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Committee Secretary
Standing Committee on Health and Ageing
House of Representatives
PO BOX 6021
Parliament House
Canberra ACT 2600

27th February, 2007

Dear Sir / Madam,

RE: Parliamentary Inquiry into Breastfeeding

Please accept the following submission to the Parliamentary Inquiry into Breastfeeding from the Key Centre for Women's Health in Society, University of Melbourne. If you require further information, please contact Dr Lisa Amir on l.amir@unimelb.edu.au. Telephone 9624 8577.
Thank you for your consideration.

Yours sincerely

Professor Doreen Rosenthal, AO
Director
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Submission

Parliamentary Inquiry into Breastfeeding

February, 2007

Key Centre for Women's Health in Society

WHO Collaborating Centre for Women's Health

School of Population Health

Faculty of Medicine, Dentistry and Health Sciences

The University of Melbourne

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This submission contains an Introduction and contributions relating to four terms of reference.

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PART A: INTRODUCTION

The Key Centre for Women's Health in Society, since its foundation in 1988, has been at the forefront of thinking, researching, teaching and disseminating information about women's health. The Key Centre's work recognises that women's health and wellbeing is integral to the health and wellbeing of their families and the whole community.

Over the past 19 years, the Key Centre for Women's Health in Society (KCWHS) at the University of Melbourne has been involved in research on breastfeeding and educating health professionals involved with caring for breastfeeding women. This work has been done by academic staff, doctoral students, Masters students and Advanced Medical Science students. Several of the KCWHS staff and students have contributed to this submission.

Dr Lisa Amir is an internationally renowned researcher on breastfeeding and a general practitioner who has worked as a lactation consultant since 1990. She is the

author of over 30 peer-reviewed articles on breastfeeding. Dr Amir is the medical officer for lactation services at The Royal Women's Hospital, Melbourne, as well as being a lecturer at the KCWHS (on leave in 2007). She is currently a NHMRC Health Professional Research Fellowship at Mother & Child Health Research, La Trobe University and is the Editor-in-Chief of a new online journal, the *International Breastfeeding Journal*. (www.internationalbreastfeedingjournal.com)

Ms Amanda Cooklin completed her Master of Women's health at the KCWHS in 2000. She has since worked on a number of projects relating to maternal mental health around childbirth. Amanda is currently undertaking her PhD research, supported by an NHMRC Postgraduate Public Health Scholarship. Her research is investigating mothers' antenatal and postnatal employment and its effect on maternal health and well-being, including breastfeeding.

Dr Karin Hammarberg is a Registered Nurse and has a BSc in Midwifery. Between 1984 and 2000 she was a clinical co-ordinator of IVF programs in Sweden and Australia. In 1999 she completed a Masters by research examining women's experience of IVF treatment. Her PhD, awarded in 2006, investigated the experience of birth and mothering after assisted conception. She is now a Research Fellow at the KCWHS and her main research interests are psychosocial aspects of infertility and assisted reproductive technology (ART) and long-term effects of ART on women, men and children.

Dr Heather Rowe is a health scientist with a background in genetics, psychology and health promotion. She has broad research interests in the psychosocial determinants of women's health, in particular those which are relevant to psychological wellbeing during pregnancy and the postpartum periods. She is Postgraduate Course Coordinator and Lecturer in the KCWHS, where she also supervises postgraduate student research. She has an active program of funded research investigating the psychosocial impact of medical technologies in pregnancy and birth, women's mental health promotion and the evaluation of postpartum mental health services for women.

Ms Amanda Tattam is a registered nurse and has a BA in journalism. Over the past 19 years her work has been published in numerous general and specialist newspapers,

magazines and books, in Australia and the UK. She is Community Liaison/Research Translation Officer at the KCWHS and co-editor of *Labour of Love; tales from the world of midwives* (Pan Macmillan 2005). Amanda is a member of the Australian Breastfeeding Association and was an ABA community educator between 2004-2006.

