NES Exposure Draft Submissions
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Workplace Relations Policy Group
Department of Education, Employment and Workplace Relations
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Submission by the Australian Breastfeeding Association to the National Employment Standards Exposure Draft

The Australian Breastfeeding Association (ABA), formerly the Nursing Mothers' Association of Australia, welcomes the opportunity to make this submission on the National Employment Standards. ABA is one of the country's largest women's not-for-profit organisations and Australia's leading source of breastfeeding information and support.

Flexible working arrangements and parental leave significantly impact on breastfeeding and the health and wellbeing of women and families, and consequently are the foci of ABA's submission.

ABA recommends that government sponsored paid maternity leave should be available at an adequate level for all women for the first six months of the baby's life, to enable and support exclusively breastfeeding to 6 months in line with national and international health authority recommendations on infant feeding. This could replace and extend the 'baby bonus' which is currently given as a lump sum to all mothers.

To assist women returning from maternity leave to continue breastfeeding, ABA designed the Breastfeeding Friendly Workplace Accreditation. This program provides information and consultancy to workplaces to encourage employment conditions which support breastfeeding and family friendly practices. In addition, the Australian Breastfeeding Association would welcome the introduction of paid maternity leave for all mothers, including those who are self-employed or not in the paid workforce.

Please do not hesitate to contact me if you would like further information about the Australian Breastfeeding Association or this submission.

Yours sincerely

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Submission by the Australian Breastfeeding Association to the National Employment Standards Exposure Draft

Executive Summary

The Australian Breastfeeding Association (ABA) acknowledges that flexible working arrangements and parental leave are important issues for all working Australians.

The flexible working arrangements and parental leave provisions as outlined in the draft NES do not adequately consider the needs of breastfeeding women and the subsequent public health implications associated with early weaning. Many of ABA's national Helpline callers are in situations where women feel it necessary to wean their babies in order to return to work.

The Australian Breastfeeding Association believes it is necessary that the National Employment Standards include maternity protection provisions, support breastfeeding and prevent women from having to choose between breastfeeding and employment:

- Employer support for breastfeeding and breastfeeding employees is critical to achieving national health goals for breastfeeding.
- Maternity leave assists in establishing breastfeeding, and improves the health outcomes for mothers and babies
- Health authorities recommend exclusive breastfeeding for the first six months of life with continued breastfeeding to two years and beyond.
- There are proven health risks for mother and baby in not breastfeeding.
- Increasing rates of return to paid work by new mothers may be reducing breastfeeding.
- Women returning to work after the birth of a baby may face difficulties in individually negotiating employment conditions which support exclusive or continued breastfeeding.

There is a clear link between employment and early weaning, and there is a negative association between early return to work and breastfeeding duration reported in numerous studies of women in industrialised societies.[1] Mothers returning to work for financial reasons are less likely to breastfeed.[2]

To achieve the NHMRC targets for Australia of 80% of infants to breastfeed for at least six months of age[3], support in the workplace is paramount for continued breastfeeding. There has for some time been a gap between public health recommendations and working conditions in Australia that present as a barrier to continued breastfeeding. ABA considers the proposed NES framework a timely opportunity to provide conditions that will enable women to continue to breastfeed. This will bring industrial legislation in line with public health recommendations and prevent women from prematurely weaning because they are returning to the paid workforce.

Whilst research is limited, some US studies that have shown promising results for supporting women to continue breastfeeding in the workplace.[4] Women who breastfeed their babies are less likely to be absent from work because of baby-related illnesses and less likely to have long absences from work, compared with women who feed their infants artificial milk formula.[5] There are also other benefits which include improved retention rates, increased employee loyalty and motivation. This results in improved productivity and a family-friendly corporate image.

[1] Scott JA, Binns CW, Oddy WH, Graham KI 2006 Predictors of Breastfeeding Duration: Evidence From a Cohort Study. Pediatrics 117; 646-655
[2] Hawkins SS, Griffiths LJ, Dezateux C, Law C, The Millennium Cohort Study Health Group 2007 Maternal employment and breastfeeding initiation: findings from the Millennium Cohort Study *Paediatric & Perinatal Epidemiology* 21: 242-247.
[3] Binns CW. Encourage and support breastfeeding. Dietary Guidelines for Children and Adolescents in Australia. Commonwealth of Australia 2003:1-19.
[4] Ortiz J, McGilligan K, Kelly, P (2004) Duration of Breastmilk Expression Among Working Mothers Enrolled in an Employer-Sponsored Lactation Program. Paediatric Nursing 30(2): 111-119.
[5] Cohen R, Mrtek MB, Mrtek R (1995) Comparison of Maternal Absenteeism and Infant Illness Rates Among Breast-feeding and Formula-feeding Women in Two Corporations American Journal of Health Promotion 10(2): 148-153.

The International Labour Organization in 2000 adopted a revised Maternity Protection Convention 183[6] and Recommendation 191[7], establishing women's right to paid maternity leave, paid lactation breaks and facilities in the workplace to allow for continued breastfeeding. The elements outlined in the ILO Convention 183 are the international minimum standards for maternity protection. We urge the government to ratify the ILO Maternity Convention 183 and include paid maternity leave, paid lactation breaks and facilities for all working women by including these elements in the NES.

This is a critical time in Australia with increasing numbers of women returning to work soon after the birth of their babies. A recent survey showed that of an estimated 467,000 Australian women with children aged less than 2 years, 181,000 women had returned to work.[8] Thus in 2005, approximately 40 percent of infants within the age group at which breastfeeding is recommended had mothers in the paid workforce. Looming skills shortages, a tight labour market, housing affordability and financial pressures mean that women's workforce participation will probably continue to increase.

Breastfeeding is important for normal infant health, growth and development. Artificial feeding substantially increases an infant's risk of obesity, hypertension, diabetes and hypercholesterolemia throughout the life course. Infants fed artificial milk formulas are also significantly more susceptible to gastrointestinal illness, respiratory illness and infection, eczema, and necrotizing enterocolitis. Evidence of an association between artificial feeding and other chronic or serious illnesses or conditions such as urinary tract infection, certain types of cancers, diseases of the digestive system such as coeliac disease and Crohn's disease, liver disease and cot death is strengthening. Infants who are not breastfed are known to have poorer cognitive development and lower IQ, central nervous system development, visual acuity, and speech and jaw development. Breastfeeding also helps protect mothers against breast cancer and other cancers of the reproductive organs, and osteoporosis[9]. Based on Australian research, the cost attributed to the hospitalisation of prematurely weaned babies alone is around $60-120 million annually for just five common childhood illnesses.[10] Unless employment conditions support breastfeeding, rates in Australia could decline with further economic burden for the public health system.

The Australian National Health and Medical Research Council's (NHMRC) Dietary Guidelines for Infant Feeding reflect the World Health Organization (WHO) recommendation that infants be exclusively breastfed for the first six months of life, with ongoing breastfeeding until two years and beyond with appropriate complementary foods.[11] Only around one in ten Australian babies reach this standard of human nutrition.

Employed women in Australia will continue to be disadvantaged under the current proposal unless there are legislated minimum standards which will ensure that mothers receive adequate maternity leave to establish breastfeeding in the first six months and then can continue to breastfeed in the workplace. It is time for Australia to see maternity as part of the lifecycle that is normal, necessary and valued for the health of the population and future labour force, and which is accommodated as a matter of course by employers.

