFHI education and resources for health facilities.
- III. Provide support and incentives for all Australian health facilities to attain BFHI accreditation.
- IV. Assist with including the BFHI award into the ACHS accreditation strategy to ensure all hospitals understand the importance of BFHI.
- V. Provide adequate resources and framework to ensure the long term viability of the Australian BFHI.

Staff training is a vital component of the BFHI accreditation process. Funding for the education provision and the time staff are away from work during the training, would enable many more hospitals and community health services to participate.

2. Social Marketing

As a community, we need to understand the value of human milk and breastfeeding. A long-term, multi-target marketing campaign about breastfeeding and improved health outcomes, aimed at the whole community would provide support for mothers who choose to breastfeed. Collective accountability for breastfeeding is needed so mothers do not bear the burden and guilt of unsuccessful breastfeeding experiences.

Advertising breastmilk provides a balance of information for both parents and health professionals that currently do not exist. When a community only sees advertisements for artificial baby milk, they are coerced into the belief that this is adequate nutrition for Australian children.

The Scandinavian Government increased their breastfeeding rates to 96% after undertaking an extensive television campaign to make the whole community aware of the importance of breastfeeding. This also allows the public to witness the government's commitment to breastfeeding as a public health issue and to assist with this strategy.

3. Health Professional Training

Doctors usually receive only one or two hours of breastfeeding education during their training. They are also repeatedly provided with education about infant feeding from the manufacturers of baby foods and ABM (formula). Many health care professionals are themselves completely unaware that the health and developmental impact of breastfeeding continues for years of breastfeeding rather than months or weeks. There is no requirement to explain the risks of artificial feeding as there would be with any other intervention requiring informed consent, in fact many doctors tell parents there is no difference.

It has been found that approximately a third of women with breastfeeding problems sought help from their General Practitioner (GP) yet the information GPs gave was the least helpful compared to all other health professionals. ⁴⁰ Midwives would not refer women with breastfeeding problems to their GP. ⁴¹

Brodribb, W; Fallon, A; Hegney, D; Jackson, C. discovered the following comments when interviewing registrars:⁴²

"There are times when I'm unsure about sort of the advice that I'm giving someone. So generally there are quite some situations where I do find it difficult to advise them.

I felt really inadequate when people asked me questions regarding breastfeeding."

"I don't feel that I have a really good ...initial way of assessing and advising women when they come in ...for ...even basic breastfeeding problems

I was quite uncomfortable knowing whether or not things were ok because I hadn't seen that much of it myself."

"I don't believe that we ever had a session in our undergraduate course of graduate courses where there was a skills session..."

Independent funding for training of health professionals is needed so that they can provide confident breastfeeding support free from commercial bias and incentives.

Unfortunately women believe and trust that the health professionals they seek help from understand and support breastfeeding. When the incorrect advice is followed and breastfeeding doesn't work out, women blame themselves. There is no accountability for this lack of success or a questioning of the common practices that are not compatible with successful breastfeeding. Change can happen when the community shares the responsibility for breastfeeding success as well as failure.

4. Medicare Rebates

Lactation consultants who operate privately in the community can provide immediate skilled support for breastfeeding mothers. A Medicare rebate for this service would mean this was accessible to all mothers and would strengthen the effectiveness of those services already in place which do not have the resources to get to all the mothers in need quickly enough.

There is a professional standard for International Board Certified Lactation Consultants (IBCLC). They must have extensive experience working with breastfeeding mothers and babies to be eligible to sit the six hour international exam. Once they have gained the IBCLC qualification they must show evidence of continuing education and research (CERPS) to maintain this qualification. Every 10 years they must re-sit the international exam. They are specialists in the management of breastfeeding and lactation issues and a very valuable member of the healthcare team.

5 (a) Volunteer Support

Provide resources and support for evidence-based **voluntary community peer support programs** and other health prevention initiatives of the Australian Breastfeeding Association. When health professionals and lay support work together the outcome for the mother improves.

(b) National Helpline

Support the ABA to provide a 1300 national helpline to optimise **volunteer** contributions and provide equitable support to all Australians.

