The Acceptability of the Nurse-Family Partnership Program to Families, Nurses and Community Stakeholders Living in Hamilton, Ontario

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Executive Summary

The Nurse-Family Partnership (NFP), developed by Dr. David Olds and colleagues, is a program of prenatal and infancy home visiting provided by nurses to young, low-income, first-time mothers. It has proven effectiveness in improving pregnancy outcomes, maternal and child health and social outcomes and is the program with the best evidence for preventing child maltreatment (MacMillan et al., 2008), one of the major risk factors for mental health problems in children and youth.

In the United States, the NFP program is delivered from sites in 31 states. Dr. Olds and colleagues have developed a model for adapting and testing the NFP program in international contexts that is grounded in rigorous research standards. England, Scotland, Holland, Germany and Australia are piloting national implementations of the NFP program. In June 2008, we implemented the first Canadian NFP site in Hamilton, Ontario.

The objective of this mixed methods study is to explore and understand the acceptability of this method of health service delivery to clients and their families, public health nurses (PHN) and the community stakeholders involved in referring and supporting NFP clients. In the uptake of evidence-based practices, it is critical to assess feasibility and acceptability. Without this step, transferring the NFP program from a research environment to an applied one may result in the implementation of a program that does not demonstrate the same magnitude of positive outcomes that were seen in the NFP trials.

A qualitative case study was conducted to answer the questions:

1. Are the NFP program elements (e.g. nurse-led intervention, referral process, curriculum, frequency of visits, community partnerships) acceptable to public health nurses, young, first-time mothers and their family members, and community stakeholders?
2. What factors (facilitators and barriers) will influence the implementation of the NFP program in an Ontario context?

A purposeful sample of 47 community stakeholders with experiences delivering the NFP program or working with a NFP public health nurse participated in this study. This sample included 18 NFP clients, 9 fathers, 6 NFP public health nurses, 4 Healthy Babies, Healthy Children public health nurses and 10 community professionals. Participants’ perceptions of the acceptability of the NFP program were explored in a series of in-depth qualitative interviews (either face-to-face or focus group interviews). All data were transcribed verbatim and directed content analysis was used to identify the emerging core themes.

Results from the acceptability study indicate that the Nurse-Family Partnership program is an evidence-based, nurse-led intervention for low-income, young first-
time mothers. The NFP program elements, including the frequency of visits and the curriculum components, are acceptable to a broad range of stakeholders including clients and their partners, PHNs and community professionals. The NFP program is unique in comparison to other community-based parenting programs and it is filling an important health service delivery gap for a specific targeted group of high-risk women and families who are traditionally hard-to-reach and retain in health care or social services. Given the complexity of the client health and social needs, it is imperative that this program continue to be delivered by nurses who are viewed as the most credible providers of this level of support and information.

With this knowledge that it is feasible to recruit and retain women in the NFP and that the intervention has been found to be acceptable within an Ontario context, this provides the research team with the foundation to now evaluate the effectiveness of the NFP in Canada.
1.0 Introduction

The Nurse-Family Partnership (NFP), developed by Dr. David Olds and colleagues, is a program of prenatal and infancy home visiting provided by nurses to young, low-income, first-time mothers. It has proven effectiveness in improving pregnancy outcomes, maternal and child health and social outcomes and is the program with the best evidence for preventing child maltreatment (MacMillan et al., 2008), one of the major risk factors for mental health problems in children and youth.

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2.0 Background Information: Nurse-Family Partnership Program

The NFP intervention has been rigorously evaluated in three longitudinal, randomized controlled trials (RCT) in: 1) Elmira, New York (n=400, semi-rural; 89% white sample; 81% follow-up rate at 15 years) (Olds, Henderson, Chamberlin & Tatelbaum, 1986; Olds, Henderson, & Kitzman, 1994; Olds et al., 1997; Olds et al., 1998); 2) Memphis, Tennessee (n=1139, urban, 92% black sample; 75% follow-up at 9 years) (Kitzman et al., 1997; Olds, Kitzman et al., 2004; Olds, Kitzman, Hanks et al., 2007); and 3) Denver, Colorado (n=735, urban, 45% Hispanic sample; 86% follow-up at 4 years) (Olds et al., 2002; Olds, Robinson et al, 2004).

The NFP follows a standardized schedule of visits beginning before the end of the second trimester, until the child is two years old. These begin as weekly visits and taper to monthly. NFP nurses follow detailed visit-by-visit guidelines to: 1) help women improve the outcomes of pregnancy by promoting healthy prenatal behaviours; 2) improve child health and development by promoting parents’ competent care of their children; and 3) enhance parents’ life-course development. The NFP continues as a nurse-delivered intervention since the
Denver trial showed that nurses produce a broader range of effects for mothers and children than para-professional home visitors (Olds, Robinson et al., 2004).

Across the three RCTs, what emerged was that this program results in consistent and enduring effects for low-income, first-time mothers and their children including: improved prenatal health, fewer childhood injuries, fewer subsequent pregnancies, increased intervals between births, increased maternal employment, and improved school readiness for children born to mothers with low psychological resources.

In consideration of specific child and youth mental health outcomes, the NFP program has been identified internationally through a review of the literature as the intervention with the strongest evidence for its effectiveness in preventing child maltreatment (MacMillan et al., 2008). The program also has demonstrated beneficial effects on cognitive, language and behavioural development, antisocial behaviour, and maternal life course events – all directly or indirectly affecting child mental health. The Washington State Institute for Public Policy’s economic analysis of the impact of child and adolescent prevention and early intervention programs showed that the NFP produced the largest per family economic impact of any child welfare, early intervention, or home visiting program examined (Aos et al., 2004).

2.1 Child maltreatment outcomes

No other prevention or early intervention program for pregnant women or mothers has been consistently found to prevent child maltreatment and associated outcomes. In Elmira, the NFP produced a 48% reduction in the rates of state-verified reports of child abuse and neglect and among poor, unmarried teen mothers, this reduction was 80% (Olds et al., 1997). In Memphis and Denver where rates of abuse were too low to give reliable estimates, proxy measures e.g injuries and ingestions, showed the same pattern of results (Kitzman et al., 1997; Olds et al., 2002). The program also improved the quality and safety of the home environment. The NFP program has received an "A" recommendation for the prevention of child maltreatment from the Canadian Task Force on Preventive Health Care; high-quality scientific evidence warrants recommending this intervention (MacMillan, 2000).

2.2. Cognitive, language, and behavioral development outcomes

In Memphis, by the time the children were 6 years old, those visited by nurses had higher IQs and language scores and fewer behavior problems (Olds, Kitzman et al., 2004). Nurse-visited children born to mothers with low psychological resources had better arithmetic achievement and expressed less aggression (Olds, Kitzman et al., 2004). In Denver, nurse-visited children whose mothers had low psychological resources at registration had, at age 4, higher language scores and better behavioral regulation (Olds, Robinson et al., 2004).
2.3 Antisocial behaviour outcomes

In 15-year old children, whose poor and unmarried mothers received the nurse home visits, fewer arrests, convictions and violations of probation, life-time sex partners, and cigarettes smoked per day were reported (Olds et al., 1998). Parents of these nurse-visited children reported that their children had fewer behavioral problems due to use of substances. In a follow-up study of mothers and children who participated in the first RCT in Elmira, New York, Eckenrode and colleagues (2010) concluded that girls whose mothers received nurse home visits had fewer arrests and convictions compared to girls of mothers in the control group. These findings contribute to the strong base of evidence around the effectiveness of the NFP program in influencing important maternal-child health outcomes and that it has the power to prevent problems across generations.

In summary, multiple, rigorous, large-scale trials with long follow up periods, have shown the impact of the NFP in areas directly involving child mental health (such as anti-social behaviour and aggression) as well as indirect effects (such as psychological resources and cognitive development). Most dramatic is the reduction in child maltreatment, which has been shown repeatedly to have impacts on mental health in childhood, adolescence and adulthood.

3.0 International Implementation of the NFP Program

Given the proven effectiveness of the NFP for important child health outcomes, there has been extensive interest in the uptake of this program. To maintain the integrity of the program, new NFP sites contract to implement the intervention with strict fidelity to the model that was evaluated in the RCTs. Dr. Olds and his colleagues at the Prevention Research Center, Colorado have developed a model for adapting and testing the NFP program in international contexts that is grounded in the same rigorous research standards that serve as a foundation for the U.S. program. In general, an international implementation effort has four phases. (1) Adaptation: The exploration of adaptations needed to deliver the program in local contexts while ensuring fidelity to the model. (2) Feasibility and Acceptability: The initial small-scale assessment and implementation pilot phase. (3) RCT: Pending a successful evaluation of the outcomes of the initial phases, the international site may decide to expand and test the program in a large-scale RCT. (4) Expansion: Larger dissemination of the adapted NFP model.
4.0 Implementation of the NFP Program in Ontario, Canada.

4.1 Description of Project Partners

The NFP program is being implemented and evaluated through a collaboration between Hamilton Public Health Services and McMaster University. From Hamilton Public Health Services, Debbie Sheehan (Director, Family Health Division) and Dianne Busser (Manager, Family Health, NFP) have led the implementation of the NFP within the health unit’s Family Health Division. This is a significant role that has included responsibilities for hiring and training nurses to deliver the intervention, ensuring that the intervention is delivered with strict fidelity to the model that was evaluated in the NFP trials, identifying and addressing implementation issues, and supervising the NFP PHNs. Drs. Jack and MacMillan have also been available as consultants to this team.

Debbie Sheehan is also the Chair of the NFP Research Team and is an integral member of the evaluation team on all aspects of study design and implementation. Ms. Sheehan, Ms. Busser and Dr. Chris Mackie (Assistant Medical Officer of Health, Hamilton Public Health Services) have also led and participated in our extensive advocacy efforts with local community stakeholders and provincial decision-makers to: 1) increase awareness about the NFP program; and 2) procure support for initiating a randomized controlled trial to evaluate the effectiveness of the NFP intervention in Canada.

At McMaster University, Dr. Harriet MacMillan is leading the study to evaluate the feasibility of implementing the NFP intervention within the Canadian context. Dr. Susan Jack has been responsible for designing and implementing this study to explore the acceptability of this program to clients, nurses and community stakeholders. Dr. Christine Kurtz Landy (who during the tenure of this project was a post-doctoral fellow supervised by Dr. MacMillan and Ms. Sheehan) was responsible for coordinating data collection with the NFP clients. Additionally, Dr. Olive Wahoush (who during the tenure of this award was a post-doctoral student supervised by Dr. Michael Boyle) assisted with collecting data from extended family members related to the NFP clients. The primary study investigators have also had the opportunity to consult with study co-investigators (Boyle, Clinton, Niccols, Schofield) on methodological or practice issues when required. All members of the research team, from both Hamilton Public Health Services and McMaster University, will continue to be actively involved in the dissemination of the research findings.

