The CAPC/CPNP Think Tank: Factors that Contribute to Increased Breastfeeding in the CAPC/CPNP Population

On March 23 and 24, 2000, the Community Action Program for Children (CAPC) and the Canada Prenatal Nutrition Program (CPNP) sponsored their first "CAPC/CPNP Think Tank" in Ottawa. CAPC and CPNP support a range of community action programs and services for pregnant women and children living in conditions of risk across Canada. The Think Tank was funded by Health Canada under the CAPC/CPNP National Projects Fund, which funds projects that support the objectives of the programs and directly benefit CAPC and CPNP projects across Canada. The model for this unique event was conceived by program consultants at Health Canada, and was then further developed by a team from the Centre for Health Promotion, University of Toronto. (Additional information on CAPC, CPNP and the National Projects Fund is included in Appendix A, and is also available on the Health Canada website at http://www.hc-sc.gc.ca/hppb/childhood-youth/cbp.html.)

The CAPC/CPNP Think Tank brought representatives from 38 CAPC/CPNP projects together with community-based participatory researchers to discuss four important issues of common interest to CAPC/CPNP projects being implemented across Canada. The four issues that were addressed were:

- Maximizing parental involvement
- Reaching and maintaining the focus population
- Factors that contribute to an increased breastfeeding rate in the CAPC/CPNP population
- Partnership and intervention in dealing with child abuse prevention

In order to ensure that the outcomes of the Think Tank were meaningful to CAPC/CPNP projects, an Advisory Committee with representation from projects, as well as regional and national Health Canada staff, designed and shaped the event. This included identifying the priority issues that were addressed during the Think Tank, nominating the researchers who participated in the process, and nominating/selecting projects which had demonstrated innovation and expertise in one of the four issue areas.

The Think Tank resulted in the production of four papers (one on each issue), which integrate the experience and expertise of the project representatives and the community-based participatory researchers. A fifth paper provides an overview of this unique, experimental model and the process that was used to produce the results.

This issue group focused on projects that have been highly successful in breastfeeding initiation and duration among women in the focus population. What are the best practices and innovations that result in higher breastfeeding rates among the focus population?

What the community said...

The working group asked that the use of certain terms be clarified, as follows:

1) "Support"

Upon discussion it was found that the term "support" has varying connotations depending on the focus population. There is no one level of involvement or comprehensiveness attached to the word "support".

2) "Breastfeeding"

Similarly, group members often meant different things when they used this word. It obviously varies according to duration and to exclusivity. For example, a woman who supplements breastfeeding with bottlefeeding would be considered a breastfeeder by some group members but not by others.

3) "Education" versus "Training"

It was felt that the former term implied empowerment of the learner and was interactive, while the latter term was a more simple type of behaviour modification. Having said this, certainly many times when group members spoke of "training" peer supporters, they meant to imply empowerment and interactivity.

4) "Engaging" versus "Involving"

In discussing the participation of various parties such as partnerships, community members and, most significantly, mothers themselves, group members preferred to speak of these parties becoming engaged in the program rather than involved, which could be more loosely interpreted and imply less commitment and immersion.

Learnings

The working group identified three key learnings that, collectively, captured the essence of the factors that contribute to a successful breastfeeding strategy:

- Continuum of strategies to deliver support
- Education and training
- Community enhancement

First Learning - Continuum of Strategies to Deliver Support

"We have learned that a continuum of strategies started early, using a holisitic approach tailored to the needs of the focus population, are essential to promote, protect and support breastfeeding.

It is important to maintain involvement with the mother from first contact, with continued engagement through to closure. This implies a holistic variety of types of contact including:

- peer support
- professional support
- a 24-hour telephone support line
- home visits (which prove very successful)
- group and individual approaches, all geared towards three important objectives: promotion, protection and support of the breastfeeding mother.

Frequent contact is needed in the early weeks and at least once a month when breastfeeding is established. A relatively positive experience at delivery and immediately afterwards is ideal for success with breastfeeding. If possible, the family should be involved early, and support should be given quickly when it is needed, at any point during pregnancy or nursing. Breastfeeding visits during the first and second week after birth can provide valuable feedback. Peer sharing can be a great support in the woman's transition from hospital to home.

Successful breastfeeding programs are tailored to meet the basic and special needs of their particular mothers. These needs will vary depending on the focus population – rural or urban, young or old or mixed, lower or higher income, new or experienced parents? As well, different women can participate with different levels of intensity.

For a woman to be able to participate in a program, it is often helpful if she is provided with essentials such as:

- childcare
- transportation
- Snack or meal - participants can be attracted by incentives such as grocery

certificates, milk, eggs, cheese, orange juice and the delivery of a hot meal to their home. Such incentives work best when presented as "baby bonuses", or tokens of achievement given at milestones of continued breastfeeding (e.g., at three months, six months, 12 months, etc.), rather than as bribes.

- Recycled maternity and children's clothing
- Collective kitchens.

When possible, the woman's partner should be included.

In addition to basic needs, different participants will have different needs according to their life situation. These needs are best taken into consideration in program design. The program should be able to help a woman deal with school, seasonal employment or her position as primary earner, as these factors can impinge upon her ability to breastfeed. For example, successful projects aimed at student mothers often locate in or near the high school. The program is incorporated as part of the curriculum for which participants receive credit. Sometimes, the program may support the granting of a two-month, penalty-free maternity leave for new mothers. This is part of the technique of giving support to where the moms "are" in their life situations.

The appearance and ambiance of the program and its staff to the prospective and current participants can determine whether or not a woman participates. Key elements include:

- informality
- positive staff rapport with participants
- acceptance, respect and sensitivity to a woman and her situation
- a family-friendly atmosphere
- using the language of positive images
- earning the trust of participants
- program visibility
- having fun!

Especially in the case of young mothers, it is crucial to bridge the gap between the "client" and the "professional". The program space must be clearly different in design and attitude from what many young mothers will have experienced during delivery.

"Hospitals are like reform schools for [young] mothers."

Language is critically important. For example, group members agreed that the term "teen" itself is stigmatized, and especially so when combined with "mother". The stereotype of a teen mother is not only unflattering, but is a deterrent to some mothers taking a proactive role in their pregnancy and, by extension, their breastfeeding decision, and sometimes even to older women participating in a group with younger mothers. The term "young mother" or "young parent" was widely favoured.

Above all, the environment should be a "safe" one where breastfeeding is normal, valued, affirmed and celebrated. Even small breastfeeding victories should be acknowledged.

The concept of continuum also implies active outreach activities. Breastfeeding can be included as a component of all prenatal classes. Another initiative is to lend breast pumps to mothers who, as they leave the hospital, plan on bottlefeeding. This often encourages them to initiate breastfeeding. Hands-on activities have been found to be an effective way of bringing a program to participants and vice-versa, and attendance improves when participants are given individual telephone invitations to each event. Some mothers may prefer to keep their babies

with them for all programs – and this has been found to be advantageous – and some may prefer to be exclusively with other mothers of their age group. Programs must be tailored for these variables, and should always be culturally appropriate.

