

Business Case for Baby-Friendly Initiative

Breastfeeding is an unequalled method of feeding babies and ranks as one of the most important contributors to infant health. Children who are not breastfed and women who do not breastfeed are at a higher risk for negative health outcomes. Breastfeeding confers economic benefits to the family, health care system, and workplace.

Health Canada (2012) recommends that infants be exclusively breastfed for the first six months and continue to be breastfed for up to two years and beyond with the introduction of appropriate solids.

Decision Regarding Infant Feeding

The decision of whether to breastfeed or artificially feed is often made before conception or in the early stages of pregnancy. Figures suggest that 30-50% of women choose a feeding method before conception. A review of the literature suggests that there are many factors which influence the mother's decision to breastfeed which include previous exposure to breastfeeding, attitude to breastfeeding, personality/self-concept, the influence of the partner/mother/peer group and accessibility to formula. In addition, social norms significantly predict breastfeeding initiation (Atchan, Foureur, & Davis, 2011)

One recent study conducted in the Philippines suggests that, after adjusting for education and economic indicators, two factors were strongly associated with the decision not to breastfeed: self-reported advertising exposure to formula and physician recommendations. In this study, children were more likely to be given formula if their mother recalled advertising messages, or a doctor, mother or relative recommended it. Those using formula were 6.4 times more likely to stop breastfeeding before 12 months (Sobel et al, 2011).

Impact of the Baby-Friendly Initiative

The Baby-Friendly Hospital Initiative (BFHI) was initiated by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) in 1991. In Canada the BFHI is called the Baby-Friendly Initiative (BFI) which reflects the continuum of care between hospital and community services. The objective of the Baby Friendly Initiative is to improve outcomes for mothers and babies by enhancing the quality of their care and enabling them to make informed choices around infant feeding. Specifically, BFI was established to protect, support, and promote the initiation and duration of breastfeeding globally (Breastfeeding Committee of Canada, 2011).

Many observational research studies have demonstrated that there is an increase in breastfeeding rates when the BFI is implemented within organizations as well as an increase in exclusive breastfeeding and how long mothers breastfeed. A high quality, randomized control trial was conducted in Belarus which demonstrated that the implementation of the BFI resulted in an increase in the duration and degree (exclusivity) of breastfeeding. Specifically, the experimental intervention demonstrated a large increase in exclusive breastfeeding at 3 months (44.3% v 6.4%; $P < 0.001$) and a significantly higher prevalence of any breastfeeding at all ages up to and including 12 months (Kramer et al, 2001).

Cost Benefits and Recommendations for Workplaces

In 2006, 58.3% of women participated in the Canadian workforce (Statistics Canada, 2006). Although maternity leave is up to one year in Canada, there are many reasons why mothers are not able to take advantage of the one year leave. For instance, by nine months postpartum, 60% of mothers have returned to the employment industry, 37% at full-time, and 22% at part-time status (Mills, 2009).

Cost benefits of workplace breastfeeding policies. Employers and workplaces can support breastfeeding mothers upon their return to work by providing a supportive environment. Benefits to workplaces include reduced health care insurance costs of \$331-\$472 per breastfed infant, decreased days of absenteeism as a result of decreased infant illness, decreased maternal stress, decreased employee turnover, increased job satisfaction, and increased productivity of the breastfeeding employees (Brown et al, 2001; Mills, 2009; Stewart-Glenn, 2008; Witters-Green, 2003).

Recommended action. Workplaces can support pregnant women and women returning to work by implementing breastfeeding policies that improve work environments and help to foster less stressful work environments for women and their families. Policies that incorporate provisions for pumping or feeding at the workplace allow women to have more control over their work environment and the health of their children. Because breastfeeding prevents early childhood illness, workplace stress related to arranging care for ill children is reduced. The results of several studies have shown that providing a lactation program in the workplace saves companies money by decreasing absenteeism and increasing employee job satisfaction (OPHA, 2007). For instance for every dollar a workplace spends on a lactation program, three dollars can be saved as breastfeeding women miss less work and return to work earlier (Brown, Poag, & Kapsrzcki, 2001). The implementation of breastfeeding policies not only benefits the mother and the infant, but also the employer.

Cost Benefits and Recommendations for the Healthcare System

A recent U.S. cost analysis concluded that if 90% of families breastfed exclusively for six months, annual health care costs would be reduced by \$13 billion (Bartick & Reinhold, 2010). Furthermore, an additional report commissioned by UNICEF recently conducted an analysis of 25 systematic reviews and United Kingdom studies. This report suggests that if 45% of women exclusively breastfed for four months and if 75% of babies in neonatal units were breastfed at discharge, this would translate to savings for the health care system of over 17 million pounds (approximately \$27 million dollars Canadian) annually. These estimated savings are in relation to a reduced number of gastrointestinal disease, respiratory disease, otitis media and necrotising enterocolitis alone. Breastfeeding has been cited to have significant other health benefits in addition to the four benefits listed; therefore, it is inferred that this estimation of cost savings is conservative (Renfrew et al, 2012).