[6] http://www.ilo.org/ilolex/cgi-lex/convde.pl?C183
[7] http://www.ilo.org/ilolex/cgi-lex/convde.pl?R191
[8] Australian Bureau of Statistics November 2005, Pregnancy and Employment Transitions Australia at: http://www.abs.gopv.au/AUSSTATS/abs@nsf/Lookup?4913.0Main+Features1Nov%202005?OpenDocument
[9] See for example Gartner LM, Morton J, Lawrence RA, Naylor AJ, O'Hare D, Schanler RJ, Eidelman AI, American Academy of Pediatrics Section on Breastfeeding 2005, Breastfeeding and the use of human milk. *Pediatrics* 115(2): 496-506.
[10] Smith J, Thompson J, Ellwood D. Hospital system costs of artificial infant feeding: Estimates for the Australian Capital Territory. ANZ J Public Health 2002; 26(6): 542-551.
[11] World Health Assembly (Fifty Fourth) 2001, Infant and Young Child Nutrition: Resolution 54.2.

Recommendations:

- That the government ratify ILO Convention 183 which establishes women's right to paid maternity leave, paid lactation breaks and facilities in the workplace, consistent with Australia's commitments to women under CEDAW
- That the NES consider the health and welfare of Australian mothers and babies by protecting and widening access to paid maternity leave and breastfeeding friendly employment conditions such as permanent part-time employment, flexible working hours, job sharing or job splitting, lactation breaks and workplace facilities.
- That the NES define "reasonable business grounds" in respect of employers declining requests for flexibility.
- That the NES acknowledge that, for many workers, the proposed 12 months continuous service eligibility for parental leave is not a sufficient safety net.
- That any changes to industrial relations legislation be evaluated in terms of their effect on maternal and child health and in particular their effect in increasing the duration and exclusivity of breastfeeding in Australia.
- That workplace support for breastfeeding includes educational programs and strategies aimed at promoting positive cultural attitudes for breastfeeding support.

1. Introduction

Australian National Health and Medical Research Council's (NHMRC) Dietary Guidelines for Infant Feeding reflect the World Health Organisation (WHO) recommendation that infants be exclusively breastfed for the first six months of life, with ongoing breastfeeding until two years and beyond with appropriate complementary foods.[12] Only around one in ten Australian babies reach this standard of human nutrition.

As party to CEDAW, Australia has committed to take measures to ensure women can enjoy all their human rights and fundamental freedoms. National and state anti-discrimination laws provide some protection for breastfeeding women against discrimination by employers.

However, Australia has been slow to implement maternity protection measures including paid leave and lactation breaks which are recommended to enable women to maintain breastfeeding whilst in employment.

The Australian Breastfeeding Association (ABA) frequently receives reports from women about needing to wean their baby to return to the paid workforce. Returning to work after maternity leave isn't easy for any mother. The workplace is often a hostile environment to families and their needs, especially to women who want to continue breastfeeding. Women often feel reluctant to negotiate with their employer about their employment needs through fear of compromising their employment status. It is therefore not surprising to find that maternal employment has been found to have a negative impact on breastfeeding duration.[13]

The National Health Survey showed that the trend to workforce participation by new mothers may impact adversely on breastfeeding, with one in ten mothers reporting return to work as a reason for premature weaning, and with an increased proportion of children receiving solids or breastmilk substitutes during the first six months of life which is contrary to the recommendation of health authorities.

A recent study in NSW also showed that exclusive breastfeeding may be declining since the early 1990s.[14] The ABS survey, *Pregnancy and Employment Transition in Australia* (2005), showed that, of an estimated 467,000 Australian women with children aged less than 2 years, 181,000 women had returned to work.[15]. Thus in 2005, approximately 40 percent of infants within the age group at which breastfeeding is recommended had mothers in the paid workforce. With about 250,000 babies born each year, potentially around 50,000 mothers may reduce or cease breastfeeding because of the pressures of employment. Figures from the recent Longitudinal Survey of Australia's Children suggest that some 44 percent of mothers are now employed in the paid workforce by the time their child is twelve months old, and that 25 per cent of these women return to work before their child is six months old. Some mothers return to employment only a few weeks after childbirth.[16]

Breastfeeding and human milk is the biological norm for human infants and has been identified by a number of international conventions and agreements as a human right. Women have a right to breastfeed their children and Article 24 of the UNICEF Convention on the Rights of the Child states

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[12] World Health Assembly (Fifty Fourth) 2001, Infant and Young Child Nutrition: Resolution 54.2.

13 Hawkins SS, Griffiths LJ, Dezateux C, Law C, The Millennium Cohort Study Child Health Group Ms. Summer S. Hawkins, Health Group. Maternal employment and breast-feeding initiation: findings from the Centre for Paediatric Millennium Cohort Study. Paediatric and Perinatal Epidemiology 2007; 21: 242–247.

[14] Hector D, Webb K, and Lymer S 2004, *Report on Breastfeeding in NSW 2004*, NSW Centre for Public Health Nutrition, NSW Department of Health, Sydney.

[15] Australian Bureau of Satistics November 2005, Pregnancy and Employment Transitions Australia at: http://www.abs.gopv.au/AUSSTATS/abs@nsf/Lookup?4913.0Main+Features1Nov%202005?OpenDocument

[16] Australian Institute of Family Studies 2005, The Longitudinal Study of Australian Children 2004 Annual Report, Melbourne

that breastfeeding is an essential component in assuring the child's right to the highest attainable standard of health. Women do not lose this right when they return to paid employment.[17] Australia is obliged to ensure an environment that empowers women to breastfeed their children if they choose. However, in the last decade, it could be argued that efforts to promote breastfeeding by governments, health authorities and others have achieved little more than to stem the decline in breastfeeding rates arising from commercial and labour market pressures.

2. Paid Work and Breastfeeding

The Association would support government workplace relation legislation and educational initiatives that enable and encourage mothers to combine working and breastfeeding.

The Association's extensive experience in counselling mothers, through our Breastfeeding Helpline and face-to-face in group meetings, indicates that some mothers either do not initiate breastfeeding, or only do so for a matter of weeks, if they are returning to the paid workforce in the early months after the birth. In a recent Perth study, maternal age and a mother's return to work were the two most important socio-demographic factors which affected the duration of breastfeeding for up to six and twelve months. Return to work was also the only socio-demographic factor that determined levels of exclusive breastfeeding to six months for mothers who returned to work before twelve months.[18]

Breastfeeding-friendly work conditions, such as lactation breaks, supportive workplace policies and practices, and facilities provided for women to express breastmilk or breastfeed their babies, are vitally important to ensuring ongoing breastfeeding. Industrial relations legislation should support and protect breastfeeding as the physiologically and socially normal mode of infant feeding for all mothers and babies, irrespective of socio-economic background.

Women, especially those in low paid casual employment, may have particular difficulty negotiating paid maternity leave and improved breastfeeding-friendly employment conditions. It would be highly inequitable if industrial relations changes resulted in paid maternity leave and breastfeeding-friendly work conditions only being made available to women with significant influence or with forward-thinking employers. The Australian Breastfeeding Association strongly advocates that breastfeeding-friendly provisions, such as paid maternity leave, lactation breaks and workplace facilities, are included as protected employment conditions.

Requests for flexible working arrangements

Adequate support for women to combine breastfeeding and work must become a central component in the framework of minimum workplace entitlements. Flexible work options, like permanent part-time, flexible working hours, job sharing or job splitting, lactation breaks and home-based work can all help women combine their work and breastfeeding commitments.

There is a need to help protect women who do not have the confidence to request flexible working arrangements individually. There are some women who fear for the security of their job, or are shy or embarrassed about discussing their breastfeeding needs with their employer.