The above authors wish to address the following Terms of Reference:

A: EXTENT OF THE HEALTH BENEFITS OF BREASTFEEDING

Breastfeeding has long been regarded as an issue that is confined to antenatal and postnatal care provision – either a specialist area of midwifery care or the domain of lactation consultants. There is indisputable evidence about the risks of not breastfeeding in developed and developing countries and for this and for the reasons outlined below, the Key Centre believes breastfeeding is also a women's health issue and more broadly, a public health issue.

The World Health Organization (WHO) has a number of important resources on breastfeeding, including publications which summarise its benefits and outline steps to promote breastfeeding in developing and developed countries. (See for example http://www.who.int/nutrition/topics/exclusive_breastfeeding/en/)

WHO is unequivocal about the importance of breastmilk for babies. Breastmilk is the optimal first food for babies, it provides all the energy and nutrients that the infant needs for the first months of life, and it continues to provide up to half or more of a child's nutritional needs during the second half of the first year, and up to one-third during the second year of life. Breastfeeding is an unequalled way of providing ideal food for the healthy growth and development of infants; it is also an integral part of the reproductive process with important implications for the health of mothers. A recent review of evidence has shown that, on a population basis, exclusive breastfeeding for 6 months is the optimal way of feeding infants. Thereafter infants should receive complementary foods with continued breastfeeding up to 2 years of age or beyond.

Australia's National Health and Medical Research Council (NHMRC, 2003) recommends exclusive breastfeeding for 6 months and has set a target of 80% of babies being exclusively breastfed for 6 months. This target is not being met (Donath and Amir, 2000) and will remain stagnant unless there is a concerted effort of the part of the health system and the community as a whole, to better support breastfeeding.

A review article by Australian researchers (Alan and Hector 2005) examines the strength of evidence of the health benefits of breastfeeding. For babies, breastfeeding is protective against a range of infectious diseases including gastroenteritis, otitis media, upper respiratory tract infections, allergies including asthma and some childhood cancers.

The authors conclude that "Breastfeeding has been consistently shown to be protective against a large range of immediate and longer term health outcomes that are a significant burden on individuals, the health system and society. While some of the positive effects of breastfeeding on particular health outcomes may be small, these differences are extremely important at the population level. Taken together with the numerous health outcomes where the effect is pronounced, the overall benefits of breastfeeding are likely to be considerable."

In relation to women's health, breastfeeding helps to limit fertility, and there is strong evidence that breastfeeding is associated with a lower risk of breast cancer and ovarian cancer and a reduced risk of osteoporosis (Collaborative Group on Hormonal Factors in Breast Cancer, 2002).

C: POTENTIAL IMPACT ON THE HEALTH OF AUSTRALIANS OF INCREASING THE RATE OF BREASTFEEDING

Increasing the rate of breastfeeding in Australia has the potential to reduce not only a range of illnesses in babies and young children, but can play a role in preventing diseases such as Type 2 diabetes.. However, in broad public health terms breastfeeding's long term health impact is in obesity prevention. Obesity is probably the greatest overall challenge facing Australia's health system in the next few decades. The proportion of the population that is either overweight or obese has

dramatically increased over the past 20 years and being overweight or obese is strongly associated with the development of Type 2 diabetes. The two conditions are so inextricably linked that the International Diabetes Institute now uses the dual term 'diabesity' to describe the situation. It estimates that the number of people with diabetes has trebled since 1981 and there will be 1.23 million Australians with diabetes by 2010 (AusDiab, International Diabetes Institute, 2005) (Cameron Welborn et al 2003).

Recent systematic reviews have shown a dose-dependent association between longer duration of breastfeeding and decrease in the risk of overweight in later life (Harder, Bergmann et al, 2005; Owen, Martin et al, 2005). In addition, breastfeeding has an important role in obesity prevention in children (Armstrong, Reilly 2001). Looking at the population impact, it has been estimated that 13,639 cases of obesity (95%CI 7,838, 19,308) could be prevented in England and Wales over 9 years if all infants were breastfed for at least three months (Akobeng and Heller, 2006). It has also been recognised that obesity may track across generations, thus prevention is an urgent priority (Johnston, Gerstein et al 2006).