Finally, breastfeeding is often a "safe" topic that can open the door to lending support on other issues a mother may be dealing with. However, other women are not ready to commit themselves to breastfeeding. Creative approaches include delving into programming that may not be immediately relevant to breastfeeding. One successful project conducts very popular knitting groups. The program fosters a loving bond between the mother and her unborn baby. The relaxed atmosphere allows for more informal discussion of topics that are otherwise difficult to address, and can open a door for uncommitted mothers to consider breastfeeding. Programs should explore the creative use of new technology, such as "call display" to increase telephone contact rates with mothers, and teleconferencing for coalition groups.

Second Learning - Education and Training

"We have learned that programs need people with specific knowledge, attitude and skills to work effectively with the focus population and the community in which they live, leading to women and families [becoming] empowered to choose to breastfeed and reach their breastfeeding goals."

In discussing education and training, the issue of specialization was contentious. For example, should lactation consultants be provided to every community, or should this knowledge be disseminated to more staff people and peer counsellors? Lactation consultants should not bear the main part of the job of supporting breastfeeding, but many communities are in need of some professionally-trained support. There must be a way to utilize the expertise of lactation consultants more effectively, perhaps by having the consultants train others to do the actual one-on-one job, while the consultants are called on for professional help when necessary. Other professionals, including the doctor, and the nurse who is present for the critical first 24-postpartum hours, need training in breastfeeding. Lactation consultants can neither prescribe medicine nor be present for every woman.

"Under the medical model, we just give the lactation consultant the breast and the doctor the uterus and we lose the mother in between."

Ideally, everyone involved with the participant should have three suitable attributes: attitudes, skills and knowledge. This does not imply that they must have certain values, other than that of acceptance. These attributes must be appropriate to work with the focus population *and* the community in which they live. Although many programs rely on volunteers, peer supporters should ideally be paid a wage or stipend and live in the community, conducting workshops and other programs. Their training should be ongoing and they should be given every resource necessary to support them, such as fact sheets for telephone counselling and a resource library to share with clients.

The less staff are presented as "professionals" or experts, the more trust can develop.

Many project representatives have found that some young mothers are reluctant to

participate in programs fearing that it will impinge upon their ability to collect social assistance.

The staff, as well, benefits from a positive environment. Successful projects know the value of affirming and celebrating their peer workers. Celebrations could include breastfeeding week, and the novel idea of celebrating youth pregnancy.

"Try to celebrate the youth pregnancy, because nobody else is doing that. These girls want to be good mothers."

Most project representatives have found that peer support, or the "buddy system", is very effective. Program graduates and successful breastfeeders can then return to support others in the program and in their communities.

Women want to hear the realities of breastfeeding rather than an idealized and ultimately disappointing image. At the same time, project representatives have met with success by positioning breastfeeding as the "default" choice for women, assuming that they will breastfeed unless they actively choose not to.

Finally, the mother must be empowered to make informed choices, rather than being told what to do. This means that the staff and support people must also be equipped with suitable information and education to support her in this. There should be an ongoing communication centred around the mother, and involving her partners and support persons. Less-than-wise choices made by the mother can become "teachable" moments rather than opportunities for criticism. Staff must demonstrate acceptance of mothers even when they do not agree with their choices.

"If the mom used her supplement to buy orange drink instead of orange juice, it's not a disaster, it's a 'teachable moment'."

"Some people are concerned about bringing (parenting) education into schools. They seem to think that if youth talk about pregnancy they're more likely to get pregnant, as if by osmosis."

Third Learning - Community Enhancement

"We have learned that when communities are engaged, breastfeeding initiation and duration rates in the focus population increase."

The working group based this learning on the concept of the community protecting, promoting and supporting a breastfeeding culture, and cited specific examples of community members who could be involved, such as the focus population, business, medical, media, social and family communities. The word "engaged" was favoured over "involved" as more proactive, and the terms "must" and "should" be involved were avoided as potentially discouraging.

Linkages between health, education and society can be actualized in partnerships. Much benefit can be gained from developing working partnerships, among other professional networks, participants, educational institutions, daycare centres, the business community, and the critical mass of the public who could support breastfeeding. For example, many participants are referred by their doctors. Active partnerships with

hospitals and public health nurses can revitalize sometimes unhelpful relationships. Partnerships with workplaces often yield many positive results, including decreased absenteeism due to illness of the infant, as well as increased rate of breastfeeding overall. Similar partnerships could be considered for seasonally employed and self-employed mothers.

Through partnerships, CAPC/CPNP projects can complement other programs. Special populations such as young mothers can be introduced to professional service providers in the "safe" environment of the CPNP program. Breastfeeding coalitions themselves can cooperate at the regional, provincial and local levels, and a national breastfeeding coalition to coordinate these efforts. Partnerships can also become new sources of funding.

One challenge is to balance and respect the different mandates of the involved partners, and to recognize the value of shared knowledge.

The support of partners, such as school officials, is essential when projects might be confronting stereotypes about their work.

The attitudes of the community overall can be friendly or hostile. This includes the hospital and doctors, and could even include some of the aforementioned partnerships, in the broadest definition of "community". Most projects could benefit from increased public-relations and baby-friendliness at large. It helps to reduce stigma on participants if everyone in the focus population is eligible to participate (i.e., everyone in an isolated community is eligible to participate by reason of their isolation, as they fit the criteria of the focus population).

Much thought has been given to strategies needed to create a "breastfeeding culture". Attitudes change slowly, and only recognizably once a "critical mass" of people embrace breastfeeding. Promotional displays can be set up in malls. Increased breastfeeding rates are seen in communities where breastfeeding has been made more visible.

"People need to have a little positive acknowledgment; they get lots of negative. If I see a woman breastfeeding this weekend, I'm going to congratulate her."

"We had some complaints from a restaurant that there was breastfeeding going on, so of course that's the restaurant we brought our big group to and we all breastfed there."

Research Questions

The working group identified a number of key research questions stemming from the three learnings.

1. **What strategies are effective in increasing breastfeeding rates within the focus population?**

   What are the tactics that will work across all groups within the focus population including rural, youth and immigrant clients? The answer to this question should be mindful of key ingredients such as timing and holistic approach.

2. **What combination of knowledge, attitude and skills [in a project worker] are effective in working with families in the focus population to increase breastfeeding?**

   What is the key body of knowledge, attitudes and skills needed by each "player"? Why does this increase breastfeeding? Attitudes and knowledge and skills do not always coexist. Crucial attitudes concern "teen" mothers, language and other sensitive topics. If the physician

is not the most effective teacher of breastfeeding, who is?

3. **What key partnerships are essential to increasing breastfeeding rates within the focus population?**

   How can these effective partnerships be established? Should community receptivity and strength be assessed, and if so, how and by whom? (Do CAPC/CPNP projects have the time to do this?) How can community readiness be increased – who should be on-side and who already is? How can we promote breastfeeding in a bottlefeeding culture? Who are the key influences and how can they be educated?

Additional questions include:

- What strategies are out there to engage the focus population early?
- What is the influence of early discharge and of follow-up on rates of breastfeeding?
- What makes CPNP different [from other programs, in terms of success rate]?
- Can peer support be an effective strategy in increasing rates of breastfeeding? What kinds of peer support?
- How can projects retain staff and peer workers and participants?

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Literature Review

What the research says...