The Australian Breastfeeding Association (ABA) would like to see programs, initiated by the workplace, that encourage breastfeeding friendly environments and include a training component for educating employers about the benefits of such workplace flexibility. The Breastfeeding Friendly Workplace

[17] Latham M. A mother's right to breastfeed: removing the obstacles.: The United Nations University; 1999.
[18] Binns C, Graham K. Project report of the Perth Infant Feeding Study Mark II (2002-2004) for the Australian Government Department of Health and Ageing. Perth: Curtin University of Technology; 2005.

Accreditation (BFWA) program is an example of the type of initiative with potential to bring widespread change within the workplace culture (details of this particular program are discussed below).

The current draft NES proposal does not define 'reasonable business grounds' with requests for flexible working arrangements. The lack of definition is likely to be broadly interpreted depending on the willingness, experiences and degree of innovative approaches of employers. It has the potential to be unfairly used to justify the denial of requests for flexible work arrangements and not accommodate the needs of breastfeeding women because it is considered easier for women to wean. There is a potential conflict between workplace and infant and maternal welfare. With no available third party to arbitrate between disputes, women requesting flexible working arrangements for lactation breaks or a reduction in work hours may be unfairly denied, or alternatively reliant on the generosity of the manager or employer.

Paid lactation breaks

Lactation breaks are the lynch pin for any supportive workplace practices to promote breastfeeding and without them, all else fails.[19] An experienced mother can usually breastfeed her baby or express her breastmilk in fifteen to twenty minutes. Given that she will also need time to either get to her baby or get to a room to express in, then set up and clean equipment and store her expressed breastmilk before returning to her work station, a realistic length for a lactation break is about thirty minutes. However, flexibility is required as newer mothers learn how to express in the workplace or, if the baby is being breastfed, allowances are made for their unpredictability. The number of breaks will depend on individual circumstances including the age of the baby and their individual breastfeeding pattern.

The International Labour Organization's (ILO) Maternity Protection Convention 183 recommends one or more daily breaks or a daily reduction of hours of work to be counted as working time and remunerated accordingly.[20] Nations that implement and monitor the provisions of this convention, in their national law and practice, are working to ensure that women and men have equal employment opportunities, job security, and conditions of work that enable them to continue providing appropriate care for their babies. Australia has not ratified ILO Convention 183.

Amendments to the Federal Sex Discrimination Act 1984 in 2002 included breastfeeding as an unlawful ground of discrimination. However, the right to lactation breaks in line with ILO recommendations is not included in the Federal award under work and family policies, which currently only cover part-time work, carer's leave and parental leave.[21] No Australian state or territory has enshrined in legislation the ILO's recommendations. The Australian Capital Territory (ACT) is the only state or territory that officially approves lactation breaks for its own employees in line with the ILO recommendation. However, this approval is in the form of a Chief Minister's policy directive, as opposed to legislation, and it is implemented by the inclusion of lactation breaks in the ACT Public Service's draft certified agreement template.[22] This approval could, presumably, be withdrawn or written/negotiated out of certified agreements.

Commonwealth Government responsibilities under the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) and domestic anti-discrimination law are relevant. By becoming a party to CEDAW on 17 July 1980, Australia committed to take all appropriate measures, including introducing legislation and temporary special measures, so that women can enjoy all their human rights and fundamental freedoms. CEDAW defines discrimination against women as:

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[19] Bar-Yam NB. Workplace lactation support, Part 11: Working with the workplace. Journal of Human Lactation 1988;14:321-325.
[20] International Labour Organisation. Maternity Protection Convention (revised). 1952;http://www.ilo.org/ilolex/english/convdisp2.htm(C183):article 10.
[21] Information and Research Services Parliamentary Library. Work and Family Policies as Industrial Employment Entitlements. Research Paper 2004-05 2004;No. 2.
[22] Industrial Relations and Public Sector Management Group. ACT Public Service Certified Agreement Template 2003. ACT Government Chief Minister's Department 2003.

> "...any distinction, exclusion or restriction made on the basis of sex which has the effect or purpose of impairing or nullifying the recognition, enjoyment or exercise by women, irrespective of their marital status, on a basis of equality of men and women, of human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field." (Article 1)[23]

A woman may make choices whilst pregnant, about returning to work after the birth, based on workplace arrangements. Women return to work for diverse reasons, including financial need and investment in a career. Many feel they must choose between breastfeeding and returning to work. Women need to see institutional support for combining breastfeeding and working, to feel that this is an option.

Paid lactation breaks for employees is an internationally recognized solution and is offered in at least 92 countries.[24] The ABA urges the Australian government to ratify ILO Maternity Protection Convention 183 and recommends that the right to paid lactation breaks be enacted in Commonwealth legislation, thereby becoming part of standard workplace practice. For lactation breaks and other breastfeeding-friendly provisions to be more widely implemented and accessible to Australian women, it is not sufficient to rely on the efficacy of the Sex Discrimination Act or the goodwill of Australian employers.

Parental leave (and related entitlements)

The Australian Breastfeeding Association appreciates Government acknowledgement of the importance of parental care for children less than 2 years of age. A consistent and responsive carer assists with secure attachment that promotes good social and psychological development.[25] Extending unpaid parental leave for a further 12 months, to be taken available for either parent, is a welcomed initiative. However, without a component of paid leave this remains an impractical application to the lives of many Australians who need the income support. A report from the Australian Bureau of Statistics supports this claim, citing that 73% of women returned to work with a child under the age of 2 years because of 'financial reasons'.[26]

The uncertainty and insecure contract work arrangements can make the situation worse as the case below illustrates.

> Mr and Ms X were both working fulltime prior to the birth of their first baby. They had both planned for Ms X to take 6 months unpaid leave so she could provide the care that their baby needed during this time before returning to work. These plans drastically changed when Mr X's work contract was terminated. As there was no family income or paid maternity leave, Ms X was forced to immediately return to work when baby X was 12 weeks old. Mr X became the carer whilst seeking opportunities for other employment. The situation was extremely stressful for both parents who had little available support from extended family. Ms X weaned shortly after this time because the employment conditions were not conducive to breastfeeding.

[23] Human Rights and Equal Opportunities Commission. http://www.hreoc.gov.au/sex_discrimination/cedaw/what_is_cedaw.html.
[24] Paul J. Healthy Beginnings: guidance on safe maternity at work. Geneva: International Labour office; 2004.
[25] Stanley F, Richardson S, Prior M. 2005 Children of the Lucky Country? How Australian society has turned its back on children and why children matter. Macmillan, Sydney
[26] Australian Bureau of Statistics 2005 Pregnancy and Employment Transitions, Australia at: http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4913.0Main+Features1Nov%202005?OpenDocument Accessed 25/3/08

Paid maternity leave is one of a range of initiatives required to support an increase in the duration of breastfeeding in Australia.[27] The ABA supports paid maternity leave to facilitate establishment of breastfeeding.

The vast majority of female workers are within small to medium sized workplaces and in industries without access to employer funded maternity leave. Only 23% of workplaces in Australia presently offer paid maternity leave to working mothers, and the average period of leave is eight weeks.[28] Furthermore, the more a working mother earns, the more likely she is to receive paid maternity leave.[29] Less than half of women giving birth have any entitlement to even unpaid statutory leave, as evidenced in 'The Australian Time Use Survey of New Mothers – Implications for Policy" and other studies[30]. Given that the first twelve to fourteen weeks after birth are critical in establishing breastfeeding supports, these figures raise the concern that some women are compelled to return to paid employment too soon after the birth of their baby out of financial necessity, with consequential impacts on breastfeeding, maternal and child health. It is especially a concern that mothers in lower socio-economic groups are significantly less likely to breastfeed beyond the early weeks.[31]

Table 1: Reported Maternity Leave Access and Entitlements (percentage)

Maternity Leave Access	*Time Use Survey of New Mothers*	*Longitudinal Survey of Australian Children*[a]	*Maternity Leave Entitlements of Employees*[b]
paid	17	14	44
unpaid	42	32	78
no entitlement	41	46	n.a

[a] Employees who took leave (Whitehouse, 2007); [b] ABS, access in current job.

