

COMMUNITY PERSPECTIVES ON LONG-TERM HOME VISITING

IMPLEMENTING A LONG-TERM HOME VISITING PROGRAM FOR VULNERABLE,  
YOUNG MOTHERS WITHIN A COMMUNITY: PERSPECTIVES FROM HEALTHCARE  
AND SOCIAL SERVICE PROVIDERS

By

SHELLY-ANNE LI, BSc(Hons)

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AUTHOR:                                    Shelly-Anne Li, BSc(Hons) (University of Toronto)

SUPERVISOR:                                    Dr. Harriet MacMillan

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## **ABSTRACT**

Background: To date, little is known about the perspectives of healthcare and social service providers on the acceptability of long-term home visiting programs serving low-income, first-time mothers within a community. The present study reports on the experiences and perspectives of community professionals who participate in program referrals or deliver auxiliary services to these mothers who are enrolled in the Nurse-Family Partnership (NFP), a targeted nurse home visitation program.

Methods: The present study comprised two phases. In phase one, a secondary qualitative data analysis was conducted to analyze a purposeful sample of 24 individual interviews with healthcare and social service providers, which was part of a larger qualitative case study examining adaptations required to increase the acceptability of NFP for families and service providers in Hamilton, Ontario, Canada. In phase two, identified themes from phase one were further explored and confirmed through individual, semi-structured interviews with service providers using a qualitative descriptive approach.

Findings: Healthcare and social service providers recognized the added value of NFP to existing community services for low-income, first-time mothers. The public health nurses (PHNs) who delivered the NFP intervention were perceived as playing a crucial role in connecting the first-time mothers to community services, preparing them for motherhood, and for preventing or ending the involvement of child protection services. NFP services were not perceived as interfering with the logistics of existing services being delivered; they were viewed as addressing an important service gap.

Discussion: This is the first qualitative study to examine the acceptability of a home visiting intervention from the perspectives of healthcare and social service providers in a community

context. The study findings have relevance for policymakers by informing the general understanding of how a new early childhood prevention program is integrated among existing community-based supports servicing low-income, first-time mothers.

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## **CHAPTER 1: INTRODUCTION**

### **Prenatal and early childhood home visiting**

Pregnant women with limited financial, psychological, and personal resources are at high risk for adverse pregnancy outcomes including preterm birth or low-birth-weight babies (McCormick et al., 1990; Sable & Wilkinson, 2000). These women may require guidance, support, and assistance from health and social service professionals within their community (Issel, Forrestal, Slaughter, Wiencrot, & Handler, 2011). Prenatal and early childhood home visitation is one strategy that facilitates access to and use of health and social services within the community by vulnerable populations of pregnant women and families with young children (Gomby, Larson, Lewit, & Berhman, 1993). Home visiting serves as an early prevention strategy for child abuse and neglect (Azzi-Lessing, 2011). Through prenatal home visiting, the expectant women typically receive a range of structured services which include educating parents about maternal and child health, supporting parents to create a safe and nurturing home environment for the child, promoting economic self-sufficiency, giving emotional support, and connecting families to healthcare and social services within the community (Howard & Brooks-Gunn, 2009; Wasik & Richard, 2004). The relationship forged between the home visitor and the family tends to serve as the first step in connecting them to their community resources.

Home visitation services can be structured as a distinct program within the public health system, or as an integrated component of comprehensive prenatal care. Home visiting is also considered as one of the primary service delivery strategies embedded in an enriched early childhood system developed by the community (Daro, 2009), which endorses strong parent-child relationships, responsible parenting, safety and healthy development (Supplee & Adirim, 2012). It is considered a key component of an effective system of care for early childhood. However,

embedding an evidence-based model may not be effective if decision makers do not consider the compatibility of home visiting models with the local population and community contexts; the choice and implementation of each program within the community must be carefully selected for a target population in mind (Daro, 2009). In the Canadian context, there is a tendency to offer an initial dose of universal (non-targeted) home visiting to families and then small doses of more intensive home visiting to a specific target population (Gates, 2010). Home visiting programs vary, depending on the age of the child, range of services being offered, content of the program curriculum, risk status of the family, as well as the frequency and length of the visits. Programs also vary by intervenors who deliver the services (nurses or paraprofessionals), how rigorously the program is implemented, and the type and number of outcomes being examined (Klebanov, 2013).

Despite the wide range of variation among home visiting programs, they have several characteristics in common. These include the convenience for families to receive the program in the context of their own home, the goal to make a positive impact on families (Gomby, Culross, & Behrman, 1999), and the belief that altering parenting behaviour can possibly achieve measurable and long-term benefits for the child's development (Klebanov, 2013). Home visitors can deliver supplemental services that are otherwise constrained by managed care or budgetary concerns, offer high-risk families and children a degree of social support that is often difficult to provide in clinical settings, serve as a liaison between the family and clinicians, and reinforce preventive care and peer support (Chapman, Siegel, & Cross, 1990). Furthermore, home visitors often serve as advocates for vulnerable families to improve their access and use of healthcare and social services (Council on Child and Adolescent Health, 1998).

### **Role of community context**

Home visitation services often interact with and are influenced by the community in which their clients live. Specifically, the governing public policies, quality and accessibility of community resources, as well as the community characteristics in which families reside collectively affect the service delivery of home visiting programs (Bradley et al., 2009; Daro, 2006; McGuigan, Katzev, & Pratt, 2003). Most home visiting services work to connect families with appropriate resources including services for health and mental health care, childcare, and assistance with basic needs such as food and housing. Programs that are embedded in comprehensive community services that target high-risk families are more likely to be an effective early-intervention strategy to improve health and well-being of children (American Council on Child and Adolescent Health, 1998). Further, programs that offer a high number of linkages within communities that have a sufficient supply of appropriate resources for the families are likely to achieve more favourable outcomes when compared to similar programs in communities with scarce and low quality resources (Johnson, 2009). As such, the effectiveness of home visiting programs is heavily impacted by the context of the community and the relationships formed with other existing community services that support high-risk families. For instance, in the US, some legislation requires states to demonstrate how the proposed home visitation model would fit in with existing community efforts, and whether they have a plan to promote and collaborate with other social, health and family services, prior to approving implementation (Daro, 2009).

*Collaborative partnerships.* Collaborative partnerships among service providers are a crucial aspect of health services delivery. Establishing alliances among community stakeholders and organizations from multiple sectors who work together to promote and sustain community health

has become an important strategy for meeting community health needs (Hicks, Larson, Nelson, Olds, & Johnston, 2008). Furthermore, there is evidence that home visiting programs are more likely to be effective when servicing families with multiple needs. Specifically, home visitors establish strong partnerships with other healthcare and social service professionals who are providing vital support within the same community (Daro, 2006; Daro & Cohn-Donnelly, 2001; & Schumacher, Hamm, Goldstein, & Lombardi, 2006). For instance, home visitors can form partnerships with primary care physicians, pediatricians, other clinicians and social workers and collaborate in order to provide essential education and support to high-risk families. This is thought to improve the family's adherence to medical prevention and treatment regimens (Council on Child & Adolescent Health, 1998). Home visiting services are considered most successful when: 1) the community in which they serve understands the program and supports development; 2) the program secures strong community collaboration, support, and ongoing involvement; 3) there is a spirit within the program to collaborate with other early childhood programs; and 4) the program is implemented in communities where there is an identified need that is not being sufficiently met by existing services (Olds, 2007).

### **Nurse-Family Partnership**

The Nurse-Family Partnership (NFP) is an evidence-based prevention intervention with persisting effects on improving maternal and child health outcomes in the US. This intensive prenatal and postnatal home-visiting program was originally founded by Olds and colleagues in 1977. NFP was the first home visitation program tailored specifically to young, socially disadvantaged first-time mothers. The NFP program is a research-based and theory-driven model. Research from the trials has guided decisions for designing the family eligibility criteria as well as the content of the program (Olds, 2007). The program is also grounded in theories of

human ecology (Bronfenbrenner, 1979), self-efficacy (Bandura, 1977), and human attachment (Bowlby, 1969). Together, these theories form the pillars for shaping the framework for NFP. Over the past 35 years, the NFP program has been gradually expanded to over 40 US states, and has been proven effective in improving pregnancy outcomes as well as maternal and child health and psychosocial wellbeing. NFP has been selected as one of the best-known models for home visitation programs (Gomby, 2005; Howard & Brooks-Gunn, 2009).

Through a series of three large-scale randomized controlled trials (RCTs) conducted in New York (Olds, Henderson, & Tatelbaum, 1986), Tennessee (Kitzman et al., 1997) and Colorado (Olds et al., 2002), Olds and his team have been evaluating the impact of NFP with the purpose of improving parenting behaviours and environmental conditions, ultimately to prevent maternal and child health problems. Participants in the three RCTs have been followed (Elmira, New York, follow-up at 19 years; Memphis, Tennessee, follow-up at 9 years; Denver, Colorado, follow-up at 9 years) to examine the long-term effects of their nurse home visitation, which serves as the basis of the Nurse-Family Partnership program. Specifically, they studied the impact of the home visiting program on the child's development and behaviour, health outcomes of the mother and baby, child maltreatment, as well as parenting and maternal life course (Kitzman et al., 1997; Olds et al., 2010; Olds, Henderson, Chamberlin, & Tatelbaum, 1986; Olds, Henderson, & Kitman, 1994; Olds, Henderson, & Tatelbaum, 1994). With support from the evidence-based trials, expert opinion, field lessons and theoretical rationales, a total of 18 NFP model elements were developed for implementing agencies as a guide to ensure a high level of confidence that outcomes will be comparable to those measured in research (Appendix F). Elements 16 and 17 specifically refer to the importance of partnerships with other organizations, community support and recognition, and the level of community involvement required for



successful program implementation within the community (NFP, 2011). Given that community support within the local context serves as one of the key elements in determining the program's implementation success, it is crucial to understand the perspectives of healthcare professionals within the community who form the broader support network system in which NFP is situated.

### **Problem statement**

While the program has been widely implemented in US communities, there is currently no evidence that the NFP is effective in Canada. Intervention uptake of the NFP may be affected by governmental, cultural, and geographical attributes unique to Canada. To date, the NFP has been evaluated in Hamilton, Ontario (Jack et al., 2010) for its acceptability within the Canadian context. In-depth explorations of the perspectives surrounding NFP acceptability from PHNs, the mothers, and their families have been documented; however no other study has examined factors that influence acceptability from the perspectives of the healthcare and social service professionals for home visitation programs.

### *Cultural differences*

Even though Caucasian is the ethnic majority within both Canada and the US, Canada has a larger proportion of immigrant minority population. While Hispanics and those of African descent make up a much larger proportion of the population, the US also has a proportionally smaller East Asian and South Asian population compared to Canada. The latest National Household Survey (2011) reported an increase of 20.1% of the Aboriginal population in Canada, and is considered to be the fastest-growing and youngest subpopulation. Presently, Aboriginal peoples constitute 4.3% of the total Canadian population (Statistics Canada, 2013), while Native Americans make up only 1.4% of the total American population (US Census Bureau, 2013). A study comparing Aboriginal mortality rates in Canada, the US, and New Zealand reported that

Aboriginals in Canada are at higher risk for infant mortality and shorter life expectancy than Native Americans in the US and Maoris (native inhabitants) in New Zealand (Travato, 2001).

### *Healthcare system*

Canada has a national health insurance program where every legal resident is covered by a publicly-funded provincial or territorial healthcare plan. Although residents in Canada may be covered under a different plan depending on their primary residence, everyone has equal access to a comprehensive range of services (Canada Health Act, 1984, Ridic, Gleason, & Ridic, 2012). Reimbursement for accessed healthcare by the patients exclusively takes place between the healthcare provider and the government. In contrast, Americans who would like to have access to healthcare must purchase health insurance from private companies (with the exception for economically disadvantaged individuals, disabled people, seniors, and pregnant women, where public health insurance is possible) (Medicaid, 2013; Ridic et al., 2012). Access to healthcare largely depends on how much residents can afford; for health insurance in the US, the price premiums will vary upon their health, income, and whether they register for a bronze, silver, or platinum coverage. For pregnant women, Medicaid only covers care related to the pregnancy, labour, delivery, pregnancy-related complications, and perinatal care up to 60 days postpartum. To be eligible, the applicant's income level must be at least 133% below the federal poverty line. Pregnant women who are eligible for Medicaid are also eligible for NFP, but because Medicaid in most states only cover pregnancy-related expenses, other health and social services are not covered (Medicaid, 2013). Therefore, clients in the NFP program could be introduced to a full range of community services and resources, but may not have the funds to meet these needs. For example, a NFP nurse may suggest that the client visit her family physician about an asthma problem, but the client may not be covered for this health service. Furthermore, each state has

different Medicaid eligibility criteria for pregnant women. In Canada, health insurance already covers a wide range of health services for legal residents, including pregnant women. Annually, Canadians pay about 11.4% of national gross domestic product (GDP) to ensure 100% of the residents in this single-payer system, versus 17.4% of GDP to insure 85% of Americans (Helfgott, 2012). As of 2012, about 16% of Americans are not covered by health insurance (Ridic et al., 2012).

### *Population density*

There are major differences in the population density (PD) (measured by people (ppl) per square kilometer (km<sup>2</sup>) of land area), between Canada and the US. The average PD in the US (33.2 ppl/km<sup>2</sup>; US Bureau, 2012) is almost 10 times the average PD in Canada (3.7 ppl/km<sup>2</sup>; Statistics Canada, 2011). The three trials that were conducted to evaluate the effectiveness of the NFP program were from New York (465 ppl/km<sup>2</sup>), Colorado (19.05 ppl/km<sup>2</sup>), and Tennessee (60.5 ppl/km<sup>2</sup>) (US Census Bureau, 2012), all of which had PDs higher than any of the Canadian provinces and territories with the exception of Prince Edward Island (24.7 ppl/km<sup>2</sup>) (Statistics Canada, 2011).

In summary, the publicly funded healthcare system (vs. the privately insured in the US), the relative population scarcity where travelling large distances between homes are required, and the different multicultural mosaic may influence the uptake and implementation of the NFP within a Canadian community. Given the powerful role of the community context and the significance of forming collaborative partnerships for home visitation programs, it is crucial to understand the perspectives of healthcare and social service professionals who serve within the community. These stakeholders are involved in the referral process or delivery of auxiliary, community-based services to enhance the support and care provided by the nurse home visitors.

Collectively, there is the potential for them to have an impact on the outcomes of the NFP program.

## **Purpose**

This thesis will address the literature gap on factors that influence acceptability from the perspectives of the healthcare and social service professionals for home visitation programs. The study's findings about the factors influencing the acceptability of NFP from the perspectives of these community professionals may be highly relevant to provincial jurisdictions and health service researchers who are taking part in testing the program effects using a randomized design, which is the next phase of the NFP implementation in Canada. Currently, a randomized controlled trial is being conducted in British Columbia to evaluate the effectiveness and to determine the adaptations need in order to implement NFP with the greatest fidelity. The present study brings together the perspectives of community professionals who can help inform health administrators about the community readiness for implementation of an evidence-based home visitation within the Canadian healthcare system. Policymakers have become increasingly aware about the significant impact that a child's first five years of life has on his or her cognitive, emotional and social capacity (Cannon & Karoly, 2007; National Centre for Children in Poverty, 2008; Ontario Ministry of Children & Youth Services, 2007). As such, they are becoming more attuned to evidence-based home visitation models as an important proponent for preventing harmful outcomes for vulnerable children and families, facilitating school readiness, and equipping parents with the education to care for their children (Karoly et al., 1998). These study findings will likely have relevance to policymakers for improving the general understanding of how a new early childhood prevention program is integrated among existing community-based

supports servicing low-income mothers. The study is unique in that the information is based on listening to voices from various perspectives that are typically unheard.

## **Research Questions**

The central, overarching research question that guided this qualitative study was:

*How do healthcare and social service providers within the community perceive the acceptability of the Nurse-Family Partnership home visitation program in Hamilton, Ontario?* To further refine the central question, three additional sub-questions guided the conduct of the study and the analysis of the data:

1. What are the perspectives of healthcare and social service providers about the NFP program in the context of the community?
2. How has the implementation of NFP affected existing social and healthcare services within the community?
3. What problems have healthcare and social service providers encountered when communicating or collaborating with NFP professionals?

## **Significance**

Extending beyond the initial findings, which identified NFP as an acceptable and important evidence-based intervention for meeting the needs of young mothers with low socioeconomic status (Jack, Busser, Sheehan, Gonzalez, Zwygers, & MacMillan, 2012), the results of this study will provide direction for strategic approaches to improve referral process and service delivery for the NFP, as well as provide insight into how community stakeholders view and position NFP within the community context servicing young, low-income mothers in Hamilton, Ontario, Canada. This secondary qualitative analysis also helps to outline potential factors influencing acceptability for health services interventions that involve multiple healthcare

and social service providers. Based on the literature to date, this is the first qualitative study focusing on community professionals' perceptions on the acceptability of a home visiting program. Finally, given the limited amount of literature discussing the methods for secondary analysis of data using a qualitative descriptive approach, the present thesis can help inform the process of conducting secondary data analyses using this qualitative method.

## **Overview**

The thesis included two distinct phases. The first phase involved a secondary analysis of data from the qualitative case study (Jack et al., 2012). This phase was part of a larger concurrent parallel mixed methods study (Jack et al., 2010) to assess the feasibility of implementing NFP in Canada as well as the acceptability of NFP among young low-income mothers and their families, PHNs, and the community stakeholders. The qualitative data from healthcare and social service providers (who were community stakeholders from the primary study) were analyzed and themes were identified surrounding the experiences and perspectives of community professionals who provided ancillary or auxiliary services to NFP clients.

The second phase consisted of individual, semi-structured interviews with community professionals to serve as a follow-up for elaborating and confirming the initial findings using questions tailored to the present study's central, overarching research question. Qualitative research was used to explore participants' perceptions and experiences of the phenomenon. To guide the conduct of the study, qualitative description (QD) was selected as the primary design because it allowed for a comprehensive summary of the providers' perceptions about the factors influencing the acceptability of this intervention (essentially what the proposed research question is trying to answer). The ecological theory by Bronfenbrenner (1981) served as a theoretical framework for the entire thesis.

*Chapter 1: Introduction* presents the research topic, the purpose, the nature, significance of the study, and provides a brief overview of Bronfenbrenner’s ecological theory. *Chapter 2: Background* provides a detailed description of the NFP and summarizes the current state of evidence regarding its effectiveness. In addition, it includes a discussion of the ecological model and its relevance to the NFP, and provides a summary of the existing literature documenting multiple stakeholders’ perspectives on early intervention programs. *Chapter 3: Methods* outlines the rationale for conducting a secondary data analysis (phase one) and use of the qualitative descriptive method for analysis (phase two), provides a background of the primary study, describes the participants and sampling strategy and finally, summarizes the data analytic process and techniques used for maintaining rigour. In *Chapter 4: Findings*, themes, categories and codes are presented and supported by exemplary quotes from the data. Finally, *Chapter 5: Discussion* entails a discussion based on the findings, future implications, as well as a review of the strengths and limitations of the present study.

### **Definition of Terms**

The following list provides a brief definition of terms that will be used throughout the thesis.

*Awareness:* Separate and independent agencies in a community who claim to have knowledge of each other’s services but no effort to date has been taken by any of the parties to organize their activities with the exception of those that must conform to individual agency service missions (Ontario Ministry of Child and Youth Services, 2010).

*Collaboration:* Agencies jointly planning services that could be offered to families or caregivers and actively modifying their own services based on suggestions and input from mutual discussions. It is also defined as a recognized relationship among different sectors or groups,

which have been formed to take action on an issue in a way that is more effective or sustainable than might be achieved by the public health sector acting alone (Ontario Ministry of Children and Youth Services, 2006; Public Health Agency of Canada, 2010).

*Communication:* Agencies in the community that actively participate in information sharing (Ontario Ministry of Child and Youth Services, 2006).

*Conformability:* The extent to which the study's findings are shaped by the respondents and not from the researcher's bias or interest (Lincoln & Guba, 1985).

*Credibility:* Measuring or testing of what is actually intended of the research question (internal validity) (Shenton, 2004).

*Dependability:* Denotes the stability or consistency of the inquiry processes being employed over a period of time (Krefting, 1990).

*Intervention:* An activity or set of activities aimed at modifying a process, course of action or sequence of events in order to change one or several of their characteristics, such as performance or expected outcome. *Public health interventions* were intended to “promote or protect health or prevent ill health in communities or populations” (World Health Organization, n.d.).

*Early intervention:* Intervening early and as soon as possible to tackle problems emerging for children, young people and their families or with a population most at risk of developing problems. Early intervention services are provided to mitigate the anticipated long-term effects of such challenges without stigmatizing children and youth. (Sharp & Filmer-Sankey, 2010; Ontario Ministry of Children and Youth Services, 2006)

*Partnerships:* In this thesis I will use the Public Health Agency of Canada's definition of partnerships. Under the Glossary of Terms on the website, it states: “collaboration between individuals, groups, organizations, governments or sectors for the purpose of joint action to



achieve a common goal.” The concept of partnership encompasses both informal understanding and a formal agreement (which may be legally binding) among the parties about the roles and responsibilities, as well as the goal and steps to achieve the goal (Public Health Agency of Canada, 2010).