6. Collect Data Accurately

Ensure that **national breastfeeding statistics** be collected on a regular basis to measure breastfeeding rates. In 2001 Webb, K; Marks, G; Lund-Adams, M; Rutishauser, I and Abraham, B published:

"Towards a national system for monitoring breastfeeding in Australia: recommendations for population indicators, definitions and next steps" This publication was part of the National Food and Nutrition Monitoring and Surveillance Project, funded by the Commonwealth Department of Health and Aged Care. The recommendations of this study have not been adopted and data that is collected still does not accurately assess the exclusivity of breastfeeding.

The National Health Survey and the NSW Population Health survey includes; within the group of exclusively breastfed those babies that are given substances other than breastmilk, (such as artificial baby milk, juice, water or solids) as long as they are not given everyday. **This does not allow for an accurate assessment of exclusive breastfeeding rates or the health benefits of same.**

7. Effective Compliance with WHO Code

Improvement is needed in the monitoring and compliance with the MAIF Agreement (and the WHO Code) including introducing sanctions for breaches. This involves stating clear guidelines for breastfeeding duration to two years and beyond, in line with current evidence and recommendations.

8. Growth Charts & Standards

The growth charts in circulation do not represent the normal growth patterns of exclusively breastfed infants. This fact, combined with the use of weight alone, as an indicator of wellbeing, means that many babies who are thriving on breastmilk are weaned so they can attain an unhealthy rate of growth. The Multicentre Growth & Reference Study was commissioned by the World Health Organisation (WHO) from 1997 – 2003 in 6 carefully selected countries across the world. It is a planned international standard showing how children should grow. Australia needs national adoption of **WHO growth standards** as the only valid assessment tool of infant growth and development.⁴³

9. Human Milk Banking

The World Health Organisation and UNICEF support the use of donor breastmilk as the best alternative when mother's own milk is not available. Many countries use donor human milk but Australia is one of only a few nations that do not have a donor human milk service.

Milk Banks collect breastmilk from healthy screened mothers who have a plentiful supply and give donor breastmilk to babies when mothers own milk is not available. All milk is tested and heat treated prior to use. The donor milk is also fed to sick babies whose mothers cannot provide sufficient of their own breastmilk. ⁴⁴

In 1999-2000, Brazil had a network of some 150 human milk banks that delivered 215,000 litres of human milk to 300,000 preterm and low birth weight infants. By 2006, Brazil's national network of milk banks had expanded to approximately 300, Pasteurised donor milk is used around the world for infants with failure to thrive, Cardiac patients, Infants with malabsorption and short gut syndromes, infants with renal failure, Infants with inborn errors of metabolism, Paediatric burn patients, feeding intolerance, treatment of infectious diseases (diarrhoea, infantile botulism, sepsis) premature infants and Necrotising Enterocolitis (NEC)⁴⁵ Ref :Brazil National Government Guidelines

Preterm infants at the King Edward Memorial Hospital in Perth who receive mother's milk have their recovery period shortened by approximately two weeks. The estimated cost saving for one preterm infant who is given mothers' milk versus artificial substitutes is \$18,200. In Queensland alone, 4300 preterm and 4000 term babies required donor milk during 2004.⁴⁶

"Other countries should learn a lesson from Brazil. By supporting the importance of donor milk banks and the clinical use of donor milk, the healthy future of an entire country could be improved. It is the right of **all** children to be included in this healthy future through ensuring that banked human donor milk is accessible to all who need it. Everyone has an ethical obligation to promote, protect and support donor milk banking, from governments, to professional associations, to individuals."⁴⁷

15

e. Examine the effectiveness of current measures to promote breastfeeding; and peer support research

Ten Steps to Successful Breastfeeding

The "**Ten Steps to Successful Breastfeeding**" is the foundation of the WHO/UNICEF Baby Friendly Health Initiative (BFHI). They are an evidenced based strategy that summarizes the practices necessary to support breastfeeding. The BFHI addresses a major factor which has contributed to the erosion of breastfeeding – that is, health care practices that interfere with breastfeeding.

"The evidence for most of the ten steps to successful breastfeeding is substantial, even when each step is considered separately, and despite the inherent difficulties of randomization when a mother's freedom of choice must be respected.

The most clearly established are the three steps concerning guidance and support for the mother. These are step 3 antenatal education; step 5, showing mothers how to breastfeed; and step 10, continuing support after discharge from hospital. They are the steps which can be the most difficult to implement adequately, and they often the slowest to be introduced.