Source: Smith, J.P.; Craig, L and Ellwood, M.. "The Australian Time Use Survey of New Mothers - Implications for Policy." *Australian Journal of Labour Economics*, 2007

The Association encourages the committee to include a component of paid maternity leave in the NES framework to provide the minimum safety net for all working Australian women. Furthermore, all women should have the right to paid maternity leave regardless of length of service. There are workers who will be disadvantaged under this proposal because of the itinerant nature of their work or possibly their positions have been terminated during pregnancy. These women will continue to be disadvantaged under the current proposal because they won't demonstrate 12 months of continuous service. Few mothers currently have access to any employment protection, let alone paid leave, when they have a baby. This reduces their connection to the labour force, to the long term cost of employers and nationl productivity through lower retention rates and loss of skills.

As one of only two OECD countries that hasn't implemented paid maternity leave, it is clear Australia has not kept pace with other industrialised countries that offer more family friendly provisions. New Zealand has implemented paid maternity leave and is in the process of legislating for workplace provisions for breastfeeding women. Paid maternity leave isn't limited to those countries with wealthy economies to support, as demonstrated by the example of Tanzania. [32] Paid maternity leave acknowledges the significant contributions that are made by women who care for our young and most vulnerable Australians. We urge the government under the NES to implement a component of paid maternity leave to ease the burden on individual families.

[27] Australian Breastfeeding Association. 2002 Submission to Valuing Parenthood, Options for Paid Maternity Leave in Australia, Inquiry by the Sex Discrimination Commissioner. http://www.breastfeeding.asn.au/advocacy/matleave.html Accessed 24/03/2008.
[28] Pocock B. The Work Life Collision, Centre for Labour Research: Adelaide University; 2003.
[29] Work Research Cluster. Sydney University; March 2003.
[30] Smith, J.P.; Craig, L. and Ellwood, M.. "The Australian Time Use Survey of New Mothers - Implications for Policy." *Australian Journal of Labour Economics*, 2007
[31] Donath S, Amir LH. Rates of breastfeeding in Australia by State and socio-economic status: Evidence from the 1995 National Health Survey. J Paediatr. Child Health 2000;36:164-168.
32 http://www.ilo.org/public/english/employment/gems/eeo/law/tanzania/la.htm

ABA recommends a period of six months paid maternity leave for all mothers, regardless of their employment status, to ensure the establishment of breastfeeding and continuing exclusive breastfeeding for six months as recommended by the World Health Organisation and the National Health and Medical Research Council.

Currently the Commonwealth government allocates a lump sum baby bonus to all women following the birth of their baby. We recommend that this be extended and enhanced into a paid maternity leave provision for all mothers to support and protect breastfeeding.

3. Workplace benefits from supporting breastfeeding

Breastfeeding women who return to the workforce are not only investing in their families, but in the economic growth of the nation through the contribution they make to their workplace. In the current climate of low unemployment and labour shortages, many employers are encouraging women to return to work sooner rather than later.

Through its substantial experience in this area, the Australian Breastfeeding Association (ABA) has developed an understanding of the benefit employers perceive from supporting staff to combine work and breastfeeding; benefits that have a real impact on the bottom-line for their organisation. Employers cite benefits of improved retention of female employees after maternity leave, thus preventing loss of skilled staff and the costs associated with recruitment and retraining or replacement. Other benefits include reduced absenteeism and staff turnover because of improved health of mother and baby and increased staff loyalty from the support they provide.

Increased illness in non-breastfed babies results in decreased productivity and increased absenteeism amongst parents in the paid workforce. There are some limited overseas studies that have shown some promising results from company-sponsored lactation programs.[33] A large employer in the US who instigated a lactation program that supports employees continuing to breastfeed once they have returned to work found that over a one year period ninety three percent of bottle-fed babies of employees were sick enough to require a doctor's visit compared with fifty percent of breastfed babies.[34] Since bottle-fed babies were not only sicker, but sicker for longer, the parents of bottle-bed babies had an absenteeism rate that was seven times higher than parents of breastfed babies. In addition, some research has found that women who are supported in breastfeeding their babies by their employers are more likely to return to work after their baby is born.[35]

Given the known health impacts, the reduced spending on health budgets, the benefits to families and the bottom-line benefits of employers, it is clear that everyone benefits when working mothers breastfeed their babies. Given that everyone benefits when babies are breastfed, everyone has a social responsibility to support breastfeeding workers.[36]

[33] Ortiz J, McGilligan K, Kelly, P (2004) Duration of Breastmilk Expression Among Working Mothers Enrolled in an Employer-Sponsored Lactation Program. Paediatric Nursing 30(2): 111-119.
[34] Geisel J. Lactation program yields multiple benefits. Business Insurance 1994;28(12).
[35] Katcher, Lanese. Breast-feeding by employed mothers: a reasonable accommodation in the work place. Pediatrics 1985;75:644-647.
[36] World Alliance for Breastfeeding Action. Breastfeeding and the Workplace. Why does breastfeeding make a difference? 2002:1-5.

4. Breastfeeding-Friendly Workplace Accreditation (BFWA)

ABA has developed an initiative on breastfeeding and work which has contributed substantially to establishing breastfeeding as best practice in Australia and to a change in workplace culture. Since July 2002, the ABA has accredited more than 60 workplaces across Australia,[37] and interest continues to grow. Based on the Association's previous Mother-Friendly Workplace Awards, the accreditation program has placed breastfeeding firmly on the "work-life balance" agenda, setting best practice for healthy workplaces, with mothers, babies and employers benefiting from this family-friendly intervention.

In September 2003, the first Commonwealth department, the Department of Treasury, became BFWA accredited. At the time, Secretary of the Treasury, Dr Ken Henry, acknowledged that supporting women to breastfeed was not just altruism on his Department's part.[38] Like our Association, Dr Henry had identified that this low cost, family-friendly intervention makes economic sense with savings for the bottom line of an organisation.

Since then, BFWA accreditation has been achieved by six more major Commonwealth agencies, several hospitals, health service providers and tertiary education institutions. State and Territory Government agencies have also gained accreditation for their agencies, with others showing great interest in the model. Similarly, business is increasingly recognising the benefits of BFWA accreditation with Pfizer accredited in 2004, a rurally based manufacturing company, a multi-office law firm (Allens Arthur Robinson) and Hydro Tasmania gaining accreditation in 2005. Amongst others, AGL and Impact Communications, a Sydney communications company, were accredited in 2006. Last year Westpac's head office and NSW Parliament has been accredited with many others in the pipeline.

The recent federal parliamentary inquiry into breastfeeding supported the importance of the BFWA intervention. One of the recommendations of the inquiry included provisions to expand the program to encourage accreditation of more workplaces.[39]

BFWA has developed useful resources including the ABA Come Back Pack, which includes information relevant to women considering combining breastfeeding and work. Accredited employers have the option of purchasing these packs at a discounted rate, to give to their employees going on maternity leave. Several BFWA organisations now do this, while the Commonwealth Department of Health and Ageing has written these packs into their staff service agreement and distribute them from their Payroll section when women apply for maternity leave. Over 200 women in this organisation received Come Back Packs in 2005, resulting in informed questions from these women being noted by counsellors on our Association's Helpline. The Association plans to update the pack to be replaced by 'Balancing Breastfeeding and Paid Employment' guide for employees. We would urge government assistance with dissemination of these resources followed by a detailed evaluation.

