Services For Parents and Newborns

Report of Prenatal and Postnatal Education and Support on Prince Edward Island

May 2000

This report was prepared by the P.E.I Department of Health and Social Services.
Original Technical report prepared by CIETcanada in collaboration with
the PEI Department of Health and Social Services for the
Local Public Health Infrastructure Development (LoPHID) Project

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This initiative could not have been completed without the contribution of the 32 interviewers and three data entry clerks who covered the whole Island to contact those who participated in this study.

Invaluable input was provided by the working group: the Public Health Nursing Regional Supervisors and the Coordinator of the P.E.I. Reproductive Care Program.

A special thanks goes to the P.E.I. Department of Health and Social Services [DHSS] for the support received, in particular to Teresa Hennebery, Director of Public Health and Evaluation, Jo-Ann MacDonald, Public Health Nursing Coordinator, Colleen MacQuarrie, Researcher, Evaluation Services, Joan Conklin, Research Assistant, and Dianne Birt, student intern.

Although the data collection and analyses are complete, the dialogue on solutions for perinatal care emerging from these data is just beginning. Women and health care providers will hopefully continue to share insights on what ought to be addressed in improving perinatal care and how solutions will best be implemented

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Charlottetown
May 2000

INTRODUCTION

The Local Public Health Infrastructure Development [LoPHID] project is one part of the National Health Surveillance Infrastructure [NHSI] initiative.

Prenatal and postnatal education and support was the focus of LoPHID in Prince Edward Island. There was not only concern with issues such as low birth weight, family size, or use of public health services, but also with the coverage and quality of health services. There was also special interest with the broader influences on maternal health and healthy child development which included personal practices (smoking, decision to breastfeed), social support (family stress, adapting to life changes, relationships: partner, family) to determine how to improve the support that service providers can offer.

During October 1999 to February 2000, 755 women from all health regions in Prince Edward Island were interviewed via a household survey, regarding their experiences with prenatal and postnatal education and support. Mothers of all children born during 1998 were potential participants. In addition to the information provided by mothers, valuable feedback was received from service providers, including 25 doctors, 30 obstetrical nurses, 8 nutritionists and 26 public health nurses.

A total of 37 women took part in focus group sessions held in each of the five health regions of the province: seven from Queens, five from East Prince, eight from West Prince, eight from Southern Kings and nine from Eastern Kings. There was a mix of women at each of the focus groups. Some were first time mothers (primiparas), and some had more than one child (multiparas). Each focus group included women who had and had not attended prenatal classes, and women who had and had not breastfed. The views of women with a range of experiences in prenatal classes and breastfeeding can be seen throughout the data.

Women in the focus groups displayed a high degree of support for each other's decisions about prenatal classes and breastfeeding. The women were comfortable and talkative, energetic and engaged in the topics. There was a marked level of trust and support in the groups as the range of stories and opinions unfolded. Overall the quality of the discussion was high. The women expressed a strong hope that action would result from the research.

As a result of the information form all sources, prenatal and postnatal education and support have been identified as key areas that influence the health of parents and babies. Strengthening and enhancing these sources ensures the best possible impact on healthy child development and provides parents with support and guidance in adjusting to parenthood. A total of seven recommendations for priority action have been made based on surveys, focus groups, and a review of the literature.

How Did this Project Come About?

LoPHID is a Health Canada project within the National Health Surveillance Infostructure [NHSI] initiative. The NHSI projects have responded to the needs of health professionals to deal with issues that affect the health of a population. The purpose of LoPHID is to improve skills within local public health, plan and collect information with a purpose, and to use data from the local level.

LoPHID requires that many people work together from individuals and communities all the way to the national level. LoPHID uses evidence-based planning to strengthen local public health systems. Evidence-based planning is a form of research that provides local public health managers with information to ensure

that program goals are achieved. LoPHID provides program planners and managers with meaningful data from communities while ensuring their involvement in the planning process.

Regional health authorities must make decisions regarding the use of resources for the delivery of programs. Regional public health managers are responsible for ensuring that local public health programs meet local needs. Residents of P.E.I. benefit from excellent services for expectant parents and supportive follow-up after babies are born. However, there is room to improve planning and communication in these service areas. The four Atlantic provinces conducted similar projects related to evidence-based planning during 1998-2000. In P.E.I., the LoPHID project focused on improving services that are delivered by public health nurses during pregnancy and early infancy.

Who Provided the Technical Support for this Project?

Research, technical and training support for the P.E.I. LoPHID project was provided by Community Information and Epidemiological Technologies Canada [CIETcanada], a non-profit, non-governmental organization that brings scientific research methods to the community level. CIETcanada strives to build national, regional, and local measurement capabilities, and promote awareness through communicating research results.

CIET methods allow each region to resolve their own evidence needs by choosing their own focus, following their own timing and building on their own strengths. Each fact-finding cycle takes approximately 6-8 months from problem identification through to sharing results with communities and stakeholders and receiving feedback for recommendations.

The approach builds the community voice into planning by inclusion of all social groups, community participation in fact-finding, open dialogue with residents regarding problem-solving, and through sharing the information and encouraging involvement in intervention strategies. Data may also be used in both provincial and federal health sectors to design and implement strategies for improving local public health.

What About Goals and Objectives?

There was one goal and five objectives for this provincial cycle as defined by a working group of the Department of Health and Social Services [DHSS] and the five health regions. The Ethics Committee of the P.E.I. Medical Society reviewed and approved the study design (which included the goal and objectives) and the questionnaires.

Goal: To help expectant parents have the healthiest possible pregnancy, delivery, and early postnatal outcomes.