They require skill, which needs training, and they take health worker time so that they require revision of job descriptions. However, together they are among the most cost effective of all health interventions, and efforts to include adequate support for breastfeeding mothers should be strengthened regardless of limitations of resources." ⁴⁸

In a randomized trial in Belarus 17,000 mother-infant pairs, with mothers intending to breastfeed, were followed for 12 months. In 16 control hospitals & associated polyclinics that provide care following discharge, staff were asked to continue their usual practices. In 15 experimental hospitals & associated polyclinics staff received baby-friendly training & support.

The study found the following effect of baby-friendly changes on breastfeeding rates at 3 & 6 months:⁴⁹

Exclusive BF 3 months

6.4% Control 43.3% Experimental **Exclusive BF 6 months** 0.6% Control 7.9% Experimental

The following are an outline and explanation of each of the Ten Steps:

Step 1.

Have a written breastfeeding policy that is routinely communicated to all health care staff.

Why have a policy?

- Requires a course of action and provides guidance
- Helps establish consistent care for mothers and babies
- Provides a standard that can be evaluated

Step 2.

Train all health-care staff in skills necessary to implement this policy. Areas of knowledge

- Advantages of breastfeeding
- Risks of artificial feeding
- Mechanisms of lactation and suckling
- How to help mothers initiate and sustain breastfeeding
- How to assess a breastfeed
- How to resolve breastfeeding difficulties
- Hospital breastfeeding policies and practices
- Focus on changing negative attitudes which set up barriers

Include all other health professionals and staff who can influence breastfeeding success

Step 3.

Inform all pregnant women about the benefits of breastfeeding. Antenatal education should include:

- Benefits of breastfeeding
- Early initiation
- Importance of rooming-in (if new concept)
- Importance of feeding on demand
- Importance of exclusive breastfeeding
- How to assure enough breastmilk
- Risks of artificial feeding and use of bottles and pacifiers (soothers, teats, nipples, etc.)
- Antenatal education should not include group education on formula preparation.

Step 4.

Help mothers initiate breastfeeding within a half-hour of birth.

New interpretation of Step 4 in the revised BFHI Global Criteria (2006):

"Place babies in skin-to-skin contact with their mothers immediately following birth for at least an hour and encourage mothers to recognize when their babies are ready to breastfeed, offering help if needed."

Early initiation of breastfeeding for the normal newborn is essential because:

- Increases duration of breastfeeding
- Allows skin-to-skin contact for warmth and colonization of baby with maternal organisms
- Provides colostrum as the baby's first immunization
- Takes advantage of the first hour of alertness
- Babies learn to suckle more effectively
- Improved developmental outcomes

Mothers of skin-to-skin care infants were twice as likely to be breastfeeding one to three months post-birth than mothers in the control groups. Infants in the skin-to-skin care group breastfed an average of 42 days longer than those in the control group. ⁵⁰

Step 5.

Show mothers how to breastfeed and how to maintain lactation, even if they should be separated from their infants.

- Milk removal stimulates milk production.
- The amount of breast milk removed at each feed determines the rate of milk production in the next few hours.
- Milk removal must be continued during separation to maintain supply.
- A separated infant requires the immune protection provided by its mother's milk at a most vulnerable time.

Step 6.

Give newborn infants no food or drink other than breast milk unless medically indicated.

Impact of routine formula supplementation

- Decreased frequency or effectiveness of suckling
- Decreased amount of milk removed from breasts
- Delayed milk production or reduced milk supply
- Some infants have difficulty attaching to breast if formula given by bottle

- Exposure to cows milk protein and therefore the loss of the protective effect of exclusive breastfeeding for 6 months
- Change in protective gut flora which take an infant 2 weeks to recover
 Medically Indications

There are rare exceptions during which the infant may require other fluids or food in addition to, or in place of, breast milk. The feeding programme of these babies should be determined by qualified health professionals on an individual basis.

Step 7.

Practice rooming-in - allow mothers and infants to remain together - 24 hours a day.

Rooming-in can be described as a hospital arrangement where a mother/baby pair stay in the same room day and night, allowing unlimited contact between mother and infant.

Why Rooming-in?

- Reduces cost
- Requires minimal equipment
- Requires no additional personnel
- Reduces infection
- Helps establish and maintain breastfeeding
- Facilitates the bonding process

Step 8.

Encourage breastfeeding on demand.

Breastfeeding on demand means breastfeeding whenever the baby or mother wants, with no restrictions on the length or frequency of feeds.