*Prevention:* This is aimed at promoting health, preserving health and restoring health when it is impaired and to minimize suffering and distress (University of Ottawa, 2013).

*Referral:* The direction of people to an appropriate facility, institution or specialist in a health system, such as a health centre or a hospital, when health workers at a given level cannot diagnose or treat certain individuals by themselves, or face health or social problems they cannot solve by themselves (World Health Organization, 2004).

*Reflexivity:* Defined as “an attitude of attending systematically to the context of knowledge construction, especially to the effect of the researcher, at every step of the research process” (Cohen & Crabtree, 2006, accessed from <http://www.qualres.org/HomeRefl-3703.html>)

*Saturation:* A point in data collection when no new relevant information emerge from the data (Saumure & Given, 2008).

*Transferability:* The extent to which the findings from one study can be applied to other contexts (Shenton, 2004).

*Triangulation:* A multimethod approach to data collection and data analysis, whereby different sources or data collection/analysis methods may be used as a test of validity of the findings (Shenton, 2004).

*Vision:* Description, in words, that outlines the ideal situation of the group’s work (Public Health Agency of Canada, 2010).

## **CHAPTER 2: LITERATURE REVIEW**

This chapter serves two purposes for the thesis. First, it provides a summary of the state of evidence in the existing literature relevant to the research question, including an appraisal of the methodological strengths and weaknesses. Second, it provides an overview of background topics of relevance to the study, including Bronfenbrenner’s ecological model, and the NFP program (both US and Canadian studies to date).

### **Search strategy**

The following databases were searched for the time period 1974 to April 2014 to identify relevant publications exploring the perceptions of community professionals who are involved with early intervention or prevention programs for children. These databases included MEDLINE, EMBASE, CINAHL, PsycINFO, AMED, and ERIC. A highly sensitive search strategy was developed using terms relevant to the current thesis topic (“early intervention”, “Nurse-Family Partnership”, “professionals”, “perceptions”, and “children”) as well as appropriate thesaurus terms (Appendix A). The search yielded a total of 1133 references, which were subsequently hand screened for relevance. Of the relevant articles, a hand search of the reference lists was conducted in order to capture any relevant citations which were not retrieved by the systematic literature search. Gray literature was examined by searching ProQuest Dissertations & Theses and by hand searching websites, blogs and forums of North American and international organizations (public and private) related to early intervention or prevention programs for children. A total of four articles met the criteria for this review. Table 1 displays the participants, purposes, methods, and results for the articles considered for this review.

To be fully immersed in the constructs related to the thesis, a variety of sources were searched for the relevant literature. These include databases for retrieving peer-reviewed papers,

books, book reviews, and online resources such as newsletters, minutes from the Community Advisory Board, and presentation slides. This approach was undertaken to understand Bronfenbrenner's ecological framework, to summarize the state of evidence and describe NFP, and to clarify definitions of concepts relevant to the thesis topic.

### **Current state of evidence**

Based on the literature search described above, no studies explored the perceptions of healthcare and social service providers regarding the acceptability of a home visiting program. Of the 1133 references, only four were directly relevant to the thesis topic. The selected references were all qualitative studies that explored perspectives of community stakeholders about early intervention services for children. This is not surprising, considering that qualitative approaches provide more in-depth descriptions of an issue compared to quantitative approaches. All of the references are peer-reviewed articles. In the subsequent sections of the thesis, the studies will be summarized.

Lester, Birchwood, Tait, Shah, England, and Smith (2008) explored the facilitators and barriers to partnerships working between health and the voluntary and community sectors in the context of a specialized treatment (Early Intervention Services; EIS) for young people (ages 14 to 35) with first episode of psychosis. Semi-structured interviews and focus groups were used to collect data from three key groups: voluntary and community sector group leads, EIS team members and senior management staff in mental health provider funding bodies in the West Midlands region of England. Glaser's constant comparison method (1965) was used to interpret the data. Main concepts and categories were initially identified from line-by-line coding. Key categories were subsequently compared across interviews and then reintegrated into common themes. Facilitators to developing partnerships working included the coincidence of agenda

(shared priorities between stakeholders underpinned forming of informal and formal partnerships), complementary skills (most of the voluntary and community sector leads were excited to form partnerships with EIS because they felt the partnership would provide holistic services which benefits the client), and joint training initiatives (such initiatives would allow for mutual understanding of each organization's perspectives). Barriers to partnership working included cultural differences (common misunderstanding about associations between psychosis and violence with referrals for EIS), investing in partnership (concerns about time and resources required to make any form of partnership), and funding issues (funding constraints for EIS reduced their ability to take development work that was required for creating future partnerships with the voluntary and community sector).

Lester et al.'s study had an appropriate sample size for the purposes of their research questions, a clear data collection method, and proper use of the constant comparison method (Glaser, 1965). However, the study did not report any techniques to maintain rigour. As such, the findings were vulnerable to threats of credibility, dependability, confirmability, and transferability. Further, the study interviewed only one individual within each voluntary and community sector (who was the organizational lead in almost all cases); it is likely that other team members in the same sector may have had different perspectives. As such, the findings were limited to the perspectives of the organizational leads.

Dinnebeil, Hale, and Rule (1999) explored the parents' and service coordinators' perceptions of program practices that affected collaboration between the two groups in the context of an early intervention program. The authors analyzed the open-ended questions (4) that were part of an 81-item questionnaire regarding collaborative relationships responded by participants (N=623). For the current study, only the open-ended questions (4) were used for the

analysis. Results from the 78 close-ended questions were reported elsewhere (Dinnebeil, Hale, & Rule, 1996). Content analysis procedures were used, coupled with the constant comparative method where categories were continually refined using a step-by-step process (Glaser & Strauss, 1967). Five major categories emerged from the comments of respondents related to factors that influenced collaboration between parents and service coordinators (Table 1).

*Table 1.* Findings from Dinnebeil et al., 1999

<b>Category</b>	<b>Finding</b>
Program philosophy and climate	Professionals who truly support collaboration and working with families will exhibit behaviours that will send a message that reflects these basic principles and philosophies.
Community context	Service coordinators felt that other agencies or the larger community service system influenced the nature of the program’s services, which in turn influenced the collaboration between parents and service coordinators. For example, scheduling assessments for the family with contracted service providers (occupational therapists, pediatricians) were difficult.
Teaming approach	Parents felt that open communication, and constant sharing of information and resources among team members (which includes parents and other professionals supporting the program) was important.
Administrative policies and practices	Appropriate mentoring and supervision, having trust and respect in service coordinators as a professional, providing flexibility in staff hours/schedules, and creating opportunities for professional development were key components in supporting collaboration among families and professionals.
Service delivery	Flexibility in scheduling sessions around parents’ working hours, the option of conducting sessions in the family’s home, and the introduction of group services (where other parents and more professionals were involved) versus one-on-one therapy enhanced collaboration.

Dinnebeil et al. developed and tested the questionnaire by using individual interviews and administering the questionnaire to another sample of participants, respectively. For data analysis, the authors used content analysis procedures to analyze the written responses to the open-ended questions. However, the authors generated frequencies for the coded responses according to the categories they represented; quantitative approaches to qualitative analyses should have been avoided. Considering that coders may be interpreting the data using a different lens, generating

frequencies for each category may lead to misleading interpretations. Instead, the use of rich, thick descriptions (whereby readers receive the full, in-depth understanding of the situation being described) to communicate findings allows readers to understand the data and to decide whether the findings are transferable to their population of interest. Dependability was enhanced using stepwise replication technique, and served as the only strategy for establishing rigour. The study may be vulnerable to threats of credibility, transferability, and confirmability since the use of strategies to minimize such threats was not reported.

Barlow and Coe (2011) explored the stakeholder views and experiences of a new model of partnership working between statutory and voluntary sectors in the context of the Peers Early Education Partnership (PEEP) Early Explorers project. The stakeholders included managers, health visitors, PEEP practitioners and service recipients across two Early Explorer clinics located in areas of high deprivation in England. These clinics provided a model of partnership working across statutory and voluntary services, and introduced PEEP practitioners into traditional health clinics to help engage parents in supporting their child's development using interaction and non-directed exploratory play. Data were collected in the form of semi-structured interviews. Thematic analysis was used to identify key themes, categories, and patterns. Several important factors that positively influenced partnerships working were the commitment to partnership made at all levels of the organization, recognition of complementary expertise, mutual trust and respect, and good communication. Recommendations to improve partnership working included the development of shared aims and objectives between the PEEP practitioners and health visitors, and more extensive and frequent joint training to develop shared agendas, goals, and philosophies.

Barlow & Coe conducted individual interviews with a purposeful sample of stakeholders (N=25) who represented key groups (providers, recipients, and managers) in statutory and voluntary sectors. The qualitative research method/tradition, and the procedures for coding and interpretation using thematic analysis were not reported with sufficient detail. Thus, methodological quality was difficult to discern. Further, the authors did not report establishing rigour and, as such, the trustworthiness of the study is in question.

O’Neil, Ideishi, Nixon-Cave, and Kohrt (2008) identified facilitators and barriers to care coordination between medical and early intervention (EI) providers for children with special healthcare needs and their families. Stakeholders (parents/caregivers, pediatricians, hospital providers, community-based EI providers, and EI service coordinators) participated in one of six focus groups. Constant comparative analysis procedures were used to analyze all transcripts. Six themes emerged from the qualitative data (Table 2).

*Table 2.* Findings from O’Neil et al., 2008

<b>Theme</b>	<b>Finding</b>
Information exchange about child health issues	Stakeholders have different levels of understanding of medical information. Parents suggested that clear information would help improve communication and care coordination. Miscommunication or misinterpretations were likely to occur in situations when certain providers use idiosyncratic terminology or jargon to communicate with other stakeholders.
Approaches toward child and family care	While health providers tended to speak in terms of health services and disability, families and EI providers tended to speak in terms of social identity and community resources. The verbatim in the transcripts illustrate that stakeholders emphasized different aspects of the child’s health condition and approaches to child care.
Supporting family social and emotional needs	Care coordination may be positively influenced by the providers’ supportive actions that validate the families’ caregiving abilities towards the child. Such social and emotional support, however, can be limited by time constraints and provider workloads.
Perceptions of service provider roles	Stakeholders felt that a better understanding of the roles and expectations of providers would facilitate care coordination. Although all stakeholders agreed that providers from diverse health professions used similar approaches to evaluate the child’s health, they interpreted the child or

	family needs differently largely due to differences in training, and practice settings.
Communication among parents and providers	Effective communication between and among parents and providers was valued as one of the key ingredients for care coordination. But most providers were concerned about finding time to keep up with the consistent communication due to caseloads.
Understanding service delivery systems	Stakeholders expressed frustration and confusion around accessing services and care coordination, and had difficulty managing and navigating the health service systems. As such, meeting the multiple needs of children and families was often challenging.

O’Neil et al. provided a detailed description of the procedures for data collection, coding, and interpretation of the data. The authors also used bracketing (a method which includes identifying and acknowledging the researchers’ perspectives and experiences about the topic under study that could introduce bias), which enhanced the trustworthiness of the study. Intercoder agreement was also employed, which further increased the dependability of the findings. The sample of the study, however, was limited to a local geographical area. As such, findings and the recommendations could not be generalized or perceived as recommendations for standards of practice.

**Limitations of existing research**

In summary, existing qualitative studies that explore stakeholders’ perceptions of early intervention programs for children have methodologic limitations, specifically on establishing rigour. All of the studies that were identified only applied to school-based or community outreach programs. There is a critical gap in our understanding of community collaboration, partnership, and the implementation process of home visiting programs. Review of the literature to date identified no study that has explored the healthcare and social service providers’ perceptions of factors that influence the implementation of the NFP program, or experiences engaging with community healthcare and social service providers for home visiting programs.



As such, the thrust of the present study is an in-depth exploration of relevant issues that could help describe such aspects at a community level.

### **Summary of NFP**

In the NFP program, nurses start visiting mothers early in pregnancy (prior to the end of the 29<sup>th</sup> week of gestation) and continue until the child is two years old. The frequency of the nurse home visits vary depending on the time period of gestation and the developmental stage of the child (specific schedule outlined in Chapter 2). During the home visits, the nurses provide support and life coaching, review preventive health and prenatal practices, and educate the family about child development and parenting with the help of a detailed, structured guideline unique to each visit. Specifically, the guidelines focus on six domains: personal health, environmental health, the maternal role, friends and family, maternal life course development, and use of healthcare services. NFP helps first-time mothers to understand and be aware of how their behaviours may influence their own wellbeing as well as their child's health and development.

### **NFP's core education**

The core education completed by NFP nurses and supervisors and the visit-by-visit guidelines are driven by the NFP model, which has a theoretical foundation based on self-efficacy (Bandura, 1977), human attachment (Bowlby, 1980), and human ecology (Bronfenbrenner, 1981) embedded within a professional nursing practice framework. The self-efficacy theory helps parents understand the influence of particular behaviours on their own health as well as the development of their child. Adapted from this theory, nurses apply NFP guidelines that help families set realistic, attainable goals and small, manageable objectives so that, once accomplished, increase the families' reservoir of successful experiences. Such positive

experiences in turn are thought to bolster the families' confidence in overcoming larger challenges. The NFP model is also based on the attachment theory, which posits that a child's trust in the world, internal representations of himself, his relationship with others, and his subsequent capacity for empathy and responsiveness to his own children in the future are largely affected by the level of attachment they formed with the primary caregiver during his childhood. Grounded in the attachment theory, the NFP program promotes sensitive, responsive, and engaged parenting throughout the child's early life. Finally, the human ecology theory hypothesizes that a caregiver's care for her child is influenced by the larger context; such as characteristics of their families, social networks, communities, and neighbourhoods. The human ecology theory also serves as a framework for the present study. Further, given the relevance of the human ecology theory to the research undertaken for this thesis, it will be discussed in detail.

### **Overview of the ecological model on human development**

Bronfenbrenner's ecological paradigm (1981) posits that in order to understand human development, the entire ecological system in which growth occurs for each individual must be taken into consideration. To delineate the components and processes of this ecological system, Bronfenbrenner proposed five subsystems that would help guide human growth. Collectively, the ecological system is conceived as a nested structure, each level inside the next, starting at the innermost level in which it pertains to the immediate setting and relationships to the developing individual (for example, a child). Immediate settings may include the home, the classroom, or the pediatrician's clinic with which he or she has immediate contact. The relationships in this microsystem include those who directly interact with the child, such as the primary caregiver, the teacher, or the pediatrician. But a developing individual's ecological environment extends far beyond his or her immediate surrounding; equally important are connections between these

immediate contexts or contacts and their indirect influence on the developing individual. The connections formed between the child's immediate settings are referred to as the mesosystem. This level constitutes interrelations and processes between two or more settings in which the child actively partakes. These include the relationships between the child's home and school. Here we consider mesosystem as a system of microsystems. The individual's development is enhanced if two settings with which there is direct contact are strongly linked (Bronfenbrenner, 1981).

Next, the exosystem involves interrelations and processes between two or more settings, whereby at least one of these settings does not contain the child but the events that occur indirectly influence the processes within the immediate setting in which the child resides. The exosystem is considered as a context influencing the child's development when it consists of both sequences: 1) the connection of events between the external setting (in which the child does not actively partake) and the processes that occur in the microsystem, and 2) the link between the child's microsystem processes and the developmental changes. For example, the exosystem for a child can be the relation between the home and a mother's workplace, or her access to community-based family resources. The child may not be directly involved at this layer, but the effects will have an impact on the interaction with his or her immediate setting. This complex of nested, interconnected systems forms the framework of "overarching patterns of ideology and organization of the social institutions common to a particular culture or subculture" (Bronfenbrenner, pp. 9, 1981), which is referred to as the macrosystem. The principles defined by the macrosystem have a cascading influence throughout the interactions of all other levels within the ecological system for the child. Bronfenbrenner also poses the ecological system as dynamic and constantly developing throughout the course of the individual's life. The size and

nature of the microsystem, for instance, changes as the individual adopts or leaves a role in life or surrounding. As such, the chronosystem of human development consists of all experiences that an individual has throughout the life course, which include environment events, major life transitions, and historical events. For example, the birth of a sibling, a move to another country at the start of adolescence, or growing up during the Holocaust would all be included in the child's chronosystem (Bronfenbrenner, 1981).

*Home visiting programs and the ecological theory*

A systematic review and meta-analysis reported that a large number of home visiting programs are based on the ecological theory (Nievar, van Egeren, & Pollard, 2009), which posits that child development occurs in a multi-faceted environment (Bronfenbrenner, 1992). A change in one system surrounding the child may lead to changes in other systems that also surround the child. The child-parent relationship is presumed to have a direct effect on the child's development. Neighbourhood quality, family income, and community resources and services are distal factors that indirectly influence the child's functioning by impacting the proximal environment. Most home visiting programs aim to improve both direct and indirect influences on the child. The direct influence on the child is largely focused on incorporating parenting education into the home visits with the goal of improving the parent-child relationship. Home visiting programs also tend to improve indirect influences on the child by linking parents to community services that could provide economic, social and health supports (Nievar et al., 2009). For instance, a home visitor who actively links a client with a community resource centre would be acting at the level of the mesosystem to enhance the benefits from the exosystem that surrounds the family.

*Ecological model as a framework in NFP*

Bronfenbrenner's ecological approach serves as a theoretical cornerstone for the NFP (Figure 1). The human ecology theory hypothesizes that a caregiver's care for her child is influenced by the larger context; such as characteristics of their families, social networks, communities, and neighbourhoods. Specifically, Bronfenbrenner asserts that a caregiver's child-rearing practices will be largely influenced by the role demands, stress, and level of support that are available. Furthermore, the caregiver's view of her child are related to a myriad of external factors such as the adequacy of childcare arrangements, flexibility of her work, the relationship with friends and neighbourhoods, and the quality of health and social services (Bronfenbrenner, 1981). The NFP program plays an important role in the mother and child's mesosystem and exosystem by fostering a long-term, trusting relationship with the mothers. The home visits from the nurses aim to build parenting skills, educate mothers on child wellbeing and health development, and personal planning. Nurses will also connect mothers to community services based on family needs, such as social assistance programs, primary care providers, pregnancy outreach programs, mental health/substance use services, and prenatal nutrition and education programs (Olds, 2002). In other words, the nurse actively mediates between the mother and the resources in the greater community at the level of the mesosystem to improve the benefits and positive impacts of these exosystems on her and the baby. NFP nurses strive to enhance the material and social environment for the mother and baby by involving other members of the family and collaborating on providing care with other healthcare professionals.

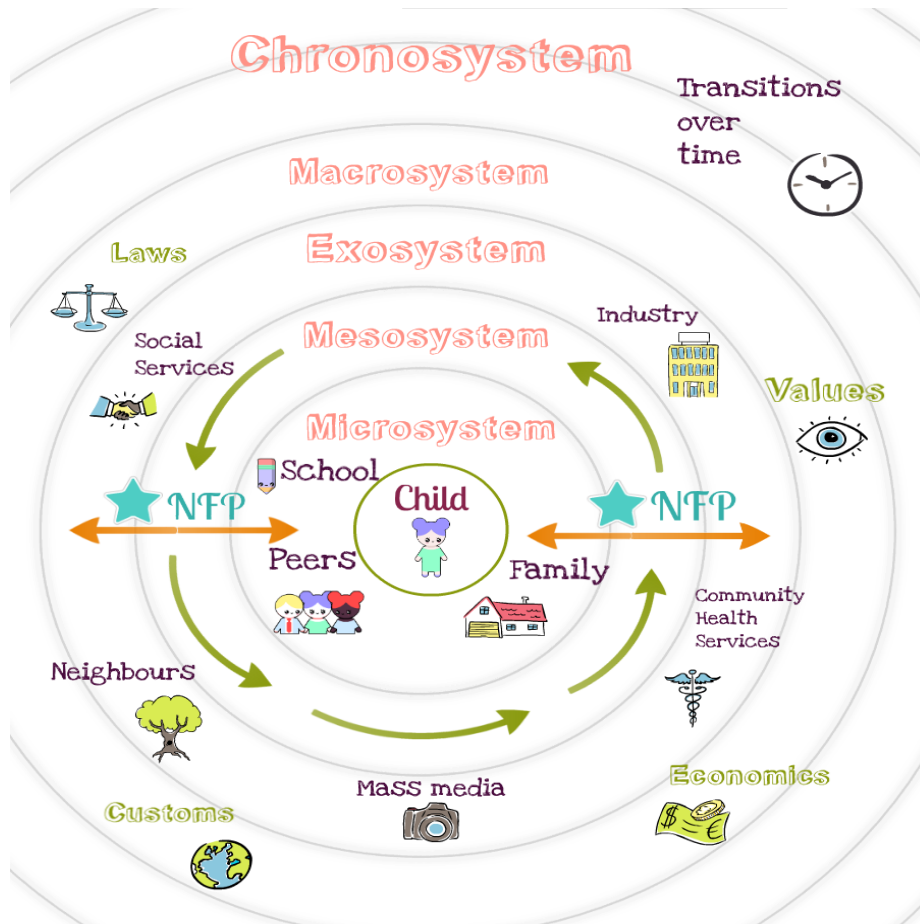


Figure 1. Bronfenbrenner’s ecological theory and NFP’s role in the mesosystem and exosystem for the child.