***Objectives*: Prenatal and postnatal education and support**

1. Determine client and service provider perceptions of prenatal and postnatal education and support on P.E.I.
2. Determine what factors contribute to women and men not accessing prenatal and postnatal education and support.
3. Identify the practices in P.E.I. which protect, promote and support breastfeeding and the barriers that prevent the same.
4. Share the information on prenatal and postnatal education and support produced by the

project with the community.

5. Enure the use of project information by the Health and Social Services System by recommending improvements tp prenatal and postnatal education and support services.

What Processes and Methods Were Used?

The process in P.E.I. began by forming a working group that included nursing supervisors for each of the five regional Public Health Nursing offices (West Prince Health, East Prince Health, Queens Health, Southern Kings Health, and Eastern Kings Health), the provincial Public Health Nursing Coordinator with the DHSS, a staff member with Evaluation Services (DHSS), the coordinator of the P.E.I. Reproductive Care Program and CIETcanada staff. Early in the process, it was agreed that the study design would be led by consensus. Members of the P.E.I. Breastfeeding Coalition and the P.E.I. Prenatal Education Review Committee were consulted during the development of the questionnaires. A formal research proposal describing the purpose of the study, the study population, any ethical implications, the methodology, and the actual questionnaires was submitted for approval to the Ethics Committee of the P.E.I. Medical Society.

The study used quantitive and qualitative approaches to research design, data collection and analyses. Quantitative research is research that may be measured numerically using a survey or questionnaire. Qualitative research is based on descriptions of experiences from key informants and participants in focus groups. Often, focus groups generate richer data than one on one structured interviews.

To cover study objectives, three questionnaires were designed by the working group that included the home interview with mothers, a self-administered questionnaire for physicians, obstetrical nurses, and community nutritionists, and a self-administered needs assessment for public health nurses. After a preliminary analysis of results, a focus group guide was designed to discuss issues concerning breastfeeding, prenatal classes and support.

The sample considered all women who gave birth on P.E.I. in 1998. Other characteristics considered in the analysis were : mother's birth date, marital status, gestation, delivery type, birth type (single, twins), prenatal class attendance, referral to Public Health Nurse or nutritionist, breastfeeding status and duration, smoking behaviour before and during pregnancy, newborn hospital assessment date, weight and weight percentile.

The procedure determined by the working group for contacting mothers involved three points of contact: an initial notification by letter, a phone call made by an interviewer, and the actual interview. Before the interview began, the interviewer described the informed consent process and provided the mother with an informed consent form for her to read and sign. An invitation to participate in a focus group concluded the interview. Names and phone numbers of interested mothers were recorded separately to respect confidentiality.

A different approach was used to contact the different groups of professionals. Twenty questionnaires were sent to the Prince County Hospital, and thirty to the Queen Elizabeth Hospital to reach obstetrical nurses. Questionnaires were sent to 8 nutritionists across the province, and a list of physicians was obtained from the Reproductive Care Program and questionnaires were mailed out. Questionnaires were also mailed to all 39 Public Health Nurses in the province.

A total of 32 interviewers were selected from nursing and psychology students at the University of P.E.I. and from the P.E.I. Women's Network. Training involved three sessions for a total of 15 hours training. This included extensive exercises in interviewing techniques, informed consent process, recording formats, phone and interview protocols, and practising simulated interviews.

Fieldwork took place between October 25th and December 15th, 1999, and from January 25th to February 22nd, 2000 for a total of 81 days. Interviewers were given a list of mothers and their contact information to arrange interview times.

A record was kept of all mothers who had completed the interview, refused to participate, were unavailable and who had wrong phone numbers. Attempts were made to correct wrong phone numbers throughout the fieldwork. Corrected phone numbers and previously unavailable mothers were re-assigned to field workers.

Data were entered twice and checked for consistency using the computer program EPINFO 6.04 by three paid clerks at the DHSS. Each clerk received eight hours training and constant supervision during the data entry period. It should be noted that this study employed a strong focus on capacity building; that is, great emphasis was placed on recruiting and training community members to participate in the research process.

WHAT WERE THE RESULTS?

Women Interviewed

Between October 1999 to February 2000, 755 women from the five health regions in Prince Edward Island were interviewed about their experience of prenatal and postnatal education and support in the province. These women represented all who agreed to be interviewed of those who had given birth in 1998. This represents about half of those women who gave birth in 1998.

Sixteen percent of women were less than 25 years of age at the time of the interview. Of all mothers interviewed, 86% had a partner at the time of the interview; the remainder were single, divorced, separated or widowed. Older women (25 years and up) were 25 times more likely to have a partner at the time of the pregnancy: 43% of younger women (less than 25 years) had a partner at the time of pregnancy, compared to 94% of older women. 36% of women were first-time mothers.

Age distribution of interviewed mothers by region

Age in years	West Prince	East Prince	Queens	Southern Kings	Eastern Kings	Total PEI
Below 25	23 (24%)	27 (17%)	49 (13%)	11 (15%)	8 (19%)	118 (16%)
25 and more	72 (76%)	135 (83%)	330 (87%)	64 (85%)	35 (81%)	636 (84%)
Total women	95 (100%)	162 (100%)	379 (100%)	75 (100%)	43 (100%)	754 (100%)

***Income**:* There was a predictable relationship between age and family income among women with a partner at the time of pregnancy. Older women with a partner were almost ten times more likely to have a family income of $35,000 or higher, compared with younger women with a partner. While 65% of older women have a higher family income, only 16% of younger women do. For women without a partner there was no convincing relationship between age and income.