Why on demand, unrestricted breastfeeding?51

- Earlier passage of meconium
- Lower maximal weight loss
- Breast-milk flow established sooner
- Larger volume of milk intake on day 3
- Less incidence of jaundice

Step 9.

Give no artificial teats or pacifiers (also called dummies and soothers) to breastfeeding infants.

The use of teats and dummies have been shown to interfere with establishing and maintaining breastfeeding.

Alternatives to artificial teats

- cup
- spoon
- dropper.
- Syringe

Step 10.

Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

"The key to best breastfeeding practices is continued day-to-day support for the breastfeeding mother within her home and community".⁵²

Support can include:

- Early postnatal or clinic checkup
- Home visits, including private lactation consultants
- Telephone calls
- Community services
- Outpatient breastfeeding clinics
- Peer counselling programmes such as ABA
- Mother support groups ABA
- Establish working relationships with those already in existence ABA
- Family support system.

Support should always include peer support programmes such as those offered by ABA to complement health professional support.

Peer support

Australia is in the fortunate position to have an organisation such as the Australian Breastfeeding Association (ABA) who has trained volunteer breastfeeding counsellors that provide skilled peer support. There have been virtually no recent studies into peer support in Australia, the following discussion of peer support research is not Australian and in all of the studies none of the peer counsellors received the level of training that an ABA counsellor undertakes. Despite this these studies overwhelming show that peer support is both an appropriate and effective intervention.

NSW Health citing Health Development Agency (Protheroe L, Dyson L, Renfrew MJ, Bull J, Mulvihill C 2003) notes that three out of five interventions that were effective in increasing initiation in USA women on low incomes included a peer support programme; and four out of six multi-faceted interventions included a peer support programme. NSW Health 2004 also noted that Dennis (2002) identifies ten studies involving peer support, four of which use experimental designs, and

concludes that peer support is a promising means to increase breastfeeding initiation and duration.

The meta-analysis of interventions involving lay support in the Cochrane review by Sikorski et al. (2001) as cited by NSW Health (2004) showed that lay support is effective in extending the period of exclusive breastfeeding. The same report cited De Oliveira et al. (2001) found that the effectiveness of interventions to increase duration of any breastfeeding was not dependant on whether they were carried out by health professionals or by peer counsellors, but found that peer support had a stronger effect on increasing the duration of exclusive breastfeeding.

Peer support programmes, delivered in the ante and postnatal periods, have also been shown to be effective at increasing both initiation and duration rates of breastfeeding among women on low incomes, and particularly among women who have expressed a wish to breastfeed (Fairbank et al. 2000 cited by NSW Health 2004) Stockley (2000) concludes that 'peer support is probably the most promising intervention in terms of supporting mothers to increase the duration of breastfeeding'. (NSW Health 2004)

Higginson (2001) cited by NSW Health 2004 concludes that evaluations of peer support programmes generally show positive impacts on initiation. Study mothers spoke enthusiastically of the intervention and felt it had increased their confidence (McInnes & Stone 2001 cited by NSW Health 2004).

Cochrane 2007 found that "Lay support is effective in promoting exclusive breastfeeding and any breastfeeding. Support offered by professionals and lay people together can be effective in prolonging any breastfeeding."⁵³

The BFHI 10 Steps to Successful Breastfeeding marries together the concept of peer and professional support.

f. The impact of breastfeeding on the long term sustainability of Australia's health system."

Australia is on the brink of a crisis of chronic disease, obesity rates are at on all time high and diabetes incidence is increasing at an alarming rate. This coupled with an aging population has the potential to seriously jeopardise the sustainability of Australia's health system.

The Dietary Guidelines for Children and Adolescents in Australia 2003 states:

"The total value of breastfeeding to the community makes it one of the most cost effective primary prevention measures available and well worth the support of the entire community"

The federal government through its leadership and financial support has the potential to directly influence the health and well being of Australians for generations to come by creating an environment where breastfeeding is the norm. A pregnant women needs to believe that she can and will breastfeed and know that she will have the support to do so.

"If appropriate advice and support are not given, a mother may prematurely terminate breastfeeding. In studies in Australia and other developed countries, the main reason for termination cited by women is a perceived insufficient milk supply. The actual number of mothers who may be physiologically incapable of providing sufficient milk is, however, extremely low. For the remainder of women who prematurely terminate breastfeeding, there are numerous causes—both biological and psychological—the majority of which are temporary and can be resolved with experienced advice or avoided by better preparation, hospital management or appropriate support.