*Ecological model and community partnership and collaboration*

The theory of human ecology provides NFP nurses the framework for understanding the essential values and methods of NFP to clients, and this understanding is largely reinforced by the larger context in which nurses operate. The nurses’ working environment is affected by both direct and indirect professional relationships. Direct relationships refer to those with administrators, supervisors, supporting agency departments, community agencies that provide services to program participants, and NFP referral sources. Indirect relationships refer to funders, other community home visitation programs, and agency professionals who are not directly involved in NFP (NFP, 2010).

At an organizational level, the public health unit in which the NFP is situated, is committed to building and maintaining strong collaborations with community agencies in order to provide the best health and social care services for high-risk mothers and their baby. NFP nurses and community professionals work hand in hand; community professionals are actively involved in identifying and referring eligible mothers to the program and conversely, the nurses refer and advocate for their clients to reach out to other agencies and professionals in the community for healthcare and social service support. Furthermore, NFP is a relationship-based organization, in which the primary focus is to build strong, supporting relationships within the community (NFP, 2010).

#### *Perspectives of community professionals*

Based on the experience in the US, NFP's success within the larger community is determined by the nature of relationships built between NFP and referral sources, programs, people and services; all are referred to as community linkages (NFP, 2010). Family physicians, social workers, and prenatal workers often serve as the first point of contact for families seeking healthcare. These frontline providers play a crucial role in helping the high-risk mothers become informed about the NFP and refer the clients to the programs. Individuals from the administration and management level may contribute to building an organizational climate that fosters the alliance between NFP and its own agency. Health program managers and service coordinators may also have important roles in advocating for NFP by conducting public awareness events and outreach visits, and cultivating powerful champions. The various professional backgrounds and practice contexts may provide multiple perspectives on factors that would influence NFP's implementation. NFP's ongoing collaboration and security of strong community linkages provide a solid and stable platform on which NFP stands as an effective and

reliable community health program for young first-time, low-income mothers (NFP, 2010). As such, community professional's perspectives on their relationship with NFP and their understanding of NFP's role in the context of promoting greater health and wellbeing for mothers and their babies will heavily impact on NFP's success.

#### *NFP's Community Advisory Board*

Evidence from the Colorado NFP program demonstrated the multiple benefits of establishing a community advisory board (CAB) for the local NFP program, including stable funding, a solid referral network, better staff retention, and a better reputation among families in the community (Hicks et al., 2008). The CAB ensures the quality and sustainability of the home visitation, and is heavily involved with educating the community about NFP. The CAB also facilitates interagency collaboration between multiple sectors that range from funding sources, client referral, and hiring of PHNs (NFP, 2010).

#### **Description of intervention**

This section of the thesis will describe the process of screening and enrollment as well as the details of the home visits. Although these processes serve as the main backbone structure of NFP home visitations, they may be slightly modified depending on the community's demographics and the level of support in which NFP serves. In particular, the NFP program in Canada may need several adaptations to successfully implement the NFP curriculum. As such, the Canadian NFP program may differ slightly from the NFP program developed in the US (described below). The Canadian NFP pilot study will be revisited after discussing the essential components for NFP replication at an international level.

#### *Screening and enrollment*



Eligible pregnant women of the program are referred by a variety of sources including health clinics, obstetricians, social workers, counselors, general practitioners, and family planning clinics that serve low-income communities. Women may also hear about the NFP through community outreach, or through friends who are already participating in NFP. Eligible participants are advised to enroll in the program as early in pregnancy as possible, preferably by the 16<sup>th</sup> week of gestation and no later than the end of the 29<sup>th</sup> week of gestation. Enrolment in the program is voluntary.

#### *Schedule of home visits*

The frequency in home visits fluctuates during the course of the program because the visit schedule is designed to meet two goals. First, the recommended schedule allows the nurse to provide unique services and information to the mother during the different stages of pregnancy and early childhood. Second, the schedule is designed as a series of manageable, incremental steps that builds small, attainable goals for the mother to work on between visits. During the first month following enrollment, NFP nurses provide weekly visits. Subsequently, the nurses visit the expecting mothers bimonthly for the remainder of their pregnancy. For the first six weeks after delivery, weekly visits resume again. Bimonthly visits occur thereafter through the 21<sup>st</sup> month of the child. Finally, the mother and baby receive monthly visits until the child's second birthday. Each visit is typically 75 to 90 minutes long (Olds, Henderson, Kitzman, Eckenrode, Cole, & Tatelbaum, 1999). For details of the frequency of home visits, please refer to Table 3. Considering that each family may have their own unique circumstances, the actual timing and frequency of the visits will also depend on the nurse's judgment and the family's situation. There is increasing recognition of the need for more flexibility in home visit scheduling to increase retention rates. A recent study by Ingoldsby and colleagues (2013) reported that adaptation to

NFP families’ individual needs and the offer of flexible scheduling and content to match the families’ needs may help increase client retention and completion of home visits.

*Table 3.* Frequency of nurse home visits for NFP program

Time period/developmental stage of child	Frequency of nurse home visits
1 <sup>st</sup> month post enrollment (during 2 <sup>nd</sup> trimester of pregnancy)	Weekly
2 <sup>nd</sup> month post enrollment until the birth	Biweekly
Weeks 0-6 after birth of child	Weekly
Months 2-21 after birth of child	Biweekly
Months 21-24 after birth of child	Monthly

(Olds, Henderson, Kitzman, Eckenrode, Cole, & Tatelbaum, 1999)

Throughout the gestation period, the nurse home visitors help expecting mothers complete around-the-clock diet histories on a regular basis, plot weight gains, coordinate care with physicians and nurses when needed, perform blood pressure measurements, and play an active role in the reduction of the mothers’ use of cigarettes, alcohol and illegal drugs (if present) through behavioural modification strategies. They also provide information to the participants about the signs and symptoms of pregnancy complications, and facilitate compliance with any treatment required for complications. Post-delivery, the milestones of the nurse home visitors include improving the physical and emotional care of the baby by educating the mother as well as other caregivers. Some of the instructional material includes how to detect signs of illness, take temperatures, recognize the infant’s communicative signals, improve interaction with the child, and create a safe environment for the newborn. Nurse home visitors also serve as a go-to person when mothers seek clarification and help in achieving healthy mother-and-baby development. Each nurse home visitor’s caseload is limited to 25 families, which helps ensure that the intervention achieves the desired results (NFP, 2011). In Canada, however, the caseload has been adapted and reduced from 25 to 20 clients per nurse because nurses in Canada have to

travel across a larger geographical area for home visiting, have fewer working hours per week, and more vacation days (Jack et al., 2012).

### **Evidence of effectiveness**

Based on a recent review conducted by MacMillan (2009) and colleagues, NFP is the best evidence-based program for preventing child maltreatment, which remains as one of the main risk factors for mental health problems in later life. Further, NFP has established a proven record of positive health related outcomes for the child and mother; including reduced subsequent pregnancies, childhood injuries, child maltreatment and deaths, juvenile delinquency and crime (Kitzman et al., 1997a; Olds et al., 1997a). Recently, NFP has been classified as Top Tier by the Top Tier Evidence Initiative Expert Advisory Panel from the Coalition for Evidence-Based Policy (2012). A systematic review of the literature and correspondence with leading researchers carried out by the Panel identified three longitudinal RCTs that were each carried out in a different population and setting. The Panel found that NFP meets the Congressional Top Tier Evidence standard, which they define as “Interventions shown in well-designed and implemented randomized controlled trials, preferably conducted in typical community settings, to produce sizable, sustained benefits to participants and/or society.”

#### *Randomized controlled trials*

The NFP has been rigorously evaluated using three well-designed, longitudinal RCTs in 1) Elmira, New York; 2) Memphis, Tennessee; and 3) Denver, Colorado (for description of RCTs, please refer to Table 4). Participating first-time mothers in all three trials were randomized to receive either the nurse home-visiting intervention or comparison services. While the nature of the intervention was essentially the same in all trials, the comparison services were slightly different. Despite the differences in comparison services, consistent and enduring

findings emerged across three RCTs, including improved prenatal health, reduced rates of child abuse, fewer subsequent pregnancies, increased maternal employment, and better outcomes in school readiness for children born to mothers with low psychological resources (i.e. intelligence, mental health, self-esteem). For further details about the main outcomes for each of the trials, please refer to Table 5. The results from the three RCTs also showed that mothers and children from diverse ethnic groups and communities achieved similar gains with NFP in the U.S. Further details of the significant results (all of which achieved  $p \leq .05$ , unless otherwise specified) will be discussed in the following sections. Two shorter term RCTs of the NFP were also conducted, and showed generally consistent results of the three larger, longitudinal RCTs.

*Table 4.* Description of NFP RCTs

<b>Location</b>	Elmira, New York	Memphis, Tennessee	Denver, Colorado
<b>Study setting</b>	Semi-rural	Urban	Urban
<b>Number of participants</b>	400	1139	735
<b>Participant ethnicity</b>	89% Caucasian 11% African-American	92% African-American 8% not specified	47% Mexican-American 35% Caucasian 15% African-American 3% American-Indian or Asian American
<b>Average number of nurse home visits</b>	Prenatal: 9 Postnatal: 3	Prenatal: 7 Postnatal: 26	Prenatal: 7 Postnatal: 21
<b>Age of child at final year of follow-up and (% follow-up)</b>	19 years (78%)	12 years (75%)	4 years (86%)

(Eckenrode et al., 2010; Kitzman et al., 2010; Olds et al., 2004, 2010)

Table 5. Main outcomes for all three NFP RCTs

<b>Study setting</b>	Elmira, New York (time of follow-up)	Memphis, Tennessee (time of follow-up)	Denver, Colorado (time of follow-up)
<b>Main outcomes for all NFP families</b>	<ul style="list-style-type: none"> <li>• Fewer preterm deliveries</li> <li>• Fewer kidney infections by during pregnancy</li> <li>• Made better use of community services by the end of pregnancy</li> <li>• Fewer hazards at home (34 &amp; 46 mths)</li> <li>• Less use of punishment (10 &amp; 22 mths)</li> <li>• Fewer hospital visits for injuries/ingestions (12 mths)</li> <li>• Less reported maltreatment (15 yrs)</li> </ul>	<ul style="list-style-type: none"> <li>• Mothers more likely to use community services available</li> <li>• Mothers were observed to be more beneficial to her child's development (2 yrs)</li> <li>• Better emotional and cognitive stimulation (2 yrs)</li> <li>• Fewer hospital visits/injuries (2 yrs)</li> <li>• Fewer behavioural problems (2 yrs)</li> <li>• Scored higher on tests for intellectual functioning and receptive vocabulary (6 yrs)</li> <li>• Mother reported fewer therapeutic abortions, longer durations between the birth of the first and second child, an greater likelihood to live with a partner or with the biological father of the child (9 yrs)</li> </ul>	<ul style="list-style-type: none"> <li>• Better responsiveness to child (2 yrs)</li> <li>• Less likely to be emotionally vulnerable in response to fear stimuli (6 mths)</li> <li>• Less likely to have language delays (21 mths)</li> <li>• Improved interaction between mother-child dyads (2 yrs)</li> <li>• Better home environments for child (2 yrs)</li> <li>• Mothers had fewer subsequent pregnancies (2 yrs)</li> <li>• Mothers were employed longer (2yrs)</li> </ul>
<b>Main outcomes for highest-risk NFP families</b>	<ul style="list-style-type: none"> <li>• Less use of negative restriction &amp; punishment (10 &amp; 22 mths)</li> <li>• Better stimulation of language skills (34 &amp; 36 mths)</li> <li>• Better involvement with child (34 months)</li> <li>• Better life parenting course (15 yrs)</li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>	<ul style="list-style-type: none"> <li>• Provision of more responsive &amp; stimulating home environments (4 yrs)</li> </ul>

(Eckenrode et al., 2010; Kitzman et al., 2010; Olds et al., 1986; 1994; 2004; 2010)

*Elmira results.*

The quality of diets significantly improved during pregnancy among mothers in the intervention group. By the 34<sup>th</sup> week of gestation, mothers who were identified as smokers smoked 25% fewer cigarettes and, by the time of delivery, this subgroup had 75% fewer preterm deliveries compared to controls. Nurse-visited mothers also experienced fewer kidney infections and made better use of community services by the end of pregnancy. In addition to improved prenatal health behaviours and birth outcomes, mothers receiving the intervention also engaged in more sensitive child care for their babies. At the child's 10 and 22 months of age, nurse-visited, teenage single mothers with low socioeconomic status exhibited less punishment and provided more appropriate play materials when compared to controls (Olds, Henderson, Tatelbaum, & Chamberlin, 1986). At 34 and 46 months of the child's age, nurse-visited mothers fostered a safer home environment that was beneficial to the child's emotional and cognitive development (Olds, Henderson, & Kitzman, 1994).

Differences between the intervention and control groups were also observed in the number of verified cases for child maltreatment. Specifically, at the age of 2 years, children of nurse-visited teenage single mothers with low SES had fewer verified cases of child abuse and neglect compared to those receiving comparison services (1 case vs. 8 cases for nurse-visited mothers and controls, respectively,  $p=.07$ ). A 15-year follow-up of verified reports on child abuse and neglect showed that mothers who were visited by nurses during pregnancy and infancy and who have been identified as perpetrators of child abuse and neglect yield fewer verified reports per program participant when compared to controls (.29 vs. .54, respectively). This group difference gradually grew over the span of 11 years (between child age 4 and 15). The 15-year follow-up also observed better parental life-course among single mothers with low SES. This subsample had fewer pregnancies and births, longer intervals between the birth of their first and

second children, fewer months on welfare, and fewer behavioural problems as a result of substance abuse, and fewer arrests compared controls (Olds et al., 1997).

*Memphis results.*

By the 36<sup>th</sup> week of gestation, women randomly assigned to the intervention group were more likely to use other community services available to them versus controls. During their pregnancy, nurse-visited women also had fewer instances of pregnancy-induced hypertension. After birth, nurse-visited women breastfed their child more frequently compared to controls. By child age 2, homes of nurse-visited women were observed to be more beneficial to her child's development. Compared to the control group, children born to nurse-visited mothers who have few psychological resources were more responsive and communicative towards their mothers by this age (Kitzman et al., 1997). By age 6 years, children visited by nurses scored higher on tests for intellectual functioning and receptive vocabulary, and showed fewer behaviour problems. In particular, children who were born to nurse-visited mothers with low levels of psychological resources scored higher on arithmetic tests and were less aggressive and incoherent during story time. By age 9, children in this subsample achieved higher reading and mathematics grade point averages compared to their control counterparts (Olds et al., 2007).

The NFP program was also beneficial for early and late parental life-course. By the 2<sup>nd</sup> birthday of children, nurse-visited mothers had fewer second pregnancies and births versus the mothers receiving standard services. Mothers in the NFP intervention also did not rely on welfare as much as controls (Kitzman et al., 1997). By child age 4.5 years, the intervention group reported fewer therapeutic abortions, longer durations between the birth of the first and second child, and a greater likelihood to live with a partner or with the biological father of the child

(Kitzman et al., 2000). Such effects endured during the last follow-up at child age 9 (Olds et al., 2007).

*Denver results.*

In the Denver trial, participating mothers were randomized to receive either home visits from nurses, from paraprofessionals (those who shared similar social characteristics of the families they served), or to receive comparison services (control group). The paraprofessional group was developed to examine the potential differences in mother and child outcomes compared to nurse home visits as well as comparison services that were available in Denver. The paraprofessional-visited group did not yield significant effects on the mothers' prenatal health behavior, maternal life-course, or the child's development. By child age 2 years, mothers who had few psychological resources and who received visits from paraprofessionals interacted more responsively to their children when compared to controls (Olds et al., 2002). The mothers also showed greater sensitivity and responsiveness towards the child by age 4 than those in the control group. Among paraprofessional-visited families, low-resource women had home environments more supportive of early learning (Olds et al., 2004).

The nurse-visited infants were less likely to be emotionally vulnerable in response to fear stimuli compared to controls at 6 months of age. At 21 months, children in the NFP program were less likely to have language delays compared to controls (Old et al., 2002). By the age of 4 years, nurse-visited children who were born to mothers with low psychological resources exhibited superior language and executive functioning, as well as better behavioural adaptation during testing (Olds et al., 2004). Maternal benefits were also observed. Women who were randomized to receive home visits from nurses showed similar results compared to women visited by paraprofessionals at child age 2 years, although improved interaction between mother-



child dyads and conducive home environments for child development were observed across women with or without few psychological resources (Olds et al., 2002). Two years after delivery, women in the NFP program had fewer subsequent pregnancies and were employed longer compared to controls (Olds et al., 2004).

### *Cost effectiveness*

According to the Washington State Institute of Public Policy, the NFP produced the largest per family economic impact of any child welfare, early intervention or home visitation program (Aos, Lieb, Mayfield, Miller, & Pennucci, 2004). This finding was based on the economic analysis from a standpoint of their impact on substance abuse, educational outcomes, teen pregnancy, domestic violence, suicide, child abuse and neglect, and crime. Based on the findings across all three trials, the NFP is estimated to save \$17,000 per family. A subsequent analysis by the Rand Corporation also yielded very similar estimates (Karoly, Kilburn, & Cannon, 2005).

Recently, a report assessing the societal return on investment in NFP services found the benefits-to-cost ratio as 9.5:1 per family. This ratio translates into a net savings of \$73,076 in program costs for each family. Furthermore, several independent economic evaluations of NFP reported that the overall cost of the program is recovered when the child reaches four years of age and by adolescence, the return on investment equals to four times the initial cost of the program for each family. For every dollar invested in implementing the NFP with the eligible families, the US government receives a \$5.70 return on investment (Eckenrode et al., 2010).

### **Policy implications and program replication**

Since 1996, the NFP home visitation program has been extended beyond the traditional research contexts. Currently, the program is operating in over 500 counties across the U.S.,

serving over 186,000 families per day (US Department of Health & Human Services, 2014). In preparation for implementing NFP, each site requires certain capacities to operate and sustain the intervention's quality, including a well-trained staff in the conduct of the program model; up-to-date information achievement of benchmarks including support from an organization; and most importantly, support from an organization and a community that are knowledgeable and supportive of NFP (Olds, 2011).

### *International replication for NFP*

The NFP's approach to international replication is to make no assumptions about its possible benefits in societies that encompass health service delivery systems and cultures unique from those in which the intervention was tested in the U.S. As such, Olds and colleagues have taken the position that the program be adapted and tested in other communities prior to being offered for public investment (Olds, 2010). In 2004, researchers and government health agencies abroad were interested in potentially developing the NFP home visitation program in their country. In response to extensive interest in the uptake of NFP at an international level, Olds along with his colleagues at the Prevention Research Centre for Family and Child Health (PRC) at the University of Colorado, Denver, have developed a four-phase model designed for adapting and testing the home visitation program within international contexts while maintaining the rigorous controlled trial standards of the program. The four phases consist of 1) Adaptation: Examining the adaptations required to deliver the home visitation program in local contexts while maintaining fidelity of the NFP model. 2) Feasibility and Acceptability through Pilot Testing and Evaluation: Pilot tests will be conducted to uncover additional adaptations that are crucial to ensure the implementation success of the NFP program. Specifically, this phase evaluates the feasibility and acceptability of the program. 3) Randomized Controlled Trial: This

phase involves expanding the tests and evaluative work of the previous pilot study, and assessing the outcomes. 4) Replication and Expansion: Upon completion of the RCT and contingent upon the significantly positive outcomes, the implementing agency may consider implementing the NFP program in the local context. To date, international collaborators include Australia, Scotland, Canada, Northern Ireland, England, and The Netherlands. RCTs are already underway in the latter five countries (University of Colorado, 2014).

*Implementation of the NFP program in Ontario, Canada*

As outlined in the Introduction chapter, Canada has some important differences in demographics and health service provision compared to the US, and the effectiveness in Canada remains unknown. Currently, the effectiveness of the NFP is being evaluated in British Columbia to determine whether similar benefits can be achieved for Canadian families (Association of Registered Nurse of British Columbia, 2011).

The City of Hamilton was the first Canadian site to pilot the NFP (out of a total of six international sites). In 2008, the McMaster University-Hamilton Public Health Services (HPHS) collaboration set forth a pilot study to test the feasibility and acceptability of the NFP in Canada. In the adaptation phase, six public health nurses (PHNs) and one manager received NFP core education at the main study site in Denver, Colorado. Researchers and the team examined the adaptations needed to deliver the NFP program to a Canadian context. To further immerse the PHNs into the NFP structure, they were offered opportunities to job shadow a team of NFP nurses in Pennsylvania. In the feasibility and acceptability phase, the NFP pilot study was delivered through the Family Health Division, HPHS, Hamilton, Ontario, Canada. Hamilton has about 6,000 live births per year, and 20% of Hamilton's citizens live at or below poverty (Better

Outcomes & Registry Network Ontario, 2011). In 2007, 547 mothers residing in Hamilton who were  $\leq 21$  years of age gave birth for the first time (Statistics Canada, 2011).