4.2 Phase 1: Adaptation of the NFP Curriculum

Phase 1: In 2008, the University of Colorado Prevention Research Center Nurse-Family Partnership International Program granted permission to the City of Hamilton Public Health Services and McMaster University to implement the first Canadian NFP. Six PHNs and one nursing manager completed the intensive
NFP training at the National Service Office, Denver, Colorado. The PHNs also travelled to Pennsylvania to ‘job-shadow’ a team of NFP nurses. Additional training on the NFP curriculum and to deliver the Partners in Parenting Education (PIPE) program and the NCAST were completed in Hamilton, Ontario. As the team of PHNs and their nursing supervisor roll out each of the three NFP curriculum components (Pregnancy Guidelines, Infant Guidelines and Toddler Guidelines) they are adapting the content to meet the needs of mothers living in Canada. Initially, funding was received to implement the pilot project until the infant was 12 months old. Additional funding and support has since been secured so that the mothers enrolled in the NFP pilot project can receive the full dose (e.g. until the child is 24 months old) of the intervention. Given this extension, the full Canadian curriculum has not yet been completed.

### 4.3 Phase 2: Feasibility and Acceptability of the NFP Program in Hamilton, Ontario

**Phase 2, step 1: Feasibility:** For this Hamilton-based program to achieve the same positive outcomes as achieved in the U.S. studies, it is essential to conduct small-scale pilot studies of the feasibility of delivering the intervention to families in Ontario and the acceptability of the program to all key stakeholders. We have hypothesized that the NFP program will be feasible within the local context of health service delivery. Within the feasibility study, we are testing procedures for recruitment, strategies for retention, the feasibility and methods for collecting child maltreatment data from local child protection agencies, collecting hospital visit data for mothers and children, and collecting clinical and interview data from participants.

In June 2008, we began recruiting women through prenatal referrals to the Healthy Babies, Healthy Children (HBHC) program administered by the City of Hamilton Public Health Services. To be eligible, women must be first-time mothers who are referred before 29 weeks gestation and who are receiving income assistance from Ontario Works or Employment Insurance prior to their pregnancy or who report an income below the low-income cut-off level for Ontario.

Between June 2008 and January 2010, Hamilton Public Health Services received 421 prenatal referrals to the HBHC program. From these referrals, 135 women met the NFP eligibility criteria and 108 consented to participate in the NFP program. Consenting mothers will receive the full dose of the intervention e.g. home visits from early in pregnancy until their child is 2 ½ years old. This feasibility study is ongoing and scheduled to be completed in April 2011.

**Phase 2, step 2: Acceptability.** This intervention is unique in Ontario in that it is an intensive home visitation program that is delivered exclusively by registered nurses and delivered only to low-income, young, first-time mothers who are recruited early in pregnancy and visited until the child is two years of age. Given its uniqueness, it is essential to evaluate the acceptability of the nursing intervention to clients, their
families, PHNs and community stakeholders.

5.0 Evaluation of the Acceptability of the NFP Program in Hamilton, Ontario

5.1 Objectives and research questions

This study explored and described the acceptability of implementing the NFP program in Hamilton with: 1) first-time low-income, young mothers; 2) extended family members of NFP clients; 3) Public Health Nurses; and 4) community stakeholders.

The qualitative research questions posed were:

1. Are the NFP program elements (e.g. nurse-led intervention, referral process, curriculum, frequency of visits, community partnerships) acceptable to public health nurses, young, first-time mothers and their family members, and community stakeholders?
2. What factors (facilitators and barriers) will influence the implementation of the NFP program in an Ontario context?

5.2 Methods

This mixed methods study involves a comprehensive evaluation of the acceptability of implementing this intervention within the context of current public health home visitation programs. A triangulation mixed methods design was used, a type of design in which different but complementary types of data were collected on the topic of acceptability.

In this study, all mothers enrolled in the feasibility study are being asked to complete a questionnaire measuring their perceived acceptability of the PHN, the curriculum materials, the referral process, the frequency of the home visits, and the process of receiving home visits. Concurrent with this data collection, a qualitative case study approach was used to guide the collection of interview data from NFP clients, extended family members, PHNs and community stakeholders to explore their overall experiences with the NFP program and their perceived acceptability of it as a mode of service delivery for this population. Collecting both quantitative and qualitative data brings together the strengths of both forms of research to corroborate results.

5.2.1 Quantitative Survey

Within the feasibility study, quantitative data are being collected on a regular basis from all participants at baseline, 2 weeks postpartum and when the infant is 6, 12, 18 and 24 months old. At the point of discharge, or when a client drops out of the NFP feasibility study, five short questions are asked about the acceptability of the program. These will allow us to measure overall client acceptability of the intervention, the PHN, and the program materials. The data
will be analyzed using descriptive statistics. In the original study protocol we proposed collecting this survey data at the 12-month visit. However, given the change in funding and that all mothers will receive the full intervention dose, this data will now be collected at the 24 month visit.

5.2.2 Qualitative Case Study

The concurrent qualitative study was conducted with a specific focus on exploring the acceptability of the NFP home visitation program as it is delivered within the context of Hamilton’s public health system of care delivery. The use of a single case study approach enabled us to move beyond the feasibility study (which assesses issues such as recruitment, retention and service delivery) to understanding how and why clients are referred and why they continue in the program, and also if this unique mode of service delivery is acceptable within the current health services system.

Case study involves the description, exploration, or explanation of a contemporary phenomenon within its real-life context (Yin, 2003). It is particularly useful when the phenomenon of interest involves complex social interactions, when investigators have minimal control over variables and when boundaries between the phenomenon under study and the context in which it is situated are not clearly delineated (Yin, 2003).

**Study Propositions:** Case studies are bounded by context and time. To maintain the focus of a case study investigation and to guide data collection and analysis, study propositions to be examined during the course of study are identified *a priori* (Yin, 2003). The framework for evaluating the acceptability of the United Kingdom’s Family-Nurse Partnership Programme was used (Barnes et al., 2008) to identify the study propositions, which are:

1. The NFP program will be acceptable to clients, their family members, PHNs, supervisors and community stakeholders in Hamilton, Ontario.
2. With the inclusion of Canadian content, the primary NFP curriculum materials will be acceptable to PHNs and clients.
3. Fidelity to the NFP model elements, as developed in the United States, will be maintained within the Ontario context of public health service delivery.

In this study, data were triangulated from key informants, including NFP clients, their extended family members, PHNs, and community stakeholders. Brief demographic data were collected from all study participants.

5.2.3 Nurse-Family Partnership Clients

**Sampling:** A purposeful sub-sample of women enrolled in the Hamilton NFP feasibility study was invited to participate. Initially we estimated recruiting 10-15 women to participate in the acceptability study. However, as the goal in
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Qualitative research is to continue to sample until saturation, we interviewed a final sample of 18 mothers.

Initially, a purposeful sample of 22 mothers who were participating in the NFP Feasibility study were invited by the NFP Feasibility research assistant to participate in the NFP Acceptability Study. The research assistant explained the study and obtained consent for the researcher to contact the participants by telephone to set up a time for a semi-structured in-depth interview to explore the acceptability of the content and delivery of the NFP to mothers. Four of the 22 invited participants could not be reached to set up the first interview. Eighteen participants who ranged from 30 weeks gestation to 1 year postpartum participated in the first in-depth face-to-face interview lasting 20 to 60 minutes between February 2009 and November 2009.

At the time of the interview participants were asked if we could re-interview them in 3 to 6 months to further discuss their ongoing experiences with the NFP. All participants agreed to the second interview. Only seven of the 18 participants participated in the second interview, which took place between September 2009 and January 2010. Of those mothers who did not participate in the second interview, four refused because they were too busy, two mothers no longer had custody of their infants and did not want to be interviewed, and five were lost to follow-up.

**Data Collection:** A semi-structured, in-depth face-to-face interview that explored mothers’ experiences in the NFP program was used to guide the initial primary interviews. A copy of the initial semi-structured interview guide is provided in Appendix A. In qualitative research, data collection and analysis occur concurrently. As core concepts emerged within the analysis process, they were identified and subsequently explored in the second interviews.

5.2.4 Nurse-Family Partnership Client Partners

In the NFP program, as PHNs work with pregnant women and young mothers, partners and extended family members, are encouraged to participate in the home visits. Intimate partners and extended family members can play both supportive roles in encouraging mothers to participate in home visitation programs or they may limit the mother’s ability to fully engage in the work of health promotion (Barnes et al., 2008; Jack, DiCenzo & Lohfeld, 2005).

**Sampling:** A purposeful sample of partners of current NFP clients (e.g. the NFP client’s boyfriend or husband) were invited to participate in this study. Initially we estimated recruiting a purposeful sample of 10 partners to participate in an in-depth interview. Partners were eligible to participate in the study if they: 1) spoke and understood English; 2) were > 18 years of age; and 3) were aware that the index client had consented to participate in the NFP feasibility pilot and that she was receiving regular home visits from a PHN.
Recruitment: Using a process of snowball sampling, the NFP clients who agreed to participate in the qualitative component of this study were asked the question, "If your partner or family member that you live with is aware that you are receiving regular home visits from the Nurse-Family Partnership public health nurse, do we have your permission to contact them and invite them to participate in this study?" If the NFP client consented, contact information for her partner was obtained. The study research assistant then contacted the partner to describe the study and invite him to participate.

Data Collection: A semi-structured, in-depth face-to-face interview that focused on exploring the partner’s perception of the NFP program and overall acceptability of the delivery of this intervention within the home environment was conducted. Factors influencing the partner’s motivation or ability to participate in the home visits was also explored. A copy of the initial semi-structured interview guide is provided in Appendix B. Nine fathers who were partners of young women recruited to the NFP program were interviewed between October 2009 and January 2010. Participants were contacted by telephone to confirm their agreement to be interviewed and a time and place for interview arranged. All interviews were audio recorded and each interview was completed in less than 35 minutes.

NFP client and partner interviews were conducted in a location mutually negotiated between the researcher and the study participant. The interviews were digitally recorded with the participants’ permission and were transcribed verbatim for analysis. In addition, the researchers took field notes during the interviews. Participants were asked at the end of each interview if the researcher may telephone them to undertake member checking within three months of the initial interview. Member checking is a process used in qualitative research to achieve data credibility; the researcher seeks the participant’s confirmation of the analyst’s interpretation of the primary data. All participants were given a $25.00 gift certificate for their participation.

5.2.5 Public Health Nurses

In Hamilton, PHNs are responsible for the delivery of the NFP intervention. Five PHNs with experience in home visitation were interviewed and assigned to exclusively deliver the NFP intervention for the duration of the feasibility pilot. An additional PHN was trained as a back-up to provide coverage for vacation and illness. The NFP program provides PHNs with an intensive strategy to meet the needs of a targeted, high-risk population of pregnant women and young mothers.