Anecdotal information suggests that the BFWA is having a positive impact on the lives of women in accredited workplaces. For example, one employer reported on the benefits for several staff that were invited to attend an event in the workplace to celebrate BFWA accreditation. They advised of an employee who had been preparing to wean her six month old daughter in order to return to work, but saw the facilities and support being provided, realised she could now combine work and breastfeeding, and was still doing so at 19 months. The woman herself later reported to BFWA personnel that she was still breastfeeding her daughter at two years. Employer support, through BFWA accreditation, enabled this woman to breastfeed in line with WHO and NHMRC recommendations.

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[37] See list of currently accredited workplaces atL. http://breastfeedingfriendly.com.au/index.php?option=com_content&task=view&id=32&Itemid=46

[38] Henry K. Speech on receipt of certificate of accreditation as a Breastfeeding Friendly Workplace, . 25 September Department of Treasury, Canberra (unpublished) 2003.

[39] House of Representatives Standing Committee on Health and Ageing. 2007. The Best Start: Report on the inquiry into the health benefits of breastfeeding. Canberra: Department of the House of Representatives.

Based on the experience of many thousands of women, ABA sees the chief requirements for a woman to successfully combine breastfeeding and work to be:

- flexible lactation breaks;
- a private place in which to breastfeed or express breastmilk;
- a fridge/freezer to store breastmilk, and storage space for related equipment; and
- support of the employer and her colleagues

This is in line with ILO minimum recommendations for a supportive workplace environment for breastfeeding women (see also ILO Convention 191).

An auxiliary effect of mandating breastfeeding-friendly workplaces would be the educational opportunities this would deliver. Workplace awareness of breastfeeding as the physiological and social norm would lead to heightened breastfeeding awareness in the community, including amongst partners, whose attitude towards breastfeeding is a psychological factor in a woman's decision making about breastfeeding and or working, and directly impacts on the duration and exclusivity of breastfeeding.[40] Women may also view workforce participation in a more positive light if workplaces were truly breastfeeding-friendly.

As breastfeeding is the physiological norm, not a lifestyle choice, breastfeeding in the workplace is a reality of the Australian job market. The ABA calls on the government to include provisions in the NES that will require employers to provide breastfeeding-friendly workplaces.

5. Breastfeeding and Health

Breastfeeding is an important preventative health behaviour with implications for infant and maternal health, national health costs and the environment. The public health benefits of breastfeeding are well documented and continue to accumulate.
Premature weaning from breastfeeding results in an unnecessary disease burden on our health care system. A recent study from a developed country population found that hospitalisation rates for children under 12 months could be more than halved if all babies were fully breastfeed for 4 months or more.[41]

Another study in the US looked at just three illnesses (lower respiratory tract illness, middle ear infection and gastrointestinal illness) and found that for every 1000 babies never breastfed as compared to 1000 babies exclusively breastfed for 3 months there were 2033 extra visits to the doctor, 212 extra days of hospitalisation and 609 extra prescriptions in the first year of life.[42] It is therefore not surprising that increasing breastfeeding rates have been shown to decrease the frequency of illness at a community level.[43]

[40] Binns C, Graham K. Project report of the Perth Infant Feeding Study Mark II (2002-2004) for the Australian Government Department of Health and Ageing. Perth: Curtin University of Technology; 2005.

[41] Talayero JMP, Lizán-García M, Puime AO, Benlloch Muncharaz MJ, Beseler Soto B, Sánchez-Palomares M, et al. Full Breastfeeding and Hospitalization as a Result of Infections in the First Year of Life. Pediatrics 2006; 118:e92-e99.
[42] Ball TM, Wright AL. Health Care costs of formula feeding in the first year of life. Pediatrics 1999; 103:870-876.
[43] Wright AL, Bauer M, Naylor A, Sutcliffe E, Clark. Increasing breastfeeding rates to reduce infant illness at the community level. Pediatrics 1998; 101:837-844.

6. Conclusion

Most Australian mothers begin breastfeeding but they need support to continue. Breastfeeding is not a responsibility that lies just with mothers. Mothers need the support of their families, peers, communities, workplaces, health professionals and governments to continue breastfeeding.

The NES review is a timely opportunity for the Commonwealth to take a lead role in renewing its commitment to public health through workplace support for breastfeeding.

The current NES proposal does not provide an adequate framework of fairness for women returning to work after having children and fails to consider breastfeeding provisions as a safety net available to all Australian families.

The Australian Breastfeeding Association would urge the NES to include support in the form of paid maternity leave and 'breastfeeding-friendly' working conditions. These mechanisms, that provide more choice to women about when and whether they will return to the paid workforce, are likely to have a positive impact on the duration of breastfeeding and on workforce participation.

7. Recommendations:

- That the government ratify ILO Convention 183 which establishes women's right to paid maternity leave, paid lactation breaks and facilities in the workplace, consistent with Australia's commitments to women under CEDAW
- That the NES consider the health and welfare of Australian mothers and babies by protecting and widening access to paid maternity leave and breastfeeding friendly employment conditions such as permanent part-time employment, flexible working hours, job sharing or job splitting, lactation breaks and workplace facilities.
- That the NES define "reasonable business grounds" in respect of employers declining requests for flexibility.
- That the NES acknowledge that, for many workers, the proposed 12 months continuous service eligibility for parental leave is not a sufficient safety net.
- That any changes to industrial relations legislation be evaluated in terms of their effect on maternal and child health and in particular their effect in increasing the duration and exclusivity of breastfeeding in Australia.
- That workplace support for breastfeeding includes educational programs and strategies aimed at promoting positive cultural attitudes for breastfeeding support.

Appendix: Supporting Evidence for the Importance of Breastfeeding

Breastfeeding is important for the immediate, short and long-term health of infants, children and mothers. A summary of evidence is provided on:

- Impact of Breastfeeding on Infant and Child Health
- Impact of Breastfeeding on Health of Mothers.

Impact of Breastfeeding on Infant and Child Health

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 there was a 4% increased risk of being overweight for each month an infant was not breastfed. Thus, babies that are weaned before 9 months have a 56% increased risk of being overweight.[44]

Type 1 Diabetes

A meta analysis of high quality studies that looked at infant feeding and the development of Type 1 diabetes found that children exposed to cows' milk in the first 3 months of life or not breastfed for at least 3 months have a 63% increased risk of developing Type 1 diabetes.[45] It appears that the relationship between infant feeding and development of Type 1 diabetes is strongest where children develop the condition young, thus, children not breastfed for at least 3 months have a 280% increased risk of developing Type 1 diabetes before the age of 4 years as compared to breastfed children.[46]

Asthma

Research has generally found that premature weaning from breastfeeding results in increased risk of development of asthma in children. A meta-analysis of well-designed studies from around the world found that children weaned before 3 months of age had a 25% increased risk of developing asthma as compared to children who were breastfed beyond 3 months. 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 wheeze and earlier onset of wheeze. [47]

The increased incidence of asthma in children who are not breastfed may be due to increased vulnerability in children not breastfed to respiratory infections and allergy. Children who are not breastfed are at an increased risk of suffering from multiple episodes of upper respiratory tract illness and this may make children more vulnerable to developing asthma. An Australian study found that lower respiratory illness with associated wheeze, in the first year of life, particularly where there are multiple episodes, increases the risk of asthma in children from between 300% (where no family history of allergy) and 800% (where a family history of allergy).[48] A dose dependent association between antibiotic exposure in infancy and the development of asthma has been identified and children who are

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[44] Harder T, Bergmann R, Kallischnigg G, Plagemann A. Duration of Breastfeeding and Risk of Overweight: A Meta-Analysis. Am. J. Epidemiol. 2005; 162(5): 397-403.