To create awareness for NFP in Hamilton, the NFP PHNs actively engaged the healthcare and social service providers within the community by establishing new partnerships and reaffirming existing collaborations. The PHNs spent considerable time distributing NFP informational packages, conducting presentations at community agencies that were potential sources of referrals; and met one-on-one with physicians, nurses and nurse practitioners to fully engage them. As a result of this engagement, the NFP project generated a high level of interest in the community. Using such strategies, the NFP team in Hamilton received referrals from community providers working with young, first-time mothers who were eligible for the program (Canadian NFP Network, 2010; Jack et al., 2012).

During the recruitment period (June 2008 to September 2009), a total of 424 prenatal referrals to HPHS were assessed for eligibility. Participants were first-time expectant mothers who were  $\leq 21$  years of age, had a low income status (identified using 1) low-income cut-off tables, 2) receipt of provincial social assistance, or 3) self-report of having no income), and were referred before the end of the 28th week of pregnancy. Referrals were received from physicians, nurse practitioners, and community-based agencies providing health and social care to socially disadvantaged women, as well as prenatal referrals from primary care and community services to the Healthy Babies, Healthy Children (HBHC) program administered by HPHS. The HBHC program is a provincial maternal child health program in Ontario that is administered by all public health units to promote optimal child health and development. There are multiple components to the HBHC program, including universal postpartum screening to identify risks to child development and a targeted home visiting program. The targeted home visiting program is

delivered by both PHNs and family home visitors to families with identified risks for poor parenting or child health outcomes. Of the total number of referrals, 32% (n=135) of the pregnant women were eligible, and 80% (n=108) of those who were eligible consented to partake in the study. All participants received the NFP intervention, which consisted of a maximum of 64 home visits scheduled over a span of 27 to 30 months. Presently, the NFP is considered as a prominent evidence-based public health intervention for young, low-income, hard-to-reach pregnant women or mothers and their children in Hamilton, Ontario (Jack et al., 2010).

*Adaptations of the NFP curriculum in Ontario, Canada.*

In order to achieve implementation with fidelity to the US model for NFP, international agencies are required to adapt, pilot and evaluate the effectiveness of the intervention. As part of the process for adaptation, a qualitative case study (Jack et al., 2012) was conducted to determine whether the NFP can be implemented successfully in Canada based on the original model, and to identify the adaptations required to increase acceptability of the NFP program for Canadian families and service providers.

The case study employed maximum variation sampling. This strategy allows the researcher to purposefully select cases that are different from each other in order to maximize the likelihood of capturing different perspectives (Creswell, 2013). As such, a sample of clients (n=38), family members (n=14), community professionals (n=24), managers and PHNs with experience of home visiting through the HBHC program (n=12), and PHNs responsible for delivering the NFP intervention to clients (n=6) participated in the case study. NFP clients, their family members, and community professionals were invited for individual, in-depth, semi-structured interviews that lasted about 60 to 90 minutes. Unique guides were developed for each group in order to tap the unique experiences relevant to the group including experiences with

receiving services, collaborating with, or making referrals to the NFP program. Seven focus groups were held with the managers and PHNs to explore the processes of adapting and implementing the program to existing healthcare services. NFP PHNs were specifically asked to reflect on the acceptability of each of the 18 NFP elements from the US model. The study also collected documents from participants to identify issues and their solutions to resolving barriers during NFP implementation. The case study reported that the NFP model elements are acceptable to Canadian healthcare professionals, PHNs, and families receiving the intervention.

Several recommended adaptations were provided. The primary adaptation required was to reduce the caseload per full-time nurse home visitor from 25 to 20 cases. Compared to US nurse home visitors, those working in Canada allocated much more time to locate clients, travel across a larger geographical area (urban and rural locations), prepare curriculum materials, attend meetings and document clinical activities. Further, Canadian nurse home visitors worked fewer hours per week and have more vacation days. Several other recommendations for future NFP implementations in Canada were also presented (Appendix F). Extending the findings from Jack et al.'s qualitative case study (2012), the present thesis explored the factors that may influence acceptability of the NFP program from healthcare and service providers' perspectives using the ecological model as the theoretical framework. Jack et al.'s study would act as the primary study for the thesis, and further descriptions of the study will be revisited in the subsequent chapter.

## CHAPTER 3: METHODS

### PHASE ONE: SECONDARY ANALYSIS OF INDIVIDUAL, SEMI-STRUCTURED INTERVIEW DATA

**Objective:** To describe and explore the community professionals' perspectives and experiences of the NFP program within a community context.

#### **Design**

##### *Secondary data analysis*

I employed qualitative secondary analysis for purposes of answering new research questions by interpreting and analyzing the data retrospectively. The intent of re-analyzing existing data was to reveal insights that were not comprehensively explored in the primary research study (Heaton, 2004, 2008; Santacroce, Deatricks, & Ledlie, 2000). Specifically, this way of engaging with existing data allowed for an in-depth investigation of a phenomenon that was identified but not fully addressed in the primary study (Heaton, 2004, 2008). The present study allowed for prioritizing the concept (factors influencing acceptability among healthcare and social service providers) that emerged from the original data but was not the analytical focus of the primary study. Revisiting previously produced data can also help researchers understand those findings from within a new context (Irwin & Winterton, 2012). Moreover, secondary qualitative data analysis may confirm and validate findings from the primary study through triangulation, in cases where the secondary analysis maintains a focus on the research question(s) of the primary study, but uses new methods and/or analytical frameworks (Heaton, 2000).

The data for this secondary analysis were collected in the case study that was introduced in Chapter 2. This study explored the acceptability and adaptation of the NFP model within a

Canadian context with the clients, their family members, and community professionals. It was entitled, *Adaptation and implementation of the Nurse-Family Partnership in Canada* (Jack et al., 2012). A secondary analysis of the qualitative responses from the group of community professionals led to more in-depth descriptions of their perspectives on the factors that influence acceptability of the NFP program.

### **Sampling and sample size**

In qualitative inquiry, the inquirer purposefully selects individuals for study in order to obtain the most information-rich cases to contribute to an understanding of the study's research question and central phenomenon (Creswell, 2013). For phase one, I employed criterion sampling to extract cases that would provide rich, relevant information from the case study (Jack et al., 2012). These healthcare and social service providers worked in either a hospital, a community-based agency, or a primary care setting that provided support to high-risk pregnant women or families with children. A total of 24 community professionals who were involved in program referrals or who provided auxiliary services to participants in the NFP comprised the study sample. Specifically, this sample largely consisted of frontline providers which include team leaders, coordinators and support workers (n=5); healthcare professionals such as medical doctors and nurses (n=3); social service providers such as social workers and school liaisons (n=6); and Children's Aid Society (CAS) intake and protection workers (n=3). The remaining sample consisted of participants who were decision makers such as directors, managers, and supervisors (n=6); and one secretary serving the NFP home visitation program. Half of the participants (n=12) held a Bachelor's degree, 21% (n=5) held a Master's degree, 12.5% (n=3) had post-graduate education, and 21% (n=5) held a college diploma. Further details on the sample's age, professional qualifications and experience are illustrated in Table 6.



*Table 6.* Demographics of participants from phase 1.

Frequencies	n (%)	Average	n (SD)
Professional designation		Age	51.8 ( $\pm 15.3$ )
Social Worker	17 (70.8)	No. of yrs in profession	18.1 ( $\pm 10.5$ )
Medical Doctor	2 (8.3)	No. of yrs in current position	7.8 ( $\pm 5.5$ )
Registered Nurse	2 (8.3)	Approx no. of low-income pregnant women interacted within last 12 months	96.6 ( $\pm 172.5$ )
Other diploma	2 (8.3)		
Not provided	1 (4.2)		

### **Data collection**

Phase one data consisted of transcripts from previously conducted, semi-structured individual interviews (Jack et al., 2012). The lead author of the case study (SJ) provided the transcripts, and they were stored on a password-protected computer. The purpose of individual interviews is to allow participants the opportunity to fully describe their experiences relevant to the topic under study (Streubert-Speziale & Carpenter, 2003). The semi-structured nature of the interviews means that the interview guide was organized in a set of open-ended, pre-determined questions related to the topic. As new ideas and concepts surface from interviews, the interviewer could deviate from the interview guide to further explore the emergent themes (Charmaz, 2002).

### **Individual interviews data collection**

For the case study, the individual interviews of community professionals were conducted over a period of 32 months (2009-2011). The participants were invited for individual, in-depth, semi-structured interviews that lasted about 60 to 90 minutes conducted by a trained interviewer (EV). Each digital recording was transcribed verbatim and de-identified. Cleaned transcripts

were imported into NVivo 8 software (QSR International Pty Ltd., 2008), which was primarily used for storing, managing, and coding the data. A codebook based on the NFP model elements was developed to guide the line-by-line coding. Directed content analysis was used to identify the emerging themes. Source triangulation was employed (comparing finding across interviews, focus groups, and team meeting minutes) in the case study.

### **Data analysis**

Inductive, conventional content analysis was used to analyze the qualitative data given that there are no previous studies exploring the factors influencing acceptability of an early intervention program through the perspectives of healthcare and social service providers. In conventional content analysis, the emergent codes were created and named based on the information shared directly by the healthcare and social service providers, and preconceived categories or theoretical perspectives were not imposed on the data. Findings generated from the conventional approach were based on the providers' unique perspectives and grounded in actual data (Hsieh & Shannon, 2005). Using predetermined categories would have limited the analysis, given that there was little to no literature on the thesis topic.

I uploaded and coded the transcripts using NVivo 10 (QSR International Pty Ltd., 2013). One fundamental decision when employing content analysis is selecting the unit of analysis. Individual interviews were the units of analysis because each interview was large enough to be considered a whole entity and small enough to be recalled as a context for the coding unit – a collection of statements or words that relate to the same central meaning. The coding unit was subsequently labelled with a code (Graneheim & Lundman, 2004). Only the manifest content (verbatim) was analyzed because latent content (tone of participant, posture, silence, and other nonverbal behaviours) was not available (the audiotapes were not accessible in order to maintain

the participants' anonymity and confidentiality). I became immersed in the data by reading all transcripts in their entirety three times (Burnard, 1991; Polit & Beck, 2004). This process helped me make sense of the data and obtain a sense of whole – that is, to become fully aware of what the verbatim is disclosing and to begin to identify major organizing ideas and concepts (Burnard, 1991; Creswell, 2013 Morse & Field, 1996; Tesch, 1990).

After making sense of the data, I engaged in conventional content analysis. Data analysis began with open coding. This process allowed me to focus primarily on the text to define concepts and categories in the data. I began with highlighting the words in the transcript as they appeared to capture salient thoughts and concepts about the participants' perceptions about acceptability of the NFP home visitation. Next, I approached the text by recording my first impressions, notes, and initial analysis. As this process continued, codes (essentially labels assigned to segments of text in order to provide meaning) emerged. I also used *in vivo* coding in order to capture the participants' own words. This coding strategy was useful as it allowed for findings to surface from the dominant themes within the raw data. I developed a list of preliminary codes by open coding three to five transcripts. At this stage, a codebook was developed as a guide for coding the subsequent interviews. It included the following for each code: a code name, description, examples from transcripts, and exclusion criteria. The codebook was revisited and refined as new codes and concepts emerged from coding subsequent transcripts. Using the revised codebook, another coder (MT), (who was familiar with qualitative coding as well as the context of home visiting programs) independently coded a random sample of transcripts (n=5) as an approach to achieve dependability. Coders met to explore consensus. The revised codebook was used to code the remaining transcripts.

Developing categories (group of content that shares commonality) is a core feature of content analysis (Graneheim & Lundman, 2004). Once the coding was complete, I examined all the data within each code; some codes were combined into categories or split into subcategories based on how different codes were related and linked. I also organized a larger number of subcategories into a small number of categories. This is referred to as pattern coding, where I grouped data summaries developed in the first level of coding into a smaller set of themes or constructs (Miles & Huberman, 1994). The concept of *theme* threads underlying meaning together in categories, on an interpretation level. Considering all qualitative data have multiple meanings (Krippendorff, 1980; Downe-Wamboldt, 1992), a code or category can fit into one or more themes (Graneheim & Lundman, 2004).

Because the data used for secondary data analysis reflected the perspectives and questions posed by investigators in the primary study, the responses may not adequately reflect the research questions from the present study (Rew, Koniak-Griffin, Lewis, Miles, & O'Sullivan, 2000). To overcome this limitation, a second phase of the study (conducting follow-up interviews with participants) was conducted to elaborate and expand on the findings from the secondary analysis.

## **PHASE TWO: QUALITATIVE DESCRIPTIVE APPROACH TO INDIVIDUAL, SEMI-STRUCTURED INTERVIEWS**

**Objective:** To expand on the themes that emerged from secondary analysis and, more specifically, to better understand the delivery of NFP in the community as well as how the work of agencies that collaborate with NFP has changed or been influenced by the ongoing provision of the NFP in Hamilton.

## **Design**

### *Qualitative description*

The second phase of the present study employed a methodological approach of fundamental qualitative description (Sandelowski, 2000). Of the handful of qualitative research methods available for analyzing and interpreting qualitative data, fundamental qualitative description (QD) was most appropriate because it allowed for comprehensive summaries of the providers' perceptions about factors influencing acceptability of the NFP. The purely descriptive approach was selected to achieve an accurate reflection of the healthcare and social service providers' perceptions, which encompassed in-depth descriptions often drawn from their own words. Specifically, QD relies on gathering participants' descriptions as well as the meanings that participants give to such descriptions and subsequently, the researcher's ability to convey these meanings in a logical and valuable manner (Sandelowski, 2000). Although studies using QD are considered as one of the least theoretical of all recognized qualitative approaches, this approach is highly useful in demonstrating the existence of core phenomena within a group as well as "identifying critical information for crafting or refining existing interventions, and for furthering program development" (Sullivan-Bolyai et al., 2005, pp. 129). Given that the present study aimed to describe the perceptions of acceptability among healthcare and social service providers in the NFP home visitation to inform practice, QD was the method of choice for analysis and interpretation.

### *Differences between qualitative description and other qualitative research methods*

All qualitative methodologies require some element of description, interpretation and explanation. While other qualitative traditions such as phenomenology, grounded theory, and ethnography aim to develop concepts, explain the phenomena and analyze data in a

reflective/interpretive manner, the end product of the qualitative descriptive approach is a description of the providers' experiences based on their own words with little inference by the researcher. QD employs a low-inference approach and seeks to adhere strictly to the description of the event, process or phenomenon provided by the participants. In the present study, the low-inference approach to interpreting data facilitated a more natural and contextual depiction of the present phenomenon. Even though description was the goal of QD, interpretation was always present; the descriptions were developed from the describer's perceptions, inclinations, sensitivities, and sensibilities (Giorgi, 1992). Furthermore, QD is unique from interpretative description (Sullivan-Bolyai, Bova, & Harper, 2005; Thorne, Kirkham, MacDonald-Emes, 1997) or pattern analysis (Sullivan-Bolyai et al., 2005). While interpretive description (ID) goes beyond mere description and strives for an in-depth conceptual description and understanding of the participants' verbatim, QD aims to stay closer to the data. The analytic procedures in ID encompass synthesizing, theorizing, and recontextualizing. QD, on the other hand, simply involves sorting and coding (Sandelowski, 2000; Thorne, Kirkham, & MacDonald-Emes, 1997). Likewise, QD should not be mistaken for pattern analysis, which aims to describe patterns based on specific attributes of the data, such as the participants' socioeconomic status, demographics, or structural issues.

### **Gaining access**

As part of the preparation to conduct additional interviews with participants from the primary study and to recruit additional participants, a protocol amendment was submitted to the Hamilton Integrated Research Ethics Board (HIREB) for the primary study (Project title: The Nurse Family Partnership Feasibility Study) at McMaster University. The principal investigator (PI) of the primary study had access to the targeted sample of participants. Following REB

approval of the amendment, the PI of the primary study contacted the community professionals, provided a brief summary and objectives of the current study, and asked their permission to be contacted by me (the student investigator).

### **Recruitment**

I emailed the community professionals who agreed to be contacted. For those who agreed to participate, an electronic copy of the consent form (Appendix B) was provided. This allowed participants to review the consent form prior to the interview. Participants were also informed that they could refuse to participate after having read the consent form. For those who were still interested in participating, an interview time and location that was most convenient for them was set up.

### **Sampling and sample size**

A total of 10 individuals were invited to phase 2 of the study, and four agreed to participate (for details please see Table 7). Four of the individuals who did not participate in the present study but were part of the primary study did not reply to the invitation email that was sent by the PI of the primary study. Of the two individuals who were invited to the study through snowball sampling (as discussed in a subsequent paragraph), one consented to participate. The participants were involved with NFP throughout the span of six years and, as such, were able to provide rich, contextual information. The mean duration that participants worked at their respective agency (CAS or HPHS) and duration in their current role was 19 years and 12 years, respectively. There were three females and one male in the sample. All participants had either a degree in Bachelor of Social Work (n=2) or a Master of Social Work (n=2). Detailed information obtained from a small sample can be valuable given that the participants in the study can provide rich, in-depth information for the phenomenon under study (Patton, 2002).

*Table 7.* Phase 2 recruitment process (number of participants)

<b>Organization</b>	<b>Invited</b>	<b>Consented</b>	<b>Did not reply</b>
HPHS (all individuals are newly recruited for phase 2)	3	1	2
10CAS – previous participants from primary study	5	2	3
CAS – individuals who have not participated in the primary study	2	1	1
<b>Total</b>	<b>10</b>	<b>4</b>	<b>6</b>

Purposeful sampling, which represents a variety of different non-probability sampling techniques (Miles & Huberman, 1994), was used to select participants who could provide rich information for the research questions. All types of sampling in qualitative research can be included under the broad term ‘purposeful sampling’ (Patton, 1990). Sample selection was guided by a consultation with the PI of the primary study who provided expert judgment and insights into the sample of participants who were the best fit for answering research questions of the present study. The following types of sampling can be considered as ‘strategies’ for purposefully selecting information-rich cases. Criterion sampling (where individuals for the study must meet some predetermined criteria) was employed to help ensure that each participant had experienced the phenomenon under investigation. The use of homogeneous sampling allowed for selecting a small sample who share the same or similar characteristics such as background or demographics with the purpose of describing a particular subgroup in depth (Miles & Huberman, 1994; Patton, 2002). The desired sample comprised 1) CAS professionals who could provide insight to the role of NFP in the context of child protection services, and 2) HPHS professionals who could share in-depth information on NFP as a home visiting program in Hamilton. Based on the findings revealed from phase 1, many community providers described NFP’s influence on the number of CAS referrals received and the timing of closing cases. Also, it was apparent in the interviews that CAS professionals worked closest with NFP PHNs among



the community providers. As such, the desired phase 2 sample consisted of CAS and HPHS professionals.

In phase 2, snowball sampling was also applied for locating additional CAS professionals. This is a sampling technique whereby existing participants would provide study information to other individuals who they believe as suitable subjects for the study. This allowed for individuals who meet the study criteria to become aware of the study, and thus, the opportunity to invite those who are interested (Heckathorn, 2002).

### **Data collection**

For phase 2, written, informed consent was obtained prior to the start of each interview. Data were collected using individual, semi-structured, digital-recorded interviews that lasted about 60 minutes. Participants also provided information on their demographics such as number of years working in agency, type of education, etc. To gain a deeper appreciation and understanding of the experiences and perspectives of the community professionals, the interview guide was developed from (but not limited to) the themes identified in phase 1 and the principles from the ecological framework. Data analysis and collection occurred concurrently and questions were modified in the interview guide to allow for better capture of themes.

Participants were offered the choice of being interviewed in person at a time and location in which they were most comfortable, or participating via Skype ®. Due to their busy schedules, three of the four participants preferred to be interviewed via Skype (Internet-based software that allows for videoconference and voice input). Mounting evidence has shown the cost-effectiveness and the flexibility that Skype offers over in-person, face-to-face interviews (Cater, 2011; Deakin & Wakefield, 2013; Sullivan, 2012). When skypeing to a telephone (for two of the three participants), non-verbal cues were not available. However, because QD is the conduct of a

detailed description based on the information revealed by the participants without a deeper level of interpretation; non-verbal, visual cues are not traditionally used for this qualitative approach. Further, telephone interviews have been reported to provide a relaxed, comfortable environment in which participants talk freely. Qualitative data collected in the mode of telephone interviewing have been described as detailed, rich, and vivid (Chapple, 1999; Kavanaugh & Ayres, 1998; Sturges & Hanrahan, 2004). Telephone interviews have several strengths over in-person interviews, such as reduced cost (of traveling), increased access to geographically disparate participants, enhanced anonymity, and increased interviewer safety (Novick, 2008).

The audio-recording of the Skype sessions was completed by placing the audio recorder beside the speakers of the computer to record the interview. A sound quality test was performed prior to interviewing the participants using Skype. Participants received a small token of appreciation (\$25 Indigo gift card). For those who provided consent for a follow-up session, a brief (30 minutes) follow-up phone call was made for member checking (clarifying any emerging themes from the interview or to ensure data were accurately captured). All participants agreed to participate in the follow-up session.

### **Data management**

Once the interviews had been transcribed and checked for accuracy, they were de-identified and then imported into NVivo 10 (QSR Pty Ltd., 2013). The use of NVivo also allowed the research process to be carefully tracked, which enhanced the auditability and credibility of the findings.