Another difficulty is that modern hospital practice involves discharging mothers too early (often within 24–48 hours of delivery); this means hospital staff will have had insufficient time to help establish breastfeeding. A cohort study has demonstrated the importance of a supportive health system in successful breastfeeding."⁵⁴

22

Conclusion

This document has shown that Breastfeeding is both a vital and integral part of short and long term health outcomes. Improvements in BF rates are essential to the long term health of Australians. The BFHI is a strategy underpinned by evidence and designed to help improve breastfeeding support and the provision of care for all mothers and babies. Most importantly, it creates an environment that supports breastfeeding as the norm which then gives all babies the best start in life.

References

- ¹ Lucas A, Cole TJ (1990). Breastmilk and neonatal necrotising enterocolitis. The Lancet 336, 1519-1523.
- ² Meinzen-Derr J, Poindexter B, Donovan E, Stoll B, Morrow AL, Wrage L, for the NICHD Neonatal Research Network. "Role of Human Milk in ELBW Risk of NEC or Death" J Hum Lact 23(1),2007 p.94
- ³ Harder T, Bergmann R, Kallischnigg G, Plagemann A (2005). Duration of breastfeeding and risk of overweight: a meta-analysis. American Journal of Epidemiology 162: 397-403.
- ⁴ Villalpando and Hamosh 1998 Villalpando S, Hamosh M (1998). Early and late effects of breast-feeding: does breast-feeding really matter. Biology of the Neonate 74: 177-190.
- ⁵ Couper JJ (2001). Environmental triggers of type 1 diabetes. Journal of Paediatrics and Child Health 37: 218-220.
- ⁶ Oddy WH, Holt PG, Sly PD, Read AW, Landau LI, Stanley FJ, Kendall GE, Burton PR (1999). Association between breast feeding and asthma in 6 year old children: findings of a prospective birth cohort study. British Medical Journal 319: 815-819.
- ⁷ Friedman NJ, Zeiger RS (2005). The role of breast-feeding in the development of allergies and asthma. Journal of Allergy and Clinical Immunology 115: 1238-1248.
- ⁸ Oddy WH, Peat JK (2003). Breastfeeding, asthma, and atopic disease: an epidemiological review of the literature. Journal of Human Lactation 19: 250-261.
- ⁹ Gianino P, Mastretta E, Longo P, Laccisaglia A, Sartore M, Russo R, Mazzaccara A (2002). Incidence of nosocomial rotavirus infections, symptomatic and asymptomatic, in breast-fed and non-breast-fed infants. Journal of Hospital Infection 50: 13-17.
- ¹⁰ Duffy LC, Byers TE, Riepenhoff-Talty M, La Scolea LJ, Zielezny M, Ogra PL (1986). The effects of infant feeding on rotavirus-induced gastroenteritis: a prospective study. American Journal of Public Health 76: 259-263.
- ¹¹ Sethi D, Cumberland P, Hudson MJ, Rodrigues LC, Wheeler JG, Roberts JA, Tompkins DS, Cowden JM, Roderick PJ (2001). A study of infectious intestinal disease in England: risk factors associated with group a rotavirus in England 126: 63-70.
- ¹² Golding J, Emmett PM, Rogers IS (1997). Does breast feeding protect against non-gastric infections? Early Human Development 49: S105-S120.
- ¹³ Oddy WH, Sly PD, de Klerk NH, Landau LI, Kendall GE, Holt PG, Stanley FJ (2003). Breast feeding and respiratory morbidity in infancy" a birth cohort study. Archives of Diseases in Childhood 88: 224-228.¹⁴
- ¹⁴ Duffy LC, Faden H, Wasielewski R, Wolf J, Krystofik D (1997). Exclusive breastfeeding protects against bacterial colonization and day care exposure to otitis media. Pediatrics 100: e7.