[45] Gerstein HC 1994. Cow's milk exposure and type 1 diabetes mellitus. Diabetes Care 17: 13-19.

[46] Dahlquist, G., L. Blom, et al. 1991. "The Swedish Childhood Diabetes Study--a multivariate analysis of risk determinants for diabetes in different age groups." Diabetologia. 34(10): 757-762.

[47] Oddy WH, Holt PG, Sly PD, Read AW, Landau LI, Stanley FJ, et al. Association between breast feeding and asthma in 6 year old children: findings of a prospective birth cohort study. BMJ 1999; 319(7213): 815-819.

[48] Oddy WH, de Klerk NH, Sly PD, Holt PG. The effects of respiratory infections, atopy, and breastfeeding on childhood asthma. Eur Respir J 2002; 19(5): 899-905.

not breastfed have been found to spend twice as much time on antibiotics as children who are breastfed.[49] [50] Children who are prematurely weaned from breastfeeding are also more likely to develop allergic symptoms and this is also associated with increased asthma risk.

Allergy

Infants fed infant formula (cows' milk based or soy) have a higher incidence of allergy than babies who are breastfed.[51] [52] Eczema is a type of allergic manifestation that has been studied in relation to early nutrition. Kull et al[53] examined the development of eczema in children whose families had a history of allergy and those who did not. It was found that where there was no family history of eczema the risk of developing eczema was increased by 20% in children exclusively breastfed for less than 4 months and by 35% in children with a family history of eczema.[54] Children not exclusively breastfed for at least 4 months were also found to be 43% more likely to develop allergic rhinitis than children exclusively breastfed for 4 months or more. Finally, children who were not exclusively breastfed for 4 months or more were 43% more to suffer from multiple allergic diseases. Oddy et al[55] found that children who were not exclusively breastfed were 30% more likely to show a positive skin prick test to at least one common aeroallergen. Exclusive early breastfeeding (for around six months) is particularly important in preventing allergy.

Otitis media

Research has consistently found that babies who are not breastfed are at increased risk of suffering from otitis media, otherwise known as middle ear infection.[56] Children not breastfed have between 60 and 100% increased risk of developing otitis media[57] [58]and at about double the risk of suffering from recurrent otitis media.[59] [60] Shorter breastfeeding duration increases the likelihood of otitis media.[61]

Recurrent otitis media is associated with mild, fluctuating hearing loss.[62] Since the first few years of life are critical for language development recurrent otitis media in infancy and toddlerhood can negatively affect children's language acquisition. Hearing loss and language delay early in life have a flow on effect on academic learning in the early years of school. Children with a history of recurrent otitis media are also at an increased risk of having difficulties with learning to read in middle childhood necessitating an increase in the need for remedial education programs.[63]

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[49]Marra F, Lynd L, Coombes M, Richardson K, Legal M, Fitzgerald J, et al. Does antibiotic exposure during infancy lead to development of asthma? A systematic review and meta-analysis. Chest 2006; 129:610-618.
[50] Flors MS, Fairchok MP. The relationship of breastfeeding to antimicrobial exposure in the first year of life. Clinical Pediatrics 2004; 43:631-363.
[51] Friedman NJ, Zeiger RS. The role of breast-feeding in the development of allergies and asthma. [Review] [84 refs]. Journal of Allergy & Clinical Immunology. 2005; 115(6): 1238-1248.
[52] Oddy WH, Peat J. Breastfeeding, asthma, and atopic disease: an epidemiological review of the literature. Journal of Human Lactation 2003; 19:250 - 261.
[53] Kull I, Bohme M, Wahlgren CF, Nordvall L, Pershagen G, Wickman M. Breast-feeding reduces the risk for childhood eczema. Journal of Allergy & Clinical Immunology. 2005; 116(3): 657-661.
[54] Kull I, Wickman M, Lilja G, Nordvall SL, Pershagen G. Breast feeding and allergic diseases in infants-a prospective birth cohort study. Archives of Disease in Childhood. 2002; 87(6): 478-481.
[55] Oddy WH, Holt PG, Sly PD, Read AW, Landau LI, Stanley FJ, et al. Association between breast feeding and asthma in 6 year old children: findings of a prospective birth cohort study. BMJ. 1999; 319(7213): 815-819.
[56] Golding J, Emmett PM, Rogers IS. Gastroenteritis, diarrhoea and breastfeeding. Early Human Development 1997; 49 Suppl: S83-103.
[57] Duffy LC, Faden H, Wasielewski R, Wolf J, Krystofik D. Exclusive breastfeeding protects against bacterial colonization and day care exposure to otitis media. Pediatrics 1997; 100:e7.
[58] Duncan B, Ey J, Holberg CJ, Wright AL, Martinez FD, Taussig LM. Exclusive breast-feeding for at least 4 months protects against otitis media. Pediatrics. 1993; 91(5): 867-872.
[59] Teele DW, Klein JO, Rosner B. Epidemiology of otitis media during the first seven years of life of children in greater Boston: a prospective cohort study. Journal of Infectious Diseases 1989; 160:8-94.
[60] Fosarelli PD, Deangelis C, Winkelstein J, Mellits ED. Infectious illnesses in the first two years of life. Pediatric Infectious Diseases 1985; 4:153-159.
[61] Alho OP, Koivu M, Sorri M. Risk factors for recurrent acute otitis media and respiratory infection in infancy. International Journal of Pediatric Otorhinolaryngology 1990; 19:151-161.
[62] Schlieper A, Kisilevsky H, Mattingly S, Yorke L. Mild conductive hearing loss and language development: a one year follow-up study. Journal of Developmental and Behavioural Pediatrics 1985; 6:65-68.
[63] Golz A, Netzer A, Westerman ST GD, Joachims HZ, Goldenberg D. Reading performance in children with otitis media. Otolaryngology: Head and Neck Surgery. 2005; 132:495-499.

Gastroenteritis

Gastroenteritis is common disease in young children. In 1993-1996 there were approximately 20,000 hospital admissions in children under 5 years in Australia.[64] One study shows the infants exclusively breastfeeding at 3 months have 40% less risk of developing gastrointestinal infections.[65] Other research has found that babies who are not breastfed have a 200-500% risk of developing gastroenteritis caused by non-viral pathogens.[66]

Respiratory infections

Early feeding affects the incidence and severity of respiratory illness. 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 1.4 times more likely to have 4 or more hospital or doctors visits because of upper respiratory tract infections. Babies not exclusively breastfed for 6 months are 2 times more likely to have two or more hospital or doctors visits and 2.6 times more likely to be hospitalised for wheezing lower respiratory illness (bronchiolitis or asthma). Cessation of breastfeeding before 12 months is associated with a 60% increased risk of 2 or more hospital visits for wheezing lower respiratory illness.[67]

Urinary tract infection

Babies who are not breastfed are 5 times more likely to suffer from urinary tract infection in infancy than children who are breastfed.[68] They are also more likely to suffer from urinary tract infections up until at least 6 years of age.

Sudden Infant Death Syndrome (SIDS)

While it is not possible to identify which babies will fall victim to SIDS, this tragic event is not completely unpredictable. SIDS is much more prevalent in socio-economically deprived populations and these populations are those least likely to breastfeed their babies.[69] [70] Background epidemiological characteristics of SIDS victims and their families include low birth weight, short gestation, young maternal age, high parity, sole parent caregiver, parental smoking, parental alcohol consumption and bottle-feeding.

Every study investigating causes of SIDS has found that babies that are not breastfed are on average twice as likely to die and this relationship often remains after statistical adjustment. [71] [72] [73] However, since not breastfeeding is also associated with socio-economic deprivation the impact of breastfeeding on SIDS sometimes disappears in statistical adjustment for socio-economic background.