Literature Review

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Introduction

Typically, rates of breastfeeding initiation are strikingly lower among the subgroups of the population targeted by the CPNP program than the 73% breastfeeding initiation found for Canadian women in both the 1996 National Population Health Survey (NPHS) and the National Longitudinal Survey of Children and Youth (NLSCY) (MacLean 1998). Women particularly vulnerable to formula-feeding include those who are younger (Robinson et al 1993; Grossman et al 1990; Ryan et al 1991; Sacks et al 1976; Ever-Hodani et al 1994; Bloom et al 1982a), single (Sacks et al 1976; Evers et al 1998), with lower levels of education (Williams et al 1996; Ryan et al 1991; Sacks et al 1976; Ever-Hodani et al 1994; Evers et al 1998, Grossman et al 1990; LeFevre et al 1987; Rosseau et al 1982), and income (Myers 1979; Bloom et al 1982a; LeFevre et al 1987; Health & Welfare Canada 1991, 1993; Novotny et al 1994; Grossman et al 1990; Evers et al 1998) from other backgrounds (Health & Welfare Canada 1991; Williams et al 1996; Ryan et al 1991; Ever-Hodani et al 1994), and living in Eastern Canada (MacLean 1998).

Despite recommendations to promote, protect and support exclusive breastfeeding for at least four (CPS et al 1998) to six (WHA Forty-Seventh World Health Assembly 1994; Breastfeeding Committee of Canada 1998) months of age, early termination of breastfeeding is common among Canadian women with 31-35% and 39-41% weaning before 8 and 12 weeks, respectively (MacLean 1998). Consistent with the low rates of breastfeeding initiation, women who are young, single, with lower levels of income and education, and living in Eastern Canada who choose to breastfeed are at risk for early termination of breastfeeding (MacLean 1998). Even among women targeted by the CPNP program, the initiation and duration of breastfeeding varies considerably. Breastfeeding initiation rates for mothers participating in the CPNP programs across Canada averaged 72.5%, consistent with national rates (www.geocities.com/HotSprings/Falls/1136/webdoc22.htm#The Canada Prenatal Nutrition Program). Similarly, projects such as the Better Beginnings, Better Futures Project, a primary prevention project in low-income communities in Ontario, have achieved rates as high as 77% for breastfeeding initiation, with about 63% of mothers still breastfeeding at three months postpartum (Evers et al 1998). The Montreal Diet Dispensary (MDD), which each year serves over 2,000 disadvantaged pregnant women, achieved similar results with an initiation rate of 85% — 64% of these mothers are still breastfeeding at three months and 37% at six months (Vallieres et al, in progress for publication). Much lower breastfeeding rates have been reported for other disadvantaged groups. For example, McKim et al (1998) reported that only 49% of non-Aboriginal Innu and Inuit mothers in Costal Labrador were exclusively breastfeeding at hospital discharge, with 33% doing so at four weeks, and 18% at 16 weeks postpartum. Information is lacking on rates of breastfeeding initiation and duration among groups of women in Canada who are targeted by the CPNP program, such as young mothers, refugees, and low-income women living in rural areas.

Breastfeeding is associated with reduced infant mortality in preterm infants (Lucas & Cole 1990), a decreased risk of acute respiratory infections, diarrheal illness, otitis media, atopic skin disorders (Cunningham et al 1991; Lopez-Alarcon et al 1997; Dewey et al 1995; Cohen et al 1995),

childhood asthma (Oddy et al 1999), and obesity (Von Kries et al 1999), and lower rates of hospital admissions (Cunningham et al 1991). Breastfeeding is also advantageous for parents (Heinig & Dewey 1997), and has been associated with lower rates of maternal absenteeism (Cohen et al 1995). The benefits of breastfeeding appear to increase with increasing duration of breastfeeding (at least until four months of age) (Wilson et al 1998). Montgomery & Splett (1997) calculated that breastfeeding each infant enrolled in the Special Supplemental Food Program for Women, Infants and Children (WIC) during the first six months of an infant's life resulted in substantial savings in WIC costs and Medicaid expenditures, and reduction of about 50% in pharmacy costs compared with formula-feeding, even after consideration of the formula manufacturer's rebate. Unfortunately, no published data is as yet available on the economic benefit/cost ratio of programs that promote and support breastfeeding among low-income women in Canada. Adolescent mothers and those from disadvantaged backgrounds are at an increased risk for premature delivery, low birth weight and in general poorer health outcomes (Brown et al 1991; Kotagal 1993). Thus, breastfeeding among the CPNP population has the potential to contribute substantial benefits and savings to both parents and the health system.

An understanding of the factors that influence the feeding decisions and practices of mothers who are from disadvantaged backgrounds is vital to improving the rates of breastfeeding initiation and duration among the CPNP focus population. Although some of the demographic and psychosocial factors that influence mothers' infant feeding choices in general can also be expected to influence the feeding choices of mothers targeted by the CPNP program, other factors are unique or play a more important role for this particularly vulnerable group. Important psychosocial determinants of breastfeeding for mothers from disadvantaged backgrounds include social support (Sacks et al 1976; Rousseau et al 1982; Freed et al 1992a), beliefs about the benefits or consequences of breastfeeding (or formula feeding), barriers associated with breastfeeding, such as being uncomfortable or embarrassed with breastfeeding (Evers et al 1998; Robinson et al 1993), and self-confidence in overcoming barriers to breastfeeding (Marten & Young 1997; Baranowski et al 1990; Coombs et al 1998; O'Campo et al 1992).

Studies that have examined the reasons for early termination of breastfeeding among disadvantaged mothers consistently report that the primary reason is related to perceived milk insufficiency (Evers et al 1998; Grossman et al 1990; Barron et al 1988). Similarly, national (MacLean, 1998) and local surveys (Williams et al 1999; Marten & Young 1997; Martens et al 2000) in Canada have found that early discontinuation of breastfeeding relates to difficulties with technique, sore nipples/breasts, insufficient milk, and discomfort with breastfeeding. Insufficient milk syndrome (IMS) as a reason for early termination of breastfeeding is likely a proxy for a more complex set of interactions that may involve technical knowledge, and more importantly, socio-cultural issues that influence internal personal factors are key to successful breastfeeding, such as a mother's self-efficacy and outcome expectations with regards to breastfeeding (MacLean 1998; Hill & Aldag 1991). Hill & Humenick (1989) have proposed a framework for studying IMS. Further research is needed to fully understand the factors that predict a mother's risk for IMS, and how to effectively prevent this problem in the focus population.

Three key learnings were identified on the best practices and innovations that have resulted in higher breastfeeding rates among CPNP projects. The three key learnings were: 1) a continuum of strategies to deliver support, 2) education and training of program workers, and 3) community enhancement. First, we have learned that a continuum of (early and ongoing) strategies using a

holistic approach and tailored to the needs of the focus population is essential to promote, protect, and support breastfeeding. Second, we have learned that programs need people with specific knowledge, attitudes and skills to work effectively with the focus population and the community in which they live, leading to women and families becoming empowered to choose to breastfeed and reach their breastfeeding goals. Third, we have learned that when communities are engaged (in breastfeeding promotion, protection and support), breastfeeding initiation and duration rates in the focus population increase. The purpose of this paper is to review the literature on the factors contributing to increased breastfeeding initiation and duration among mothers targeted by the CPNP program in relation to these three key community learnings and challenges, and to identify where gaps exist in the research.