Education: Ninety percent of women interviewed completed high school. Younger women were more likely not to have completed high school than older women. While 94% of older women completed high school, only 66% (78/118) of younger women did so. Most younger women in the sample were old enough to have completed grade 12. Overall, 10% of women and 16% of husbands/partners had not completed high school.

Level of education by region

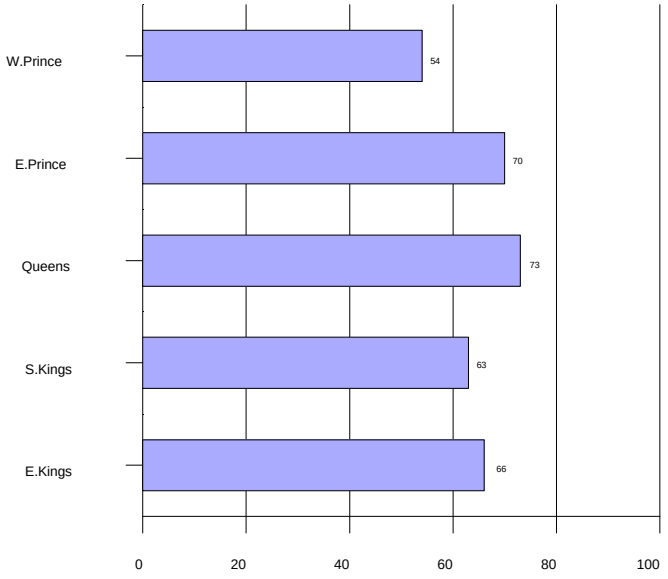
	West Prince	East Prince	Queens	Southern Kings	Eastern Kings	
did not complete high school	14 (15%)	18 (11%)	33 (9%)	5 (7%)	8 (19%)	78 (10%)
Completed high school or higher	81 (85%)	144 (89%)	345 (91%)	70 (93%)	35 (81%)	675 (90%)
Total women	95 (100%)	162 (100%)	378 (100%)	75 (100%)	43 (100%)	753 (100%)

Prenatal Class Attendance

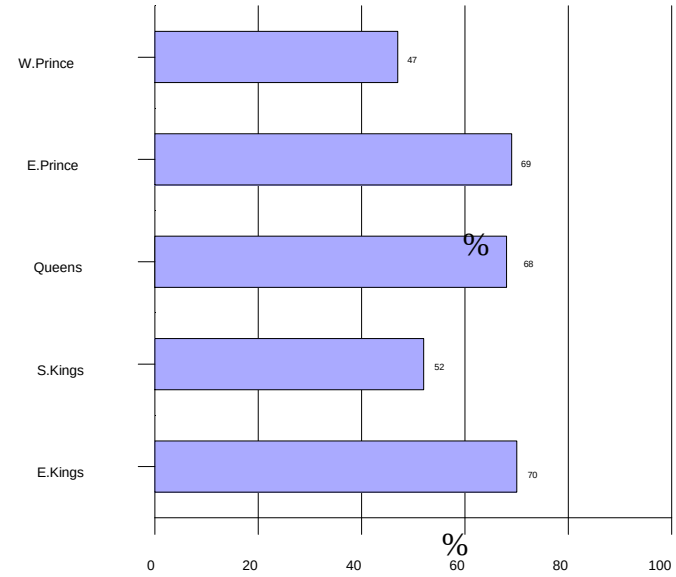
99% of women interviewed were aware of prenatal classes across the Island. Of those who knew about prenatal classes, 49% found out about them from the doctor or the nurse at the doctor's office, while 18% found out from family members or friends. Women found out about prenatal classes from Public Health Nursing in 10% of cases; another 10% of women found out from posters, advertisements, the Welcome Wagon or the pharmacist.

Prenatal classes for the child born in 1998 were attended by 28% of women interviewed. 65% of primiparas and 7% of multiparas attended classes. For the purposes of this report, *primiparous* women refers to women with only one child (their child born in 1998),and *multiparous* women refers to women with two or more children (including their child born in 1998).

69% ever attended prenatal classes



65% of first time mothers attended prenatal classes for child born in 1998



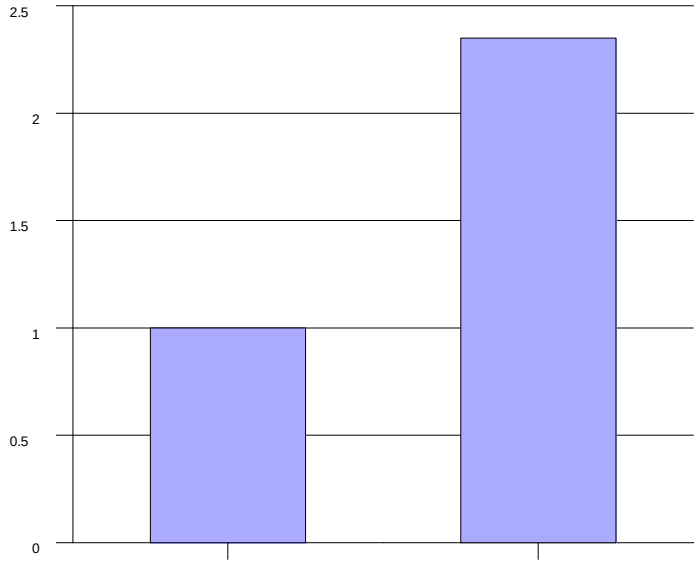
69% of women reported ever having attended prenatal classes. Among multiparas 30% have never attended, 6 % attended previously, and 7% attended for their child born in 1998.