Non-medical indications for early supplementation. Hospitals can greatly influence a mother's infant feeding decision and breastfeeding outcome through non-medical indications for early formula supplementation and the distribution of hospital discharge packs (Kaplan & Graff, 2008). According to a Canadian study, 47.9% of 564 healthy term mother-infant participants received formula supplementation within 8.4 hours of birth (Gagnon, Leduc, Waghorn, Yang, Platt 2005). Non-medical indications often precede in-hospital formula supplementation, and are the most common reasons for the occurrence (Ekstrom, Widstrom, Nissen, 2003). For instance, through a study conducted in the United States, 60% of 150 low-income women who initiated breastfeeding, 78% received supplementation within the hospital, and 87% of these supplementations were for non-medical indications (Tender, et al., 2008). Non-medical indications for early formula supplementation are not physiologically based and include "breastfeeding problems (i.e. sleepy infant, refusing to breastfeed, difficulty latching on and/or sucking, and sore nipples), infant behaviour (i.e. fussy, unsettled, and crying), maternal fatigue, maternal culture, and maternal motivation and attitude to breastfeed" (Gagnon et al., 2005, p. 401). These indications often instil false beliefs of a mother's breastfeeding ability, consequently affecting her confidence while increasing unnecessary anxiety. Thus, non-medical indications do not affect breastfeeding initiation rates, but have been associated with negatively

affecting the establishment of breastfeeding and breastfeeding duration (Merten & Ackermann-Liebrich, 2004; Sheehan et al, 2001; Ekstrom et al, 2003; Gagnon et al, 2005).

Distribution of formula discharge packs. Distribution of formula discharge packs is not endorsed by the BFI. Formula discharge packs given to mothers by hospital staff provide mothers with mixed messages about breastfeeding and formula usage. For example, although some hospital staff may verbally support and encourage initiation of breastfeeding, the action of distribution of formula in hospitals has a greater influence on mother's infant feeding outcome. A US based population study found 66.8% of mothers initiated breastfeeding (Rosenberg, Eastham, Kasehagen, Sandoval, 2008). This study also identified that mothers who received the pack were less likely to be exclusively breastfeeding beyond 10 weeks.

Cost Impact of formula usage on the healthcare system. The cost of formula usage extends to not only impact the family but also the healthcare system. For instance, for a family in Ontario receiving Ontario Works subsidy, formula can cost a family up to 54% of the family's available income or \$2868 for six months (INFACT Canada). A study published in the American Academy of Pediatrics reported that in relationship to the health care system within the 1st year of an infant's life, in comparison to 1000 exclusively breastfed infants, 1000 never been breastfed infants will have 2033 excess office visits, 212 excess days of hospitalization and 609 excess prescriptions. Within the 1st year of an infant's life, this translates to costing healthcare system \$331-\$475 per never been breastfed infant (Ball & Wright, 1999). In a more recent cohort study from 2006, lack of breastfeeding and higher use and cost of health care were significantly associated. Specifically, infants exclusively breastfed at 3 months had 4.9 episodes of illness requiring ambulatory care per infant per year and 0.10 episodes of illness requiring hospitalization per infant per year as compared to complementary fed or not breastfed infants at 6.0 and 0.17 respectively (Cattaneo et al, 2006). Thus, by limiting the usage of formula and its correlating impact on mother's infant feeding decisions, the health care system has the opportunity to gain financially due to less cost for care for infants who are exclusively breastfed.

Recommended Action. Health care facilities, policies, and providers have the strongest impact on mother-infant dyads achieving exclusive breastfeeding patterns (Tender et al., 2009; Gagnon et al., 2005). For instance, "primiparous" women who perceive that they have received negative advice from health professionals, reportedly have "rapid declines in breastfeeding rates" (Sheehan et al, 2001, p. 218). Thus, it is recommended for hospitals, public health units and community health centres to implement Baby-Friendly policies and practices outlined by BFI. These policies and practices can promote supportive breastfeeding practices, advocate for an increase in family prenatal breastfeeding education, and increase health care provider's evidenced based knowledge on breastfeeding (Tender et al, 2009). As a result, such interventions can aid to decrease maternal risks for in-hospital formula supplementation, and decrease the provision of unnecessary non-medical indications, while supporting medical indications for in-hospital formula supplementation.

Summary

Supporting breastfeeding and the implementation of the BFI is considered best practice by many known health organizations including but not limited to the Ontario Public Health Association, Registered Nurses of Ontario, Canadian Paediatric Society, UNICEF, World Health Organization and the Ministry of Health and Long-term Care.

The implementation of BFI serves the objective of protecting, supporting and promoting breastfeeding which, as a result, has multiple benefits for everyone including workplaces and hospitals which decide to begin their journey towards BFI designation.

In summary, as described above, the recommended actions include: creating supportive environments for breastfeeding through policies supporting the BFI and beginning the journey towards BFI designation or maintaining BFI designation.

For further information and resources about supporting breastfeeding and the Baby-Friendly Initiative, contact the Breastfeeding Committee for Canada and/or Baby-Friendly Initiative Ontario (www.bfontario.ca).

Resources:

Best Start Resource Centre (2010). How to be a Family Friendly Workplace
http://beststart.org/resources/wrkplc_health/pdf/preg_work_16pg_FNL.pdf

OPHA Breastfeeding Promotion Workgroup (2008). Creating a Breastfeeding Friendly Workplace.
<http://www.opha.on.ca/resources/docs/BreastfeedingFriendlyWorkplace-Sep08.pdf>

More Resources

OPHA Position Paper: The WHO Code and the Ethical Marketing of Breastmilk Substitutes (2010)
http://www.opha.on.ca/our_voice/ppres/papers/2010-01_pp.pdf

OPHA Position Paper Informed Decision Making and Infant Feeding, revised 2007
http://www.opha.on.ca/our_voice/ppres/papers/2007-02_pp.pdf

OPHA Position Paper: Breastfeeding Position Paper, revised 2007
http://www.opha.on.ca/our_voice/ppres/papers/2007-03_pp.pdf

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