Section One: Program Strategies

What is effective in increasing breastfeeding among the CPNP population?

1.1 Timing and duration of delivery of strategies

Studies consistently show that infant feeding decisions are made early in or even prior to pregnancy (Sacks et al 1976; LeFevre et al 1987; Rousseau et al 1982; Entwisle et al 1982; Losch et al 1995; Aberman & Kirchoff 1985; Grossman et al 1990), and that prenatal intentions regarding infant feeding practices are the strongest predictor of actual practices (Entwisle et al 1982; Aberman & Kirchoff 1985; Coreil & Murphy 1988). In contrast, young mothers are most likely to make the decision to breastfeed during pregnancy or after birth (Maehr et al 1993; Wambach & Cole 1999).

Observational studies have found an association between prenatal education and the initiation of breastfeeding (Grossman et al 1990; Jones & Belsey 1977; Wright et al 1983; Entwisle et al 1982), although the same relationship was not found within the group of women from lower socioeconomic backgrounds studied by Entwisle et al (1982). Kistin et al (1990) also demonstrated the efficacy of prenatal maternal counseling for increasing both the rates of breastfeeding initiation and duration in a controlled trial with predominantly low-income, urban black expectant mothers. A recent review by Sikorski & Renfrew (1999) examined controlled studies of breastfeeding support and the effectiveness of the different types of support interventions that have been used. This analysis suggests that strategies that contain both antenatal and postnatal components may be more effective than those that contain only postnatal components (Sikorski & Renfrew 1999).

It has been well documented that termination of breastfeeding prior to the recommended 4 to 6 months (CPS et al 1998; WHA Forty-Seventh World Health Assembly 1994) occurs frequently among women targeted by the CPNP program (Evers et al 1998); and in low-income and young mothers, this often occurs earlier than intended (Swanson 1988). Several studies have documented that mothers perceive a need for support for breastfeeding in the first week following hospital discharge (Bull 1981; Field & Renfrew 1991; Rush et al 1991) Breastfeeding-related questions and concerns accounted for 88% of calls received by a 24-hour postpartum support hotline in a recent study in Saskatoon (Stefiuk 1998). Early termination of breastfeeding is most commonly attributed to perceived milk insufficiency or sore nipples/breasts among mothers from all socio-economic

backgrounds (Evers et al 1998; Barron et al 1988; Hill & Aldag 1991), problems that can be prevented by support in the early postpartum period.

It is well documented that guidance and support in the immediate and early postpartum period are critical to the initiation and maintenance of breastfeeding among mothers targeted by the CPNP program. Barron et al (1988) found that when an outside source of assistance and support for breastfeeding was provided to low-income women in the home during the first two weeks postpartum (from a doula or WIC), the mean duration of breastfeeding was about twice as long as when no support was provided. The major strengths of a postpartum home support program in Saskatoon were the continuity of care, the links, and the networking between agencies and professions, and for mothers the teaching and counselling provided at the times when their support person could be involved (Stefiuk 1998). This postpartum program operates 24 hours a day, seven days a week by maternal-child nurses, and includes a 24-hour hotline and visits with mothers both in hospital and within 24 hours at home. Analysis of data from the Canadian Institute for Health Information (CIHI) by Lieu et al (2000) showed that the average length of hospital stay at birth decreased from 4.2 days in 1989/90 to 2.7 days in 1996/97. It is recommended that mothers in Canada who have a full-term (37-42 weeks) infant whose size is adequate for their gestational age and who have no medical complications be discharged in less than 48 hours after their baby's birth (Fetus and Newborn Committee 1996). Thus, early community and home support is critical to establishing successful breastfeeding. O'Leary Quinn et al (1997) provided evidence that a 24-hour length of stay with a home visit was as effective as a 48-hour discharge with no home visit for success with breastfeeding at 6-8 weeks postpartum.

1.2 Types of strategies

Provision of Extra Support

Numerous studies have shown that extra support provided to mothers throughout pregnancy and the early postpartum period results in improved breastfeeding rates compared with breastfeeding among mothers receiving usual maternity care (Sikorski & Renfrew 1999). Kahn (1979) describes three types of social support: 1) affect, which includes appreciation, admiration and creating a sense of security; 2) affirmation, which includes reinforcement, feedback, and influencing the individual's way of making decisions; and 3) concrete aid, which includes spending time in helping someone. Similarly, Penrose et al (1998) identified a need for three different types of support resources for breastfeeding women: 1) educational or informational support, 2) emotional support, and 3) instrumental guidance and support. Findings of a survey by Labbock & Simon (1988) suggests that this support is most importantly provided by female peers among women with lower levels of education.

In their review of controlled trials of breastfeeding support, Sikorski & Renfrew (1999) concluded that the provision of extra support by professionals with special skills in breastfeeding would result in more mothers who both continue to breastfeed their babies until the age of two months, and who breastfeed exclusively until this time. Their analysis demonstrated that support provided for nine women would result in one more mother breastfeeding, and one more mother breastfeeding exclusively for two months. As most studies included in this review examined outcomes only until two months, and focused on interventions that were concentrated in the early postpartum period, it is unclear whether this effect would continue if supportive interventions

were continued for longer periods of time (Sikorski & Renfrew 1999). Although the evidence clearly demonstrates that support beyond the usual maternity care is necessary to increase rates of breastfeeding initiation and duration, it is not clear what forms of support are the most effective (Sikorski & Renfrew 1999). Further, Sikorski & Renfrew (1999) concluded that the trials reviewed do not provide any conclusive evidence for an effective intervention in socially disadvantaged women which might help redress the social inequities in breastfeeding rates, and that studies are needed in this area.

Peer Support

Numerous descriptive studies suggest that peer counseling and support are effective strategies for increasing breastfeeding rates (Grummer-Strawn et al 1997; Kistin, et al 1994; Schafer et al 1998; Langer et al 1998; Penrose et al 1998; Gross et al 1998). In a study of the effect of peer support on breastfeeding duration and exclusivity in a population of low-income women (Penrose et al 1998), participants in the peer counselor group (n=18) exhibited higher rates of exclusive breastfeeding across time up to three months postpartum than those in the group without a counselor (n=18). In the U.S., similar results (greater breastfeeding initiation, duration and exclusivity) have been found in longitudinal (Kistin et al 1994; Grummer-Strawn et al 1997) and experimental studies (Gross et al 1998) that have examined breastfeeding peer counselor programs among low-income urban WIC recipients. Grummer-Strawn et al (1997) found that the impact of the peer counseling program on breastfeeding rates depended on the background and training of the counselor and adequate duration of interaction between peer counselors and their clients.