47% of women received a recommendation to attend prenatal classes; 57% of primiparas and 41% of multiparas. Of all women who were recommended, 70% were recommended by a

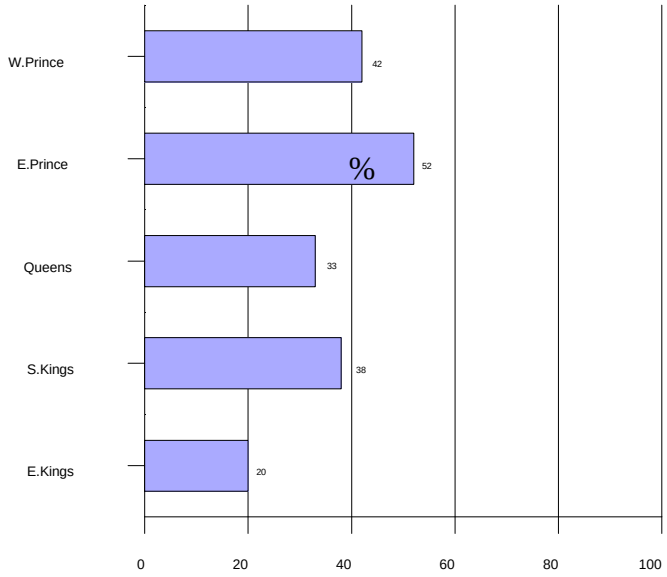
doctor or a nurse at the doctor's office, 13% by a family member or friend and 9% by a Public Health Nurse.

Results show that women who found out about prenatal classes from a health professional or an institution (doctor, public health nurses, other nurses, other health professionals, Family Resource Centre and school) were more likely to attend compared with those women who found out about prenatal classes from family members, friends or advertising (posters, Welcome Wagon and other ads). Among primiparas, 72% of those who found out about prenatal classes from health professionals or institutions actually attended; 53% who found about them from family members, friends or advertising actually went. Women who were recommended to prenatal classes were more likely to attend compared with those who were not recommended, with no significant difference between primiparas and multiparas. Of those who were recommended, 37% attended prenatal classes, while of those not recommended, only 20% attended.

A woman recommended to attend prenatal classes was more than twice as likely to ever attend compared with a woman who did not receive a recommendation.



38% of women made some changes in their lifestyle as a result of attending prenatal classes



A total of 38% of women said they made changes in their lifestyle as a result of attending prenatal classes. Out of 76 women who responded positively to this question, 56 said that the lifestyle change consisted of improving their diet, 9 said it helped with infant feeding choices, 7 said they did more exercise, 6 said it changed their smoking behaviour and 6 said they were better prepared mentally.

> *"I didn't know you could take them [prenatal classes] for a second pregnancy, I'd have loved to have taken them again."*
>
> *Focus Group Participant*

Among those who attended prenatal classes, 33% said that no information presented made a difference to their birth experience, while 31% said that learning labour relaxation techniques and breathing made a difference for them.

21% said that it was the hospital tour that made a difference while 15% said it was good for mental preparation and for knowing what to expect. Asked what information presented in prenatal classes made a difference to their parenting, 47% said nothing, while 42% said breastfeeding, infant feeding and nutrition made a difference.

Overall, when asked what women considered most useful about prenatal classes, 11% said nothing, 31% said breastfeeding and infant feeding, 17% said nutrition, 11% said the hospital tour and 21% mentioned something related to labour and delivery (breathing, pain relief, what to expect and mental preparation and labour and delivery).

When asked what information they thought was missing, 19% said that nothing was missing, while 21% replied something related to labour and delivery, including breathing, what to expect, pain relief and preparation for complications. A further 8% said that information on parenting skills was missing and 7% said that information on different birthing methods was missing.

Overall, 71% of women who attended Public Health Nursing prenatal classes rated them as good or very good. For the province as a whole, 73% of women who attended Public Health Nursing classes said that the way classes were presented kept their interest, and 68% said that it also kept the interest of their support person.

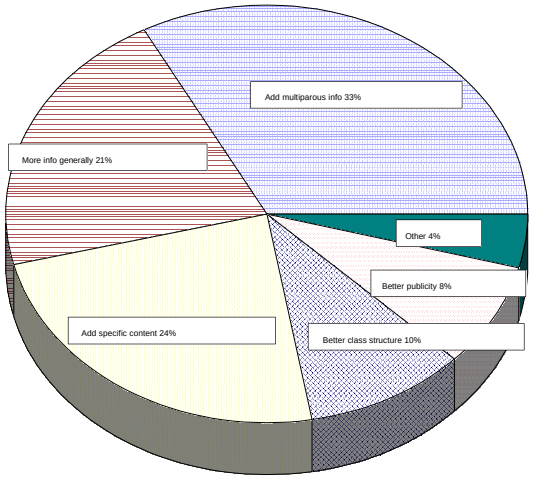
Out of all women who attended prenatal classes, 30% considered that no improvement was needed in the way prenatal classes were presented. Another 21% made suggestions regarding improvements in the educator's skills (better attitude, more dynamic, better explanations, adapting to different situations and to have a mother as a teacher), 39% mentioned improvements related to the content of the information presented (more up to date information, demonstrations, information in general, and information on: delivery, breathing techniques, the return home, support, real life experiences, other resources and programs, birthing positions).

A further 10% asked for more interaction with their partner and 8% mentioned structural issues such as better facilities, better scheduling, shorter classes, more structured classes, fewer participants, more one-on-one with a public health nurse and less working groups.