This intervention is different from their traditional HBHC home visitation practices where all mothers receive a telephone call within 48 hours of discharge from hospital in the postpartum period and an offer of a single home visit. For mothers who are identified as at-risk for poor parenting practices or those with infants at-
risk for developmental delays, the HBHC program offers a model of mixed home visitation, with families receiving one visit from a PHN for every three visits conducted by a family (lay) home visitor until the child is six years of age.

**Sample:** Two groups of PHNs were invited to participate in this acceptability study: 1) the six PHNs who participated in the NFP training and who are currently delivering the NFP intervention; and 2) four PHNs who were not a part of the NFP program but who deliver services to pregnant women and high risk mothers as part of the HBHC program. HBHC nurses must have more than two years of home visitation experience within that program to be eligible.

**Data Collection:** Information about nurses’ perceptions of the NFP program and the acceptability of delivering a targeted intervention as an enhanced component of the universal HBHC program was explored with the PHNs from the HBHC program.

The NFP PHNs participated in two focus groups over a six-month period. In the first, the PHNs shared their collective experiences of recruiting clients into the NFP program, the individual, organizational and environmental factors influencing their abilities to maintain fidelity to the NFP model, and the acceptability of the NFP training. The second focus group explored their overall perceptions of the acceptability of the NFP program by clients and community stakeholders, individual, organizational and environmental factors influencing their abilities to maintain fidelity to the NFP model, strategies for recruiting and retaining clients in the program, the utility of the NFP curriculum materials (infancy module) and the impact of this intervention on their own professional development. The semi-structured interview guide that was used for the two focus groups is provided in Appendices C. Concepts or themes arising in the first focus group that require clarification were also explored in the second focus group. The semi-structured interview guide used for the focus group with the HBHC PHNs is in Appendix D.

**Data Analysis:** All of the interviews and focus groups were digitally recorded. The digital recordings were transcribed verbatim. The principles of directed content analysis (Hsieh & Shannon, 2005) guided the coding and synthesis of the interview data. All transcripts were initially read in their entirety and then concepts pulled from the interview guide were used to develop initial coding categories. New codes were developed for concepts that could not be categorized into existing codes. Summaries of the core categories emerging from each transcript were then developed. Using the principles of constant comparison, findings from across the transcripts were then synthesized. All transcripts were coded using the Software NVivo 8.0.

When this study design was originally developed, we intended to survey all mothers about the acceptability of the NFP intervention. This data would have been collected at the 12-month visit as part of the regular data collection points in
the feasibility study. As identified earlier, a decision was subsequently made to offer all enrolled clients the full dose of the intervention and offer home visits until the child is 24 months. Therefore, the administration of these quantitative survey questions will now be administered at the 24-month data collection visit. At the time of writing this report, we are just moving into the time period where we will begin to see our first graduates of the program, thus this quantitative data is not currently available for analysis.

6.0 Results

The Nurse-Family Partnership program is highly acceptable to a diverse range of stakeholders including young, low-income first-time mothers, the partners of women enrolled in the program, PHNs delivering the NFP curriculum, PHNs delivering services to other pregnant women and mothers as part of the provincial Healthy Babies, Healthy Children program, and community professionals who have either referred or provided services to women enrolled in the NFP.

Overall, 47 stakeholders participated in this single case study conducted to describe and explore the acceptability of the NFP program processes and curriculum.

6.1 Clients’ Perceptions of the NFP

A purposeful sample of 18 women enrolled in the NFP program participated in this qualitative case study. The average age of the women who participated was 20 years. At the time of the first interview, six of the women were pregnant and the remaining 12 had infants <12 months of age (average infant age was 4 months). The majority of the women (n=13) identified that they were single and the remaining five were in a common-law relationship. All of the women, with one exception, had a total annual income of less than $24,000 and 13 of the women identified that social assistance or another government program was their main source of income. On average, the participants had completed 11 years of education.

The major themes regarding the acceptability of the NFP program to pregnant women and first-time mothers are:

1. The positive relationship that the client is able to develop with the NFP PHN;
2. That NFP PHNs are perceived as knowledgeable and honest experts on such topics as: childbearing, mothering, parenting, relationships and community resources;
3. That NFP PHNs provide timely, relevant and reliable informational and emotional support tailored to the clients’ needs;
4. That the program is delivered so that clients can develop and maintain continuity with one NFP PHN;
5. That the NFP curriculum is relevant to the clients;
6. That the NFP Program is an accessible form of health services for this vulnerable population;
7. That family members are supportive of clients’ participation in the NFP program;
8. The perception that participation in the NFP program is making them better mothers because they are learning what they need to know;
9. That they accepted the referral into the NFP program because they are young and have a lot to learn about becoming parents; and
10. That the NFP mothers would highly recommend the NFP program to pregnant friends.

The clients all described the **positive relationships or partnerships that they have with their NFP PHNs.** They shared that their nurses are kind, respectful, non-judgmental, and act as their advocates. The women’s feelings about their relationships with the NFP nurses are illustrated in the following quotes:

She’s [PHN] just nice, like I could talk to her as if she’s a friend or something… it’s not like just a job for her. She actually … she likes to come and … I call her and ask her questions a lot. It’s all new to me.

She didn’t judge at all. Like she made herself comfortable and she made herself seem like a friend more than like a nurse.

She’s very encouraging and sometimes just hearing that you’re doing a good job makes the biggest difference in the world, especially with being such a young parent.

She’s really nice. I love that. And she’s … she’s got a good sense of humour. And I feel like … because I know she’s older than me and I usually like someone around my age. But her, I feel like we’re just on the same level.

The women value that the PHNs are professionals with expertise and perceived them to be reliable and credible sources of information. They described the **NFP PHNs as honest experts in childbearing, mothering, parenting, relationships and extremely knowledgeable about community resources.**

One young pregnant woman shared that:

*Knowing that there’s always someone that you can call if there’s anything wrong, and I have like a thousand questions about being pregnant and it’s good to have someone that will be there to answer them. Because I ask everyone and they obviously don’t know accurate answers, they just tell me what they think. But a*
public health nurse they know the actual answer, so I like to know.(8)

Knowing that she has all the information I need, it’s nice to know.

She answers every question that I ever have to ask and she doesn’t like think I’m weird for asking that question and she … she’s just been really helpful.

She gave me a magnet with the Tele-Health phone number on it. I had to get that magnet and I called them when he bumped his head because I was really worried about him. And that was helpful to know… I knew about [Tele-Health] but I wouldn’t have known where to find their phone number.

The clients said that the NFP nurses allow them to set the home visit agendas. They described that the NFP PHNs provide timely, relevant and reliable informational and emotional support tailored to their needs. As one client explained:

Well [the NFP program] already has helped me understand a lot…[My nurse] brings in things that … like what to look out for when you’re pregnant … I never knew half of those things. So she’s already helped me a lot. I think after [the baby is born]… she’ll help me raise a healthy family…She talks about healthy relationships with your family and with your boyfriend and everything. So it’s not just about me and the baby, it’s about the whole thing.

Another client commented that:

My public health nurse, she remembers everything I tell her. And I always ask her questions and if she doesn’t know the answers she goes and finds out and tells me the next week. She never forgets to do that so that’s what I like because I don’t like unanswered questions.

Continuity of the relationship with one NFP PHN is very important to clients. Clients shared that it can be frustrating to have a different nurse coming to home visits. It meant they would have to continually retell their story with each new nurse who visits. For example the women said:

I wouldn’t like seeing a different person every week because then they don’t know, they’re just kind of doing their job. Yes you get to know someone after awhile.
Like she comes in here she’s always smiling like I’d love her to be my public health nurse for the next 2 years. I don’t want to change.

The NFP curriculum is relevant to the clients. Clients described learning what they need and want to know about pregnancy, birth, infant behaviour and care, relationships, budgeting, and planning for their futures. Several of the clients were also able to describe how they are able to apply the information they review with their nurse in their later interactions with their infants:

She’s starting to teach me some lessons. Yesterday we did a thing on how a baby learns about love through trust and security. I thought that was cool. Well she said at first you have to let him feel…… That he’s helped… he’s got to recognize that. And then you go and you feed him and he recognizes oh he’s hungry and when [the baby] makes a certain sound [he] gets fed, and he trusts you to meet that need. It makes me feel like I’m really bonding with him. Like I can get close to him like that.

They liked the videos, and fetal growth models and print materials that they reviewed and discussed with their PHNs. As one client explained:

She’s offered me videos. She offered me one, actually the one about infant cues. We watched that one and I found it very helpful. Really everything that we talk about I find helpful because I just find that she goes more in-depth with it than most … than what I would know.

Most of the clients talk positively about their NFP information binder and how their PHNs bring new information to add to their binder at each home visit. Many mothers discussed using their binders as a reference ‘to turn to’ when they have questions. Some mothers also shared that their partners (who were not present during home visits) would subsequently read the new information added to the binder after the nurses’ visits.

The clients described some of the important aspects that make it possible for them to participate in the NFP program. They shared that the NFP Program is accessible. Home visiting, telephone access to NFP nurses and the PHNs’ flexibility in scheduling home visits make ongoing participation in the NFP program possible. One client expressed that:

I prefer [having a visit] every 2 weeks because it gives us more time to come up with stuff to talk about. I mean if I have any problems I can always call her. My nurse is very accessible and if I need to switch an appointment that’s perfectly fine.
Home visiting in particular makes the program very accessible because many of these clients have transportation barriers. One young mother stated that:

[My PHN] comes to me so I don’t have to try and get out my door and go see her like at an office that I’d probably have to take a bus to [which would make it very hard with a baby].

Generally the clients described that their family members are supportive of the their participation in the NFP program. Given the young age of the NFP clients, many of the pregnant women or mothers still live with their parents. For many clients, their parents are supportive of their involvement with the NFP. One mother shared that:

My mom thinks it’s a great program actually. She actually got to meet my nurse when my daughter was first born. She thinks it’s good that I’m involved in it.

With respect to partners (e.g. a boyfriend or husband), some are interested in participating in home visits while others prefer that the client share what they have learned with them following her home visit with the PHN. For some clients, they perceived that their partners were indifferent about their participation in this program. One mother shared that:

[My PHN] actually taught my boyfriend how he can help me out because … Well when I was going to breastfeed at first it’s really hard for them to help out but he can help calm him down and he can hold him. And I really like seeing him hold him, it makes me smile.

All the clients interviewed are extremely positive about the NFP program. The clients perceive that their participation in the NFP program is making them better mothers because they are learning what they need to know.

I was honestly a little skeptical about it [NFP] at first, so I was like ah I don’t know if I want to do it. But then I figured I had nothing to lose, I can only learn from it….. I didn’t think it would really help, but it’s actually been a really big help.

If they can help me benefit myself, they’ll help me benefit [my baby] like because it depends like if … it depends on your parenting like if you don’t know your baby’s cues or there’s no attachment there, so it’s the way you hold your baby.