Few randomized trials have evaluated the efficacy of peer support on breastfeeding rates, and thus were not included in the review of Sikorski & Renfrew (1999). Previous trials that have evaluated the efficacy of peer support on breastfeeding rates have been hospital-based (Langer et al 1998). Psychosocial support by doulas (female companions who were trained, retired nurses) during labor and in the period immediately after birth were shown by Langer et al (1998) to result in increased rates of successful breastfeeding initiation. Women who received the intervention, which included emotional support, information, physical support, communication and immediate contact between the mother and the infant after birth, had a higher frequency of exclusive breastfeeding one month after birth (12% vs. 7%) (RR 1.64, CI 1.01-2.64) than those who received routine maternity care. Recently, however, a well designed randomized trial by Morrow et al (1999) was conducted in Mexico City to evaluate the efficacy of community-based peer support provided as either three or six prenatal and early postpartum home visits, and clearly demonstrated the effectiveness of home-based peer counseling for improving rates of breastfeeding initiation and duration. Morrow et al (1999) also found that more frequent counseling visits are advantageous. Two trials of the efficacy of peer counseling on breastfeeding, one in Toronto, and one in Scotland are currently underway (Sikorski & Renfrew 1999).

Face to Face versus Telephone Interventions

In the review by Sikorski & Renfrew (1999), analysis of studies reporting a predominantly face to face intervention showed a benefit (RR for stopping breastfeeding 0.85, CI: 0.74 to 0.97) while those using mainly telephone contact failed to do so (RR 0.98, CI: 0.88 to 1.09).

Volunteer versus Paid Support

Whether peer support is more effective when provided by volunteers or by paid workers has not been adequately evaluated (Sikorski & Renfrew 1999). A demonstration project, which was conducted with rural low-income pregnant and postpartum women who qualified for the WIC program, suggests that trained volunteers who have previous experience with breastfeeding can be effective in increasing rates of breastfeeding (Schafer et al 1998). Provision of volunteer peer counseling that included a series of in-home one-to-one lessons about healthy diet and breastfeeding, and informal contact to answer mothers' questions or help with their concerns increased both the initiation (82% vs. 31%) and the duration of breastfeeding (5.7 vs. 2.5 weeks) among these low-income women (Schafer et al 1998).

Involvement of mothers' partners and families

A woman's belief about their partner's feeding preference and the support provided by their partner, family and friends influence their choice of feeding method (Freed et al 1992a&b; Dusdieker et al 1985; Matich et al 1992; Mohrer et al 1979; Giugliani et al 1994). The importance of the support of expectant fathers to a mother's choice to breastfeed has been reviewed by Sharma & Petosa (1997), and has been identified by a number of studies with low-income women as a key factor in the both the initiation and duration of breastfeeding (Black et al 1990; Gamble & Morse 1993; Kessler et al 1995; Schmidt & Sigman-Grant 1999). Studies that have examined the factors that influence a father's decision to support or not support breastfeeding have recently been reviewed by Sharma & Petosa (1997). To effectively target fathers, they suggest that strategies should include the following components: 1) reinforcement of fathers' existing knowledge and positive attitudes about breastfeeding (e.g., disease protection, bonding with the baby, and other health benefits of breastfeeding), 2) reduction of reservations and correction of misperceptions about breastfeeding (e.g., lack of opportunity to develop a relationship with the baby, that breastfeeding is bad for the breasts, feelings of inadequacy and separation from the mate, and that artificial feeding is better for the baby's growth), and 3) development of skills so that the father can serve as an important source of support for the breastfeeding mother. A qualitative study of rural low-income fathers and their partners whom were committed to breastfeeding also identified the need to involve the father early in the pregnancy through multiple dissemination channels (the mothers, their families, and health professionals) (Schmidt & Sigman-Grant 1999).

The positive influence of social support from friends and relatives on breastfeeding initiation and duration among low-income women has also been well documented (Whelan & Lupton 1998; Humphreys et al 1998; Haneuse et al 2000; Barron et al 1988; Grossman et al 1990b; Matich & Sims 1992). A qualitative study of African-American adolescent mothers' perceptions of parenting found that the adolescent's mother and grandmothers were the primary sources for

parenting information and childcare (Wayland & Rawlins 1997). Strategies that include social support through the use of peer counselors, the inclusion of family members in breastfeeding education contacts, and tailoring breastfeeding classes to influential members of womens' social support networks have been found to improve rates of breastfeeding among low-income women, particularly those with little experience (Humphreys et al 1998). All previous studies designed to promote (Friel et al 1989) or support breastfeeding (Friel et al 1989; Pobocik et al 2000) among adolescents have solely targeted the young mother. Studies are needed to evaluate the impact of strategies that include influential members of young mother's social support networks in efforts to promote and support breastfeeding on the initiation and duration of breastfeeding.

Individual Counseling versus Group Approaches

Despite its widespread use, there is a paucity of studies that have examined the effectiveness of individual counseling either prenatally or postnatally as an approach for promoting and supporting breastfeeding. Some studies have evaluated individual counseling in combination with other interventions such as motivational videos (Goss et al 1998). Individual counseling by professionals has been used with some success in increasing rates of breastfeeding (Young & Kaufman 1988; Russel et al 1999; Haider et al 1996), but has been criticized for being costly, personnel intensive and for its potential to deliver inconsistent messages (Coreil et al 1995; Coombs et al 1998). The Montreal Diet Dispensary (MDD) developed the Higgins Nutrition Intervention Method in which nutrition intervention is individualized yet very cost-effective due to its success at significantly improving prenatal outcomes. Higgins et al (1985), Dubois et al (1989, 1997) demonstrated the effectiveness of this program in a within-mothers analyses and in high-risk populations (mothers expecting twins and adolescent pregnancy). These studies demonstrated an increase in mean birth weight and a reduction in the rates of both low birth weight and very low birth weight and prematurity. Breastfeeding education is an integral part of the Higgins Method, combining individual and group approaches. As noted earlier, Vallieres et al, in a recent study of the 1998-1999 MDD population, confirmed that 85% of MDD mothers initiate breastfeeding; furthermore, 64% of the mothers in the study were still breastfeeding at three months and 37% at six months.

A self-help manual designed as cost-effective extension of individual counseling to motivate low-income women to breastfeed was evaluated in a randomized, two-group pre-/post test design by Coombs et al (1998). The treatment group was more likely to intend to breastfeed, and the breastfeeding manual was significantly associated with breastfeeding initiation but not duration.

Studies suggest that group discussion-oriented classes might be a more effective approach for breastfeeding education and support among adolescent mothers than individual counseling or lecture style classes. Group discussions may be effective with young mothers because they are at a developmental stage where they are self-centered, and their development to the next stage where they are able to consider a number of points of view takes place in the context of interactions of peers (Yoos 1985). Further, adolescents are particularly vulnerable to misconceptions about and barriers to breastfeeding that may be amenable to group discussion, such as embarrassment about breastfeeding (Baisch et al 1989a&b; Robinson et al 1993; Radius & Joffee 1988). A group delivered breastfeeding education and support program, called the Early Experiences and Counseling for Effective Lactation (EXCEL) program was evaluated in a

controlled trial by Pobocik et al (2000). This program, which was delivered through schools and the WIC program to a group of multicultural pregnant and parenting adolescents, resulted in an almost two-fold higher odds of breastfeeding initiation, and higher rates of breastfeeding at two months postpartum compared with the control group. Further, this study provided valuable data to show a relationship between the intensity of program participation and both the initiation and duration of breastfeeding. With each additional lesson attended, the odds of initiation of breastfeeding increased by 1.098 even after adjusting for parity, ethnicity, school enrolment, and age (Pobocik et al 2000).