Childhood cancers

The reasons why some children develop cancer are not well understood. Nevertheless a number of factors have been implicated in increasing the risk of development of cancers in childhood including

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[64] Carlin JB, Chondros P, Masendycz P, Bugg H, Bishop RF, Barnes GL. Rotavirus infection and rates of hospitalisation for acute gastroenteritis in young children in Australia, 1993-1996. Medical Journal of Australia. 1998; 169(5): 252-256.
[65] Kramer MS, et al.2001 A Randomized Trial in the Republic of Belarus. Promotion of Breastfeeding Intervention Trial (PROBIT) *JAMA*, 285 413-420.
[66] Golding J, Emmett PM, Rogers IS. Does breastfeeding protect against non-gastric infections? Early Human Development 1997; 49:S105-S120.
[67] Oddy WH, Sly PD, de Klerk NH, Landau LI, Kendall GE, Holt PG, et al. Breast feeding and respiratory morbidity in infancy" a birth cohort study. Archives of Diseases in Childhood 2003; 88:224-228.
[68] Pisacane A, Graziano L, Mazzarella G, Scarpellino B, Zona G. Breast-feeding and urinary tract infection. Journal of Pediatrics 1992; 120:87-89.
[69] Blair PS, Sidebotham P, Berry PJ, Evans M, Flemming PJ. Major epidemiological changes in sudden infant death syndrome: a 20-year population based study in the UK. Lancet 2006; 367(9507): 314-319.
[70] Fleming PJ, Blair PS, Ward Platt M, Tripp J, Smith IJ, Group CSR. Sudden infant death syndrome and social deprivation: assessing epidemiological factors after post-matching for deprivation. Paediatric and Perinatal Epidemiology. 2003; 17(3): 272-280.
[71] McVea KL, Turner PD, Peppler DK. The role of breastfeeding in sudden infant death syndrome. Journal of Human Lactation 2000; 16:13-20.
[72] Fredrickson DD, Sorenson JR, Biddle AK, Kotelchuck. Relationship of sudden infant death syndrome to breastfeeding duration and intensity. American Journal of Diseases and Children 1993; 147:460.
[73] Alm B, Wennergren G, Norvenius SG, Skaerven R, Lagercrants H, Helweg-Larsen K, et al. Breastfeeding and Sudden Infant Death Syndrome in Scandinavia1992-1995. Arch Dis Child 2002; 86:400-402.

early nutrition. Research indicates that children who are not breastfed are at between a 75% to a 600% increased risk of developing any cancer.[74] [75] Research has found that artificial feeding increases the risk of developing Hodgkin's disease, non-Hodgkin's lymphoma, acute lymphoblastic leukaemia and acute myeloblastic leukaemia.[76] [77] However, there is a lot of variation in research results. Nonetheless, studies have generally found that breastfeeding duration is important. Cancer risk is greatest in babies not breastfed at all compared to those breastfed for the longest duration. Childhood cancer has been associated with immunodeficiency and infection.[78] Since human milk is protective against infection and stimulates the early, normal development of the immune system this may explain why babies who are not breastfed are at greater risk of developing cancer.[79]

Oral and Dental Health

Breastfeeding is important for the normal development of the oral cavity. In infants the palate is soft and malleable. Breasts are also soft and malleable and during breastfeeding the breast applies an even and dispersed pressure to the palate via the normal peristaltic movement of the tongue as it massages rather than sucks milks out of the breast.[80] This results in individuals who were breastfed being more likely to have a healthy, broad palate, without malocclusions or improper alignment of teeth.[81]

In contrast, bottle teats are hard and a piston-like suckling with negative pressure is used to obtain milk from a bottle. The relatively strong and concentrated pressure associated with bottle-feeding can deform the infant's palate leading to a greater risk for poor alignment of the teeth and malocclusions.[82] In addition, when the palate is narrowed and heightened by bottle-feeding it may infringe on the upper airway.[83] It has been found that a high and narrow palate is a good predictor of snoring and obstructive sleep apnoea, both of which contribute to significant health problems in adulthood.[84]

Preventable accidents, injury and child abuse

Epidemiological research in the US has looked at the impact of infant feeding on post-neonatal mortality. It has been identified that babies who are never breastfed are 27% more likely to die in their first year than babies who are ever breastfed.[85] Some of the reasons for the increased death rate in never breastfed infants are related to increased rates of illnesses in non-breastfed babies. However, an examination of cause of death found that babies who had never been breastfed were at 69% increased risk of death from accidents. The relationship between not breastfeeding and increased mortality from accidents has been found before[86] and may be related to the absence of physiological and physical factors associated with breastfeeding that help prevent accidents. Breastfeeding women are physiologically different from women who are not breastfeeding and hormones that are released in response to breastfeeding act on the central nervous system of mothers to promote maternal behaviour[87] [88] [89] and reduce their response to physical and emotional stress.[90] This enables breastfeeding

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[74] Davis MK, Savitz DA, Graubard BI. Infant feeding and childhood cancer. The Lancet 1988;v2 (n8607): p365 (4).
[75] Smulevich VB, Solionova LG, Belyakova SV. Parental occupation and other factors and cancer risk in children: I. Study methodology and non-occupational factors. International Journal of Cancer. 1999; 83(6): 712-717.
[76] Kwan ML, Buffler PA, Abrams B, Kiley VA. Breastfeeding and the risk of childhood leukaemia: a meta-analysis. Public Health Reports. 2004; 119(6): 521-535.
[77] Shu XO, Linet MS, Steinbuch M, Wen WQ, Buckley JD, Neglia JP, et al. Breast-feeding and risk of childhood acute leukaemia. Journal of the National Cancer Institute. 1999; 91(20): 1765-1772.
[78] Davis MK. Breastfeeding and chronic disease in childhood and adolescence. Pediatric Clinics of North America. 2001; 48(1): 125-141.
[79] Davis MK. Review of the evidence for an association between infant feeding and childhood cancer. International Journal of Cancer - Supplement 1998; 11:29-33.
[80] Palmer B. The influence of breastfeeding on the development of the oral cavity: a commentary. Journal of Human Lactation. 1998; 14(2): 93-98.
[81] Larsson EF, Dahlin KG. The prevalence and the aetiology of the initial dummy- and finger-sucking habit. American Journal of Orthodontics. 1985; 87(5): 432-435.
[82] Labbok MH, Hendershot G. Does breastfeeding protect against malocclusion? An analysis of the 1981 Child Health Supplement to the National Health Interview Survey. American Journal of Preventative Medicine 1987; 3:227-232.
[83] Palmer B. The influence of breastfeeding on the development of the oral cavity: a commentary. Journal of Human Lactation. 1998; 14(2): 93-98.
[84] Kushida CA, Efron B, Guilleminault C. A predictive morphometric model for the obstructive sleep apnoea syndrome. Annuals of Internal Medicine 1997; 127:581-587.
[85] Chen A, Rogan WJ. Breastfeeding and the Risk of Post neonatal Death in the United States. Pediatrics 2004; 113(5): e435-439.
[86] Carpenter RG, Gardner A, McWeeny PM, Emery JL. Multistage scoring system for identifying infants at risk of unexpected death. Archives of Disease in Childhood. 1977; 52(8): 606-612.
[87] Bartels A, Zeki S. The neural correlates of maternal and romantic love. Neuroimage. 2004; 21(3): 1155-1166.

women to be more responsive to their babies and to want to be closer to them.[91] [92] [93] Thus, breastfeeding encourages maternal care giving and closer maternal-child proximity and this may directly decrease the risk of accident through increased adult supervision and increased maternal-child attachment.[94] [95]

Other conditions

Some research has found an increased risk of developing ulcerative colitis, Crohn's disease and coeliac disease in individuals who were formula-fed as infants.[96]

Long term impacts of breastfeeding

The impact of breastfeeding continues beyond weaning. Children weaned earlier continue, for 2 or more years after weaning, to suffer more ill health than children who were breastfed for longer.[97] [98] This finding supports the idea that breastfeeding enhances the normal development of the immune system and conversely that premature weaning from breastfeeding retards the development of the immune system.