Clients were asked why they felt they were offered the NFP program and why they accepted. They all thought they were offered the program because they are
The clients shared that they **accepted the referral into the NFP program because they have a lot to learn about becoming a parent.**

*I think it’s because I was younger too. I was 15 when I had him. So I think I was younger too and they want to see how well you can adjust to being pregnant at such a young age. And I think it’s to educate me on my baby.*

To explore clients’ satisfaction with the NFP program, the clients were asked if they would recommend the program to their friends. All the mothers said they would recommend it to friends because they themselves find their PHNs extremely helpful. Many of the mothers shared that they, in fact have encouraged their pregnant friends to enter the NFP program. As one client explained:

*I’m trying to get my cousin into it because she’s pregnant now so I’m trying to get her into it. She wants but they’re just waiting for a referral or something…I told her everything. I showed her because you get this thick, really big binder, it’s huge, and they bring it to you and then each time they come you get new information that you put into it. And then by the end of the program it’s supposed to be full. Right now it’s like pretty full. I showed her all of that stuff and she was like that’s pretty cool. Because you learn a lot more.*

All the clients who participated in the first and second interviews intend to remain in the NFP program until their children turn 2 years of age. The clients all speak very enthusiastically about their PHNs and the things they were and are learning about pregnancy, parenthood, healthy child development and healthy relationships. At the end of one interview a mother emphatically shared:

*It’s just a really good program. I’m glad that they brought it to Canada… and they’re just trying it now in Hamilton. So I’m really glad that I’m in it and I chose to take it and I’ve told a whole bunch of people – you should do it if you get pregnant and stuff like that. Because… my nurse is coming and I have a happy face, and they’re [my friends] ask “You have a nurse that comes to your house?” and I’m like “yeah, and she explains everything to me and it’s awesome”. And they’re like” that is wicked.” Like all my friends that had [babies] wished they had done it, they think that it’s awesome.*

**6.2 Acceptability of the NFP to Clients’ Partners**

Overall, fathers were positive about their experiences with the program and all said that they would recommend the NFP Program to other women pregnant with their first child.
A total of nine partners, who all identified as fathers of the infants enrolled in the NFP program, participated in this qualitative study. The average age of the men who participated was 22 years (range 18-27 years). Three of the men had completed high school, and the remaining six had not completed high school. At the time of the study, two participants were working full-time, one participant was employed part-time, four were unemployed and two were full-time students.

Seven of the men identified themselves as the common-law partner to a NFP client, and two of the men indicated that they were married to a NFP client. In this purposeful sample, all of the men indicated that they lived in the same residence with the NFP client and their infant. While it is the pregnant woman or mother and her infant who are the index clients of the NFP program, NFP nurses work to actively engage interested partners to participate in the home visitation process. In this study, the men had participated in an average of six home visits during the client’s pregnancy, and an average of 12 home visits since the birth of the child. When asked about the frequency of their involvement in home visits, the fathers admitted that it was not routine for them to participate in all of the home visits. Three fathers confirmed however that they were present for most or all of the visits and the remainder participated in the visits if they were scheduled at a time when they were not at work or in school.

The majority of the fathers described that within the context of the NFP program, they were able to build a relationship characterized by trust and respect with the PHN, even if they were not able to participate in all of the home visits. Although a small number of the fathers were ambivalent about their experience in the program, they were still able to provide details of positive benefits accrued from participating.

When asked about how they first came to hear about the program, seven of the fathers indicated their partner told them about the program and two fathers said that they did not know or remember. A majority of the fathers indicated that the decision to participate in the NFP was made jointly between themselves and their partner. The majority stated the referral to the NFP program was from their midwife or family doctor who provided prenatal care to their partner. One father indicated that their social worker from the Children’s Aid Society recommended that they participate in the program.

Once families were enrolled in the NFP program, fathers’ initial responses to the program were generally positive but almost half were cautious yet hopeful about the process of working closely with a nurse on a regular basis. When asked about their expectations of the nurse and the program, responses frequently referred to the nurse as a “knowledgeable” individual who could offer help and educate them about parenting. As one father stated:
I was alright with [the PHN coming to visit] because it [the NFP program] was going to help us out. It’s my first kid…They [the nurses] know what they are doing, they went to school for it.

Several of the fathers also disclosed that they were nervous and cautious about participating in the program. Many of these fears stem from their lack of certainty about the relationships between public health and child protection agencies. One father admitted that:

I was actually nervous because the lady that referred us to the program mentioned CAS [Children’s Aid Society] a lot. And because of us being young parents, we were first-time parents as well, we were a little worried that CAS was going to be coming in and out of the house and check ups, that was something we were worried about.

Some fathers also expressed uncertainty about how the frequent home visits would impact their regular routines. One father said, “I thought it would be a hassle, [with the PHN] just coming every so often.”

Questions about their overall experience with the program, how their perceptions have changed over time and their level of involvement attracted richly detailed accounts with many specific examples that illustrate how the NFP nurses engaged fathers with different activities. The main theme from fathers’ commentaries suggests that fathers valued the recognition of their role as a father to the infant. Fathers provided multiple descriptions of NFP PHNs taking time to talk and work with them; leaving materials with fathers and providing feedback to them. Specifically fathers perceived they were getting expert help and validation that they are doing well as fathers. They liked the responsiveness to their questions and that information was relevant and applied to the daily lives of their infant. One father summarized his experience working with the PHN as:

At first we, you know we get to know each other and then sometimes she teaches us things, shows us videos and stuff like that. It was really helpful. The shaken baby syndrome I had no clue what that was. She taught us how to burp the baby, change the baby. She taught us all about the buggy and the car seat set up and everything.

Fathers were clear that they anticipated expertise from the NFP nurse however, their comments suggest that they were surprised at the scope of information, and help available to them. The main benefit identified by fathers was that, after working with the PHN, they were better prepared for their parenting role. One father mentioned that he has a half binder of information sheets that he refers to on a regular basis. The promptness of the nurses’ responses to their questions and the enabling of independent parenting by these fathers seemed particularly welcome. Fathers in this study suggested that the nurse was a better source of information than their parents or others with experience. One father shared that:
A lot of [the information] is stuff that I’ve known before because my mom ran a nursery when I was younger [and] I learned a lot of things. But I don’t know, [with the PHN]…you can ask questions if you have questions and stuff like that.

The majority of the fathers in this study identified that they were encouraged to be involved in the home visits. Some fathers also appreciated being seen as an individual equally as important as the NFP client and equally worthy of the PHN’s time and expertise. One father even exclaimed, “I had my own interview on one of the days!” Several fathers acknowledged they felt positively encouraged when the nurse observed their interactions with the infant and validated their role as a father. One father explained:

I read a book to [my son] while she [the PHN] was there. She watched and observed how I was holding and taking care of him. She liked the fact that I calmed him down so fast. She said I was doing a pretty good job as a father so I thought that was a good compliment.

One father even reported that he continued meeting with the PHN even when his partner chose not to. He was motivated to learn the essentials of infant care and explained that while, most times both parents attended the meetings with the nurse but there had been a few when his partner was not in the mood.

While the majority of fathers expressed that they were invited to actively engage in the home visits, one father indicated that he had to advocate on his own behalf to be more involved in working with the client and the nurse. He explained that:

Ah basically I didn’t need to be there so much. Like we learned some stuff but mostly it was like I wasn’t needed… I wasn’t needed for anything. I just needed to go, you know. And yeah, I asked her like if she could do some of the things with me, right? And she said, “Well we’ll just try to make another time” and stuff like that. So basically it was like I couldn’t do it right? So that’s when I started asking [to be more involved].

Responses to the question about involvement confirmed though that this father had a clear vision of his role to be involved in his baby’s care, particularly as the infant was premature and experienced some health concerns. He continues on to explain:

But after we had the baby, it seemed like I should be more involved because like I’ll have to take care of the baby too so I need to know these things. I have to take care of the baby.

Perceptions about the NFP changed over time and this was positive for almost all fathers, only two reported that they had not noticed a change. Each of these
fathers in responses to an earlier question had anticipated that the NFP nurse would provide information, fulfilling this expectation may have been confirming rather than a change for these two fathers. Examples of positive change highlighted the improved or building relationship as home visits continued over time. Collectively, fathers’ responses were that information was useful and relevant to daily needs and was delivered in a format that was useful to them. They highlighted that verbally discussing the materials, reviewing and then keeping written materials and participating in hands-on activities (e.g. with a doll) were all acceptable ways of transferring information about parenting. One father concluded by saying:

At first we were a little wary, but now you know we love having her [the PHN] come over. She’s really great. She helps with the baby a lot and we’re just very, very grateful that we have someone to help look out for [our daughter]. [The PHN] helps us with referrals to get subsidized childcare and that was something we didn’t even know about at first…. So it’s a lot less money….what can I say….. She’s just really great. I’m lost for words here.

One father who had previous parenting experience and who had previously received support through the Healthy Babies, Healthy Children program commented that:

I like this [the NFP], this public health nurse is way better than the other one like my ex had. She is doing a lot more… she’ll bring a doll over like when she was breast feeding … she would show …exactly how to do it.

Another described an important and welcome feature of his nurse’s behaviour:

She always knocked, that was a bonus. Our CAS [worker] just walks into the house.

Any fears or concerns that fathers may have held prior to the home visits were also explored in the interviews. Three fathers identified that they initially did hold a fear of being judged by the PHN. One explained that, “any fear is just her coming over to a dirty house. Like I say we love having her come over. She’s really great. Like I said, she’s almost basically another friend for us.” Another father further explained the stress though that he and his partner experience in preparing for each subsequent visit and his thoughts on working with professionals:

I kind of did [have some fears] because like it’s sort of someone watching us in our house. You know because we already had like so many specialists because she was premature and we still do, and it’s like we don’t want anybody… Like every time people come over we always scramble to make sure, to clean up everything….. you don’t know who’s
going to say *what*, and that’s the *truth*..... especially like we’re not like an older adults, but like in our 20s …the thing is we look younger and everything so. We take this into consideration.

In home visiting practice, families often hold the fear that additional surveillance by a PHN will result in a potential increase in CAS involvement. One father, in his response to a probe about a potential fear of increased CAS involvement stemming from his work with the NFP responded that he no longer held that fear:

> No not anymore, no, because now I see it’s [the NFP program] really *nothing to do* with CAS. It’s just looking out for the well-being of the baby and trying to help her have a *better life* in the future.

Another father commented that:

> In the beginning, yes. In the beginning, I had a sort of worry but not really. It’s only because a lot of people like to call CAS on me and I didn't know if she [the PHN] was one of those people.

After this comment, this father clarified that he understands now that the role of the PHN is to help him become a better parent.

The fathers provided several recommendations that they perceived would further promote paternal engagement in home visits. These recommendations included: 1) offer flexible scheduling so that families can meet outside of school or work hours; 2) use a variety of teaching methods to share information instead of relying exclusively on paper handouts or facilitators; and 3) identify times when the father can participate in his own individual home visit.