Focus on basic needs (e.g., food, clothing, and childcare)

Women with few financial resources are at risk for formula feeding (Ryan et al 1991; Bloom et al 1982). A lack of financial resources predisposes mothers to a lack of access to breastfeeding resources, programs, support groups and classes. This lack of access relates to barriers including a lack of transportation and childcare (Penrose et al 1998). It is well known by programs, such as the WIC and CPNP, that providing interventions that meet basic needs such as food, clothing, transportation and childcare in addition to providing breastfeeding education and support are essential to working with disadvantaged women. However, there is a paucity of studies that address important questions related to the provision of basic needs. For example, what impact does the provision of basic needs have on program participation and the rates and duration of breastfeeding? Which basic needs are essential and the most effective to provide? What are the most effective ways to provide these needs in community-based programs, and how can these basic needs be met in ways that empower rather than disempower program participants?.

Providing incentives to breastfeeding mothers

The effectiveness of the use of tangible incentives on the initiation and duration of breastfeeding has been demonstrated in a controlled trail by Sciacca et al (1995). An intervention consisting of community-donated prizes as incentives for low-income women and their partners to participate in a breastfeeding class and to use a breastfeeding support program resulted in improved program participation and rates of exclusive breastfeeding in the intervention group at hospital discharge, an at two and six weeks, and three months postpartum. It is possible that other differences in the control and intervention groups, such as differences in the breastfeeding education classes, accounted for the differences found in breastfeeding rates. Nonetheless, this study provides evidence that incentives can be used to attract low-income women and their partners to participate in breastfeeding education and support programs. Similarly, Haneuse et al (2000) demonstrated that breastfeeding duration was 77.5% longer among mothers who received incentives than those who did not.

1.3 Settings for delivery of strategies

Studies have shown that the use of home visits as a strategy for providing support in the early postpartum period results in longer breastfeeding duration and improved infant health outcomes (Serafino-Cross & Donovan 1992; Morrow et al 1999). Morrow et al (1999) conducted a randomized controlled trial of the efficacy of home-based peer counseling to increase the proportion of exclusive breastfeeding in transitional periurban neighborhood of Mexico City. The intervention groups (six and three visits) had longer durations of breastfeeding and fewer episodes of diarrhea than controls. At three months postpartum exclusive breastfeeding was practiced by only 12% of the controls, compared with 67% of the mothers who were visited six times and 50% of the mothers who were visited three times by a peer counselor. Lieu et al (2000) recently randomized 1163 medically and socially low-risk mother-newborn pairs with uncomplicated deliveries to receive home visits by nurse, or clinic follow-up visits on the third or fourth day postpartum. Although the median time for the home visits was 70 minutes, compared with 20 minutes for the clinic visits, and the home visits were associated with better ratings of maternal satisfaction, the rates of breastfeeding discontinuation were not different in the two groups. Although this study suggests that more cost-effective clinic visits may be as effective as home visits in a low-risk population, this has not yet been studied in a high-risk population, such as mothers eligible for the CPNP program.

Section Two: Program workers' knowledge, attitudes and skills

What combination is effective in working with families to increase breastfeeding in the CPNP population?

Although there is an abundance of literature on the knowledge, attitudes and skills of health professionals and hospital staff to breastfeeding promotion, support and protection issues, none of the published literature pertains to workers of community-based programs such as CPNP. Studies in the U.S. that have examined the impact of the knowledge, attitudes and skills of WIC program workers and health professionals on the promotion and support of breastfeeding report that workers with higher levels of education, some degree of lactation education as part of their training, and positive personal breastfeeding experiences demonstrated more support for breastfeeding than workers who did not have this level of education and experience (Beshgetoor et al 1999; Crowder 1981; Lowe 1990). Although WIC employees have been found to be supportive of breastfeeding for mothers including those who were married or single, working or attending school, and adolescents, they showed a lack of support for breastfeeding mothers who were mentally challenged and for those who smoke (Beshgetoor et al 1999). These studies indicate the need for educational programs that address the learning needs of workers who are both directly and indirectly involved in breastfeeding promotion, and for mechanisms within individual programs to identify inconsistencies in workers' support of breastfeeding (Beshgetoor et al 1999). There is a need for studies that address the knowledge, attitudes and skills of CPNP program workers and how this impacts rates of breastfeeding initiation and duration among the focus population.

Studies have indicated a need for program workers with practical knowledge and skills in establishing proper breastfeeding technique and in dealing with early breastfeeding problems (Evers et al 1998; Grossman et al 1990; Barron et al 1988; Williams et al 1999; Marten & Young 1997; Martens et al 2000). Renfrew & Lang (1999) recently completed a Cochrane Systematic Review of randomized and quasi-randomised trials of assistance with infant attachment and positioning at the breast compared with no correction of feeding technique in women experiencing feeding problems (related to their technique) with their healthy term infants. Although the analysis included only one study of 54 women (Righard & Alade 1992), the reviewers concluded that correction of breastfeeding technique reduces problems of perceived milk insufficiency and breast problems, as well as the likelihood that women experiencing problems will stop breastfeeding. More women had stopped breastfeeding at one, two, three and four months postpartum in the group where sucking technique was not corrected. Since perceived milk insufficiency and breast problems are the main cause of early termination of breastfeeding among disadvantaged women (Evers et al 1998; Hill & Aldag 1991; Barron et al 1988) training of CPNP program workers should address practical knowledge and skills regarding the proper technique required to establish successful breastfeeding, and problem-solving for dealing with breastfeeding problems.

Promoting and supporting breastfeeding in young mothers poses special challenges. When working with young mothers, it is important to be skilled in dealing with the unique needs that result from the simultaneous demands of adolescence and motherhood (Yoos 1985). This includes an understanding of the developmental, social and nutritional needs (Yoos 1985), language (Wayland & Rawlins 1997), self-absorption and issues of body image and self esteem (Yoos 1985) that are characteristic of young mothers. The adequacy of the knowledge, attitudes and skills of health professional and program workers to work effectively with young mothers has been questioned (Podgurski 1995; Wambach & Cole 1999), but has yet to be studied.

A study by Orrell-Valente et al (1999) suggests that parents' participation in community-based programs can be enhanced by program workers who have relevant life experiences and similar racial and socio-economic backgrounds to families.

Studies that have evaluated teaching/training programs for facilitating or enhancing the knowledge, attitudes and skills of workers for increasing rates of breastfeeding have predominately targeted health professionals (Westphal et al 1995; Prasad & Costello 1995; Rea et al 1999; Nayor 1990). Courses designed to train community health extension workers in breastfeeding promotion and lactation management have also been described (Armstrong 1990; Davies-Adetugbo & Adebawa 1997; Davis-Adetugbo et al 1997). These studies show that lactation training programs can result in changes in the institutions whose staff had attended the training program, and improvement in the breastfeeding practices of mothers. These studies also show, however, that there is a need for training to help health professionals and program workers apply and share the knowledge they acquire in training programs, as well as for refresher training to sustain the outcomes.