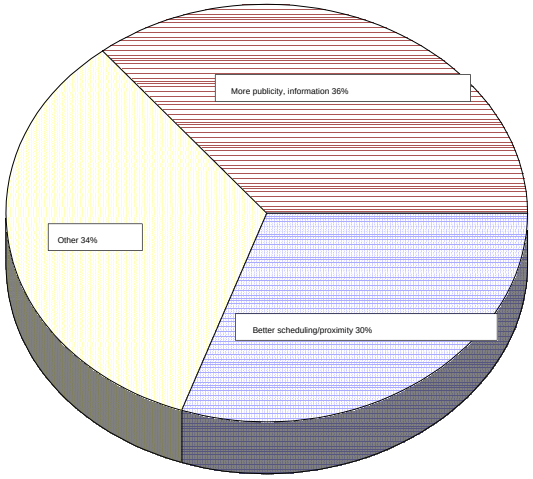
Reasons for not attending prenatal classes: Among primiparas who did not attend prenatal classes, 22% said that nothing would attract them to attend. Of the remaining women, 30% said that better scheduling or solving transportation problems would make them attend and 36% said that more publicity, more information about prenatal classes, or a doctor's referral would have attracted them to attend classes.

Among multiparas who did not attend prenatal classes, 37% said that nothing would attract them to attend. Among the remaining multiparas, 33% said that more information for multiparas would attract them, 21% said that more information in general would, and another 24% mentioned other content related issues that would attract them to attend (more information on delivery, breathing techniques, return home, maternal care, first aid, breastfeeding, information more geared to men and more focus on support).

Reasons that would attract multiparas to attend prenatal classes



Reasons that would attract primiparas to attend prenatal classes



A further 10% mentioned more structural issues such as better scheduling, offer transportation or solve distance problems, have fewer participants, do not pay the fee, offer classes in their language, have child care support and have more services available. Another 8% said that if classes had a better reputation, if there was more publicity, or if the doctor had advised them to go, they would have gone.

> *"They have all those awareness ads for smoking and everything else that are really catchy. Why don't we have something like that for prenatal classes?"*
>
> *Focus Group Participant*

Other Forms of Prenatal Information and Education

> *"I think it's [prenatal classes] so important it should be free. When you're in that position, you're budgeting for the baby and it's not easy to part with 30-40 dollars for a class. Everything can't be free, but the benefits of this outweigh the cost. If there's a fee that high, then the health system should absorb it because this is just too important to make women pay out of their own pockets for."*
>
> *Focus Group Participant*

66% of women interviewed received other types of information and education that do not include prenatal classes and one-on-one.

Primiparas were more likely to receive other types of information and education than multiparas: 72% of primiparas received other types of information or education compared 63% of multiparas.

> *"You can't always make all the classes so there should be a way to get the information you've missed. They should video tape a class to accommodate women who can't make all the sessions and don't want to miss out."*
>
> *Focus Group Participant*

Sources of other types of prenatal information and education

Source of other prenatal information/education	Number of mothers (percentage)	
General public health sources	288	(58%)
Literature	118	(24%)
Dietician, diabetic clinic	46	(9%)
Family and friends	18	(4%)
Other organizations	23	(5%)
Total	493	(100%)

Women with a household income level of $35,000 or more were also more likely to receive other types of information and education compared with women with a lower level of income: 71% of women with this higher level of income received other types of information and education whereas 63% of women with a lower

level of income received it.

In summary, 93% of first-time mothers and 71% of other moms received some form of prenatal education.

Postnatal Education and Support

Among women interviewed, 97% said they received a phone call from the public health nurse after the baby was born. As many as 91% of respondents received a home visit from the public health nurse after the baby was born. Among women who received either a phone call or home visit or both, 96% considered that it took place soon enough to meet their needs with little variation from region to region.

Asked if their questions had been answered to their satisfaction, 98% of mothers responded positively. Overall, 91% of mothers that received a Public Health Nursing phone call or home visit responded that they had been satisfied or very satisfied with the service.

Age influences satisfaction with the phone call and home visit: women 25 years or older were more likely to express satisfaction with the postnatal service received compared with younger women. While 93% of older women expressed satisfaction, only 82% of younger women expressed the same.

Asked about what was *most helpful* about postnatal services, 41% said it was the general support they received, while 36% said to reassure the baby's health. Women were also asked what was the *least useful* thing about postnatal services. The vast majority, 82%, had no concerns or complaints regarding postnatal services. Of those that offered their constructive criticism (only 117 women responded to this question), 17% (20) mentioned that staff attitude could be improved. 14% (16) would have preferred that visits come later, while on the other hand, 13% (15) would have preferred they come earlier. 13% (15) would have preferred not to have a visit, and 11% (13) requested better organization and scheduling of postnatal home visits.

When asked for suggestions about how to improve Public Health Nursing services for newborn baby follow-up, 46% said they did not have any suggestions to make. Of the remaining mothers, 45% asked for earlier, longer and more visits while 7% would like the service to be less intrusive, include fewer visits, ensure a call before the appointment, have less pressure to breastfeed and have only one Public Health Nurse visit the home. Balancing these, 15% asked for more Public Health Nursing staff, more services, more information and discussions, more availability, more support for mothers and better response time. Another 5% of women asked for more up to date information, non-contradictory information and better educated staff.

Service Providers and Public Health Nurses' Experiences and Continuing Education

60% of service providers had more than ten years of experience in their position. 66% received infant feeding and breastfeeding continuing education in the last two years, 47% received education in labour management, 47% in pain management and 44% in infant care and assessment.