- ¹⁵ Duncan B, Ey J, Holberg CJ, Wright AL, Martinez FD, Taussig LM (1993). Exclusive breastfeeding for at least 4 months protects against otitis media. Pediatrics 91: 867-872.
- ¹⁶ Teele DW, Klein JO, Rosner B (1989). Epidemiology of otitis media during the first seven years of life of children in greater Boston: a prospective cohort study. Journal of Infectious Diseases 160: 8-94
- ¹⁷ Fosarelli PD, Deangelis C, Winkelstein J, Mellits ED (1985). Infectious illnesses in the first two years of life. Pediatric Infectious Diseases 4: 153-159.
- ¹⁸ Pisacane A, Graziano L, Mazzarella G, Scarpellino B, Zona G (1992). Breast-feeding and urinary tract infection. Journal of Pediatrics 120: 87-89.
- ¹⁹ Collaborative Group on Hormonal Factors in Breast Cancer (2002). Breast cancer and breastfeeding: collaborative reanalysis of individual data from 47 epidemiological studies in 30 countries, including 50 302 women with breast cancer and 96 973 women without the disease. The Lancet 360: 187-195.
- ²⁰ Zheng T, Duan L, Liu Y, Zhang B, Wang Y, Chen Y, Zhang Y, Owens PH (2000). Lactation reduces breast cancer risk in Shandong Province, China. American Journal of Epidemiology 152: 1129-1135.
- ²¹ Oddy WH, Kendall GE, Silburn SR, Zubrick SR, de Klerk NH, Li J, Robinson M, Stanley FJ Breastfeeding and Child mental health: A Pregnancy Cohort Study to 10 Years. Telethon Institute for Child Health Research, Centre for Child Health Research, Perth WA, School of Public Health, Curtin University of Technology, Perth WA, School of Nursing and Midwifery, Curtin University of Technology, Perth WA, Australia.
- ²² Palmer B (1998). The influence of breastfeeding on the development of the oral cavity: a commentary. Journal of Human Lactation 1493-98.
- ²³ Collaborative Group on Hormonal Factors in Breast Cancer (2002). Breast cancer and breastfeeding: collaborative reanalysis of individual data from 47 epidemiological studies in 30 countries, including 50 302 women with breast cancer and 96 973 women without the disease. The Lancet 360: 187-195.
- ²⁴ Zheng T, Duan L, Liu Y, Zhang B, Wang Y, Chen Y, Zhang Y, Owens PH (2000). Lactation reduces breast cancer risk in Shandong Province, China. American Journal of Epidemiology 152: 1129-1135.
- ²⁵ Labbok MH (2001). The evidence for breastfeeding: effects of breastfeeding on the mother. Pediatric Clinics of North America 48: 143-158.
- ²⁶ Stuebe AM, Rich-Edwards JW, Willett WC, Manson JE, Michels KB (2005). Duration of lactation and incidence of type 2 diabetes. Journal of the American Medical Association 294: 2601-2610.
- ²⁷ Binns CW (2003). Dietary Guidelines for Children and Adolescents in Australia. Commonwealth of Australia. pp. 1-19.
- ²⁸ Zubrick SR, Lawrence DM, Silburn SR, Blair EM, Milroy H, Wilkes T, Eades S, D'Antoine H, Read A, Ishiguchi & Doyle S (2005). The Western Australian Aboriginal Child Health Survey: The Health of Aboriginal Children and Young People. Curtin University of Technology, Perth.
- ²⁹ National Health and Medical Research Council. Nutrition in Aboriginal and Torres Strait Islander peoples: an information paper. Canberra: NHMRC, 2000.
- ³⁰ Australian Bureau of Statistics & Australian Institute of Health and Welfare. *The health and welfare of Australia's Aboriginal and Torres Strait Islander peoples*. ABS cat. No. 4704.0. Canberra: ABS, 1999.