Incorporation of adequate clinical instruction and experience in breastfeeding problem solving into the academic training of health professionals has been recommended (Goldstein & Freed 1993; Rea et al 1999). Freed (1993) outlines three areas that should be included in breastfeeding training: 1) knowledge, 2) outcome expectations, and 3) efficacy expectations. Knowledge includes information on the medical rationale, techniques and problem-solving skills to become

an effective breastfeeding counselor. Outcome expectations include awareness, belief and acceptance of data demonstrating that breastfeeding results in healthier children. Efficacy expectations involve building physicians' confidence that they themselves can provide effective counseling and support to increase the incidence and duration of breastfeeding (Freed 1993).

Section Three: Program community partnerships

Which ones are key to increasing breastfeeding among the CPNP population?

3.1 Partners key to increasing breastfeeding rates

Increasing environmental supports for breastfeeding and ultimately creating a breastfeeding culture among all Canadian women involves establishing partnerships with key sectors of an individual's environment including families, the health care sector, schools, workplaces, public establishments (e.g., restaurants, malls), the media, and policy makers.

Families

As previously discussed, studies suggest enormous potential for improving the rates of breastfeeding initiation and duration among disadvantaged mothers through establishing more and better partnerships with families (Freed et al 1992a&b; Dusdieker et al 1985; Matich et al 1992; Mohrer et al 1979; Giugliani et al 1994; Black et al 1990; Gamble & Morse 1993; Kessler et al 1995; Schmidt & Sigman-Grant 1999; Haneuse et al 2000). Inclusion of the mother's partner in breastfeeding promotion interventions can have a significant positive impact on the initiation and duration of breastfeeding (Sciacca et al 1995).

Health care sector

Studies show that the education and support that physicians and health professionals provide to mothers can be effective in promoting breastfeeding (Kistin et al 1990; Lawrence 1993; Young et al 1998). The level of care provided to young mothers prenatally has been found to be an important determinant of their attitudes toward breastfeeding and the decision to breastfeed. (Baisch et al 1989b). Unfortunately, a recent survey conducted by the American Academy of Pediatrics (AAP) found that only 65% of physicians surveyed reported that they actually recommended breastfeeding (Schandler et al 1999). Further, studies in Canada (Burglehous et al 1997) and the U.S. (Howard et al 1997; Michelman et al 1990; Reames 1985) provide evidence that current medical training and physician self-efficacy with regards to breastfeeding support are inadequate. Despite these findings to suggest that physicians may not be prepared to advise mothers about breastfeeding, or provide assistance with breastfeeding problems, physicians are in a unique position to provide breastfeeding education and support to mothers both prenatally and in the early and late postpartum periods. Physicians see most mothers including those targeted by the CPNP program at some time during their pregnancy. Furthermore, Howard et al (1997) reported that 68% of obstetricians or their nursing staff were commonly contacted about breastfeeding questions by their postpartum patients. Evidence that advice from ill-prepared physicians can have a negative impact on breastfeeding (Simon et al 1988;

Michelman et al 1990; Freed 1993), that obstetricians routinely distribute educational materials packaged with free formula samples and promotional materials (Howard et al 1994a & 1997), and that many physicians when confronted with breastfeeding problems recommend formula to prevent further problems and inconvenience (Winikoff & Baer 1980) provide reasons for concern. Although there is no published data on whether advertising of infant formula to expectant mothers influences their choice to breastfeed, it is well documented that the distribution of formula promotional materials at the time of hospital discharge decreases the duration of overall and exclusive breastfeeding (Howard et al 1994a&b; Perez-Escamilla et al 1994; Frank et al 1987; Haneuse et al 2000). These findings indicate that there is a need for community-based breastfeeding programs to partner with physicians.

Of further concern, a national survey of hospital administrators conducted in 1993, the Survey of Routine Maternity Care and Practices in Canadian Hospitals, found that only five hospitals in Canada met the criteria for Baby-Friendly Hospital Initiative (BFHI) (Levitt et al 1995). A follow-up study conducted in Manitoba in 1996, which surveyed hospital administrators, nursing staff and mothers, found that although improvements had occurred in Manitoba hospitals with regards to their adherence to many of the BFHI criteria, many policies and practices remained unchanged, did not meet the BFHI criteria, and placed women at risk for formula-feeding or early termination of breastfeeding (Martens et al 2000). Independent risk factors for early weaning (i.e., by two weeks) related to antenatal care included having an epidural/spinal anesthesia, in hospital supplementation of the infant and temporary interruption of breastfeeding (Martens et al 2000). The presence of these risk factors was particularly important in the decision to stop breastfeeding among mothers with no breastfeeding experience or no post-secondary education. Surveys of hospital and community health units in Alberta conducted by Field & Renfrew (1991) showed that the average time for a home visit by a nurse was 7-12 days post-discharge. Further, Field & Renfrew (1991) found that hospital nurses frequently did not recommend volunteer services in the community to mothers. With the tendency for earlier discharge of the postpartum mother (Liu et al 2000), time for breastfeeding education and support in hospital is limited. Importantly, studies show that the most common reasons for follow-up visits in the community, and phone calls to maternity wards or postpartum support lines are related to infant feeding (Field & Renfrew 1991; Stefiuk 1998; Rush et al 1991).

These studies indicate the importance of partnering with maternity services to improve hospital policies and practices to make them more Baby-Friendly, and to identify and provide supportive follow-up to women who are at risk of infant feeding problems and early weaning. There is also a need to partner with institutions involved in the academic training of health professionals to sensitize them to breastfeeding and make them more receptive to its promotion by incorporating clinical instruction and experience with breastfeeding problem-solving (Westphal et al 1995; Freed 1993).

Schools

Older adolescents (>16 years) are more likely than younger adolescents to breastfeed (Yoos 1985), but increased exposure to and knowledge of breastfeeding has been found to be associated with positive attitudes about breastfeeding and intentions to breastfeed among female adolescents of all ages (Friel et al 1989; Cusson 1985; Baisch et al 1989a; Joffe & Radius 1987 & 1988).

These studies suggest that partnerships between community-based breastfeeding programs and schools to promote breastfeeding with all students have the potential to improve breastfeeding rates. Unfortunately, despite recommendations to expose students to breastfeeding information in the classroom (Friel et al 1989), published data has indicated that relatively few pregnant adolescents report hearing about breastfeeding at school (Baisch et al 1989a). It is recommended that nursing areas be available in schools for school-aged mothers (AAP 1982). Returning to school is one of the main barriers to breastfeeding in young mothers (Wayland & Rawlins 1997). However, the levels and types of support for breastfeeding in schools, and partnerships with community-based breastfeeding programs have not been studied.

Workplaces

Returning to work is reported as one of the most common reasons for weaning after three to four months (Williams et al 1999; Yeung et al 1983; Williams & Morse 1989). For adolescents, returning to work may be perceived as a barrier to breastfeeding (Yoos 1985; Lizarraga et al 1992), but similar data is not available for other groups targeted by the CPNP program. Breastfeeding in a corporate workplace has been found to be associated with fewer and less severe infant illnesses and rates of maternal absenteeism (Cohen et al 1995). The mothers and infants targeted by CPNP are at risk for higher rates of infant illnesses (Brown et al 1991; Kotagal 1993). Thus, it is possible that partnerships between CPNP and community workplaces to facilitate similar breastfeeding programs would be cost-effective and advantageous for families, employers and society at large. Since maternity and parental leaves in Canada currently range from 15 to 50 weeks (http://www.hrdc-drhc.gc.ca/ei/common/IN007_e.shtml), establishing partnerships with workplaces to promote and support breastfeeding is critical to enable mothers to continue to successfully breastfeed exclusively for at least the recommended four to six months and to be able to continue partial breastfeeding until two years (CPS et al 1998; WHA Forty-Seventh World Health Assembly, 1994). Community-based programs can help address challenges posed by breastfeeding in the workplace by partnering with workplaces to facilitate education and provide support about breast pumping and breastmilk storage, and the social and emotional benefits of breastfeeding for working mothers, their infants, and financial benefits to employers, and to help ensure protective legislation and strategies.