69% of service providers said they need more continuing education. Of these, 48% said they need continuing training in neonatal resuscitation, 31% in alcohol and drugs, 45% in family interaction and assessment, 43% in nutrition and another 43% in infant feeding and breastfeeding.

All Public Health Nurses who responded said they need more continuing education: 69% said they need it in neonatal resuscitation, 65% in labour management, 65% in pain management and 62% in breathing and relaxation.

Breastfeeding

In this sample, 75% of women breastfed or tried to breastfeed even if only for a short time. Considering only those mothers who decided to try to breastfeed, 89% said they did it for the health of the baby (includes health of mom and baby) and 15% said it was for the benefits of bonding. Another 13% said it was for their own health (including health of mom and baby); 7% said by preference ; 49% said it was convenient or inexpensive and 7% said it was the proper way to feed.

As previously discussed, 25% of women did not even try to breastfeed. Of women who tried, 22% stopped during the first month of the child's birth, another 13% stopped between the second and the third month, while 27% breastfed for four to six months. The remaining women breastfed for more than six months.

> *"My mother never breastfed, nor did my grandmothers. We were all just bottle-fed and that's what we knew best and that's what we did."*
>
> *Focus Group Participant*

Women who did not try to breastfeed expressed the main reasons they chose not to as: not feeling comfortable, finding it socially unacceptable or because the partner was not comfortable with it 33%. Another 18% of women simply said they did not want to breastfeed. For 13%, being too tired or too busy with work or children accounted for their choice not to breastfeed. Another 11% of women found it more convenient not to breastfeed, as others could bottle feed instead, including the partner. For 14%, the reason given for not breastfeeding was being unable to in a previous pregnancy. Another 8% of women had health problems, medical indications, were on medications, did not have enough milk or had a poor diet, while 3% said they did not breastfeed because they were smokers.

> *"It was just the opposite for me, my mother breastfed, my sister breastfed and that's all we knew, so it was just automatic for me to breastfeed my baby."*
>
> *Focus Group Participant*

Of women who breastfed or tried to breastfeed, 45% said they had some kind of problem breastfeeding. Primiparas were almost twice as likely to have had problems breastfeeding as were multiparas, rates being 55% and 40% respectively. Women less than 25 years old were twice as likely to have had problems breastfeeding than women 25 years or older: younger women 61% and older women 43%.

Of women who had problems breastfeeding, 53% said they had pain and/or a medical complaint related to the breasts. 34% said the baby was not breastfeeding, while 16% said they had problems with the letdown reflex, poor expression of milk, or no milk. In 5% of cases, women said they had too much milk and another 5% said the baby had congenital or acute medical problems. Other less frequent answers were that the mother was sick or on medication (4%), there was lack of support (3%), and that the baby wanted milk constantly (2%).

> *"I sometimes wonder if in promoting breastfeeding they don't tell you all the negative stuff so you don't get turned off from it. But information and knowledge can help you stick with it when you're discouraged. I think some women don't know how to continue what with pain and bleeding and infection. We should have lots more information about the negative as well as the positive and then we know how to handle the difficult stuff."*
>
> *Focus Group Participant*

In 5% of cases, problems were more personal: the mother was either too tired, too busy or she found it not convenient to breastfeed.

Among women in the sample who breastfed or tried to breastfeed, 73% said they received help or support. Among primiparas, whether or not they went to prenatal class, 84% received help or support. In the case of multiparas, however, there was a significant difference between those who attended and those who did not attend classes. A woman who attended prenatal classes was seven times more likely to say she had received help or support with breastfeeding compared with a woman who did not attend. Among multiparas who attended, 93% said they received help and support, while only 64% of those who did not attend said the same.

41% of women said they received help and support from the Public Health Nurse, the Cradle Program or the Public Health Nursing lactation consultant. Another 17% said they received support from other nurses and from hospital staff, while only 4% received help and support from a doctor or a dietitian. Family, friends and the partner gave support and help in 17% of cases, while 15% said they received help from the lactation consultant (other than that from Public Health Nursing). There was no significant difference in percentages between multiparas and primiparas who received various types of support.

> *"My mother was encouraging me all along the way, without that kind of support, I'd have never been able to keep going."*
> *Focus Group Participant*

Of all women who initiated breastfeeding, 89% said they were either satisfied or very satisfied with the help or support they received. Multiparas were more likely to say they were satisfied or very satisfied than were primiparas. While 93% of multiparas said they were satisfied with the help and support they received with breastfeeding, 84% of primiparas said the same.

When asked about what other resources might have been useful in supporting their breastfeeding experience, 61% said either nothing was needed or that they did not know what might have been useful. Of the remaining women who answered the question, 49% mentioned issues concerning professional support, including the need for a lactation consultant, nurses trained in breastfeeding, more support from public health nurses, medical support and support while in the hospital and home visits. 41% of women expressed the need for more social support, which included: more help from the partner, family members and friends, support groups for mothers and breastfeeding, and more breastfeeding friendly places. Another 22% of women identified the need for more prenatal education and information on breastfeeding. Examples of these were breastfeeding information "hotline", television programs, videos, and literature to consult.

> *"You don't want to feel like an outcast and that's what you fear if you breastfeed and your family thinks it's not ok."*
> *Focus Group Participant*

Women who attended prenatal classes were more likely to plan to breastfeed compared with women who did not attend. This finding, however, does not hold equally for all categories of women. Among women 25 years and older, 90% of those who attended prenatal classes planned to breastfeed, while only 72% of those who did not attend prenatal classes planned to breastfeed.