D. INITIATIVES TO ENCOURAGE BREASTFEEDING

Before looking at initiatives to encourage breastfeeding, it is worthwhile examining the reasons why women don't breastfeed or wean their babies before six months of age. Several reasons have emerged from recent work undertaken at the KCWHS.

1. Breastfeeding and Maternal Employment

Amanda Cooklin is studying mental health and women's paid employment after childbirth and as part of her research has examined the international evidence about the relationship between maternal employment in the first year after a baby is born and breastfeeding duration.

The following psychosocial factors have been found to be associated with longer breastfeeding duration including women being over 25 at the time of the birth of their baby, (Roe, Whittington et al. 1999; Scott, Aitken et al. 1999) having made a decision to breastfeed during the antenatal period (Scott, Aitken et al. 1999; Donath, Amir et al. 2003) and high socio-economic status (Donath and Amir 2000; Donath, Amir et al. 2003; Scott, Binns et al. 2006). Maternal postnatal employment status is one of the factors found to be associated with the early cessation of breastfeeding before the recommended 6 months of exclusive breastfeeding (National Health and Medical Research Council 2003)

There is robust international evidence about the effect of maternal employment and workplace entitlements on breastfeeding outcomes. Several studies, although none of Australian mothers, have investigated the effect of maternal postnatal employment on breastfeeding duration. Representative American national surveys (Ryan and Martinez 1989; Visness 1997) and prospective cohort studies of adequate sample size (Henderson, Evans et al. 2003; Taveras, Capra et al. 2003; McKinley and Hyde 2004; Scott, Binns et al. 2006) have found that full-time employment in the first postpartum year has a strong negative effect on breastfeeding duration. Mothers employed full-time are less likely to breastfeed, and cease breastfeeding earlier than mothers involved in full-time infant care. Part-time employment has little or no effect on breastfeeding duration, as mothers employed part-time in the first year following birth have similar breastfeeding duration as non-employed mothers of infants (Carlson-Gielen, Faden et al. 1991; Lindberg 1996; Fein and Roe 1998; Ryan, Zhou et al. 2006).

International research also has found that a longer maternity leave entitlement contributes to greater breastfeeding duration (Visness 1997; Roe, Whittington et al. 1999; McKinley and Hyde 2004). There is also evidence that women most likely to successfully combine breastfeeding with paid employment are typically over 25 years of age, are highly educated earning a high income and employed in highly skilled or professional occupations (Ryan and Martinez 1989; Hills-Bonczyk, Avery et al. 1993; Ryan, Zhou et al. 2006). Galtry (1997) suggests that socio-economically advantaged women are likely to have access to statutory leave provisions and more choice and

about when and how much they participate in paid employment, allowing appropriate time for the establishment of breastfeeding first.

Several studies have attempted to investigate the impact of workplace provisions supporting breastfeeding mothers such as breastfeeding breaks or breast pumps located in the workplace (Katcher and Lanese 1985; Moore and Jansa 1987; Taveras, Capra et al. 2003; Bar-Yam 1998; Ortiz, McGilligan et al. 2004; Rojjanasrirat 2004; Slusser, Lange et al. 2004). Although of limited methodological quality, these studies have shown that workplace interventions potentially have some influence on the successful combination of breastfeeding and paid employment.

According to the above international literature, breastfeeding duration is shortened by socio-economic disadvantage, full-time employment and a lack of access to maternity leave entitlements. The effect of paid employment and workplace entitlements on breastfeeding behaviour has not been investigated in Australian women, and further research is needed to establish this. It is possible however that many mothers resuming paid employment due to financial need in their baby's first year of life are by necessity ceasing breastfeeding prematurely due to the lack of workplace entitlements, and the difficulty of combining breastfeeding and paid employment without adequate workplace support. It is also likely that many women cease breastfeeding before they resume their employment because they anticipate they will be unable to successfully combine breastfeeding and work.