Overall the fathers found the NFP program acceptable and identified that they valued the program because of the information the PHNs were able to share, the PHNs’ abilities to connect them to appropriate community resources and the PHNs’ role in validating their experiences as fathers. It was also acknowledged that the NFP PHN became the service provider who was able to holistically assess their situation and then collaborate with all other agencies to meet the families’ needs. For example, one father concluded by saying:

> If you have a whole bunch of specialists...it’s just confusing. It was the Nurse-Family Partnership nurse who called everybody. Yeah! They all talked to each other. We made sure that all of them got each other’s numbers and stuff like that. WE actually had them *all* in our house once *together*. That’s a lot of people. So, it made it a lot easier!

In summary, fathers in this study viewed the NFP positively and they had a few suggestions for changes aimed at enabling their contact with the nurse. These young fathers seemed to want to share in parenting their infant but they
recognized their youth often features in how they are perceived. Although this study includes a small number of fathers there is remarkable synergy in the most welcome features of the program; it is convenient for these parents to participate, information is relevant and presented in multiple ways and perhaps most important was the promptness of the responses to father’s questions. The fathers felt respected by the PHNs and that they were ‘doing things right.’

6.3 Acceptability of NFP to Community Stakeholders

In the NFP program, the PHNs rely on community professionals to identify and refer pregnant women (<29 weeks gestation) who meet the program eligibility criteria (< 21 years, low-income and first-time mother) to this public health program. As the NFP PHNs work with their clients and assess their needs, they actively refer and advocate for their clients to seek out the supports provided by other agencies and professionals in the community. At an organizational level, the public health unit where the NFP is situated is invested in continuing to build upon existing collaborations with community agencies in order to provide the best level of services to this high-risk group of mothers.

In this study, a purposeful sample of ten community professionals who had either referred potential clients to the NFP or who had collaborated with a PHN in providing services to a NFP client or who was also providing professional services to an NFP client completed an in-depth qualitative interview. This purposeful sample of community professionals included physicians, nurse practitioners, social workers and nurses. These professionals worked in either a hospital, primary care setting or community-based agency that provides services and supports to high-risk pregnant women or families with children. This purposeful sample was well positioned to discuss the acceptability of a new community program for this population as the participants had worked in their current professions for an average of 18 years (range 7-33 years), had been employed in their current positions for an average of 9 years (range 2-21 years) and on average (based on personal estimates) each work with approximately 130 low-income, pregnant women in the last year.

These professionals expressed that the NFP program is acceptable and that it is an important evidence-based intervention that is addressing a key service gap in meeting the needs of a high-risk population.

It was identified that the NFP program is filling both prevention and primary health care service gaps for low-income, pregnant women. This population of young, low-income mothers was identified as a population that is traditionally hard-to-reach; difficult to engage in preventive services; and a challenge to retain in community-based or primary health care programs. It was consistently identified that the NFP program is addressing this gap in that it is targeted specifically to this population and that the nature of the home visits helps to
remove some barriers that many mothers experience in accessing services. One health care provider explained:

I think this program is probably the best attempt at reaching the hardest to reach families and women. …It fills a niche in an area where there is high need….My perception is that [the NFP] is an essential component of care for Hamilton women that are high risk and low-income. And I wish it wasn’t a pilot project. I wish it was here always. I think it’s a source of support for these women when they don’t have anywhere else to go.

Similarly, another primary health care provider explained:

It’s important. The reality is that no family doc, no matter how much they care about their patients, has the time to do what the nurses are doing. I’ll be perfectly honest, if there was no Nurse-Family Partnership, what would have happened with this high-risk patient?

In addition to filling an important gap in services, the NFP program was widely recognized as a core program focused on prevention and not a program where providers were only involved in reacting to crises. One social worker explained that:

The girls need the support. The babies need an extra set of eyes going in there. And instead of waiting until it’s too late and something happens, why not educate these girls right from the get-go so that they know what they need to do. We tend to wait until they fail and then react. So why not be proactive? These PHNs are helping them along the way so that we don’t have to react and spend money in that way. By the PHNs going in that is proactive.

The new collaborations that were developed between primary health care clinics and the NFP program were identified as an important new strategy for delivering antenatal health services to high-risk women. One health care provider commented:

This [the NFP] is really, really an essential component of primary care for these at-risk group of young teen women….It [the NFP] should be just an automatic response to a pregnant teen to be put into the Nurse-Family Partnership Program along with the primary care provider.

Several stakeholders identified that the NFP PHNs were particularly pro-active in working with families at high-risk for CAS involvement and it was recognized that the NFP has the potential to prevent child maltreatment. One social worker employed with a CAS commented that:
There’s nothing in terms of programs that CAS has, in my mind, that is as effective as this program [the NFP] and that can address the root of these issues ahead of time.

Community stakeholders were also asked to describe their perceptions of the NFP and their experiences of working with the NFP PHNs. The majority of the community stakeholders highly valued that the NFP program is an evidence-based intervention that when implemented, results in demonstrated outcomes for mothers and children. One professional stated that:

I think the biggest highlight is that there’s statistics to show it [the NFP] works. So that’s evidence-based practice and that’s what we want to implement in Hamilton. ….Certainly if we’re going to spend our money wisely, ..well how are you going to argue against the statistics [in support of] the NFP?

The NFP was perceived as a unique community-based public health service that was enrichment to the current Healthy Babies, Healthy Children program. In comparison to other parenting programs, stakeholders valued that the NFP was an intensive program that: 1) started in pregnancy and continued for a significant length of time; 2) was delivered by professional PHNs who had the time and skills to establish trusting relationships with a high-risk population of women; 3) followed a structured, comprehensive curriculum and; 4) promoted active collaboration with other community agencies.

The majority of the stakeholders positively commented on the NFP program’s schedule of frequent home visits and highlighted that this population of pregnant women and mothers require an intense dose of an intervention if behaviour changes are to be realized. One social worker from a community-based program providing support to pregnant teen mothers commented that:

I love what it’s [the NFP] is doing, that it’s really intensive; that it’s the one person they can work with throughout the two years. It is really great that you’re following all the developmental stages and staying with the client. That’s fabulous and this population needs that consistency and that trust relationship.

Health professionals identified the importance of initiating the home visits early in pregnancy and commented that this practice is important for establishing strong relationships with clients and that it is these relationships that increase the likelihood that the young pregnant woman would accept the program and stay involved with public health services through pregnancy and into the postpartum period.

Community professionals also identified the importance of having this type of intervention, for this specific population of high-risk women and children, be
delivered by a professional, and in particular, PHNs given their medical expertise and knowledge on a broad range of topics. Some stakeholders also commented on the importance of hiring PHNs who had the personality and skills necessary for skillfully engaging and interacting with adolescents and young families. For several of the professionals, when they knew that a professional nurse was involved with a family they also provided services to, this alleviated their stress and helped them ameliorate their decisions around calling child protection services.

For community members with experience in collaborating with the family visitors employed by the Healthy Babies, Healthy Children program, they identified that the nurses were more knowledgeable than the lay home visitors (with specific regard to medical and health issues including violence, addictions and mental health) and that overall, the PHNs provided a more intensive and comprehensive program compared to the family home visitor program. From a child welfare perspective, a few of the social workers acknowledged that this population of clients also view nurses as a credible source of information and that PHNs have a ‘better reputation’ compared to social workers; thus increasing the likelihood that clients will engage in the program.

The nature of the relationship that is developed and nurtured between the PHN and the NFP client was observed and commented on by several of the professionals interviewed. This relationship, characterized by trust, was perceived to be a positive aspect of this program. It was identified that the structure of this program, the frequency of home visits, and the continuity of care by a single PHN to a family promotes this type of relationship to be developed. One hospital-based health care provider identified that the NFP clients she has worked with all valued their relationship with their NFP PHN and identified her as an important source of formal support. This professional stated that:

I started to realize that young women who were involved with this program were coming to the hospital and had no problem saying, “I’m involved in the Nurse-Family Partnership program, I love the program and yeah, sure you can call [my NFP PHN] and you know, she [the PHN] has already booked a visit with me for Friday. I found the clients really are liking it [the NFP] more because they get to know this nurse more.

Overall, community professionals found the NFP program elements acceptable and particularly appreciated the extensive efforts the NFP PHNs took at the implementation stage to meet with community providers, explain the program and the referral process, and to establish procedures for communicating information about common clients. Community-based professionals who shared common clients with the NFP PHNs were also in a position to comment on the NFP curriculum. In particular they appreciated that the program was structured, that the curriculum was comprehensive and addressed issues of relevance to mothers and infants, that the NFP nurses used a range of materials in their work
with the clients, and that the program was highly interactive and that clients were given ‘homework’ which was perceived to increase their levels of engagement with the program.

Most of the community professionals had previous experience or partnerships with public health staff. The primary health care providers identified that the introduction of the NFP program to the community had created new opportunities for collaboration between public health and primary care. Hospital-based providers commented that the implementation of the NFP program has resulted in a more seamless flow of services for young, pregnant woman between the prenatal period, hospitalization for labour and delivery and then discharge back into the community. Professionals working within local Children’s Aid Societies commented that the introduction of the NFP program has resulted in greater collaboration between social workers and PHNs to address the needs of common clients. Individuals within the Children’s Aid Society also viewed parental involvement with the NFP program positively, and one social worker commented that:

The experience that I have had was very positive. As there was a nurse that was involved with the family, this was really making a difference in terms of how our agency was viewing this particular family, viewing the young parents and their ability to take care of their baby. …When we knew that the nurse was going to be involved…we knew she would be an integral part of the safety plan.

In terms of collaboration and partnership, the primary concern expressed by some service providers, particularly those providing community-based support to teen mothers was that there is a potential for service duplication between the NFP and their organizations.

Finally, stakeholders were asked to reflect on what they perceived to be the primary benefits of implementing the NFP program in Ontario. In response, most reiterated that the NFP is a unique prevention program that through frequent home visiting over a 2 ½ year period provides extensive support to a high-risk, underserviced population. It was identified that the PHNs were knowledgeable and able to address a comprehensive range of issues including: violence, self-efficacy, addiction, mental health, goal setting, infant-parent attachment, pregnancy and parenting. Many of the professionals also acknowledged that their shared clients spoke positively about their NFP PHNs and valued their relationship with the nurse and the focus on attachment and engaging with their infants.

Stakeholders were also asked to identify any specific challenges or issues that should be addressed with future implementations of the NFP or to address current concerns about the program. As identified above, a small number of professionals were concerned that the NFP was providing some services and
information that was already being provided by other community-based programs servicing the pregnant teen/teen mother population. Other professionals shared that while they appreciated the current level of communication between the NFP PHN and themselves, that they would welcome opportunities to for additional communication about the status of their common clients.

Several of the professionals also commented on the strict eligibility criteria for enrollment in the NFP and expressed a desire that the program be opened up to older mothers and multiparous women.