For women below 25 years of age there was no significant effect of prenatal classes on planning to breastfeed, however, older women who attended prenatal classes were between three and four times more likely to plan to breastfeed before delivery. For primiparas, having received information on breastfeeding before delivery made quite a difference in whether they planned to breastfeed: a primiparous woman who received information on breastfeeding before delivery was more than twice as likely to plan to breastfeed,

compared with one who did not receive any information.

An interesting relationship was found between whether a woman received useful information in prenatal classes on delivery, breastfeeding, infant feeding and nutrition, and planning to breastfeed before delivery. These women were four times more likely to plan to breastfeed compared with women who did not find anything interesting or found other things useful instead (parenting skills, videos, first aid, other's experiences, maternal care).
Of women who planned to breastfeed, 97% actually tried to after the baby was born while only 4% of those women who had not planned to breastfeed before delivery actually tried.

If formula was introduced during the baby's first week, the mother was 21 times more likely not to breastfeed past the third month. Only 11% of these mothers breastfed past the third month compared with 73% of mothers who introduced formula after the first week. Even without considering women who had medical reasons for interruption of breastfeeding (acute medical indication, congenital anomalies, mother sick and/or on medication), if formula was introduced during the first week, the mother was still 17 times more likely not to breastfeed past the third month.

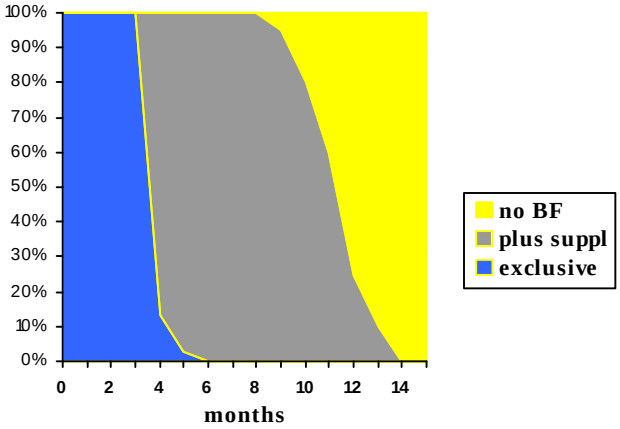
"I think they're [health professionals] having a big enough struggle just to get women to start breastfeeding, they're not pushing it past four months."
Focus Group Participant

With respect to the introduction of formula, cumulative percentages of all women follow: 28% introduced formula on the first day and 35% introduced formula within the first week of the child's birth. Of all mothers, 44% introduced formula within the first month and 59% before the completion of the fourth month. Another 16% of mothers introduced formula after the completion of the sixth month.

"Public awareness is put out that first or second months are important, but they don't stress it beyond that at all. So women think that there's no benefit in continuing, and if it's out of a sense of duty, then they say, ok, that's good enough, I've done my job I'll switch to formula."
Focus Group Participant

With the help of the figures found on the next page, two breastfeeding profiles can be compared. The first is an ideal profile based on the World Health Organization's [WHO] standards, and the second is the actual P.E.I. breastfeeding profile. In each chart, the left-most area defines exclusive breastfeeding, the middle area represents breastfeeding with supplementary feeding and the right-most area defines when breastfeeding can be stopped.

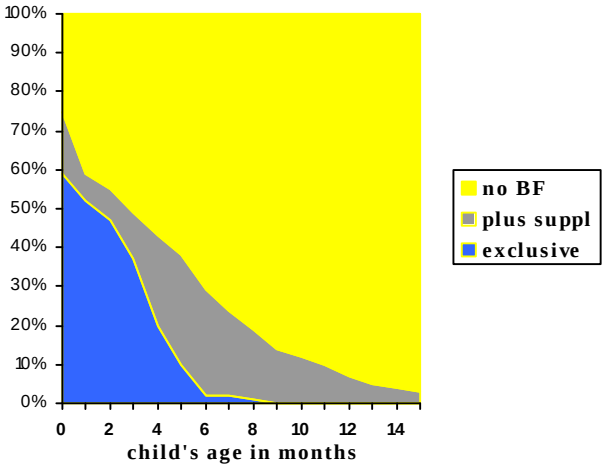
Breastfeeding profile - WHO standards



"I didn't know you could breastfeed and supplement at the same time. I'd probably still be breastfeeding if I had known that."

Focus Group Participant

PEI breastfeeding profile



Low Birth Weight and Premature Babies

The rate of low birth weight (less than 2,500 grams) babies among women interviewed was 4%. Primiparas who were exposed to both second hand smoke and who themselves smoked five or more cigarettes per day were three times more likely to have a low birth weight baby compared with primiparas who were not exposed. 10.5% primiparas who smoked more than five cigarettes per day and were exposed to second hand smoke during pregnancy had a low birth weight baby, while 3.4% of women not exposed or did not smoke five or more cigarettes per day had a low birth weight baby.

The rate of premature babies among women interviewed was 6%. Primiparas who were exposed to second

hand smoke and who themselves smoked five or more cigarettes per day were almost four times more likely to have a premature baby compared with primiparas who were not exposed to one or both elements. 13% of primiparas who smoked more than five cigarettes and were exposed to second hand smoke during pregnancy had a premature baby, while 4% of women not exposed or did not smoke five or more cigarettes had a premature baby. In the case of multiparas, the difference was not statistically significant.

Smoking

23% of all women surveyed reported smoking during their pregnancy. The decision to quit smoking during pregnancy had no special relation to age, parity, level of income and having a partner at the time of pregnancy. However, women who attended prenatal classes were almost three times more likely to quit smoking. Of women who attended prenatal classes, 48% quit smoking, compared with 24% of women who did not attend.