Based on international evidence, there are several policy initiatives that would promote the recommended breastfeeding duration, and the KCWHS has included several recommendations below (see Part B below).

2. Mothering after assisted conception and breastfeeding duration

Dr Karin Hammarberg recently undertook a prospective longitudinal cohort study of 152 consecutively recruited Australian women who had conceived with assisted reproductive technology (ART) –known in lay terms as fertility treatment or IVF. The study found that although almost all study participants (89%) initiated breastfeeding,

the proportion who were exclusively breastfeeding their infants at three months was smaller than that of the women in the 1995 Australian National Health Survey - 45% versus 62% respectively (Donath and Amir, 2000).

A number of factors associated with higher rate of initiation and longer duration of breastfeeding in community samples have been identified, including maternal age over 25, higher level of education, being partnered, and higher socio-economic status (Scott and Binns, 1998). These factors were all prevalent in the ART study population but in spite of this, the rate of initiation of breastfeeding was not higher and the proportion breastfeeding at three months was significantly lower than in Australian women.

Some study findings suggest that this lower rate of breastfeeding may in part be explained by diminished confidence in the ability to provide enough breast milk for the baby, which in turn may be due to the corroding effect of fertility difficulties on self-confidence. Over two thirds of participants reported that they needed quite a lot of feeding advice while in hospital. For participants who had had a caesarean birth, who were first time mothers or who had twins the need for a lot of feeding advice was almost universal. Participants who reported that they needed "quite a lot" of advice about infant feeding when they were in hospital were significantly less likely to breastfeed at three months than those who needed "a little" or "none at all" (57% versus 78% respectively, $p=0.01$). Participants who felt that the advice they received was "very clear and worked well" were more likely to breastfeed at three months than those who perceived the advice as "confusing" or only "fairly clear" (75% versus 55% respectively, $p=0.01$). Adding weight to the importance of clear information, participants' comments regarding breastfeeding advice in hospital were predominantly concerned with its lack of consistency and clarity.

Almost one third of participants either did not initiate breastfeeding or breastfed for less than six weeks. Worry about adequacy of the milk supply may have prevented some mothers from initiating or continuing breastfeeding beyond six weeks. However, of those who did breastfeed, many continued this for a relatively long time. Fifty-four percent of all participants continued to breastfeed for more than six months and 27% were breastfeeding beyond one year. The proportion breastfeeding beyond

one year was higher than among the women in the 1995 Australian National Health Survey (27% versus 14.6%).

Taken together, the findings of this study suggest that there are further opportunities for education of health care professionals involved in the care of new mothers who have conceived with ART. Provision of clear, concise and consistent breastfeeding advice, intensive support, promotion of confidence in the ability to breastfeed, and positive reinforcement that there is sufficient milk for the baby to thrive in the first few weeks after birth is likely to increase duration of breastfeeding among these women.

3. Hospital Practices and Breastfeeding Initiation

Dr Heather Rowe conducted a longitudinal prospective study of a representative sample of 203 primiparous Australian mothers (Rowe and Fisher, 2002). The purpose of Dr Rowe's study was to investigate whether hospital practices immediately after delivery can affect first mother-infant contact and the initiation of breastfeeding. Participants were recruited from four metropolitan hospitals across Melbourne, one of which was an accredited Baby Friendly Hospital.

Results from this study showed that of the women giving birth in the Baby Friendly Hospital, 77% had initiated breastfeeding within one hour of the birth, and this was a significantly greater proportion than in any of the other three hospitals (less than 50% at each site). Caesarean birth was an important barrier to the initiation of breastfeeding in all hospitals except the Baby Friendly Hospital, where women giving birth by caesarean initiated breastfeeding significantly sooner than mothers having a caesarean delivery in any of the three other hospitals.