- ³¹ Strategic Inter-Governmental Nutrition Alliance. National Aboriginal and Torres Strait Islander Nutrition Strategy and Action Plan 2000–2010. Canberra: National Public Health Partnership, 2001. C. THE NUTRITION OF ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLES
- ³² Engeler T, McDonald M, Miller M, Groos A, Black M, Leonard D. Review of current interventions and identification of best practice currently used by community based Aboriginal and Torres Strait Islander health service providers in promoting and supporting breast feeding and appropriate infant nutrition, Canberra: Office for Aboriginal and Torres Strait Islander Health Services, 1998.
- ³³ Australian Bureau of Statistics. *National Aboriginal and Torres Strait Islander Survey*, 1994: health of Indigenous Australians. Cat. No. 4395.0. Canberra: ABS, 1996.
- ³⁴ Holmes W, Thorpe L, Phillips J. Influences on infant-feeding beliefs and practices in an urban Aboriginal community. Aust NZ J Publ Hlth1990; 21:504–10.
- ³⁵ Smith, JP, Thompson JF, et al. (2002). "Hospital system costs of artificial infant feeding: Estimates for the Australian Capital Territory." Australian and New Zealand Journal of Public Health 26(6): 543-551.
- ³⁶ Elliot EJ, Dalby-Payne JR (2004). Acute infectious diarrhoea and dehydration in children. Medical Journal of Australia
- ³⁷ Ball & Wright Health care costs of formula feeding in the first year of life Pediatrics 1999 April 103 (4 PT 2) 870-6
- ³⁸ Cohen et al Comparison of maternal absenteeism & illness rates among breastfeeding and formula feeding mothers in 2 corporations. AJHP 1995 10 (2) 148-153
- ³⁹ Weimer, The economic benefits of Breastfeeding: A Review and Analysis, Food, Assistance & Nutrition Research Report NO 13 Wash DC 2001
- ⁴⁰ Hegney D, Fallon T, O'Brien M, Plank A, Doolan J, Brodribb W et al. The Toowoomba infant feeding support service project. Report on phase 1 –A longitudinal needs analysis of breastfeeding behaviours and supports in the Toowoomba region. Toowoomba: University of Southern Queensland/University of Queensland; 2003.
- ⁴¹ Cantrill RM, CreedyDK, Cooke M. An Australian study of midwives' breast-feeding knowledge. Midwifery 2003;19:310-7
- ⁴² Brodribb, W; Fallon, A; Hegney, D; Jackson, C. Educating doctors about lactation and breastfeeding (2006) National Health & Medical Research Council. Dietary guidelines for children and adolescents in Australia incorporating the infant feeding guidelines for health workers. Canberra: Australian Government Printing Service; 2003
- ⁴³ WHO Child Growth Standards based on length/height, weight and age. WHO Multicentre Growth reference Study Group. Department of Nutrition, World health organisation, Geneva, Switzerland and members of he WHO Multicentre Growth reference Study Group. Acta Paediatrica, 2006; 450: 76 - 85
- ⁴⁴ UKAMB (United Kingdom Association of Milk Banking) www.ukamb.org/about.htm

⁴⁵ More D: The role of donor milk banking in breastfeeding promotion: Brazil's experience. *HMBANA Matters* 2006, **3**:2.

- ⁴⁶ Perinatal Data Sheets, Qld Health Dept. Ryan M Mothers Milk bank
- ⁴⁷ Global health policies that support the use of banked donor human milk: a human rights issue Lois DW Arnold 2 National Commission on Donor Milk Banking, American Breastfeeding Institute,

327 Quaker Meeting House Road, East Sandwich, MA 02537, USA International Breastfeeding Journal 2006, 1:26 doi:10.1186/1746-4358-1-26 The electronic version of this article is the complete one and can be found online at: http://www.internationalbreastfeedingjournal.com/content/1/1/26

- ⁴⁸ "Evidence for the ten steps to successful breastfeeding" Department of Child and adolescent Health, World Health Organisation 2004, p. 100
- ⁴⁹ Adapted from: Kramer MS, Chalmers B, Hodnett E, et al. Promotion of breastfeeding intervention trial (PROBIT) A randomized trial in the Republic of Belarus. *JAMA*, 2001, 285:413-420.
- ⁵⁰ (Anderson et al. 2003). Anderson GC, Moore E, Hepworth J, Bergman N (2003) Early skin-toskin contact for mothers and their healthy newborn infants. In: *The Cochrane Library*, Volume (3),2003. (Most recent update 16 April 2003) **Overview of recent reviews of interventions to promote and support breastfeeding CPHN**
- ⁵¹ Yamauchi Y, Yamanouchi I. Breast-feeding frequency during the first 24 hours after birth in fullterm neonates. *Pediatrics*, 1990, 86(2):171-175.
- ⁵² Saadeh RJ, editor. *Breast-feeding: the Technical Basis and Recommendations for Action.* Geneva, World Health Organization, pp. 62-74, 1993.
- ⁵³ NSW Health 2004 Overview of recent reviews of interventions to promote and support breastfeeding A NSW Centre for Public Health Nutrition project for NSW Health
- ⁵⁴ Binns CW (2003). Dietary Guidelines for Children and Adolescents in Australia. Commonwealth of Australia. pp. 1-19.