Prevalence of smoking during pregnancy by region

	West Prince	East Prince	Queens	Southern Kings	Eastern Kings	Total PEI
Smoked during pregnancy	30 (32%)	36 (22%)	82 (22%)	12 (16%)	16 (37%)	176 (23%)
Did not smoke during pregnancy	65 (68%)	126 (78%)	295 (78%)	63 (84%)	27 (63%)	576 (77%)
Total women	95 (100%)	162 (100%)	377 (100%)	75 (100%)	43 (100%)	752 (100%)

A woman who quit smoking during her pregnancy was twice as likely to plan to breastfeed than a woman who continued to smoke during her pregnancy: 70% of those women who quit smoking also planned to breastfeed, while 56% of those that did not quit planned to breastfeed.

The views expressed by women in this survey, together with the information from all other sources highlights the value of prenatal and postnatal education and support. This information can be used in program revision to ensure the best possible health outcomes for mothers, newborns and families. A set of specific recommendations follows.

RECOMMENDATIONS FOR PRIORITY ACTION

Based on information gathered from the community focus groups, household surveys, the service provider questionnaire, and a review of the literature, the following recommendations have been made.

1. Format

(a) All forms of prenatal education, including classes, should be guided by the principles of adult education.

- women in the household survey and the focus groups endorsed greater flexibility with class structuring and scheduling and made suggestions consistent with the adult education model
- Public Health Nurses who provide prenatal education classes voiced a similar interest in enhancing the client-centred approach to classes
- the principles of adult education are i) A healthy, adult-oriented physical and psychological environment ii) The learners establish their own learning needs iii) During the planning of the program and objectives, the educator acts as a *guide* only, promoting self-directed, client-centred learning iv) Learning through experience and participation in practical, relevant activities that are useful to adults will be accomplished through *facilitation* rather than teaching; and v) Self-evaluation

(b) The format of prenatal classes must change to meet the needs of expectant parents.

- women in the household survey and the focus groups suggested alternate forms of education
- public health nurses also expressed an interest in creating more involvement of the participants
- the literature review has shown a variety of options can be pursued such as weekend workshops, prenatal health “Fairs”, and videos

2. Content

It is recommended that the key content areas covered in prenatal classes be revised.

- women in the household survey, multiparas specifically, identified more information on delivery, breathing, the return home, and maternal care as topics of interest
- women in the focus groups identified labour and delivery, complications, breastfeeding, and postpartum care
- information from the literature review supports the views that emerged from both the survey and the focus groups

3. Advertising

It is recommended that there be an increase in efforts to advertise prenatal education.

- results of the survey show that over 1/3 of primiparas felt the need for an increase in publicity and information around prenatal education
- posters, public service announcements, pamphlets, displays and commercials were listed as important for public awareness in the focus groups
- the literature review found lack of publicity to be common in situations of low prenatal class attendance

4. Access

Barriers such as fees should be removed to improve access to prenatal classes/education.

- approximately 1/2 of women in the survey, particularly multiparas, did not agree with a fee for prenatal classes, and for women who did not attend, removal of the fee would have been an incentive for them to attend
- payment was identified as a barrier to accessing prenatal classes/education by women in the focus groups in all five health regions
- the literature supports the feeling that fees are a barrier to accessing prenatal classes

5. Referrals

It is recommended that the referral process for prenatal education should be enhanced and strengthened.

- in the survey, it was found that women who received a recommendation to attend prenatal classes were more likely to actually attend than those who did not receive a recommendation
- women in the focus groups felt that referrals should be made primarily by the doctor because s/he is seen regularly and is viewed as a highly valuable source of information
- similarly, the literature reports that women list the doctor's office as the best place to get information, and information gained from the service providers' questionnaire endorsed referrals as an effective way to encourage prenatal class attendance

6. Communications

It is recommended that communications be enhanced among health professionals involved in prenatal and postnatal education and support.

- public health nurses recognize the need to develop and maintain partnerships with other health professionals to ensure that expectant parents have access to a range of services
- focus group participants felt there needs to be stronger links between Public Health Nursing, doctors, nutritionists, and family resource/support centres to avoid confusion, repetition, and inconsistencies with information
- the literature supports the theme of community support networks, and the need for improved communications with respect to prenatal education

7. Breastfeeding

(a) It is recommended that women have increased access to breastfeeding information.

- survey results show that women who received breastfeeding information were more likely to breastfeed
- women in the focus groups expressed the need for more information and education on breastfeeding
- the literature supports the need for increased access to information, and that written materials can improve decision-making by increasing knowledge, thereby improving communications with health

professionals

(b) It is recommended that public acceptance of breastfeeding be increased and considered the cultural norm on P.E.I.

- women in the survey reported that the main reason they did not breastfeed was that they were not comfortable with it
- women in the focus groups felt strongly that in order to feel comfortable breastfeeding, it needs to be seen as “normal” and “natural”
- this information is supported by the P.E.I. Breastfeeding Coalition’s vision and mission statement

(c) It is recommended that there be an enhanced effort to assist women to breastfeed for longer periods of time through increased support and education.

- the survey found that women who planned to breastfeed continued to do so for longer periods of time than those who did not plan to breastfeed
- women in the focus groups often were unaware of the benefits of breastfeeding past four months, and felt that the emphasis was on initiation
- the Canadian Paediatric Society (1998) states that “ Breastfeeding is the optimal method of feeding infants. Breastfeeding may continue for up to two years of age and beyond.”