### **Data analysis**

Within QD, specific analytic strategies were not prescribed. As such, I chose to continue the use of conventional content analysis from phase 1 (Hsieh & Shannon, 2005) because it

allowed me to describe phenomena when existing theories or literature on this topic are limited. Data collection and analysis occurred concurrently in phase 2. I aimed to stay close to the surface of words and events (Sandelowski, 2000). A QD design (Sandelowski, 2010; Sandelowski, 2000; Sullivan-Bolyai, et al., 2005) and conventional content analyses (Hsieh & Shannon, 2005) provided a contextual framework to explore and describe new or formative qualitative data based on the community professionals' accounts of their perspectives on their relationship with NFP and the role of NFP in the context of providing support to the first-time mothers within the community. Henceforth, the analysis was guided by the perspectives of naturalistic inquiry (Lincoln & Guba, 1985), which emphasized on describing unique or complex situations as represented in their natural and contextual forms, and which required the researcher to engage in low-level inference when synthesizing and disseminating data (Sandelowski, 2000).

### **Rigour**

Appropriate measures were put in place in order to establish methodological rigour in the present study. I followed the four strategies as recommended by Lincoln and Guba (1985) to ensure trustworthiness, which include credibility, dependability, transferability, and confirmability. Trustworthiness of the present study was attained by emphasizing openness and thoroughness throughout the data analysis process and adhering closely to the QD methodology.

First, data credibility was achieved through a process of peer debriefing (inviting individuals who were not part of the research project to check the emerging categories), and via member checking, where participants from the second phase of the study were asked to confirm whether the findings and interpretations accurately reflected their perceptions and experiences. Dependability was enhanced by using a stepwise replication technique (which involved another coder to code parts of the data in order to compare findings), and a code-recode procedure

(coding a segment of data, and recode the same segment after two weeks to compare the findings) to ensure consistency in coding. Third, transferability was secured by providing rich and thorough descriptions of the research context and the participants' characteristics. By doing so, readers would be in a better position to assess the transferability of the data to other contexts. Fourth, confirmability was achieved by keeping an audit trail that included a log of all the references used for this study.

I also used field notes to help establish an audit trail for enhancing confirmability and transferability. I documented day-to-day information about the study, as well as methodological decisions I made throughout the qualitative research process. I committed to journal keeping to improve data credibility and confirmability. According to Finlay (2002), the use of reflexivity, a process involving conscious, self-awareness, helps researchers to examine pre-existing assumptions, motivations, and interests in the topic under study. Given that reflexive analysis should begin prior to data collection, I logged down any preconceived notions at that time. As such, the journal included my motivations for conducting the study as well as assumptions about what I expected to discover in the findings. As the study progressed, I continued to journal my reflections on the research process and interactions with participants (for phase 2). Reflexivity is an important step because it helped me separate my own preconceived perspectives and experiences from the data. By doing so, reflexivity allowed me to be mindful about my own biases while interpreting the findings (Krefting, 1990).

### **Ethical considerations**

To ensure participants' right to self-determination, I confirmed that participants were informed about the study prior to obtaining their written consent and that participation was under their own free will. The participants were free to withdraw from the study at any point in time

without providing a reason. Participants were requested to give a pseudonym to be used during the audio-recorded interview in order to ensure their anonymity. To ensure confidentiality, a list of participants' names and identification (ID) numbers were maintained in two separate documents. Consent forms were stored separately from the transcripts and demographic forms, in a locked cabinet. Digital audio files and transcripts were named using ID numbers and were encrypted. After each interview, the audio-recording from the digital recorder was transferred to a password-protected computer, and then deleted from the digital recorder. All transcripts and related documents were password protected and stored in a restricted folder. Further, the interviews took place in a separate, private room so the conversations between the student investigator and the participant were not heard by a third party. This provides privacy as well as a comfortable setting for participants to disclose potentially sensitive information. All ethical considerations were adapted from ethical principles and practices suggested by Burns and Grove (2003).

## **CHAPTER 4: FINDINGS**

The findings from each phase of this study are presented separately, followed by an integrated summary of the results at the end of this chapter. Phase 1 consisted of a secondary analysis of individual interviews conducted with community healthcare and social service providers. Themes emerged from this phase were further explored using the second phase, which consisted of a qualitative description of individual interviews conducted with experienced professionals from both HPHS and local CAS agencies who each had a significant level of experience and knowledge collaborating with NFP PHNs, supervisors and clients.

### **Phase one: Qualitative secondary data analysis**

A summary of findings from the content analysis is presented in Table 8. Overall, across the data I have identified three overarching themes that reflect and are organized similarly to the first three layers of Bronfenbrenner’s ecological model of human development (1979); a framework that served as a theoretical cornerstone of NFP. First, the social service and healthcare providers revealed insights on the NFP program’s curriculum and the PHN-client relationship; both of which were perceived to improve parenting skills, and to help clients become self-sufficient and adopt healthier lifestyles. As such, the NFP program structure influenced the child’s environment and interactional settings at the microsystems level. Second, the providers’ perspectives on the NFP’s communication with other community services reflected its interorganizational collaboration efforts, which act at the mesosystems level. PHNs actively mediated between the client’s family and a wide range of exosystems including maternity homes, clinics, maternal-child programs in hospitals, child welfare, and other local community supports. Finally, the providers also shared insights on how NFP’s contributions

impacted on these exosystems for the family; which serves as the third theme in phase 1. Figure 2 provides a visual representation of the three themes.

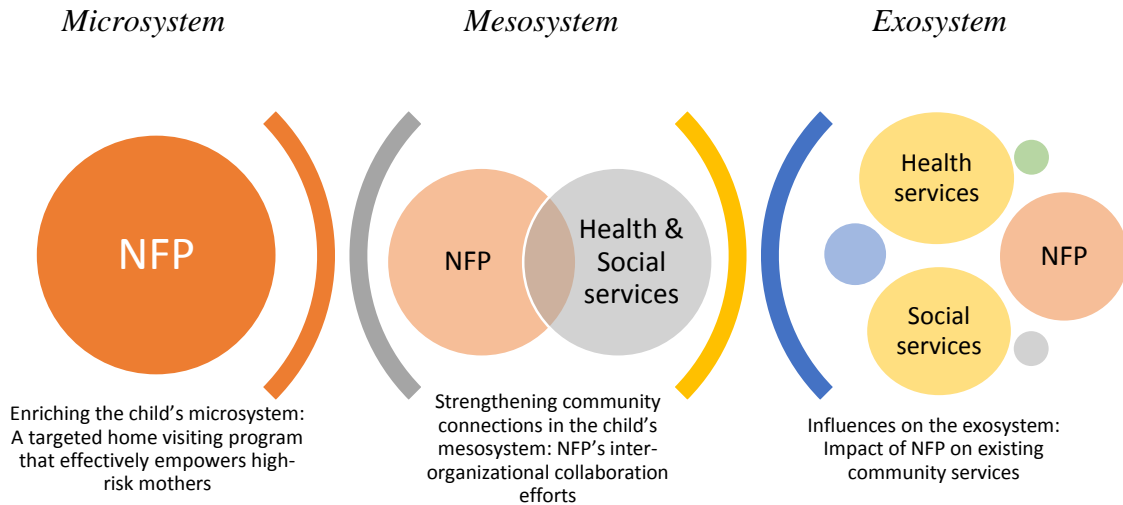


Figure 2. Visual display of the three main themes that emerged from phase 1 interviews.

Table 8. Summary of findings from phase 1 interviews

Theme	Category	Sub-category	Codes
Enriching the child’s microsystem: A targeted home visiting program that effectively empowers high-risk mothers	NFP Delivery	NFP Curriculum	<ul style="list-style-type: none"> <li>• Program structure and intensity</li> <li>• NFP as an evidence-based intervention</li> <li>• Preparing clients for motherhood</li> </ul>
		NFP PHNs	<ul style="list-style-type: none"> <li>• NFP PHN-Client relationship</li> <li>• PHN expertise and professional image</li> </ul>
Strengthening community connections in the child’s mesosystem: NFP’s inter-organizational collaboration efforts	NFP in partnership with other community agencies		<ul style="list-style-type: none"> <li>• PHN as a direct connection to community services for clients</li> <li>• Awareness of NFP</li> <li>• Challenges with referrals</li> </ul>
		Collaboration between agencies and NFP	<ul style="list-style-type: none"> <li>• Preference for further collaboration with NFP</li> <li>• Preference for constant communication with NFP PHNs</li> </ul>
Influences on the exosystem: Impact of NFP on existing	NFP in a community context	Impact of NFP	<ul style="list-style-type: none"> <li>• Serving and supporting a needs gap</li> <li>• Child protection services</li> </ul>

community services		Duplication with existing services	<ul style="list-style-type: none"> <li>• Community agencies</li> <li>• Healthy Babies, Healthy Children</li> </ul>
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*NFP delivery*

The healthcare and social service providers perceived the implementation of NFP to fill an important service gap for young, low-income pregnant women in the Hamilton, Ontario community. The providers unanimously expressed appreciation for the program’s structure and intensity in preparing clients for motherhood, the strength of evidence-based findings, the expertise that PHNs brought to the home visiting program, and the close relationship built between each client and her PHN.

*Program structure and intensity.*

The community professionals highly valued the program’s structure (setting specific goals for each nurse home visit) and intensity (the duration of the program and the frequency of the visits). The professionals commented on the benefits of tailoring the number of visits to the different stages of gestation or parenthood (when the child is born), the flexibility to re-arrange the schedule, and the structured curriculum. The clear, defined goals in the structured curriculum were widely considered as a key strength and a unique characteristic of NFP compared to existing home visiting programs in the community. The idea that the intervention was a targeted home visiting program was recognized as a helpful strategy for first-time, high-risk mothers. The involvement of a PHN early on during the client’s pregnancy gives the client a head start in connecting her with relevant resources and for establishing a trusting relationship with her. The professionals also noted the program’s tendency to encourage positive parent and child relationships, and to teach good parenting skills while achieving the optimal balance in program



intensity and frequency of scheduled home visits. One of the frontline providers in a maternity home commented:

*I really like the program. My favourite part of it is how intense it is and how it starts early in the pregnancy. You know I think it gets expectant mothers starting to think about parenting and all that kind of stuff. That would be my sort of favourite part of it. It gets them connected to the parenting groups and you know prepare for their baby. And I also like that after the birth of the baby they visit once a week for 6 weeks you know because that's you know sort of a high-risk time so I think that's a good component, and the fact that it goes for 2 years too...So it's very intense I guess. (S523)*

Overall, the frontline providers expressed appreciation for the structure and intensity of the NFP program, often referring to the details related to scheduling, flexibility, and frequency of the visits; the start of the program early in pregnancy was perceived as a crucial step to forming the relationship with clients. Although some providers stated that they were not familiar with the details of the curriculum, they were confident that the curriculum delivered positive outcomes to the target population based on their interaction with clients and other service providers who worked with NFP.

*NFP as an evidence-based intervention.*

Agency leaders and frontline providers expressed positive comments about the strength of the outcomes associated with client participation in the NFP program and acknowledged this as an important evidence-based intervention. Specifically, the credibility of NFP was acknowledged due in large part to the strong evidence in improving maternal and child health outcomes using an evidence-based approach. They recognized the long-term positive impact of the program on young, low-income pregnant women as reported in the US trials; this served as one of their reasons for advocating and supporting the implementation of NFP in Hamilton, Ontario. They vocalized their appreciation of program replication across different sites at an international level and readily identified NFP as one of the few evidence-based home visiting

programs for improving maternal and child health. One of the participants also reflected back on existing home visiting programs that were theoretically driven, but where the effectiveness of the intervention was not rigorously tested. Overall, the participants had an awareness of the US evidence, including the results from the NFP replications. For example, a CAS professional shared:

As far as this particular program goes I've been pretty *impressed*. I know that a few years ago (lead in field) did some research around in-home visiting and the impact of in-home visiting, and the results of that research really left some question about whether or not in-home visiting was, in fact, an effective method of intervention. And so this ... obviously the results that they've seen in the *US* in terms of *long-term impact* and outcomes that they see *that* was very impressive to look at. (S509)

One of the participants even suggested that NFP could be a solution to addressing the needs of all high-risk mothers given the existing research supporting the effectiveness of NFP: “But obviously the research that's been done *already* and the results in *other countries* it's pretty *compelling* that for this population this could be a *solution*.” (S524)

*Preparing clients for motherhood.*

Participants in this study described NFP as a very beneficial program for young, low-income, pregnant women. NFP was perceived to offer enormous support to the clients by educating them about labour and delivery, positive parenting skills, mental health, the notion of family, and providing the clients with medical knowledge about the baby's health (e.g., jaundice, fevers, vaccines, etc.). By establishing the relationship with the clients before the baby is born, PHNs were thought to be in the best position to address risk factors that would have been detrimental to the baby's health, and to support the client in preparing for her new role as a parent. PHNs were also thought to play an integral role in monitoring the newborn's feeding patterns and locomotor behaviours, educating clients on how to appropriately look for symptoms for particular newborn illnesses and, most importantly, providing the resources available to

further support the client to achieve her short and long-term personal goals. Many of these resources included information on career, finances or education. A public healthcare professional contrasted clients who received NFP services versus those who did not, and found “the [NFP] clients that *were involved* definitely seemed *very well prepared* for when their babies *did arrive*” (S511). An example reflecting on the benefits on educational components came from another frontline provider:

Oh, the *educational* factor and the *hands-on* educational factors are really an enormous *help* to the girls, and especially when you’re young and you’re coming home and you have to bathe the baby... *that* is really important that somebody be there to help with those types of things, and giving them... a chance to *talk* about some of the stresses that they’re having in their life with regards to parenting or taking care of their child. (S521)

This quote also illustrates the essential core of the NFP, which is the formation of a therapeutic relationship between the client and her PHN, and in particular, when PHNs become the clients’ go-to person for talking about stressors in their lives. In addition to educating clients about health issues and teaching positive parenting skills, PHNs played a key role in empowering the client by boosting her confidence and self-esteem by introducing positive, productive activities in her life.

As another frontline provider described:

I think it’s helping them *improve their parenting* and I think these nurses also are a support to help them with their self-esteem issues that they have because a lot of them have low self-esteem. And usually the nurses I’ve talked to they seem to be like they’re trying to help them do more positive things with their life. (S508)

#### *The PHN-Client relationship.*

Participants perceived the PHN-client relationship as a crucial aspect of the intervention, speaking to the evidentiary strengths of the trusting, long-term relationship established over the course of the program. One public healthcare professional shared her insights about the client-PHN relationship. She noted that the clients were committed to meeting with the PHNs regularly over many months without missing a single appointment. Although she was not aware of the

details that were covered in the sessions, she was confident that the clients developed a strong relationship with their PHNs to continue the scheduled visits. From her experience, high-risk mothers have been a difficult group to engage. The participants also discussed the importance of the individualized attention that each PHN provided to her clients. The one-on-one attention, in conjunction with the regular visits over a period of up to 2.5 years, were perceived as the most crucial factors for establishing trust and fostering the relationship with clients. One participant even referred to PHNs as the clients' "surrogate mothers" because of the strong bond, the high level of comfort, and the attachment they observed between the clients and their PHNs. As one social worker elaborated:

I think it's *definitely* somebody that they can feel confident in *calling* whenever they have a *question* or a *concern*...it's my understanding that the clients have their [PHNs] cell phone numbers. You don't get that very often that you can just pick up the phone and just get a hold of somebody who's in the medical field *right away* and say you know what, I just want to pick your brain, what do you think? I think young mothers need to have somebody who they can feel *confident* and *trust* in that way. For the mothers, again, I think it's the *whole relationship piece*. (S511)

Many participants recognized the PHN-client relationship as one of the unique aspects of the NFP program, because many other existing community services do not create opportunities for a long-term relationship between the frontline provider and low-income, young mothers. One of the example statements included:

...the relationship that they *built* with that person [PHN], the time that they have with that person is *extended* past a lot of other programming that they may fall into, and so that it gives them more of a base relationship to work off of or all of their other partnerships to come from...And during the first 2 years having somebody come into the home is going to encourage a *lifelong accessing* of programming. (S521)

In addition to the trust built between the PHNs and clients over time, equally prominent in the interviews was the consistent support and advocacy that PHNs provided for the clients. One participant who had a supervisory role in one of the agencies (S512) commented, "I guess

that on the one hand there's, there's sort of a *consistent support* that she knows is there. On the other hand, there's the *strong* advocacy..." She continued further by stating, "I think there's a certain level of *stability* that you, that you, that you *obtain* if you have a nurse like that that's going to see you through to 2 years." Many providers also saw the benefits of the stable relationship taking into account that other relationships may, as one of the providers suggested, to "flow back and forth in her [client's] life." Further, the long-term, stable relationship formed between a client and her PHN gave a sense of continuity to the community providers (that the client is being followed up) when the client exited the program at his or her agency.

*PHN expertise and professional image.*

All participants collectively agreed that PHNs brought specific knowledge and expertise about health-related issues for the clients in the NFP program. They expressed that PHNs were perceived to have a better reputation and a more positive public health image compared with other community professionals who work with young, low-income mothers including social workers; CAS workers; or parent support workers. It was explained that from a parent's perspective, professionals involved in the child welfare field are often stigmatized. One social worker contrasted the public images of PHNs versus social workers and CAS professional in a given context:

I think that you know people often get their anxieties *heightened* when they know ... if they know it's a *social worker*. I can often *sell a program easier* if I say it's voluntary, it's a nurse who visits all walks of life, it's not somebody who's coming to "*check up on you*" whereas people feel that if it's a Children's Aid worker or parent support worker that that's kinda more the case. (S511)

PHNs were also described as a group of healthcare professionals who were well-informed about appropriate programs within the community, and were better advocates for health promotion than other community providers. Furthermore, by having PHNs instead of other

community providers to conduct home visits, the clients had quick access to a healthcare professional who could provide health assessments and answer questions, all of which were perceived to be far more efficient than booking an appointment with a family physician for check-ups or to address any of the client's emerging health concerns or to make a referral to an appropriate medical professional or other care provider. Other participants described NFP PHNs using phrases such as “[PHNs] gives more credibility to the whole program [NFP]”, or “person who has real answers”. A community provider pointed out the benefits of having PHNs working with the clients, “They've [PHNs] got, they've got all that medical *growth and development*, all that kind of stuff...I think that they *are* good to have, yeah” (S519). One CAS professional perceived PHNs as having “very good rapport” when referring to a time when the client initiated on inviting her PHN to attend a case conference. She elaborated, “...this mom in particular felt very comfortable just to call this nurse all the time to *ask* questions or say look this is what's happening, can you come to this meeting?” (S515). A social service professional commented, “I think on the whole you know the community's perception of nurses is, is really positive” (S510).

When asked about whether it was a good idea to have PHNs as opposed to just lay home visitors or paraprofessionals conduct home visits with this targeted population of mothers, most of the participants thought it was important to have a PHN who could educate the clients on the healthcare needs of the mother, perform routine check-ups on the baby, and promote use of services in the community. One of the healthcare professionals suggested that broader implementation of the NFP home visiting program may lend itself to a greater number of unique medical issues and, as such, PHNs may be more suitable to deliver the program. Another healthcare professional commented on the advantages of delivering the program through PHNs:

Yeah, so public health nurses in the family health division *know quite well* what other programs are going on in family health and maybe healthy living and health protection

whereas a lay home visitor will be quite *focused* and may not... So I think *that's* definitely a benefit that the nurses have a *broader perspective* and they bring with them the *medical knowledge*. (S514)

*NFP in partnership with other community agencies*

The community providers perceived PHNs as a direct connection to community services that offer support to young, low-income mothers. These include supports for housing, schooling, or healthcare. They also looked toward further collaboration and more communication with NFP to enhance the services they provide to this target population. The subsequent paragraphs will report on these findings in greater depth.