The findings from this study suggest that early breastfeeding initiation is adversely affected by hospital practices after caesarean surgery, but that these practices are modifiable. In particular, staffing of the post-operative recovery room by midwives, as occurred in the Baby Friendly Hospital, not by theatre nurses only as in other hospitals, ensures that mothers and babies are cared for together in the post-operative period. This enables uninterrupted mother-infant contact and early initiation of breastfeeding. for all mothers, regardless of the mode of birth.

The role of fathers has also been considered in the literature on breastfeeding and could be a valuable part of a public education campaign (see Part B). A number of studies have shown that having a supportive partner is crucial to the establishment and continuation of breastfeeding (Pisacane et al., 2005; Bar Yam and Darby, 1997; Scott et al., 1997))

F. IMPACT OF BREASTFEEDING ON THE LONG TERM SUSTAINABILITY OF AUSTRALIA'S HEALTH SYSTEM

A study in the ACT found that early weaning from breastmilk is associated with significant hospital costs for treatment of gastrointestinal illness, respiratory illness and otitis media, eczema, and necrotising enterocolitis (Smith et al 2002). In the ACT alone the costs are estimated at \$1-2 million which is a minimum estimate of the cost of early weaning as it excludes numerous other chronic or common illnesses and out-of-hospital health care costs.

Higher rates of exclusive breastfeeding would reduce these costs. Interventions to protect and support breastfeeding are likely to be cost-effective for the public health system.

PART B: RECOMMENDATIONS

The Key Centre for Women's Health in Society recommends the following be considered in the present Inquiry:

1. Extended paid maternity leave to all employees for a minimum 14 weeks (Human Rights and Equal Opportunity Commission, 2002) to allow for the establishment of breastfeeding prior to the resumption of paid employment, and to protect those mothers who resume employment due to financial necessity from the likelihood of early cessation of breastfeeding;
2. Statutory provision for women's resumption of employment on a part-time basis following a period of maternity leave, to facilitate the successful combination of paid employment and breastfeeding and so that breastfeeding can continue for the recommended six months (or longer) following the birth,
3. Further research about the effect of workplaces initiatives to prolong breastfeeding duration and to assist breastfeeding mothers to continue breastfeeding once they have resumed their paid work; the provision of a private place for the expression and storage of breastmilk, adequate breaks for breastmilk expression.
4. While much research on breastfeeding is taking place in Australia, there are some gaps in knowledge. For example, research into the effectiveness of interventions such as increased postnatal support for breastfeeding mothers using health professionals and peers; educating fathers to improve maintenance of breastfeeding; strategies for GPs, nurses and midwives to improve their support for breastfeeding and a better understanding of the complex socio-economic and cultural factors that contribute to low rates of breastfeeding.
5. The Federal Government should mandate all maternity hospitals to become accredited as Baby-Friendly hospitals under the UNICEF Baby-Friendly Hospital Initiative.

6. Greater education about the barriers to breastfeeding for health professionals.
There are some women who might need greater support for breastfeeding, such as women having a caesarean birth and women conceiving using ART as discussed in section D above. This needs to be included in training and education for those supporting and assisting women with breastfeeding.
7. Flexible support options for women experiencing problems with breastfeeding.
Maternal and child health/early childhood nurses provide professional support in the early post natal period, but for many women this is a limited and inflexible option. The Australian Breastfeeding Association provides a great deal of support to women but more should be provided by government-funded services, This support should be flexible and responsive, including home visits and day stay visits in clinics, telephone support and peer support. Medicare funding for lactation consultant visits (by practitioners accredited by the International Board of Certified Lactation Consultants) would make breastfeeding assistance more affordable in the postnatal period. Currently the demand for free or low cost services far outstrips supply and waiting times are unacceptably long.
8. A well resourced, multifaceted, government-funded public education campaign about breastfeeding is urgently required. Such a campaign should include:
 - Promoting breastfeeding in public to assist women (particularly young women) to feel that breastfeeding is a normal physiological act.
 - The potential health hazards of bottle feeding with artificial formula
 - The importance of men: a number of studies have shown that the role of fathers supporting women has a positive effect on breastfeeding duration however, this is not widely known in the community.
 - The physical and emotional benefits of extended breastfeeding – that is, continuing to breastfeed a baby into the second year and beyond.