Finally, the most common concern expressed about the NFP was the fear that this pilot project would not be continued in Hamilton and that there would not be the political will to further evaluate and expand this program provincially.

### 6.4 Acceptability of the NFP to Public Health Nurses

For this project, the Nurse-Family Partnership program is being delivered by PHNs employed by Hamilton Public Health Services. The PHNs hired to deliver the NFP intervention as part of this pilot project were all internal hires and most had home visiting experience from their work in the provincially funded Healthy Babies, Healthy Children (HBHC) program.

The HBHC program is a provincial program delivered by all 36 public health units. It includes multiple elements including: universal post-partum screening, a universal phone call to all new mothers 24-48 hours post discharge from hospital and the offer of a single home visit by a PHN in the postpartum period. Women with children at-risk for developmental delays or families who may at risk for other socio-economic reasons will be assessed for their eligibility to enroll in the long-term HBHC home visitation program. This program is a blended model of home visitation, with family home visitors (lay or para-professional home visitors) providing the majority of visits. The ratio of family home visitor to PHN home visits in this program is 3:1.

In this acceptability study two groups of PHNs from Hamilton Public Health Services participated in separate focus groups. The six PHNs who were trained and who are delivering the NFP intervention participated in two focus groups. The average age of this group of PHNs was 40 years. All of these PHNs held a minimum of a Bachelor’s degree. This group had an average of 16 years of nursing experience (range 4-38 years), and an average of five years of experience in the HBHC program (range 1-10 years).

A separate focus group was conducted with four PHNs delivering services as part of the HBHC program. The average age of this group of PHNs was 28 years. All of these PHNs held a minimum of a Bachelor’s degree. This group had an average of 5 years of nursing experience (range 2-9 years), and an average of three years of HBHC home visiting experience (range 3-5 years).
6.4.1 Acceptability of the Intervention to NFP Public Health Nurses

This group of PHNs shared that upon learning that they would be employed to deliver the NFP program that they were excited about participating in this new initiative. Some of the PHNs shared that they were looking for an opportunity to develop new nursing skills and for a change in their current public health assignment. There was consensus that participating in delivering the NFP would provide them with the opportunity to finally “make a difference” in the lives of a high-risk targeted population of women and children. One PHN shared that in comparison to her practice in the HBHC program that:

You don’t really know if what you’re doing is having a positive outcome. [With the NFP], because the evidence is there, the research is being implemented, and then I feel better about what I am doing.

All of the PHNs talked about this exciting opportunity to deliver an evidence-based public health intervention. It was identified that being part of the NFP project was empowering for the profession of nursing and empowering to the individual nurse, knowing that she would be able to provide services of known effectiveness. One PHN explained:

You appreciate that it’s [the NFP] is evidence-based, so you know what outcomes the program is intended to achieve. So there’s an evidence base. It makes you feel more like a nurse.

In the focus groups, it became evident that the NFP program was providing the nurses with an opportunity to deliver a high level of nursing care that they had not experienced before in public health. As one PHN shared:

I feel more like a nurse in the NFP than I ever did in the Healthy Moms, Healthy Babies (sic). And we have a lot of skills and we weren’t always allowed to demonstrate them.

The PHNs shared that in the HBHC program they took on a role akin to a case manager and visited clients infrequently. In the HBHC program, as the family home visitor did most of the home visits, the PHNs perceived that they did not always have accurate assessment data about the family and did not have the opportunity to develop a therapeutic relationship with the family, thus limiting their abilities to effectively intervene.

The PHNs spent considerable time discussing the difference between the public health nursing roles in the NFP program and the HBHC program. Overall, they came to consensus that they perceived that there was a lack of evidence to support the HBHC program, they experienced a lack of professional satisfaction
in the HBHC role and felt undermined in being able to deliver appropriate nursing care. In comparison to the NFP, the HBHC program did not offer intensive training opportunities, a consistent, manualized intervention and that PHNs each delivered the program differently.

With regards to the professional nursing role, the NFP program provided these PHNs with opportunities to deliver professional nursing care, conduct thorough assessments of infants and women over time, and to use a variety of nursing tools and interventions (e.g. motivational interviewing, NCAST, PIPE) to support mothers achieve their personal and parenting goals. The PHNs also noted that compared to other public health programs, they were empowered to assess and address physical, emotional and mental health issues with their NFP families.

Overall, the NFP PHNs agreed that the NFP program is an acceptable intervention to deliver to a targeted population of low-income, young pregnant women and mothers.

With regards to the NFP training, the NFP PHNs enjoyed the opportunity to travel to the NFP National Service Office in Denver, Colorado. The most beneficial aspect of this training opportunity was to liaise with other international nursing teams to discuss implementation issues. The PHNs commented though that they were familiar with the content that was presented during the training sessions, so they did not find it was of great benefit to them. The onsite 1:1 training with a consultant from the NFP Prevention Research Centre was perceived as more beneficial for this team as it provided an opportunity to discuss and problem-solve local implementation issues with an expert consultant and to develop new nursing skills related to implementing the PIPE and NCAST intervention tools.

Key elements of the NFP program model were confirmed as acceptable to the PHNs. They noted that the schedule and frequency of home visits is an important component of the program. The weekly visits in the early prenatal period are essential for the development of a therapeutic relationship with the client. The PHNs also expressed surprise at how receptive their NFP clients have been to accepting the frequency of visits and the program duration (e.g. until the child is 2 years of age).

The nurses also noted that the enrollment cutoff (e.g. clients must be enrolled prior to 29 weeks gestation) was quite appropriate. Furthermore, the PHNs expressed that it is highly desirable to receive referrals and enroll women as early as possible during pregnancy. They explained that as much time as possible is required to develop the client-nurse relationship and to intervene so as to influence important prenatal maternal and child health outcomes. Several of the nurses agreed that they were achieving their greatest successes with clients they started working with in the first trimester or early second trimester of pregnancy. A few other PHNs countered however that for some mothers it would
be difficult to engage in the NFP too early in pregnancy as for some, the pregnancy does not seem “real” at that time.

Other acceptable elements of the NFP program included the processes for developing relationships and collaborating with other community professionals and organizations. The PHNs noted that to engage potential referral sources they actively liaised with each organization and visited each site in person to meet key referral sources and to give a presentation on the NFP program. They identified that this strategy was successful for increasing awareness about the NFP in Hamilton and for establishing 1:1 personal relationships with other health and social care professionals.

The PHNs identified that overall they perceive that the NFP program has been well received by other community agencies. Physicians, midwives and nurse practitioners in selected settings that provide care to the targeted population have identified eligible women for the program and referred them to the NFP. This program has also provided the NFP nurses with opportunities for ongoing collaboration and consultation as the client progresses through her pregnancy and into the postpartum period. The NFP nurses noted that there was some initial tension when the program was introduced between public health and community-based agencies providing services to adolescent mothers. The tensions arose as the agencies worked to figure out each other’s role and responsibilities for meeting the needs of adolescent mothers.

The nurses explained that the NFP has permitted them to “become a part of the system” again. Furthermore, some referral sources shared with the nurses that the NFP program was filling an important gap in services for this underserved and hard-to-reach population. One NFP PHN shared:

I did a presentation to a doctor’s office that serves a huge group of low-income, high-risk [mothers]. Talking to one of the nurses, I remember very distinctly she said…. “thank goodness, finally.” I think a lot of high-risk care providers weren’t referring anywhere because they knew that it would be three strikes and you’re out [reference to HBHC policy that after 3 ‘no-shows’ or 3 attempts to contact a client, then the client would be discharged]. They knew that nobody else is [seeing this population], it’s too high risk. That they were [primary care clinics] were the only ones doing it and I think a lot them felt alone in that.

Another PHN disclosed similarly that:

HBHC has failed them in the past. These are doctors that refused to refer to HBHC in the past, are now referring to NFP because HBHC in the past had failed them with these high-risk clients, the ones that they see more often.
In addition to an increased number of referrals from physicians’ offices, the PHNs also noted that they were receiving an increased number of referrals from the Children’s Aid Society. The PHNs also commented that in addition to having an increased presence in the health care system, they are also able to provide a unique service compared to other professionals. The NFP program provides the PHN with the flexibility to work with clients in a variety of settings (e.g. the client’s home, in the hospital post-delivery) and to address a broad range of health and social issues.

When asked about the benefits of the NFP program to the clients, the PHNs noted that the opportunity to establish a therapeutic relationship with clients enabled them to engage clients, retain them in the program and create opportunities for empowering clients to make changes in their lives. The PHNs also noted that the NFP curriculum and manual promotes the delivery of a consistent intervention by nurses to families. One of the most acceptable elements of the intervention to the PHNs, is the permission they have to ‘chase’ and ‘locate’ clients and the flexibility to meet with clients regularly to engage with them. They observed that resources are not available for this activity in other programs, and as a consequence, this highest need population is often not accessed and provided public health services. As a nurse-delivered program, the PHNs also emphasized that the NFP is highly acceptable as it provides them with the opportunity to assess and intervene with clients overtime and to evaluate the implementation of their interventions and to evaluate client outcomes.

The PHNs did acknowledge that there were some important challenges that they experienced in implementation and that satisfactory responses to some of these challenges have still not been found. Core challenges included: 1) identifying an appropriate cut-off for ‘low-income’; 2) addressing the complexity of entering data into multiple databases to meet the information needs for ISCIS (provincial database) and the NFP Client Information System; 3) managing a full caseload of high-risk clients; 4) finding time to complete two different documentation systems (paper-based and electronic charting); 5) noting that the multiple documentation systems resulted in them documenting the same information in different places; 6) finding time to revise and adapt the curriculum to Canadian content; 7) managing their time to travel long distances to meet with clients spread out across Hamilton, and 8) a lack of time to create all of the lesson materials.

6.4.2 Acceptability of the NFP to HBHC Public Health Nurses.

This group of PHNs described having positive perceptions about the NFP when they first learned about the program. They understood that it was an evidence-based nursing intervention of known effectiveness to prevent child maltreatment. They identified that they found the NFP to be an appealing intervention because it offered: 1) a structured curriculum; 2) a client-focused agenda and an opportunity to explore the mothers dreams and goals; 3) offered a structured schedule of visits; and 4) is a nurse-led program that facilitates the development
Acceptability of the Nurse-Family Partnership Program

of relationships and rapport with high-needs clients. Building on this last point, one of the HBHC PHNs suggested that:

I just like the idea that you didn’t have to negotiate with family home visitors anymore. You were working on your own. Because a lot of my struggle when I was a long-term nurse was making arrangements … a lot of it was hammering out the differences in our role. By the time it was done [the clients] didn’t know who … Like I’ve even asked clients recently who’s your nurse and they name the family home visitor. No that’s your family home visitor, who’s your nurse? Oh. Like it’s very confusing and then trying to get dates when we can both meet and getting shared goals and not contradicting each other and not … Yeah, so I like the idea of just having … working with that family autonomously. You can … you’re kind of steering the ship. I think in the Healthy Babies Program it was assumed that the public health nurse would be the case coordinator but I think in practice it doesn’t actually work out that well all time because the family home visitors are visiting much more often and their work is quite autonomous too. You don’t know what they’re doing when they’re there and it does feel kind of rotten to check up on them. So I think it would just be an efficient way to offer service. With the background we have and the education it makes sense that we would, we would take the lead.