*PHN as a direct connection to community services for clients.*

A large number of participants expressed that PHNs served as a direct connection to the community services for clients in the NFP program. PHNs brought to the young mothers resources on housing, schooling, and many other organizational supports. One of the professionals (S511) commented on the PHNs' abilities of connecting the young mothers to resources early in pregnancy: "...they [PHNs] can get them [clients] you know *connected* with *Early Years Centres*, they can you know get them into *prenatal classes*, they can, they can start to *establish* that relationship *early*." A couple other participants pointed out that PHNs could be a highly beneficial resource especially for mothers living in isolation. First-time, high-risk mothers may be overwhelmed and intimidated to reach out to the community for help. Meeting these mothers in their home almost means bringing these community resources to them. As one participant described:

Ok, well I think the *first* piece is it's a, it's a *more personal and direct connection* for them to *someone* who can *facilitate* a lot of other things *happening* in the community. So sometimes these young mothers can be *isolated*. They have some questions about how to access certain services in the community. They may find it pretty intimidating to take that *first step* in going to a *program* where there's a *larger* group of people to have to

deal with is sometimes much more difficult than managing sort of *getting* a process of connecting to services on a one to one. I think *that's* a real bonus. (S509)

*Looking toward further collaboration with NFP.*

There was a collective sense that healthcare and social service providers within the community need to collaborate effectively, and identify and share common goals to effectively offer a continuum of coordinated services for their clients. A couple of providers described the benefits of working together with PHNs because, like NFP, community agencies are also client-centered and strength-based. Other providers emphasized the importance for programs to be collaborative in nature and pointed out the value of a bidirectional approach to promoting community services. For instance, a healthcare provider suggested that PHNs who have a greater awareness of the services within the community can more readily refer their clients to these resources. Similarly, community agencies can promote NFP by inviting PHNs to the centres and present what they do to the agencies' existing clients. Many of the providers looked toward further collaboration with NFP because they saw the value of the program within the community. They spoke to the benefits of NFP for the young mothers. The following exemplary quotes were from a healthcare professional and a community provider, respectively:

I would *love* more collaboration. Like say something like *feeding* difficulties or *weight* difficulties with the infant or, or ... You know what's *really* good right now is *mental health, depression, awareness, screening*, and then the follow up with contact with the primary care provider. I find they're *excellent* at that. (S502)

I think that there's a lot of potential to *collaborate* and *work together* because it's a great service to have and getting the girls linked up while they are pregnant even when they're living at (Maternity Home) is a good thing because when they *leave* they have that person to kind of follow through and follow up with them, which is an important piece and an important role. (S504)

Participants also described the integral role of community support for NFP to continue and thrive. One of the social service providers suggested that NFP needs to be part of a



continuum of support for high-risk mothers; housing, employment, and mental health issues may not be entirely resolved for the client upon graduation from the NFP program. As such, NFP is in a position to prepare other agencies that would continue or begin to provide support to these young mothers. This lends itself to further collaboration between NFP and other community agencies to form a concrete, supportive infrastructure for this targeted population. One of the community providers stressed the importance of delivering the range of community services to each client in a seamless fashion to make the experience straightforward in order to keep her engaged; forming a collaboration is a vital step towards this goal. Another community provider commented on the relevance of involving community agencies throughout the NFP program:

Well whatever the agencies that they're [NFP] participating in you know in the community because I know they want community support and I think community support is *vital* and I think *partnerships* with public health are *valuable*, they're *necessary* and, and we very much appreciate that. But I think, again, it's great to get us *involved* and get us *supporting* and get us *referring* at the *beginning* but then keep us involved *throughout*...So, again, it's working to develop that working relationship so it needs to be two-fold. (S503)

One of the community providers discussed collaboration as a means to prevent duplication of services for the clients. She described:

So it's just a matter of *connecting* and you know *collaborating* so that *you're not duplicating*. And I think that's what's really important and that what I try to do when, when I ... when there was a number of different agencies, specifically if there's a Nurse-Family Partnership...let's pull everyone together...(S519)

#### *Awareness of NFP.*

A small portion of the providers thought there was not enough awareness or buy-in from obstetricians, who were perceived to be doing fewer referrals to the NFP program compared to midwives. There was also a general consensus about a lack of awareness of NFP among physicians. It was suggested that NFP should reach out to physicians to promote the program

further and to disseminate information about the positive outcomes. As a CAS professional and social service provider, respectively, commented:

You know I see the midwives referring *a lot* but I don't see *obstetricians* referring as much...the obstetricians and family doctors don't seem quite as knowledgeable, or maybe they're just not *interested* in it, right? (S518)

I'll be honest with you I don't know how much you got to the *obstetricians* and to the *residents* and stuff, because residents rotate monthly. They don't know what it is most of the time. So if I say it, amongst our smaller collegial group, yeah we know what we're talking about...but I think it could have been marketed more strongly with the physician group. (S517)

#### *Challenges with referrals.*

When asked about whether there were challenges with referrals related to the NFP, healthcare and social service providers who were involved in the referral process identified two issues. Most providers suggested that it would be helpful for NFP to provide information about how the NFP referrals are made, so that the process could be more transparent. This would also help providers who are receiving the referrals from NFP to be prepared for the incoming clients' needs.

Providers who normally made referrals to the NFP also identified several challenges. Most vocalized their frustration and disappointment about NFP's eligibility criteria as too 'stringent', as a few would describe it. These providers recounted their personal experiences where they had clients who would have benefited immensely from the program, but the referral to NFP could not be made because their client was over 21 years old. One social service provider (S517) discussed the similar needs that a 23-year-old mother had versus mothers who were under the age of 21. She elaborated, "Kids in college who have kids equally need the amount of support, because they are also ostracized by their family and peers."

Another drawback was the timing of the referral process despite young mothers having met the age limit for NFP. According to the providers, it was not uncommon to receive an influx of young mothers who were “too far along [weeks in gestation] in terms of referring.” This quote was provided by one of the social providers, who expressed her disappointment in not being able to make a referral:

Yeah. I mean the only other ... the only drawbacks sometimes I find with the program is the mother would be *too far along in terms of referring* and it could be a *really high-risk mother*, you know an 18 year-old that nobody kind of referred to the program and now she's 33 weeks and she's, she's over the *cut off*. That, that sometimes can be a bit *disappointing* because you think she'd *really, really do well* in the program, yeah. (S511)

Another social service provider recounted a similar barrier to referral for a small proportion of young mothers who she would not have met until they had already given birth:

Well the problem ... you know I ... the problem is though I deal with probably 100 young women in the last 12 months who are less than 21 years old that doesn't mean that I *knew* them before 28 weeks and can refer them to the NFP. So that's the *frustrating* part... You know so there's a small proportion of those women that I've met who are in *need* of a program but don't meet the exact requirements of the NFP, right? Because they are too far in their pregnancy, I didn't meet them until their baby was born. And then you're at the, you know, at the really kind of thin end of things... (S523)

Language barriers were identified as one of the major challenges for referral of immigrant women. Social service providers expressed the view that immigrant women might benefit highly from the NFP program, provided there are interpreters available to assist them. A social service provider reflected on her experience with an immigrant woman who did not understand English and her husband helped with interpretation. She cautioned that the woman may have been in an abusive relationship or relevant information may have been filtered out by her husband. All of this only pointed to the importance of providing interpretation services to immigrant women to provide accurate assessment of eligibility for the NFP program. As one social service provider elaborated:

Because you do see a lot of ... we do have a lot of immigrant women here and sometimes maybe they, they don't come across to us as being as *needy* but that could be, or *at risk* maybe should I say, but then that could be a *language* thing... So there's probably quite a few of these women who probably *could* benefit if it wasn't for that you know the *language* issue. You know it could be both in terms of coming in *here* and having an interpreter that could help them present their needs *better to us* and then consequently we would be more aware of what these *are* and then they, they could also probably meet the criteria for the Nurse-Family Partnership. (S510)

*Preference for constant communication with NFP PHNs.*

There was a strong preference for more communication with NFP PHNs among the providers who were interviewed. The providers alluded to the potential benefits of more communication including better referrals and the capacity for enhanced community support for the NFP program, as well as greater awareness of the goals that NFP is trying to achieve. The healthcare and social service providers unanimously expressed the importance for any given agency to know about the home visiting program, which could “add to the credibility of the referral,” as one healthcare provider described. One of the community providers suggested that planning meetings with NFP would help them keep up-to-date with NFP's progress within the community, which could serve as a guidance to help their agency better support NFP, particularly around referrals:

I think *meetings* every once in a while to keep us *up to date*, to let us know *what's happening* so that we can *support* the program. So that ... it's you know the ... what happens is if you *know what something is* you can *refer* it a whole lot better. (S503)

In addition to improving the referral process, constant communication between community agencies and NFP PHNs was also perceived to enrich the community services provided to clients. PHNs were considered to have greater insights regarding the needs of each client and her situation, given the frequent home visits and the bond they established with the client over time. Finding the optimal collaborative environment through communication was considered highly relevant with regards to providing clients the best service possible. One

community provider explained how constant communication could help either party (agency worker or PHN) to re-connect with the client if she was lost in touch. Healthcare professionals in the study also valued frequent communication with their patients' PHNs. The occasional visit to the physician's office may not alert the healthcare professional to detect any issues. Given the frequency of the home visits and the relationship developed over time between the patient and her PHN, the healthcare professionals looked to PHNs to provide firsthand information regarding the status of his or her patient.

Another community provider revealed instances where the logistics of scheduling appointments, and arranging for the necessary resources could be improved with greater communication between herself and the PHN. She recounted times when she would receive a PHN's last-minute phone call at her maternity home to ask whether the client was at the home. Although the PHN met the client at the maternity home as arranged, the room that was booked for the meeting, which included a video session, was not equipped with the necessary DVD player or other media technology. The provider suggested that advance communication about what is needed would have made the experience for the client much smoother and better organized. Moreover, a brief update about the client's status could give providers a greater context. In general, the exchanging of information could help community agencies provide a more tailored service or accommodation to the clients. As a community provider described:

Yes, as to *how* we can support that particular client or if there's any special needs or supports that that particular client may require *from us* that the nurse could *tell us about* because there's never been *that* kind of communication. Could we have made that girl more comfortable here? I mean that one is kind of an obvious one. (S506)

One healthcare provider suggested touching base regularly with the PHN about really high-risk families, which, to her knowledge, would be all of the clients in the NFP program:

Now there's always room for *improvement* in any program and what I would perhaps *think* about in the future would be a *more directional* kind of communication with the public health nurse and the primary care provider...I would like *more* communication. I think that would be useful for us to maybe touch base *regularly* on *high-risk* families, the really high risk, which I guess all of them are. (S502)

*NFP in a community context*

NFP was thought to positively impact the community agencies without interfering with the logistics of existing services. The community providers felt that NFP filled in a needs gap for the first-time, young mothers in Hamilton. Many of the providers also commented on the impact NFP had on child protection services including closing CAS cases earlier, reducing the number of CAS files being opened, and enhancing the process of safety planning with high-risk families. There were concerns regarding a duplication in services with existing agencies and some providers spoke to the comparisons of HBHC with NFP.

*Impact of NFP on existing services within community.*

When participants were asked how NFP impacted on their existing services, all of them reported that NFP did not interfere with the logistics of how they provide their services. Instead, they viewed NFP as another agency “going in” to support their clients, and acknowledged the positive impact of PHNs on their services, both directly and indirectly (through the clients). The introduction of NFP was considered as not only an asset to the existing community services, but also a long-anticipated, effective intervention targeting young, high-risk mothers in Hamilton, Ontario. One of the healthcare professionals reflected on the relationship developed with another healthcare provider to enhance care. She explained, “I would say it [NFP] does *not* change the way that I provide services. What I think it does though is provide a *synergistic relationship* with *another* healthcare provider that *enhances* the care that *I* like to provide” (S502). The

introduction of NFP was perceived as augmenting the services that were provided to first-time mothers, as one physician related:

Yeah, I was very *excited* about it and from my perspective, as a family doc, it saves me *time* and I know that I can hook up my patient with resources that *hopefully* will be able to help her *keep a baby* and be a *better mother*... The *reality* is *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. (S514)

The physician further elaborated on the value of PHNs' role in terms of giving updates on her patient so that it gives her a clear picture of the current issues she is going through:

So the public health nurse has been *great* in terms of *checking in* because you know the patient was coming to me saying things are going *great* and you know was following through with me but then wasn't following through with *that* nurse. So clearly there were *issues* and so it was good to get *connected* in that way.

*Filling a needs gap.*

NFP was widely perceived as filling a needs gap within Hamilton, Ontario among the participants. All participants seemed to have a good grasp on the status of young mothers within this city, given the amount of interaction they have had and the range of services they provided to this population. Hamilton was identified as a city with high rates of poverty and young mothers. One healthcare professional expressed that Hamilton was “a good site to pick” to conduct the feasibility study, given the “high need” of a “well structured” program targeted for young mothers. The professional elaborated, “I think the program was *well structured* in that it kind of married *education with experience*, the *opportunity*, and *filled a niche* in an area where they knew there was *high need*” (S502). Other participants discussed the benefits of the NFP program that addressed this gap. This included the positive, supportive relationship established over time with a healthcare professional; an immediate connection to the wide range of community services; and the intensity of the curriculum geared toward improving mother and child health outcomes. As one service provider described:

That it [NFP] *fills a very deep need* for the youth who *are* pregnant and parenting...it's able to do an assessment of *the home*, to be able to do an assessment of *parenting skills*, and the *health and development* of the child... it fills the *gap* of youth that fall away from accessing or from reaching out to people to somebody that comes to them, right? And it fills that, yeah, the relationship that they *built* with that person, the time that they have with that person is *extended* past a lot of other programming that they may fall into... (S521)

CAS professionals seemed to have further insights into the status of young mothers in Hamilton, given their frequent exposure to high-risk families. One recognized NFP as a program with the most potential to break the cycle of young mothers who have multiple pregnancies, but who are not able to parent long-term. As she described:

...we [CAS] see young mothers who just you know continually – they're pregnant, they come back, they refer to us. We can't seem to you know make that connection and get the cycle to change. This [NFP] had showed so much *promise* that to change *that pattern or cycle* would be *so* significant. Because we see here the number of mothers who've had you know repeated pregnancies and just have never been able to parent long term. (S509)

*Impact of NFP on child protection services.*

A large portion of the participants commented on the impact that NFP had on child protection services (specifically Children's Aid Society) and thus, this aspect warrants a separate description of findings from other existing community services. For instance, the PHNs were thought to have facilitated the entire case planning process for CAS intake workers, which made safety planning with the client much easier. CAS workers also reported feeling more confident that there is another healthcare professional who works closely with the clients. One participant described that the involvement of a NFP PHN working with a client "will stop the file from becoming protected...so that will prevent the Society [CAS] from having to be involved" (S516). CAS workers also commented on their trust in PHNs communicating with CAS if there were to be any concerns with the client. Another participant considered NFP as "more intense work" and felt "more confident closing the [CAS] file" when the PHN was providing home visiting to the



client regularly. This participant further elaborated:

I don't know how this particular case would have *went* if I didn't have that other person (PHN) to *help facilitate* the, the meetings that we had, to help be another person that was having *eyes on the situation*, and also in terms of *giving* me the information that was actually what was going on, right? So I think *definitely* it helped to just give me a *clearer picture* and to make *my* planning easier, *and* to provide a better situation and *plan* for the baby and for the mother. (S515)

Working with NFP was also considered to facilitate the work for CAS workers. For example:

And you know certainly from a *child protection* standpoint it really does ... it makes my job *easier*, right? Because it's another support person *involved* with the mother and that always reduces the risk, right? (S518)

Other community providers thought the inclusion of NFP PHNs in the client's network of support services was one of the determining factors for preventing or ending CAS involvement. PHNs were thought to give community providers the confidence and assurance about the client's competence in taking care of her child. They also believed NFP involvement may prevent clients from "losing custody of their children, or preventing abuse to their children" (S508). One quote from a CAS professional suggested that some of the CAS in-home support may not be needed:

So that's, that's (NFP) probably the *biggest* piece. I would say that it would be ... the way it's influenced, some cases may not have *opened* because Nurse-Family Partnership was *involved*. And the other thing is that some of our (CAS) own in-home support services may not have been *required*. (S509)

A social service provider explained that she would be referring to CAS more if NFP was not available. But with regular communication with PHNs, she could receive more accurate progress updates on the client since PHNs interact a lot more with the client:

Well I would certainly be referring to Children's Aid more, CAS more, yeah. Because there's quite a few situations where you know I have *some concerns* but because there is a nurse involved from Nurse-Family Partnership... we will communicate regularly and depending on what she's seeing because she will be, in general she'll be seeing *more* than I do plus she'll be seeing them in their home environment so she's going to get a *better sense*...I would be referring more of families to Children's Aid if it wasn't for the Nurse-Family Partnership. (S510)

CAS workers and other community providers recognized the differences in perception between PHNs and CAS workers among families. PHNs were perceived more positively and were more acceptable to families than CAS workers (which had a stigma attached to it), as a community provider stated:

I think...public health nurses tend to have a pretty good reputation I think. It works with, you know in the community more so than if you want CAS workers delivering the program. (Laughs) (S510)

Another CAS professional commented on the process of developing a safety plan along with the client and her PHN. The PHN's involvement was perceived as enhancing the strengths of the client; the PHN was considered an advocate on the client's behalf because she was able to speak to the milestones that were achieved towards the goal for promoting a safe home environment. By having meetings with the client alongside with her PHN, it helped remove some of the fears that the client may have about CAS:

...we [CAS] *set the tone* for the working relationship with the family who teetered on the edge of being *highly critical* of the Children's Aid and *highly skeptical* so they, they *struggled*. It would have been *way worse*...Probably if we *hadn't* had the meeting [with PHN and client] it probably went ... it would have gone the other way to solidify their fears that the Children's Aid was going to you know, like I said, a *process* to keep us from our child, *not* believe what we say, not recognize *strengths*. (S512)

CAS workers highly valued working with NFP PHNs for a common client, and often referred back to the positive experiences in collaboration and the helpful support they received from the PHNs. There were some barriers that prevented a seamless collaboration, however. One CAS worker recounted her experience with the PHN when they worked "side by side together." She elaborated on the challenges of understanding each other's roles; specifically when her role as a CAS worker changed when the client's file goes from non-protected to protected. CAS had to intervene and implement specific services for the client. She continued:

There was a couple of times, I have to be honest, where it was I didn't know if it was because she didn't understand *our role* and maybe I didn't understand *her role* as much as we needed to, to work more together.... when the baby is born and it becomes a *protection* file... there's then child safety and protection concerns. So *our role changes*. So when I worked with the (NFP PHN) with this mother *before* the baby was born it was a lot different and *easier* as far as following *her*...But once it became *protection* I *had* to intervene. I *had* to put services that the Society *has in place* for this mother because it became protection and there were concerns... (S516)

A physician reinforced the CAS worker's reflections by raising concerns about the need for clear boundaries and expectations to overcome the potential challenges of the working relationship between CAS workers and PHNs. The physician questioned the roles that each of the professionals have in supporting the mother-child dyad as follows:

The one thing that I think, I'm not sure if it's a *challenge* or...how to decide how a CAS worker *works with this nurse*. Because for cases like this they have to be *consistent*, with *clear boundaries*, and *shared expectations* and *knowing* what is the role of *this person* versus the role of this and at *what point* does one *supersede* the other, and I'm not sure if *that's* worked out but it's kind of clear with the interactions I'm having. Yeah, they're just figuring that out like *who* does *what* and *how* do they work *together*. So I think it'll work in the best interest of the mom and the *baby* but I don't know if that's something that has come up before about who ... like who *takes the lead?*, who plays a *supportive* role?, *what's* the primary role of the public health nurse versus the CAS worker? (S514)

*Duplication of services with other agencies.*

Staff from maternity homes expressed concerns about the duplication of services between their agency and NFP services, which resulted in clients dropping out of the NFP program. A team leader in one of the maternity homes contrasted the different services being offered to clients who are in residence and those who receive community services, but do not reside in maternity homes. Clients in residence were reported to have received a lot of duplicated services from NFP and the maternity home:

It's *so* duplicating and they're *getting it* (community service) *three* times around, so the girls (young mothers) are *very frustrated* sometimes when they're in the *residence*. Like it's *different* sometimes if it's *community clients* but in the residence there's, there's issues of duplication. So we've *had* some girls *drop out* of the program [NFP] because

they're very frustrated...So a lot of duplication where they're trying to do things that it's already *done*, or there's a person in place...(S505)

Other community professionals also commented on the duplication of services between maternity homes and the NFP program based on word of mouth. For example:

And I've heard from other mothers that, for example, that live in like residential like [Maternity Home] or [Maternity Home] that it's kind of *repeats*, right? Like they go ... they have their programming at [Maternity Home] and then they meet with their public health nurse and it's just kind of like *I'm well aware of all that stuff...* (S518)

One community professional who works alongside with CAS explained the importance of collaboration and communication so that duplication is kept to a minimal for the clients:

...I mean duplication can happen in any agency, with a number of different agencies. As long as you have you know *case conferences* and *who's doing what* and people can take a *part*...And that's how we collaborate with a lot of ... you know with CAS when they have a parent support worker; if it's the Healthy Babies, Healthy Children they have a family home visitor, we can all take a *piece*, right?, and then it *all works*. And it's *not so confusing* for the client...So it's just a matter of *connecting* and you know *collaborating* so that *you're not duplicating*. (S519)

*NFP compared to Healthy Babies, Healthy Children (HBHC).*

The participants reflected that it was initially challenging to distinguish between HBHC and NFP because they are both home visiting programs delivered by PHNs to mothers where the goal is to promote positive maternal and child health outcomes. But through further engagement with NFP PHNs, participants gained a better understanding of the program structure and the goals of the NFP program when comparing it to HBHC. Participants then commented on the benefits that NFP had over HBHC in terms of educating the young mothers about parenting, the frequency of home visits, the structured curriculum with well-defined goals, and the opportunity for them to foster a long-term relationship with a specific nurse. One social service provider explained:

Initially, I really didn't understand *what* was different between *this* program and the Healthy Babies, Healthy Children Program in general. And it wasn't until actually (NFP PHN) sat down with me.... I had *no* idea that it was a more *scripted* ... at each visit it was pretty *scripted* and they had *homework to do* and it *wasn't* kind of just more *loose*. It was... more educational than that and I was *really, really impressed*. (S511)

One of the community providers vocalized some of the differences she noted between HBHC and NFP:

And it's more of a *support* for them because I think this program the nurses visit them *more often* than they would if they were just in the Healthy Babies Program with a public health nurse. Because I think with the Healthy Babies usually they have a public health nurse and if they're having some issues they'll use a family home visitor as well whereas I think with this program it's more just that particular nurse that works with them more *hands-on*...(S508)

A CAS professional thought that NFP were able to meet the young mothers' needs better given that NFP PHNs start establishing the relationship with them earlier than PHNs from HBHC:

I think the Family-Nurse Partnership [sic] has the ability to meet their needs *better*, right? Like, of course, if these young you know mothers *wanted* to go to parenting classes and got involved with Healthy Babies, Healthy Children they could *do* all those *things*. But I think the Family-Nurse Partnership [sic] is just *easier*, right? Because the nurses come to *them* and they start *earlier*. So that's my thought about that. (S518)

## Remaining Questions

While the secondary analysis of the data collected from healthcare and social service providers uncovered a wealth of information about the overall perception and acceptability of NFP in a community context, the depth of analysis was limited to the data previously collected. The interview guide used to collect the data from phase 1 was intended for a separate set of research questions from 2009, which bounded both the scope and time of the data. To overcome such limitations, individual interviews were subsequently conducted in phase 2 with healthcare and social service providers who could provide insights about NFP to expand upon the categories identified in the secondary analysis. Findings from phase 1 that were further explored were: 1) current state of collaboration and communication between NFP and community agencies in

Hamilton; 2) current challenges faced by community agencies for NFP referrals; 3) factors that influence the level of uptake that are unique to Canada; and 4) impact of NFP on CAS and the level of interaction between both services. Although many of these themes have already been explored within the context of the secondary data analysis, the individual interviews from phase 2 allowed for an increased depth of exploration of these topics. Furthermore, phase 2 would help to: 1) reveal whether outstanding issues about collaboration, communication, and referral for NFP were resolved; and 2) confirm whether findings from phase 1 still applied. The major categories identified in phase 1 served as a guide for the development of two semi-structured interview guides – one directed toward healthcare and service providers within the community (Appendix D), and another specifically tailored to CAS professionals (Appendix E). Two interview guides were developed given the different context in which community agencies and CAS were situated.