It has been found that children who were not breastfed are more likely to require antibiotic treatment at 18 and 30 months at least 3 times in the preceding 6 months as compared to babies breastfed (not exclusively) for at least 4 months.[99] Antibiotic medication is commonly used to treat respiratory illness and otitis media.
The duration of exclusive breastfeeding is significant in determining the likelihood of a child developing these conditions. One recent study found that children who were fully breastfed (meaning breastfed without supplementation with other milks) for between 4-6 months were 4 times more likely to suffer from pneumonia and 2 times more likely to suffer from recurrent otitis media up until the age of 2 years than those breastfed for 6 months or more.[100]

There is compelling evidence to suggest that premature weaning is associated with increased risk factors for later cardiovascular disease.[101] There is evidence to show an association between adolescents who were prematurely weaned and a higher systolic blood pressure. It appears that this effect is dose related; blood pressure increased as the proportion of human milk received in the neonatal period decreased. It has been estimated that as a non-pharmacological intervention, in the adult population this has the potential to reduce hypertension by 17%, the risk of cardiovascular disease by 6% and the risk of strokes and transient ischaemic attacks by 15%. Data collected from the same sample group also showed evidence for the beneficial effect of breastmilk on later blood lipid profiles and again there is dose-dependent relationship.

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[88] Mann PE, Felicio LF, Bridges RS. Investigation into the role of cholecystokinin (CCK) in the induction and maintenance of maternal behaviour in rats. Hormones & Behaviour. 1995; 29(3): 392-406.
[89] Neumann ID. Brain mechanisms underlying emotional alterations in the peri partum period in rats. Depression & Anxiety. 2003; 17(3): 111-21.
[90] Groer MW, Davis MW, Hemphill J. Postpartum stress: current concepts and the possible protective role of breastfeeding. Journal of Obstetrics, Gynaecology and Neonatal Nursing 2002; 31:411-417.
[91] Newton N, Peeler D, Rawlins C. Effect of lactation on maternal behaviour in mice with comparative data on humans. Journal of Reproductive Medicine 1968; 1:257-262.
[92] Widstrom AM, Wahlberg V, Matthiesen AS, Eneroth P, Uvnas-Moberg K, Werner S, et al. Short-term effects of early suckling and touch of the nipple on maternal behaviour. Early Human Development. 1990; 21(3): 153-163.
[93] Feldman R, Weller A, Leckman JF, Kuint J, Eidelman AI. The nature of the mother's tie to her infant: Maternal bonding under conditions of proximity, separation, and potential loss. Journal of Child Psychology and Psychiatry 1999; 40(6): 929-939.
[94] Chen A, Rogan WJ. Breastfeeding and the risk of post-neonatal death in the United States. Pediatrics. 2004; 113(5): e435-439.
[95] Anisfeld E, Casper V, Nozyce M, Cunningham N. Does infant carrying promote attachment? An experimental study of the effects of increased physical contact on the development of attachment. Child Development. 1990; 61(5): 1617-1627.
[96] Villalpando S, Hamosh M. Early and late effects of breast-feeding: does breast-feeding really matter. Biology of the Neonate 1998; 74:177 - 190.
[97] Couper JJ. Environmental triggers of type 1 diabetes. Journal of Paediatrics & Child Health. 2001; 37(3): 218-20.
[98] Dubois L, Girard M. Breastfeeding, day-care attendance and the frequency of antibiotic treatments from 1.5 to 5 years: a population-based longitudinal study in Canada. Social Science and Medicine 2005; 60:2035 - 2044.
99 Dubois L, Girard M 2005. Breast-feeding, day-care attendance and the frequency of antibiotic treatments from 1.5 to 5 years: a population-based longitudinal study in Canada. Social Science and Medicine 60: 2035-2044.
[100] Chantry CJ, Howard CR, Auinger P. Full breastfeeding duration and associated decrease in respiratory tract infection in US children. Pediatrics 2006; 117:425-432.
[101] Fewtrell MS. The long-term benefits of having been breast-fed. Current Paediatrics 2004; 14:97-103.

Impact of Breastfeeding on the Health of Mothers

Breastfeeding also has an impact on the health of mothers and has been found to reduce the incidence of hip fracture, breast cancer, rheumatoid arthritis, ovarian cancer and diabetes.

Hip fracture

Hip fractures are common in elderly women and have a high mortality and morbidity. However, women who breastfeed their children have a reduced risk of hip fracture. The reduction of risk is dependent on duration of breastfeeding. One study of Australian women who had breastfed each of their children for 9 months or more reduced their risk of hip fracture by 72% as compared to women who had not breastfed their children.[102] There is evidence that the risk of hip fracture continues to decrease with breastfeeding beyond 9 months per child.[103]

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%[104] 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.[105] A recent meta-analysis concluded *"the lack of or short lifetime duration of breastfeeding typical of women in developed countries makes a major contribution to the high incidence of breast cancer in these countries"* (Collaborative Group on Hormonal Factors in Breast Cancer, 2002).

Rheumatoid arthritis

Hormonal factors are involved in the development of rheumatoid arthritis and since breastfeeding can impact the hormonal milieu of women in the long term it is not surprising that lactation history can affect the likelihood of women developing rheumatoid arthritis.[106] A very large prospective study found that women who had a lifetime breastfeeding duration of 12 months had a 20% decreased risk of developing the condition and women who had a lifetime breastfeeding duration of 2 years or more had a 50% decreased (ie halved) risk of developing rheumatoid arthritis as compared to women who had breastfed for 3 months or less.[107]

Ovarian Cancer

Breastfeeding also impacts the likelihood of women developing 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).[108]

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[102] Cumming RG, Klineberg RJ. Breastfeeding and other reproductive factors and the risk of hip fractures in elderly women. International Journal of Epidemiology 1993; 22:684-691.
[103] Huo D, Lauderdale DS, Liming L. Influence of reproductive factors on hip fracture risk in Chinese women. Osteoporosis International 2003; 14:694-700.
[104] Collaborative Group on Hormonal Factors in Breast Cancer. 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 2002; 360:187-195.
[105] Zheng T, Duan L, Liu Y, Zhang B, Wang Y, Chen Y, et al. Lactation reduces breast cancer risk in Shandong Province, China. American Journal of Epidemiology 2000; 152:1129-1135.
[106] Zheng T, Duan L, Liu Y, Zhang B, Wang Y, Chen Y, et al. Lactation reduces breast cancer risk in Shandong Province, China. American Journal of Epidemiology 2000; 152:1129-1135.
[107] Karlson EW, Mandl LA, Hankinson SE, Grodstein F. Do breast-feeding and other reproductive factors influence future risk of rheumatoid arthritis? Arthritis and Rheumatism 2004; 50:3458-3467.
[108] Labbok MH. The evidence for breastfeeding: effects of breastfeeding on the mother. Pediatric Clinics of North America 2001; 48:143-158.

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.[109] It is thought that this may be because breastfeeding improves the stability of glucose levels in women.

[109] Stuebe AM, Rich-Edwards JW, Willett W, C. , Manson JE, Michels KB. Duration of lactation and incidence of type 2 diabetes. Journal of the American Medical Association 2005; 294:2601-2610.