REFERENCES

- Akobeng AK, Heller RF. 2006. Assessing the population impact of low rates of breastfeeding on asthma, coeliac disease and obesity: the use of a new statistical method. *Arch Dis Child*, [Epub ahead of print].
- Allen, J and Hector, D. 2005 Benefits of Breastfeeding. *New South Wales Public Health Bulletin*. 16: 42-46.
- Armstrong, A. Reilly J. 2002. Breastfeeding and lowering the risk of childhood obesity, *The Lancet* 359: 2003-2004.
- Bar-Yam, N.B. and L. Darby. 1997. Fathers and breastfeeding: a review of the literature. *J Hum Lact* 13: 45-50.
- Bar-Yam, N. 1998. Workplace Lactation support, Part 1: A Return-To-Work Breastfeeding Assessment Tool. *Journal of Human Lactation* 14: 249-254.
- Cameron AJ, Welborn TA, Zimmet PZ, Dunstan DW, Owen N, Salmon J, Dalton M, Jolley D, **Shaw JE**. Overweight and Obesity in Australia – the 1999-2000 Australian Diabetes, Obesity and Lifestyle Study (AusDiab). *Med J Aust* 2003; 178:427-432.
- Carlson-Gielen, A., R. Faden, et al. 1991. Maternal Employment During the Early Postpartum Period: Effects on Initiation and Continuation of Breast-feeding. *Pediatrics* 87: 298-305.
- 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. *Lancet* 360:187-195.
- Donath, S. and L. Amir 2000. Rates of breastfeeding in Australia by State and socio-economic status: Evidence from the 1995 National Health Survey. *Journal of Paediatrics and Child Health* 36: 164-168.
- Donath, S., L. Amir, et al. 2003. "Relationship between prenatal infant feeding intention and initiation and duration of breastfeeding: a cohort study." *Acta Paediatrica* 92: 352-356.
- Fein, S. and B. Roe 1998. The Effect of Work Status on Initiation and Duration of Breast-Feeding. *American Journal of Public Health* 88: 1042-1046.

- Galtry, J. 1997. Lactation and the Labor Market: Breastfeeding, Labor Market Changes, and Public Policy in the United States. *Health Care for Women International* 18: 467-480.
- Harder T, Bergmann R, Kallischnigg G, Plagemann A. 2005. Duration of breastfeeding and risk of overweight: A meta-analysis. *Am J Epidemiol* 162:397-403.
- Henderson, J., S. Evans, et al. 2003. Impact of Postnatal Depression on Breastfeeding Duration. *Birth* 30: 175-180.
- Hills-Bonczyk, S., M. Avery, et al. 1993. Women's Experiences with Combining Breast-Feeding and Employment. *Journal of Nurse Midwifery* 38: 257-266.
- Human Rights and Equal Opportunity Commission 2002. A Time to Value: A Proposal for a National Paid Maternity Leave Scheme. Sydney: HREOC.
- International Diabetes Institute, Report 2005, Diabetes and Associated Disorders in Australia - 2000 The Australian Diabetes, Obesity and Lifestyle Study (AusDiab) Executive Summary
<http://www.diabetes.com.au/research.php?regionID=194&page=reports>
- Johnson DB, Gerstein DE, Evans AE, Woodward-Lopez G. 2006. Preventing obesity: A life cycle perspective. *J Am Diet Assoc* 106:97-102.
- Katcher, A. and M. Lanese 1985. Breast-Feeding by Employed Mothers: A Reasonable Accommodation in the Workplace. *Pediatrics* 75: 644-647.
- Lindberg, L. 1996. Women's Decisions About Breastfeeding and Maternal Employment. *Journal of Marriage and the Family* 58: 239-251.
- McKinley, N. and J. Hyde 2004. Personal attitudes or structural factors? A contextual analysis of breastfeeding duration. *Psychology of Women Quarterly* 28: 388-399.
- Moore, J. and N. Jansa 1987. A Survey of Policies and Practices in Support of Breastfeeding Mothers in the Workplace. *Birth* 14: 191-195.
- National Health and Medical Research Council (2003). The Dietary Guidelines for Children and Adolescents in Australia Incorporating the Infant Feeding Guidelines for Health Workers. Canberra, Commonwealth of Australia.
- Ortiz, J., K. McGilligan, et al. 2004. Duration of Breast Milk Expression Among Working Mothers Enrolled in an Employer-Sponsored Lactation Program. *Pediatric Nursing* 30: 111-119.
- Owen CG, Martin RM, Whincup PH, Davey Smith G, Cook DG. 2005. Effect of infant feeding on the risk of obesity across the life course: A quantitative review of published evidence. *Pediatrics* 115:1367-1377.