Media

Breastfeeding messages portrayed in the media can impact positively or negatively on the choice to breastfeed and influence the acceptance of breastfeeding in a culture. Analysis of breastfeeding messages in the Australian press and popular magazines showed that breastfeeding was portrayed as problematic and negative (Henderson 1999). The only published study to evaluate the effect of a breastfeeding media promotional campaign (i.e., a television commercial and advertisements in the local newspaper) on the attitudes and knowledge of adolescent females was conducted by Friel (1989). Although the media campaign did not influence knowledge, the television commercial was associated with improved attitudes towards breastfeeding.

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CAPC/CPNP Think Tank 2000

Common Themes and Observations

Common Themes and Observations: CAPC/CPNP Think Tank 2000

Each Think Tank Working Group addressed a specific issue, and identified "learnings" relevant to that issue. These learnings are reported, in the language of the participants themselves, in the individual Working Group reports. The hope is that these will provide insights, ideas and guidance to other CAPC/CPNP projects that are dealing with similar issues and challenges.

In addition to project representatives, each Working Group included an academic researcher with a particular knowledge of and expertise in community-based research. The role of the researchers was to link the experience-based learnings identified by the project representatives with broader, research-based findings drawn from well-known and well-respected national and international sources. Thus, each Working Group report is supplemented by a "literature review" conducted by the researcher following the Think Tank.

Over the course of the two-day Think Tank, project representatives emphasized that each project had its own dynamic and unique flavour. The culture of the local community, the demographics of the target population, the specific needs and life experiences of the participants (and of the staff) – factors such as these affect the way each project is designed, how it works, and what it achieves. In the context of a community-based project, the representatives cautioned, the critical success factors are *flexibility* and *adaptability*. A cookie-cutter, rigid methodology just does not work.

At the same time, however, a number of common themes and elements are evident throughout the four Working Group reports, regardless of the specific issue under discussion. These same themes and elements are identified in the literature reviews conducted by the individual researchers. Clearly, there is validity and consistency to the approaches and strategies of CAPC/CPNP projects across the country.

Some of these shared observations and themes, with representative supporting literature references, are summarized below. Please note that the themes are not "ranked" to reflect any order of significance.

Common Themes and Observations	Representative Supporting Literature*
Flexibility and adaptability: in program development, in project management, and in evaluation criteria and methodology	▸ Gaba & Lincoln,1990 ▸ Allard, 1993 ▸ Massé, 1993 ▸ Smith, 1994 ▸ Fetterman, 1996 ▸ Hembrof et al., 1999
Recognition that it takes TIME: to build confidence and trusting relationships, to make progress and achieve and measure results	▸ Guba & Lincoln, 1990 ▸ Allard, 1993
Commitment to "partnership" approach: parents/families as partners; also, partnership with other agencies, and with other people in the community (e.g. businesses, media, churches)	▸ Kiefer, 1984 ▸ Freed et al., 1992 ▸ Bernstein et al., 1994 ▸ Peters & Russell, 1994 ▸ Hooper-Briar, 1996 ▸ Servian, 1996 ▸ Barter, 1998 ▸ Howell, Devany, McCormick, Raykovich, 1998 ▸ Le Bossé et al., 1998
Continuum of services and programs	▸ Goffin, 1983 ▸ Carniol, 1995 ▸ Le Bossé, 1998 ▸ O'Donnel et al., 1998 ▸ Rifkin et al., 1998
Governance; direct involvement and empowerment of participants in all aspects of the program, from program development to decision-making and evaluation processes	▸ Dunst & Trivette, 1987 ▸ Berkowiyz, 1990 ▸ Rodal & Mulder, 1993 ▸ Lee, 1994 ▸ Pantoja & Perry, 1995 ▸ Bellefeuille & Ricks, 1997 ▸ Waler, 1998 ▸ Barter, 1999

Common Themes and Observations	Representative Supporting Literature*
Values, principles, and attitudes of staff; strength-focused and family-focused; non-judgemental, positive language and terminology	▸ Bracht & Gleason, 1991 ▸ Smale, 1995 ▸ Saleebey, 1996, 1997 ▸ O'Donnel et al., 1998 ▸ Robbins, Chatterjee & Canda, 1998 ▸ Arcury et al., 1999 ▸ Seita, 2000
Staff retention, continuity	▸ Noted in all papers, but not specifically referenced
Adequate and appropriate levels of resources (human, financial, in-kind)	▸ Callahan, 1993 ▸ Ozawa, 1995 ▸ Schorr, 1998 ▸ Arcury et al., 1999 ▸ Seita, 2000 ▸ Waldfogel, 2000, 1998
"Fun": celebrate successes, participate in special family events, creative activities relevant to target groups	▸ Carpenter, 1990 ▸ Bracht & Gleason, 1991 ▸ Landerhold & Lowenthal, 1993 ▸ Mattiani, 1993
Open-door, friendly, non-threatening, home-like environment/space	▸ Scorr, 1998 ▸ Barter, 2000
Accessibility of the program: location, transportation, child-care, home visits, on-site visits	▸ Thomas et al., 1997 ▸ Altpeter et al., 1998 ▸ Lauder, 1998 ▸ MacDonald, 1998 ▸ Arcury et al., 1999 ▸ Ciliska et al., 1999

Common Themes and Observations	Representative Supporting Literature*
Culturally-appropriate and socially-appropriate programs, services (this referenced Aboriginal communities; but also isolated, Northern, rural communities, and target populations with specific problems and needs such as FAS, single parents, abusive relationships, also illiteracy/poor literacy levels, and so on)	▸ Taylor-Henley & Hudson, 1992 ▸ Morrissette et al., 1993 ▸ CCSD, 1995 ▸ Norton et al., 1995 ▸ Red Horse, 1995 ▸ Barter, 1996 ▸ Huff & Kline, 1996 ▸ Loos et al., 1996 ▸ Strickland & Strickland, 1996 ▸ Battaglini et al., 1997 ▸ Holland et al., 1997
Peer support, mentoring programs	▸ Parsons et al., 1993 ▸ McFarlane et al., 1997 ▸ Orrell-Valente et al., 1999 ▸ Wade et al., 1999
Education, training and development opportunities, for participants as well as for staff/workers	▸ Lowe, 1990 ▸ Crowder, 1991 ▸ Westphal et al., 1995 ▸ Davies-Adetugo & Adebawa, 1997 ▸ Beshgetoor et al., 1999

* The references identified here are *representative only* of the sources identified by the academic researchers who worked with each Working Group on the four issues discussed. It must be emphasized that each researcher provided extensive bibliographies of source material. These bibliographies are included with the Literature Reviews appended to each Working Group report.