This group of PHNs however did comment that they thought the client eligibility cut-off was too restrictive (e.g. mothers had to be enrolled prior to 29 weeks gestation) and recommended that mothers later in pregnancy be permitted to participate in the NFP program. The nurses also requested that they required greater clarification as to how to define a ‘first-time’ mother, so that they could appropriately refer HBHC clients to the program.

The HBHC PHNs were initially concerned about how the NFP program would be integrated with the HBHC program. They were concerned that the NFP program would replace the HBHC program and because the NFP targets first-time mothers only, that this would result in a high number of mothers not being able to access public health support. As the PHNs learned more about the program and worked with the NFP PHNs their perceptions have changed and they have observed that the HBHC program continues to run while the NFP program is providing services to a unique and high-needs population.

Additionally, with increased exposure to the NFP program, these HBHC PHNs have observed that with PHN involvement prenatally, that clients move seamlessly through pregnancy, their admission to hospital for labour and delivery and then back into the postpartum public health services. One PHN explained:

I saw one of the clients in hospital and she had you know a little bit of that teen attitude, just was really conflicting with a lot of the other nursing staff in the hospital and they were all flagging her as you know “this mom” and
everything, so they flag her for liaison follow up. So I go in and as soon as she finds out I’m a public health nurse you could instantly see the difference but she still had you know she was a little crusty … And ah, but she said, “No, I have a nurse and she’s awesome and she taught me about this car seat and I already know my car seat stuff and what is this hospital nurse think she’s telling me, you know?”. And so it was like oh you have an NFP nurse and oh you’re going to visit her, and like it was a completely different girl when she started talking about her NFP nurse. And I know some Healthy Babies’ clients don’t even know their nurse’s name or you know oh yeah I’ll call her when I get home, no I don’t want you to call her for me. You know like it’s … the relationship is not quite there as, as tightly.

These nurses noted an additional benefit to establishing this pattern of service prenatally is that clients involved with CAS are more likely to continue to receive the services and information they need once the infant is born because of the relationship they have established with their NFP PHN.

This group of PHNs however expressed concerns though that working exclusively with high-risk clients might lead to nurse burnout and to experience high levels of compassion fatigue. Given the nature of the NFP program as a pilot project they also perceived that the NFP team of nurses was increasingly becoming more isolated and had fewer opportunities to interact with other public health programs or attend regular meetings.

7.0 Discussion

From this qualitative case study, which involved the collection of in-depth qualitative data from 47 NFP stakeholders, we learned that the NFP program of nurse-home visitation to low-income, young first-time mothers is acceptable to clients, their partners, PHNs delivering the program and their PHN colleagues in the HBHC program, and community professionals who refer or provide professional services to NFP clients.

In Hamilton, the NFP is perceived to be an important evidence-based public health intervention and most community-based stakeholders were familiar with the US-based research that the NFP results in positive outcomes for high-risk mothers and their children. The opportunity to deliver an evidence-based nursing intervention was highly valued by PHNs.

Community professionals and PHNs identified that the introduction of the NFP in Hamilton is filling an important gap in health care services to this targeted high-risk group of young, low-income pregnant women and mothers. There was consensus that this specific population is typically hard-to-reach and difficult to retain in any program. Prior to the implementation of the NFP, community professionals held the belief that this group was not being effectively referred to
or serviced by the current Healthy Babies, Healthy Children program either in the prenatal or postpartum period. The NFP program has also created an opportunity to re-engage PHNs into the health care delivery system and new strategies for collaborating with child welfare and primary care colleagues have been developed.

There was general consensus that the NFP program is a unique program compared to other parenting programs for this population. It was identified that it focuses on prevention (rather than reacting to crises), starts early in pregnancy and continues until the child is two years of age and that the program structure provides PHNs with the flexibility to meet the needs of clients.

The most unique aspect of the NFP program was perceived to be the intensity of the work conducted by the PHNs and the frequency of home visits to clients. It was also valued that PHNs had the flexibility to offer visits at different times and to meet with clients in a variety of different locations. Many community stakeholders found the NFP program so acceptable that they expressed a desire to expand the eligibility criteria of the program to enroll women > 29 weeks gestation. However, the NFP PHNs delivering the program noted that it is important to actually enroll moms early in pregnancy, either late first trimester or early second trimester as this amount of time is essential for relationship development and for reviewing all of the information necessary to help improve prenatal and infant health outcomes, particularly as this population of pregnant women are at higher risk for premature delivery.

Community professionals also expressed that the eligibility criteria should be expanded to include older mothers (> 21 years) and mothers expecting their second or third child. Given the theoretical foundations upon which the NFP program has been based, a core principle of the NFP program is that it is to be delivered to first-time mothers only. It is believed that the period of transition to motherhood creates opportunities for women to be motivated to engage in change behaviours. So this finding that community professionals would like to expand the NFP eligibility criteria speaks to the need that implementing agencies need to provide the rationale for the eligibility criteria when introducing the NFP to a new community.

Other NFP program elements were also found to be acceptable to all groups of stakeholders including the curriculum content, the methods of delivering the curriculum and the focus on engaging both mothers and their partners.

Delivery of this intensive program by a PHN was supported by clients, fathers and community professionals who all acknowledged that nurses have expert knowledge and skills on a broad range of complex health and social issues including pregnancy, parenting, child development, family violence, addictions and mental health issues. To community-based health care providers, nurses were seen as the most credible source for providing health related information to
Acceptability of the Nurse-Family Partnership Program

this high-risk population. Delivering the NFP intervention has also emerged as a critical opportunity for capacity development for the profession of nursing. The NFP intervention is also providing PHNs with the opportunity to deliver evidence-based care using their full scope of practice, an opportunity that they perceived was significantly limited within the provincial Healthy Babies, Healthy Children program.

The opportunity for the nurse and client to develop a sustainable relationship, characterized by trust, over time was perceived by mothers, fathers, nurses and community professionals as a key component of the NFP and necessary for engaging and retaining a hard-to-reach population in a health promotion program. Stakeholders were unable to identify any other similar program that provided the opportunity for a professional to develop a relationship of this nature and intensity. Clients particularly appreciated the opportunity to work with one PHN as their primary care provider. This continuity of care was contributed to the successful development of therapeutic client-nurse relationships.

Although there was overall consensus that the NFP is an important program to implement and that it is perceived to be an acceptable method of service delivery for this targeted population, several important issues were identified that need to be addressed for future implementations of the NFP in Ontario or Canada. At the level of the implementing organization, systems for documentation and data collection need to be established that reduce duplication of data recording and entry and that are efficient; full-time administrative support is required to support nurses develop curriculum materials; NFP PHN caseloads need to be carefully evaluated and caseload numbers should take into consideration daily mileage; and supervisors need to be sensitive to and aware of the potential for PHN burnout and compassion fatigue.

At the community level, with regards to working in collaboration with community partners, the implementing agency needs to have a strong communication plan that creates initial awareness of the NFP program and clearly describes the program eligibility requirements (and provides rationale for same) and the process for referring to public health. Additionally, for community-based services that also provide support and parenting programs for adolescent mothers, it is essential that the implementing organization meet early and regularly with other agencies to clearly identify unique roles and responsibilities, in order to reduce any duplication of services in the community. The most common concern about the NFP program expressed by community stakeholders was the fear that the pilot study would not continue and that ongoing funding for the NFP would not be established.

This qualitative case study contained several strengths that contributed to the overall credibility of the study findings. First, triangulation of data sources occurred and from these unique sources, there was a consensus of themes that
emerged from the data. Second, credibility of the maternal and NFP PHN data was further established through the process of member checking.

A limitation of this study however is the small sample size in each stakeholder group. We were able to extend the purposeful sample of NFP clients from 10 to 18 to achieve data saturation. However, we were only able to recruit a sample of nine fathers. We are also limited in fully understanding the scope of fathers’ engagement in the NFP program as our sample contained men who had participated in the visits and were motivated to continue working with the NFP nurse and the client. In future studies, it will be important to identify and recruit partners who have not participated in the home visits to understand their motivation and reasons for not engaging with the NFP PHN. Additionally, the NFP PHNs are collaborating with many different community professionals from a broad range of community agencies and individuals from different agencies may have different experiences with the NFP program.

To address these concerns we have secured additional funding to expand this study to describe and explore the acceptability of the NFP program in Hamilton, Ontario. This additional funding will provide us with the opportunity to build on this foundational work that has been started with the generous support of the Provincial Centre of Excellence for Child and Youth Mental Health. With this additional funding, we will: 1) collect and analyze the quantitative survey measuring client perceived acceptability of the NFP; 2) conduct an additional set of interviews with NFP clients to explore their perceptions of the NFP program as they move through the Infant and Toddler components of the curriculum; 3) conduct interviews with other family members, including grandmothers; 4) continue to conduct focus groups with the NFP PHNs to explore their experiences of implementing the NFP program as mothers continue to parent through the infant and toddler stages; 5) to conduct additional focus groups with HBHC PHNs and their nurse managers and 6) to extend the purposeful sample of community professionals to 25.

8.0 Conclusions

The Nurse-Family Partnership program is an evidence-based, nurse-led intervention for low-income, young first-time mothers. The NFP program elements, including the frequency of visits and the curriculum components, are acceptable to a broad range of stakeholders including clients and their partners, PHNs and community professionals. The NFP program is unique in comparison to other community-based parenting programs and it is filling an important health service delivery gap for a specific targeted group of high-risk women and families who are traditionally hard-to-reach and retain in health care or social services. Given the complexity of the client health and social needs, it is imperative that this program continue to be delivered by nurses who are viewed as the most credible providers of this level of support and information.
With this knowledge that it is feasible to recruit and retain women in the NFP and that the intervention has been found to be acceptable within an Ontario context, this provides the research team with the foundation to now evaluate the effectiveness of the NFP in Canada.

9.0 Knowledge Exchange Plan

The findings from this acceptability study, and the corresponding feasibility study, are being actively used in our team’s activities to: 1) increase awareness about the NFP in Canada; and 2) advocate for provincial and national level support and funding for a randomized controlled trial to evaluate the effectiveness of the NFP in Ontario and two other jurisdictions in Canada.

Our knowledge exchange activities have included traditional approaches, including the presentation of data at national conferences, and more tailored knowledge exchange approaches such as meeting face-to-face with key decision-makers to discuss the NFP program and the acceptability of this intervention to community stakeholders and the feasibility of implementing the program and recruiting and retaining clients.