- Owen, C.G., et al. 2006. Does breastfeeding influence risk of type 2 diabetes in later life? A quantitative analysis of published evidence. *Am J Clin Nutr* 85: 1043-54.
- Pisacane, A., et al. 2005. A controlled trial of the father's role in breastfeeding promotion. *Pediatrics* 116: e494-e498.
- Roe, B., L. Whittington, et al. 1999. Is there competition between breast-feeding and maternal employment? *Demography* 36: 157-171.
- Rojjanasrirat, W. 2004. Working Women's Breastfeeding Experiences. *MCN: American Journal of Maternal Health Nursing* 29: 222-227.
- Rowe-Murray, H.J. Fisher, J.R.W. 2002. Baby Friendly Hospital Practices: Cesarean Section is a Persistent Barrier to Early Initiation of Breastfeeding, *Birth*, 29:2, 133-139.
- Ryan, A. and A. Martinez 1989. Breast-Feeding and the Working Mother: A Profile. *Pediatrics* 83: 524-531.
- Ryan, A., W. Zhou, et al. 2006. The effect of employment status on breastfeeding in the United States. *Women's Health Issues* 16: 243-251.
- Scott, J.A., C.W. Binns, and R.A. Aroni. 1997. The influence of reported paternal attitudes on the decision to breast-feed. *J Paediatr Child Health* 33: 305-07.
- Scott JA, Binns CW. 1998. Factors associated with the initiation and duration of breastfeeding: a review of the literature. *Australian Journal of Nutrition and Dietetics* 55: 51-61.
- Scott, D., I. Aitken, et al. 1999. Factors associated with the duration of breastfeeding amongst women in Perth, Australia. *Acta Paediatrica* 88: 416-421.
- Scott, J., C. Binns, et al. 2006. Predictors of breastfeeding duration: Evidence from a cohort study. *Pediatrics* 117: 646-655.
- Smith JP, Thompson JF, Ellwood DA. 2002. Hospital system costs of artificial infant feeding: estimates for the Australian Capital Territory. *Aust N Z J Public Health* 26:543-51.
- Slusser, W., L. Lange, et al. 2004. Breast Milk Expression in the Workplace: A Look at Frequency and Time. *Journal of Human Lactation* 20: 164-169.
- Taveras, E., A. Capra, et al. 2003. Clinician Support and Psychosocial Risk Factors Associated with Breastfeeding Discontinuation. *Pediatrics* 112: 108-115.

Visness, C. 1997. Maternal employment and breast-feeding: findings from the 1988 National Maternal and Infant Health Survey. *American Journal of Public Health* 87: 945-950.