## **PHASE 2: ANALYSIS OF SEMI-STRUCTURED INDIVIDUAL INTERVIEWS**

### **Phase two: Qualitative description**

A summary of findings derived using a qualitative descriptive approach is presented in Table 9. The overarching themes were consistent with the first three layers of Bronfenbrenner's ecological model of human development, which were introduced in phase 1. Areas that were further explored include: 1) community providers' perspectives of NFP as a prevention intervention for first-time, high risk mothers within Hamilton; 2) status of collaboration and level of communication between NFP and community agencies who serve the same population and particularly, with CAS; and 3) impact of NFP on community agencies and CAS. A remaining issue was to look into the organizational, cultural and geographical influences (making up the

macrosystems layer of the ecological model) on the program as delivered in Canada. Although only one participant was able to provide her thoughts on this topic, it is worthwhile to consider the multitude of such influences on NFP within the Canadian context.

*Table 9. Summary of findings from phase 2 interviews*

<b>Theme</b>	<b>Category</b>	<b>Code</b>
Enriching the child’s microsystem: A targeted home visiting program that effectively empowers high-risk mothers	NFP Delivery	<ul style="list-style-type: none"> <li>• Perceived feedback from clients</li> <li>• Partnering with families</li> </ul>
Strengthening community connections in the child’s mesosystem: NFP’s inter-organizational collaboration efforts	NFP in partnership with other community agencies	<ul style="list-style-type: none"> <li>• Strategies for better communication</li> <li>• Challenges to referrals</li> <li>• Nature of NFP-CAS collaboration</li> </ul>
Influences on the exosystem: Impact of NFP on existing community services	NFP in the community context	<ul style="list-style-type: none"> <li>• Impact of NFP on CAS</li> <li>• Impact of NFP on community agencies</li> </ul>
Working at the level of the macrosystem: Geographical, cultural, and organizational considerations	Influences on NFP at the level of macrosystems	<ul style="list-style-type: none"> <li>• Geographical, organizational, and cultural influences on NFP</li> </ul>

*NFP Delivery*

*Perceived feedback from clients.*

All participants commented on receiving positive feedback from their clients about their NFP involvement to date. They indicated that the young mothers in the program were very satisfied with the program’s deliverables, and stakeholders enjoyed having a professional who is more “hands on” in the home, particularly the clear structure that NFP presented to improving maternal and child outcomes. As one participant described, “I think what people particularly like about it is that it is very clear in terms of the service that it offers” (S509). Another participant commented, “So the mothers spoke eloquently and consistently about how helpful it was to have that one-on-one relationship with the nurse, how helpful it was to have them coming out to the

home that they felt many of them that this was really the first time that anybody ever really listened to them and valued them for themselves” (S525). A professional from a CAS agency supported that the program was well received, and believed that the strength of research behind the intervention suggested that NFP was the best program for first-time, young mothers. Such findings confirmed that feedback from clients appear to be very positive six years since the start of NFP in Hamilton.

*Partnering with families.*

Establishing relationships with the clients within the context of the home visiting program was recognized as a main component of NFP. Working together to develop safety plans, and openly discussing the clients’ concerns in the best interest of each family allowed clients to feel like they are part of the planning process. One participant shared some thoughts on the working relationship between PHNs and families:

There’s skill involved in developing these constructive relationships and what that actually means for a family and a nurse, and because the program sets itself up as being focused on that...So the word “partner” really does capture I guess the overview of what this is all about...partnering with families to do the work together over the long term. (S512)

In difficult situations such as when PHNs witness child abuse, participants encouraged PHNs to involve the client when reporting to CAS, so that the client would be part of the decision making process. By doing so, PHNs can ensure that the clients are feeling involved and part of the process. As one of the CAS professionals recommended:

They [PHNs] should try to involve the person [client] in making the report to the agency. So that they feel that they are part of the process, that this isn’t something that happened sort of behind their back or at another time, so having a discussion to sort of say here is my legal obligation to sort of report this, do you want to make the report, rather than myself calling or do you want me to call now?...Then you give the parent a voice in that referral. That makes them feel like you are totally upfront, it’s all very transparent process and they have an opportunity to participate in the information that is shared and



they know what is being shared with the agency and that alleviates some of that feeling. (S509)

*NFP in partnership with other community agencies*

*Strategies for better communication with community agencies.*

Communication between PHNs and other service providers within the community was considered as a major determining factor for the quality of service that clients receive. One participant suggested that community partners who are not communicating and who did not share relevant information about a client they had in common creates a risk that may, for example, lead to an adverse event for any child. Other participants agreed it was important to be mindful that regular communication should be in place between NFP and other agencies, and to be aware of each other's roles when supporting clients whom they serve in common. As one participant emphasized, "She [PHN] can only be as effective as her scope of practice and many of these mothers have issues way beyond what would be appropriate for public health services to address" (S525). The participant suggested that regular communication, specifically between a PHN and a primary care provider (e.g., physician or midwife) who would ideally be involved with the client for over a generation, is essential to provide the best care possible to the client.

Another participant raised a suggestion for joint education, where PHNs would visit agencies to educate staff about, for example, some of the strategies they use to engage young mothers, and agencies to visit PHNs to provide them informational sessions and status updates. She elaborated:

I think it would be great for nurses to come here and talk to our staff about what they've found is helpful in working with this type of population [young, first-time mothers]. So what are they doing with some of these young mothers practically speaking and what have they found that helps because we might be dealing with mothers who are very similar but it is not their first child, they don't meet the criteria and so I'm sure the nurses who have worked in this program have learned a lot about how to work with this population...And similarly we would be more than willing to come and talk to the nurses about sort of role with some of these young mothers and what some of their ideas are about how we could work together in a better way. (S509)

One participant described the communication efforts for generating more buy-in from community agencies when NFP was first introduced to Hamilton. Initially, there was a general misperception that HBHC may be replaced by NFP given the apparent similarities between both programs (both as a nurse-home visiting program for mothers). To clarify this misperception, NFP hosted a number of meetings with decision makers at the provincial level to further engage them. “Open and careful dialogue internally” between, and about, the NFP and HBHC programs was also in place to identify the differences in roles and the structure of both home visiting programs. Further, HPHS made the decision to offer some of the education activities that NFP PHNs were required to complete, also available to PHNs working in the HBHC program. In the end, HBHC nurses “became very supportive and became champions [of NFP]” (S525). Using such mechanisms to engage HBHC resulted in positive outcomes; as one participant concluded, “So there was this indirect, very positive impact I would say on the Healthy Babies program because of the NFP. So that was a really nice and unexpected outcome.”

Another participant suggested that when PHN and their agency workers meet jointly with the clients, the clients would be able to see that both service providers can work together to help support them. She elaborated, “I think it also acknowledges the work that the clients have already done with the NFP so we don’t have to repeat services...I think it also works well for the rapport and communication and so everybody knows what the risks are and concerns are and what the strengths are for the family as well” (S526).

One of the CAS professionals provided an update regarding the email policies at CAS that would further enhance communication between CAS and NFP. This newly formed, secure, email network allows specific community providers, PHNs, and public health to communicate electronically about cases. As she described:

Yes, our email policy has just changed here recently to facilitate us being able to communicate via email where so prior to this we couldn't send any emails that identified a client of our agency. So we are just establishing a secure email network for particular partners and nurses, public health will be part of that secure network...it is so much easier to connect with people via email than it is by phone...So hopefully that will help in terms of communication. (S509)

*Current status of collaboration of NFP with other community agencies*

*Challenges to referrals.*

One of the participants described the ongoing challenges to referrals currently faced by NFP. First, indirect referrals to the NFP program may become “off-putting” because of the potential delays of referring the young mother to one of the service providers who could provide direct referral to NFP. The young mothers may be initially motivated to participate in the program, but the time lag between the initial interest and the final referral may result in a loss of interest to participate in the program. The participant identified the waitlist issue as one of the biggest challenges for referral. Because NFP in Hamilton has been working at its maximum capacity, young mothers tend to be wait-listed. She further elaborated:

...you now have people who are eligible for the program but there is no spot for them. And that is fraught with problems because the longer people have to wait the more they will tend to lose interest in participating or they have given up because they were interested and now nobody has helped them and now they are angry and frustrated and all of those other things. (S525)

The participant further added that, because of the waitlist, community professionals became reticent to do too much promotion of the program. She described, “...there is nothing more frustrating for a community professional, physicians in particular, you've got to promote something and then say, ‘oh by the way we've got a three-month average waitlist.’ You know what, that is as much as saying to them don't bother referring.” The mother on the waitlist would run the potential of “timing out”. The participant used this term to describe mothers who are on

the waitlist and who must have their first home visit from the NFP PHN before the 29<sup>th</sup> week of gestation to be eligible for the program.

*Impact of NFP on CAS.*

The CAS professionals unanimously indicated that NFP involvement increases their confidence in closing a CAS file and provides a higher tendency for a file to close, given the level of intensity of the home visiting program and the positive outcomes based on evidence from previous studies. As one participant commented, “And that [NFP as a long-term home visiting program] gives Children’s Aid more confidence because they are going to stick around and because they have that focus on relationship as well as child development and parenting skill” (S512). PHNs’ knowledge and observations of parent-child interactions is considered as a crucial component to providing the most accurate information on the family’s status during case consultation with the CAS. The level of detail provided by the PHN during a safety planning meeting was considered to give clear understanding of the current concerns and current strengths of the family. Her advice on safety planning and her judgment on the level of safety for the child is weighted heavily during the assessment. As one CAS professional explained:

Her [PHN’s] knowledge and her observations and all of the information that she has would be crucial for that framework [safety planning] to have the best quality of information. And then beyond that her analysis of that information of what it means for the safety of the child in her mind...all of that would be really crucial information for everybody to know and have clarity about what needs to happen for this child or children. (S512)

This participant also expressed that the speed of planning for safety of the child is much greater once NFP is involved, given the rich information that the PHNs could provide about the family:

In my mind when I see a case come through with Nurse Family Partnership involved I feel like the speed at which we will get into depth around the safety plan is much greater because I think we are able to organize faster around the safety of the kids. (S512)

Another CAS professional reasoned that CAS may not need to be involved with families who have been enrolled in the NFP program, given that NFP has done a lot of pre-planning with families and, as such, minimizing the risks for the children's safety. NFP was also recognized to take some of the pressure off from CAS referrals because programs from CAS have been greatly reduced.

*NFP-CAS collaboration.*

CAS professional highly valued the ongoing collaborative relationship developed with NFP because they viewed PHNs as an integral component of safety planning for families (this is further elaborated on in the subsequent section). One participant voiced his concern that, without collaborating with PHNs for safety planning, it would become much more difficult to close the file. CAS workers would take the initiative to connect with the family's PHN once the family has been identified as being part of the NFP program. A joint meeting between the family, PHN, and CAS is usually in place to discuss about the case. The meeting helps clarify CAS' concerns and helps inform the family and her PHN about the milestones for safety planning. Similarly, CAS can better understand the PHN's role and the services they are offering, as well as the type of interaction she has had with the family. NFP was considered to "pave the way a bit for a relationship [with CAS]." The participant continued:

Because the families already got an existing relationship with a professional, the ability of a child protection worker to come in and develop a constructive working relationship with the family is that much easier because we have an example already of how the family has done it, what the family would need in order to work together and how anxiety around Children's Aid being involved can be addressed so that we can get to the work faster. (S512)

PHNs also played an important role in mediating around the anxiety that families experience when faced with a CAS worker. Specifically, PHNs were perceived as advocates for

the families, where they could speak to a number of outstanding issues and strengths of the family. Further, PHNs could clue in to the emotional state of the mother and be able to inform CAS workers about whether the information is suitable for discussion.

Although both community services share the same goal towards the health and well-being of the mother and child, NFP PHNs and CAS workers have experienced issues surrounding the nature of collaboration, such as differences in opinions or mistakes that impacted the relationship between both providers. One of the participants from CAS reflected upon this struggle in collaboration:

It might mean that we have to recognize where we have made mistakes and say we are sorry and ask for forgiveness. And the reason why this is so crucial is when professionals don't get along with each other and we are working with a family and kids I think that puts kids at ever more risk. And so how the same thing, it is almost like a parallel process, just like we develop a relationship with the family we have to do that with each other. (S512)

On the topic of how CAS and NFP can work together to support clients, one CAS professional outlined the goals between both organizations and detailed the process of establishing the working relationship between both professionals. This helps clearly define the roles of each, and to prevent from duplicating the services they provide to the client. PHNs were invited to help assess the family's risks in terms of safety for the child, and were explained the reasons of CAS involvement. She expressed:

Yes, so the child protection workers that work here, their goal is to assess risk and then develop a service plan that addresses that risk so part of the discussion with NFP should be sharing that assessment, so first of all seeing if the nurse has anything to add in terms of that assessment and checking out information we have...And then we need to be clear with the nurse that so here is why CAS is going to be involved, this is our assessment of risk, these are the services we want to provide and then ensuring that we work around the role of the nurse family practitioner to be clear that she will work on sort of these areas and what does leave for us to look at in terms of involvement with any other community professionals that might need to get involved. (S509)

When asked whether there were any difficulties with differentiating between the role of CAS workers and PHNs, one CAS professional suggested she “never had a problem with that”, and elaborated, “I think usually people are pretty clear on what their involvement with the family is and what role that they take on and I think it is generally pretty clear about whose role is what” (S526). Another CAS professional was consistent with this, stating: “I think I would say that generally nurses and child protection workers are pretty clear on that’s your role and this is my role. I’m not sure that there would be too much overlap” (S512).

*Influences on NFP at the level of macrosystems*

*Geographical, organizational, and cultural characteristics in Canada.*

One participant (S526) talked about the characteristics of the Canadian geographic distribution, healthcare system and culture which could have influence on NFP delivery. For one, she noted that Canada is very population dense along the southern borders and then sparse in the rest of the country and as such, most young, first-time mothers are located in the dense urban cities. Second, she pointed out the importance of contextual differences and the administrative decisions in delivering the program. She continued:

I mean there is core structure of what the program needs to look like but there is also contextual differences and what you have identified are contextual differences...we made the decision in Canada for public health nurses to deliver the program, in the United States that is not the case...They have this huge organizational structure to support the success of the program; we have no structure whatsoever in Canada right now.

Furthermore, there are complexities and challenges around introducing and delivering NFP to Aboriginal young, first-time mothers. Issues surrounding not being able to provide NFP to women living on reserves were also brought to light. She pointed out:

...it became really complicated to think about how we might provide and have NFP sites for the study on reserve and early on in our discussions we realized that that was just not

possible or ethically even appropriate so we are not delivering the NFP intervention through RCT on any reserves in British Columbia. About half of Aboriginal women live off reserve and if they live off reserve and they meet eligibility criteria then they are welcomed and encouraged to participate but we are not doing it on a reserve.

Finally, there were challenges around delivering the program to ethnic minorities within Canada due to language and cultural barriers. In particular, it is still unknown to what extent the inclusion of a cultural interpreter influences the therapeutic relationship between the client and her PHN. Currently, the NFP program in British Columbia is only offered to mothers who can speak English. The participant elaborated:

...to do an RCT and use an interpreter is a whole different study because you don't know what the introduction of a cultural interpreter does to a therapeutic relationship and the delivery of the information, etc. So for our RCT and process evaluation criteria women must be able to speak English, they don't have to read it, but they must be able to speak it so that they can work directly with the nurse. That's again I think another study around what are the issues that we need to think about around that are culturally relevant to providing the intervention.

## **Synthesis of results**

Integrating the findings from the first and second phases of this study provided the opportunity to further explore findings that emerged from the secondary data analysis, and to answer some of the remaining questions. Findings from the second phase of the study (which reflect current perceptions on NFP delivery) were largely consistent with the information revealed from the first (perspectives dated back to 2009). Nonetheless, data from the second phase shed light on the current status of NFP, provided greater depth to areas that needed further exploration, and introduced additional information about the current challenges to NFP. The following table provides a summary of major findings that were consistent between both phases (Table 10), and those explored in greater depth including new information about NFP (Table 11).



*Table 10.* Summary of consistent findings between phase 1 and phase 2 interviews

<b>Category</b>	<b>Summary</b>
NFP Delivery	<ul style="list-style-type: none"> <li>• Participants described the positive feedback from clients about the NFP program, and young mothers appear to be very satisfied with the program’s deliverables</li> <li>• The idea of establishing a long-term relationship with family is still viewed as the main component of NFP</li> <li>• Participants spoke to the benefits that NFP provides to the mother and child</li> <li>• The need for interpretation services to better screen young mothers still exists</li> </ul>
NFP in partnership with other community agencies to better connect clients to community services	<ul style="list-style-type: none"> <li>• Participants looks toward more communication, and suggested strategies to frequent sharing of information (e.g., inviting PHNs visit the agencies to educate staff on first-time, young mothers and their experiences with them, or provide quick updates via phone)</li> </ul>
NFP in context of the community	<ul style="list-style-type: none"> <li>• PHNs are considered as an important resource for connecting their clients to community services</li> <li>• NFP involvement gives CAS workers confidence in closing cases</li> <li>• PHNs play an integral role in the development of the safety plan with CAS workers and family</li> <li>• A potential CAS file may not be opened considering that NFP is involved</li> </ul>

*Table 11.* New findings and concepts that are further explored in the second phase

<b>Category</b>	<b>Summary</b>	<b>Type of information</b>
NFP in partnership with other community agencies to better connect clients to community services	<ul style="list-style-type: none"> <li>• Currently, a major challenge to referral is the long waitlist for eligible mothers to participate in the program.</li> <li>• Indirect referrals may occur, which could be ‘off-putting’ to mothers due to the delay of receiving immediate connection to NFP</li> <li>• CAS is working on a secured email network – CAS workers and PHNs can communicate and update each other about cases via email instead of playing ‘phone tag’</li> </ul>	New information
	<ul style="list-style-type: none"> <li>• To clarify on some of the misperceptions that HBHC may be replaced by NFP, a number of strategies were used to help decision makers, community stakeholders, and HBHC staff to understand the differences in the roles and structure of both home visiting programs.</li> </ul>	Further explored

<p>NFP within the community context</p>	<ul style="list-style-type: none"> <li>• PHN’s knowledge and observations on the family is considered as a crucial component to providing the most accurate information on the family’s status to CAS</li> </ul>	<p>Further explored</p>
	<ul style="list-style-type: none"> <li>• Due to the cutback of various CAS home visiting services, it relieves the pressure from an influx of CAS referrals because a portion of these cases can also be referred to NFP</li> </ul>	<p>New information</p>
<p>Geographical, cultural, and organizational considerations of NFP in Canada</p>	<ul style="list-style-type: none"> <li>• High rates of teen pregnancy may exist in the US this does not exist in Canada</li> <li>• Two geographic distinctions between US and Canada: very population dense along the southern borders and then sparse population at the rest of the country; most pregnant teens reside in the urban, dense cities in Canada</li> <li>• Canada made a decision to deliver NFP by PHNs, whereas US and other countries may be delivering NFP through nurses who are not from public health</li> <li>• Canada currently does not have the organizational structure to fully support NFP</li> <li>• NFP can only be delivered to Canadian Aboriginal young mothers who are living off reserves</li> <li>• Like all other nations, cultural traditions and practices must be taken into consideration when delivering NFP to the Canadian Aboriginal population</li> </ul>	<p>New information</p>

## **CHAPTER 5: DISCUSSION**

This study is the first to explore the perceptions of healthcare and social service providers of a long-term home visiting program for first-time, high-risk, young mothers within a Canadian community context using a qualitative approach. By understanding the community providers' experiences of the NFP program, I have identified key components that relate to the process of improving health and social outcomes for the mother-child dyad. Findings from this study provide valuable insights to the acceptability of NFP in a Canadian community from voices that are typically unheard. The themes from this study reflect, and have been organized, into each of the first three systems of Bronfenbrenner's ecological model, which influence child development.