9.1 Knowledge Exchange Activities Accomplished to Date

- Establishment of a Canadian Nurse-Family Partnership Network. We are maintaining a database of individuals, including key decision-makers, who have expressed an interest in learning more about the NFP or collaborating on future evaluations of this intervention in Canada. There are currently 75 individuals who have consented to be in the database.
- Establishment of a Canadian Nurse-Family Partnership website (www://nfp.mcmaster.ca)
- Members of the NFP Research team continue to meet with key provincial decision-makers to increase awareness about the NFP and to seek support for continuing the NFP in Ontario. In these meetings, key messages emerging from this acceptability study have been developed for the appropriate target audience. Over the last year, members of our research team have had the opportunity to meet personally with representatives and key decision-makers from: the Ontario Ministry of Health and Long-Term Care, the Ministry of Child and Youth Services, the Ontario Ministry of Health Promotion, the Registered Nurses' Association of Ontario and the office of the Chief Medical Officer of Health (Ontario).
- Debbie Sheehan, the project co-PI also had the opportunity to highlight the results of these studies in a meeting with Minister Sophia Aggelonitis and Ted McMeekin and Emilee Irwin (from Minister Laurel Broten’s office) to demonstrate the important work that is occurring in Hamilton.
- Formal presentations (to provincial and national audiences as well as local stakeholders), which have included findings from this acceptability study, are outlined in Table 1.
**Table 1. Presentations**

<table>
<thead>
<tr>
<th>Presentation</th>
<th>Target Audience/Conference</th>
<th>Date</th>
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<tr>
<td>Feasibility and acceptability of an intensive nurse home visitation program for first-time, low-income pregnant women and mothers with young children.</td>
<td>4th National Community Health Nurses Conference, Toronto.</td>
<td>June 18, 2010</td>
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<tr>
<td>Promising to Make a Difference: Implementation of the Nurse-Family Partnership in Ontario</td>
<td>Public Health Nursing Summit (Registered Nursing Association of Ontario in conjunction with the Ministry of Health Promotion), Toronto.</td>
<td>April 27, 2010</td>
</tr>
<tr>
<td>Feasibility &amp; acceptability of the Nurse-Family Partnership in Hamilton</td>
<td>Board of Health, City of Hamilton</td>
<td>January 22, 2010</td>
</tr>
<tr>
<td>Feasibility &amp; acceptability of the Nurse-Family Partnership Program in Ontario.</td>
<td>McMaster Child Health Research Institute</td>
<td>January 21, 2010</td>
</tr>
<tr>
<td>The evidence for intensive nurse home visitation: The Nurse-Family Partnership program</td>
<td>3rd National Community Health Nurses Conference, Calgary</td>
<td>June 19, 2009</td>
</tr>
<tr>
<td>The evidence for intensive nurse home visitation: The Nurse-Family Partnership program</td>
<td>Canadian Public Health Association 2009 Annual Conference, Winnipeg</td>
<td>June 2009</td>
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### 9.2 Resources Available for Further Information on the Project

A series of one-page (double-sided) newsletters highlighting NFP activities in Canada will be developed. The first newsletter was distributed to members of the Canadian NFP Network and local community partners in April 2010. Subsequent newsletters, highlighting results from the acceptability and feasibility studies, will be distributed in May, June, July, August and September 2010.

More information about the NFP program origins, its implementation in the US and the outcome research can be found at [www.nursefamilypartnership.org](http://www.nursefamilypartnership.org)

### 9.3 Further Plans Regarding Knowledge Exchange Activities
This research project received additional funds from the Nursing Research Fund, Ontario Ministry of Health to expand the sample sizes for the qualitative case study. Data from the additional interviews and focus groups will be synthesized with findings from this component of the acceptability study and developed into a manuscript for submission to a peer-reviewed journal. To increase the exposure of the findings to a broad range of decision-makers we will target to have this article published in an open access journal e.g. BMC Public Health.
10.0 References


Appendix A: Interview Guide for NFP Clients

Thank you for taking the time to meet with me. <<Brief introduction >>
I am conducting this interview to learn more about women’s experiences in the Nurse-Family Partnership program and to understand if these types of home visits are acceptable to pregnant women and first-time mothers.

Please remember that you may choose to stop this interview at any point in time. There are NO right answers, I am here to learn about your experiences. The research team will also learn from your experiences in the home visiting program and this information will help them to create activities that the nurses can use in their work with other moms.

1. What has life been like since you had the baby (got pregnant)? Probe.
2. How did you find out about the NFP program? How did you get referred to the NFP program?
3. Why do you think you were offered the NFP program?
4. Why did you accept the referral into the NFP program?
5. What has it been like having a NFP public health nurse visiting you? (Probe with regard to the acceptability of the intensive support received during the NFP public health nurse home visiting.)
6. What have you liked about the visits? (Probe regarding the acceptability of the curriculum materials and content discussed during the home visits.)
7. How do you feel participating in the NFP program will help you? and your child?
8. What have you disliked about the visits? (Probe)
9. What helps you to participate in the NFP program? Are there any problems/issues that make it difficult for you to participate in the NFP program?
10. How does your family feel about your participation in the NFP program?
11. Have you ever considered stopping the visits with your NFP public health nurse? (If yes, why have you considered dropping out of the program?)
12. Would you recommend the NFP program to a friend? Why? Or Why not?
Appendix B: Interview Guide for Partners of NFP Clients

Participant ID #_______________  Date of Interview: ______________

Thank you for taking the time to meet with me.

I am conducting this interview to learn more about families' experiences with the Nurse-Family Partnership program and to understand if these types of home visits are acceptable to the partners and family members of pregnant women and first-time mothers. The ‘NFP’ program is a home visitation program where public health nurses regularly visit women starting early in pregnancy and then continue the visits through the child’s first year of life. The program is for first-time mothers.

Please remember that you may choose to stop this interview at any point in time. There are NO right or wrong answers, I am here to learn about your experiences. Also, anything you share with me will be kept confidential and will not be shared with anyone else. The research team will also learn from your experiences in the home visiting program and this information will help them to create activities that the nurses can use in their work with other families.

1. How did you first learn that <index client> was enrolled in the Nurse-Family Partnership Program?
2. What was your initial reaction when you learned that a public health nurse would be visiting regularly through pregnancy and the infant’s first year of life?
3. Please share with me your overall experience of having a public health nurse visit your family within the home environment.
   a. Probe for expected benefits/outcomes of NFP nurse involvement with family
   b. Explore how perceptions of nurse/program have changed/altered over the course of the intervention
   c. Identify potential fears of having the nurse visit within the home
4. Please describe your level of involvement in the home visits with the nurse
   a. Probe frequency of involvement in home visits
   b. Level of engagement with nurse and client
   c. Desire to be involved in the home visits
   d. Perception of public health nurses’ interest in having family member participate in home visit
   e. Index client’s preference/desire to have family member participate
5. What recommendations would make to the NFP program about enhancing the involvement of fathers or family members in the program?
6. If you knew another women pregnant with her first child, would you recommend the Nurse-Family Partnership Program to her? Why or why not?
Appendix C: Focus Group Interview Guide for NFP PHNs

Thank you for participating in this interview. The overall purpose of the focus group discussion is to understand your experiences of delivering the Nurse Family Partnership Intervention to young, low-income, first-time mothers in Hamilton. We are interested in learning specifically how acceptable the intervention is, how you have adapted the intervention for the Canadian context, and how the service has been integrated into your work.

1. To start, can you share with us your overall perception of the acceptability of the Nurse Family Partnership program of nurse home visitation as a method of providing support and services to first-time, low-income, pregnant women and mothers of infants < 12 months of age.
   a. How do their experiences compare to the level of services they were able to provide to the same population of mothers under the Healthy Babies, Healthy Children model.
   b. Explore acceptability of the intensity of the model (home visiting schedule), the service provider (nurse), the program entry point (e.g. visiting mothers prior to 29 weeks gestation), and the targeted population (low-income, young, first-time mothers).

2. As a NFP nurse, you were required to attend intensive training to learn about the NFP model of service delivery and the curriculum materials. Please share with us your overall experiences of the NFP training.
   a. Probe for experiences with online modules
   b. Intensive training at National Service Office, Denver, Colorado
   c. Subsequent training in Hamilton
   d. NCAST and PIPE training
   e. If the NFP was to be continued to be offered in Ontario, what recommendations for training would you suggest for future PHNs in this program. Identify important core elements to retain; identify elements or training modes requiring adaptation

3. Clients are enrolled in the NFP program before they are 29 weeks gestation. Please describe what strategies were implemented within your health unit to identify and recruit this targeted population.
   a. Probe for how participants were identified
   b. Probe for specific community collaborations developed
   c. Explore the strategies used to increase awareness of the NFP program
   d. Explore strategies used to promote recruitment into the program
   e. What impact did this process have on professional nursing practice

4. Please share with us your overall experiences of using the NFP curriculum (pregnancy) materials.
a. Probe for which materials are most useful  
b. Probe for which materials are not useful  
c. What information or materials needed to be added to address needs of Hamilton mothers  
d. How were the curriculum materials adapted?

5. Agencies that implement the Nurse Family Partnership Program sign an agreement to maintain fidelity to the program module that was demonstrated to be effective in three, longitudinal randomized controlled trials. (Circulate elements of model fidelity). Can you share with us your success in maintaining model fidelity.  
   a. What individual nurse or client factors supported/inhibited fidelity to the model?  
   b. What characteristics of the public health agency supported or inhibited the ability to maintain fidelity to the model?

6. Please share with us any other issues that would be important for us to be aware of in regards to either implementing the NFP program or the overall acceptability of the NFP program.

7. How has delivering the NFP program impacted your professional nursing practice?
Appendix D: Focus Group Interview Guide for HBHC PHNs

Thank you very much for agreeing to meet with us today to share your opinions and perceptions about the Nurse-Family Partnership Program of nurse home visitation.

<<Provide brief background information on NFP program using data from three randomized controlled trials>>

The Nurse-Family Partnership pilot study was implemented in Spring 2008. At that time, a group of five public health nurses were hired to deliver this intensive program of nurse home visitation to a targeted population of young, low-income, first-time mothers. Mothers are recruited into this program early in pregnancy (e.g., before 29 weeks gestation) and as part of this pilot, the families received home visits until the child was 12 months old.

1. When you first learned of the Nurse-Family Partnership intervention, what were your overall perceptions of this program?
   a. Probe for perceptions related to level of service provider (nurse only versus mixed model of nurse and family visitor); target population; point of entry into program (e.g., 29 weeks gestation); level of intensity and frequency of home visitation; availability of intensive training and curriculum materials for NFP nurses.
   b. Probe for perception of the NFP program as an enhancement to the current Healthy Babies, Healthy Children program.
   c. Over time, how have your perceptions of the NFP program changed?

2. What overall benefits do you perceive there are in providing an enhanced intervention to young, low income, first time mothers?

3. What challenges do you think exist in trying to adopt or promote this model of home visitation as an enhancement to the current Healthy Babies, Healthy Children program?