First, all providers acknowledged NFP's effectiveness in improving maternal and child health outcomes and they specifically focussed their comments around the structure, goals and content of the NFP program. The opportunity for PHNs to establish a trusting, long-term relationship with high-risk, hard-to-reach young mothers; the use of a structured curriculum with well-defined goals to promote a safe home environment and healthy child development; and the sharing of health knowledge to track maternal and child health conditions all serve to enhance the child's microsystem. Second, the perceptions and experiences shared by the providers provided insight into the importance of interorganizational collaboration and communication between community agencies to address service delivery gaps and to provide a greater response to client needs. PHNs were considered as a valuable resource for community services. As such, PHNs served as prime mediators within the child's mesosystems. Third, NFP was recognized for its positive influence on a number of existing community agencies who serve the young, high-risk mothers without altering the services they provide and thus, creating impact on the child's

exosystems. The knowledge gained from this study demonstrates NFP's reach within the community and the extent to which the program can permeate across different ecological systems. Given that the thesis is guided by Bronfenbrenner's ecological model, the findings will be discussed in light of the three ecological systems.

**Enriching the child's microsystem: A targeted home visiting program that effectively empowers high-risk mothers**

A child's home is the most intimate and influential microsystem for his or her development (Bronfenbrenner, 1979). The mother-child relationship is part of the child's earliest microsystem, and the interaction between the dyad is largely dependent on the quality of the mother's relationship with her immediate environment. This includes housing conditions, safety of the neighbourhood, extent of family and community support; and access to social services, healthcare and education (Garmezy, Masten, & Tellegen, 1984). NFP PHNs play a central role in shaping the child's immediate environment by working closely with pregnant women and first-time mothers. Some of the goals include teaching the clients how to become a responsible parent, boosting the client's sense of competence and self-worth, building a strong network of support around the mother-child dyad, and helping to prepare a safe home environment for the child (NFP, 2011). This relationship developed between the client and the PHN was deemed by the community providers as the core value of NFP; the one-on-one communication is a vital component to establishing trust and commitment to the therapeutic relationship. Throughout the interviews they identified PHNs' multiple, prominent roles in their clients' lives throughout the duration of the NFP program. PHNs served as a trusted and accessible healthcare professional who could offer expert guidance to potential maternal and child health issues, and an understanding peer who would offer emotional support in times of stress. The capacity at which

they work together throughout the 2.5 years, coupled by the well-defined and intense structure of the curriculum help the clients feel empowered to make life choices that will improve her child's life course and that of her own.

These perspectives from community providers confirm and support the experiences of first-time mothers who participated in the NFP program within Hamilton, Ontario (Kurtz-Landy, Jack, Wahoush, Sheehan, & MacMillan, 2012). The examination of the women's experiences within the NFP program was part of the primary case study (Jack et al., 2012) that involved interviews of first-time mothers in addition to the community providers (which are data for phase 1 of the thesis). Specifically, mothers in the program regarded the PHN not only as a credible health expert, but also as a supportive friend whom they can trust and confide in. Also, in parallel to the present findings, mothers in the case study recognized the empowering relationship they had with the PHN, and considered the PHN as an advocate when dealing with community agencies. Previous research exploring first-time mothers' experiences on other home visiting programs reached similar conclusions, particularly about improving the mother's confidence in parenting, the social and emotional support from nurse home visitors, and the boost in confidence with mothering (Falk-Rafael, 2001; Sawyer, Barnes, Frost, Jeffs, Bowering, & Lynch, 2013). The approach to forming the empowering relationship between each client and her PHN is coherent with NFP's strengths based visit-to-visit guidelines in which the nurse regards the client as the key decision maker in her own life, supports the client in developing a vision for her own future, and helps her provide responsible and competent care to her child (Olds et al., 1986). Empowering relationships, in the context of public health nursing, allows PHNs to act as mediators of social and scientific knowledge and encourages clients to synthesize the gained

knowledge to make informed decisions regarding mothering practices (Aston, Meagher-Stewart, Sheppard-Lemoine, Vukic, & Chircop, 2006).

### **Strengthening community connections in the child’s mesosystems: NFP’s interorganizational collaboration efforts**

Mesosystems consist of the relationships between a set of microsystems. The stronger and the more diverse the links of the mesosystems, the more influential these systems will be on the child’s development (Bronfenbrenner, 1979). It is this level at which PHNs are perceived to mediate for the child. Most providers in the study valued the PHNs’ role in connecting first-time, young, high-risk mothers to appropriate resources within the community. This population tends to live in isolation, and may be too overwhelmed to reach out to the community for support. This finding is consistent with research that studied young, first-time mothers and their behaviours for accessing community services (Bailey, 2010).

The providers expressed the importance of connecting mothers to a myriad of community resources such as information on housing, continued studies, and other organizational supports that would prepare the clients for motherhood. Such findings support the vision of the NFP curriculum (NFP, 2011), as well as literature that reviewed the benefits of NFP (Olds, 2007; Olds, Holmberg, Donelan-McCall, Luckey, Knudston, & Robinson, 2013). Because PHNs are the main points of contact for these young mothers, healthcare and social service providers looked toward more collaboration with NFP to form an integrated network of services that provide easy access, and to make transitions between services as seamless as possible. The providers from phase 1 suggested frequent exchange of client updates, regular attendance of case conferences for joint participation in making decisions for clients and awareness of each other’s roles toward a common goal, and sharing of resources to promote collaboration between

organizations. These suggestions are among the most common determinants for effective collaborative relationships within the healthcare system, as documented in existing literature (Percy-Smith, 2006; Roussos & Fawcett, 2000; Sullivan & Skelcher, 2003).

One of the issues raised in phase 1 interviews was the lack of understanding of the roles and goals between CAS workers and PHNs who serve the same clients. A recent study examining the experiences of PHNs who delivered the NFP program in Hamilton can provide further insight to the phase 1 findings. PHNs reported that the relationship with CAS depended on the CAS workers' understanding of the PHN's role. For those who understood and valued the PHNs' roles, they were perceived to put effort into updating PHNs on the client's status. When this situation occurred, PHNs felt they were part of an effective team (Dmytryshyn, 2014). Phase 2 of the present study provided an updated perspective from CAS about the type of communication and collaboration with NFP PHNs. After almost six years of working with NFP in Hamilton, it appears that CAS workers and PHNs have adopted several strategies as suggested by providers in phase 1 to promote interorganizational collaboration. These include: 1) outlining responsibilities of the CAS worker and the PHN at the outset of the working relationship, 2) clearly communicating the goals that each professional envisioned to accomplish for the family, and 3) hold meetings together with the family to discuss ways to enhance their support. Interorganizational collaboration is considered as one of the strategies to prevent duplication in services (Peterson, 1993).

Early intervention programs often include a wide range of services provided by healthcare and social service professionals from various disciplines. The different types of services that have been traditionally offered by agencies may lead to fragmented services that render duplication or gaps in services (Peterson, 1993). The findings from phase 1 of the study

pointed out the concern of NFP duplicating existing services for first-time mothers within the community, particularly with maternity homes and HBHC.

An apparently unresolved issue that could not be further explored due to the small sample size of the present study was the concern of duplication in services with maternity homes.

Finding from phase 1 suggested that NFP and maternity homes provided similar services; this often led to frustration and confusion for clients. Although both programs provide guidance and resource connections to health and mental health, parenting, vocational training and employment; it is important to note the different practice foundations that guide maternity homes and home visitation programs. Maternity homes provide housing to vulnerable, young, pregnant or parenting women with adult supervision. The homes offer a host of educational workshops and support services that will enable them to become self-sufficient over the long term (Husley, 2004). Home visitation programs for pregnant or parenting women include services such as: monitoring the development of the child, providing health and parenting information, and connecting families to community resources. Although both focus on practical skills, home visitors from visitation programs work to establish trusting and supportive relationships with their clients, motivating and guiding the family, and providing empathetic communication. These characteristics are considered crucial components of effective home visiting (Heaman, Chalmers, & Woodgate, 2006).

One of NFP's tenets that drive the home visiting guidelines is the self-efficacy theory, whereby the PHNs help their clients set realistic milestones and bolster their self-confidence in achieving life goals (Bandura, 1977). It is important, therefore, to communicate the different characteristics between maternity homes and NFP to community providers. A literature review by Dowling, Powell, & Glendinning (2004) identified a number of advantages to community



partnerships including enhancement in accessibility, efficiency, effectiveness and quality of services; as well as improved service experience and health status and well-being of service users. Thus, a logical step is to form partnerships with maternity homes to help address the issue of duplication and to make services more cost-effective (Purcal, Muir, Patulny, Thomson, & Flaxman, 2011). For instance, it may be that maternity homes may not need to allocate resources to provide health education to residents who are enrolled in NFP because they are receiving the education from PHNs.

In phase 1, community providers also felt it was initially challenging to distinguish the differences between HBHC and NFP given that they are both home visiting programs delivered by PHNs to mothers. After having worked with the NFP PHNs, the providers came to appreciate NFP's approach to target young, first-time mothers and the underpinning child development theories which guided the curriculum. In phase 2, it was revealed that the NFP team members have put significant effort in helping community partners understand NFP's curriculum and its goals by holding numerous meetings with decision makers at the provincial level and with other community stakeholders. NFP also promoted collaboration with other organizations by forming interorganizational alliances, such as coordinating councils or community advisory boards where leaders and/or direct care providers from collaborating organizations meet and discuss on plans to achieve common goals (Foster-Fishman, Salem, Allen, & Fahrbrach, 2001). In fact, the establishment of a community advisory board, is one of 18 core model elements of the NFP program that implementing agencies agree to implement as part of their contract with NFP (NFP, 2010).

With such strategies in place, the connections between NFP and other community organizations can be strengthened and the barriers between work silos reduced, which fosters

interorganizational collaboration (Foster-Fishman et al., 2001). This also allows for clients to receive streamlined services, where they flow more easily from one agency to the next (Stroul & Friedman, 1986). Mattessich & Monsey (1992) have conducted an extensive literature review on community-based interorganizational collaboration, and defined this concept as “a mutually beneficial and well-defined relationship entered into by two or more organizations to achieve common goals” (p. 7). The community providers’ rationale for more collaboration with NFP is supported by literature that examined the benefits of community-based interorganizational collaboration. First, collaboration fosters engagement growth in planning of local services. Second, it strengthens the capacity of organizations via sharing of resources and information. Finally, it enhances organizations’ contacts and opportunities (Pitt, Brown, & Hirota, 1999), such as making referrals.

### **Influences on the exosystem: Impact of NFP on existing community services**

Healthy development of the child needs strong, nurturing family members who, in turn, are nurtured and supported by individuals and organizations within the community (Weiss, Woodrum, Lopez, & Kraemer, 1993). The exosystem encompasses relationships between at least one of the child’s immediate settings and another setting in which he or she does not reside. Although these settings do not involve the child, they can still impact the child’s development because exosystems directly influence the child’s experiences in microsystem settings (Bronfenbrenner, 1979). Based on the perceptions of providers, NFP was perceived to influence the exosystems of the developing child by creating positive impact on existing community agencies that serve young, first-time mothers in the NFP program without changing the logistics of their own services. The involvement of NFP was perceived as enhancing the mothers’ experiences of community services. For instance, by connecting with the mother’s PHN,

community providers can receive status updates about clients, and have an improved understanding of client background and needs. This can give valuable insight into the way in which community providers deliver their services to the mother and potentially enhancing the quality of services they deliver.

Findings from this study revealed that NFP fills an important service gap and is recognized as a long-anticipated, effective intervention targeted to high-risk, young mothers in Hamilton. Healthcare and social service professionals in this study perceived partnership as the key to NFP's success and sustainability in the community. This finding is in line with reviews that reported more robust outcomes when home visiting programs partner with other early intervention services and other community support programs (Astuto & Allen, 2009; Daro, 2006). Disadvantaged families accessing early childhood services often have a host of complex needs that cannot be adequately addressed by a single service such as home visiting and, as such, community services need to work together to target these unmet needs (Astuto & Allen, 2009; Council of Child & Adolescent Health, 1998). Moreover, a recent systematic review on the effects of interorganizational collaboration indicated that multi-agency services showed improved outcomes for vulnerable, hard-to-reach communities (Rummery, 2009). Healthcare and social service professionals in this study also pointed out the importance of continued support from services after NFP graduation as a crucial component for mothers to reach their full potential as parents. This finding is supported by a brief report of the Family-Nurse Partnership in Scotland, which also commented on the importance of continuity in services upon graduating from the NFP program (Trotter, 2012).

CAS was reported in this study to have greatly benefitted from working with NFP for safety planning and for closing cases earlier, because PHNs provided CAS workers the

confidence and assurance about the client's competence in taking care of her baby. Although past studies examining components of the NFP have not explored child protection professionals' perceptions of how client involvement in the NFP impacts overall child welfare and safety, there is evidence on the effectiveness of preventing child maltreatment with NFP generally. As outlined earlier, NFP has been identified as the intervention with the best evidence for preventing child physical abuse and neglect when administered to high-risk families (MacMillan et al., 2009). The rigorous and extensive evaluation of child maltreatment outcomes was performed in three RCTs, which all pointed to a significant reduction in child abuse and neglect for families enrolled in the NFP program (MacMillan et al., 2009). The findings from this study suggest that it would be worthwhile to examine the extent to which the NFP improves the safety of clients already involved with child welfare.

Child protection services have an inherent right and governmental authority to remove the child from his or her own home, while working with the family toward improved functioning. Rapport building may become difficult due to the involuntary nature of a majority of child protection cases (DePanfilis & Salus, 2003). PHNs act as the prime mediator between the client and CAS worker given the trusting relationship that they already established with the client, and the professional identity that comes with being a healthcare provider. Findings of the present study suggest that PHNs often have an advocating role for their client when they intersect with CAS. The triad work closely together for case consultations and to develop safety plans for the family. CAS workers interviewed for this study indicated that PHN's information and assessment on the family is crucial for the safety framework to have the best quality of information. Because of the close working relationship established over the long term with vulnerable families, PHNs are considered as key individuals who can immediately identify child

neglect or abuse within the family (Department of Health & Children, 2001a). However, there is still ambiguity in PHNs' practice of simultaneously supporting and policing families (Marcellus, 2005). In a study where PHNs were asked about their role in child protection, most of them expressed unease with monitoring families and for detecting child abuse (Kent, Dowling, & Byrne, 2011).

In a more recent study examining nurse home visitors' perspectives on mandatory reporting of children's exposure to intimate partner violence (IPV) to child protection services, over half of the nurse visitors indicated that reporting can negatively affect the relationship with their clients (Davidov, Nadorff, Jack, & Coben, 2012). In addition, PHNs do not traditionally receive formal education and training in the care of children placed on the child protection register (Hanafin, 1998). Collaborations and consultations with child protection services may provide guidance to accurately interpret signs of child abuse and IPV. Conversely, PHNs' experiences of working closely with vulnerable families can give child protection agencies valuable information on improving existing child protection programs and policies. Existing literature have also suggested that the formation of partnerships between nurse home visitors and child protection services can be beneficial in responding and intervening families with IPV or child maltreatment (Davidov et al., 2012; Nicholas, 2013;)

### **Study strengths and limitations**

There were several notable strengths of the present study. First, multiple strategies were employed to mitigate the frequent critiques of qualitative secondary data analyses and to maintain study rigour, such as member checking, double coding, and keeping a detailed audit trail (strategies for rigour were detailed in *Chapter 3: Methods*, p. 44). The implementation of a two-phase study design addressed the inherent challenges of secondary data analyses: 1) the re-

analysis of data, which may not adequately reflect the new research questions; and 2) data from the original study may be bound by time and scope (Rew et al., 2000). The categories and themes derived from the first phase (secondary analysis of individual interviews) served as a guide for developing interview questions for the second phase of the study. As such, findings from the first phase created a foundation on which the original themes were explored in depth during the second phase that was conducted with another sample, including two participants from the primary study. Given that data for the primary study were collected when NFP had been underway in Hamilton for just over a year, the data were bound by time and by scope. There were three main goals for the addition of phase 2. First, to confirm whether the findings derived from phase 1 were still credible six years after the introduction of NFP in Canada. Second, to obtain the most current information about NFP and its relationship with healthcare and social service providers within the community. Finally, to explore some of the findings in phase 1 in greater depth. The qualitative approach allowed for a rich and comprehensive understanding of the providers' experiences in collaborating with NFP PHNs, as well as their perspectives on NFP as a home visiting program situated within a community that serves vulnerable, first-time mothers.

Despite the clear strengths, several limitations need to be addressed. First, there were two limitations for sampling. Specifically, the sample for the second phase of the study was small (n=4) and thus, saturation for potentially new concepts and emerge themes could not be reached with the new data. Also due to the small sample, only a few categories and codes emerged, thus limiting the depth and breadth of some of the topics that were raised by participants during the interviews. For instance, the considerations for geographical, cultural and organizational characteristics unique to Canada could not be explored at greater depth, because only one NFP

professional was able to provide detailed information regarding the contextual differences faced by NFP delivered in Canada. As a result, the interface between the macrosystems level and NFP could not be fully discussed. Furthermore, it would be a worthwhile endeavor to compare the responses of participants who are in both phases provided that more phase 1 participants also participated in phase 2. This could help examine whether there were changes in participants' opinions of NFP over the course of six years. Increasing the sample size to include more healthcare and social services providers who are connected with NFP would enhance the transferability of findings from this study. The primary study used maximum variation sampling to obtain different perspectives of the NFP program from a wide range of community stakeholders. In the thesis, however, the goal was to focus on the perspectives of healthcare and social service professionals. It is possible that the primary study did not interview other relevant healthcare and social service providers within the community. As such, the sampling frame of the primary study limited the scope of the present thesis.

Second, the credibility of the study can be further enhanced by triangulation, which involves the use of different methods or data sources for data collection and/or analysis. For instance, conducting focus groups or collecting other sources of data for analysis (e.g., newsletters, CAB meeting minutes, etc.) can provide a richer picture of the topic under study (Shenton, 2004). The characteristics and perspectives of healthcare and social service professionals who agreed to be interviewed may have differed from those who chose not to participate. The eligibility criteria for phase 2 limited participants to those who were from CAS and those who worked in the NFP program. Although the criteria were designed to recruit participants who could provide the most detailed information on categories that deserved further exploration, it is likely that the inclusion of other community providers (e.g., social workers,

physicians) would provide additional perspectives related to the acceptability of NFP. Finally, the secondary data analysis did not provide the opportunity for member checking with participants from the primary study. As such, data credibility could not be achieved during the first phase of the study. Nonetheless, it is worth noting that information revealed from phase 1 was consistent with the findings derived from phase 2 (which included member checking).

### **Future research considerations**

The findings of this study illustrated the close-knit and synergistic network that was formed by the community to serve young, high-risk mothers. To keep the young mothers engaged and to receive a comprehensive picture of her family status, the providers reflected on the importance of ongoing communication and a healthy working relationship with other service providers. The function of home visiting programs should not be viewed in isolation; rather, their potential “reach” can be maximized when information is shared and they collaborate with other community agencies that serve their clients. The advocacy, support, awareness, and referral from community agencies are crucial for home visiting programs to thrive. As such, future research on evaluating the effectiveness of home visiting programs should consider the level of interaction with other agencies.

Because each country’s healthcare system and cultural practices are different, the exploration of the present study’s findings in other countries delivering NFP may enhance our understanding about the collaborative relationships and the required level of communication to sustain a long-term home visiting program. For instance, a similar study replicated in a different country may uncover new challenges to the referral process, illustrate a different type of relationship with the child welfare system, or reveal a specific pattern in the uptake of NFP. The NFP program in Colorado has been reported to devote greater attention than other US states in



the use of collaborative partnerships with community health agencies, human service departments, and school boards (Hicks et al., 2008). An evaluation of the NFP in Colorado assessing the influence of collaboration on program outcomes indicated that the quality of building community collaboration is inversely associated with participant attrition. Future studies should consider replicating this study in other regions to explore other program outcomes that may be enhanced by promoting greater community collaboration.

Nurse home visitation has been a critical component of public health for over a century. Although there is a wealth of research on the therapeutic relationship between the nurse, the client and her family, based on the current literature review, none of the existing studies have explored the relationship between nurse home visitors and community providers. Findings of the present study suggest looking more deeply at the role of social service and healthcare providers within the context of home visitations situated in a community, and further exploring its relation to maternal and child outcomes. Moreover, investigating causal links between children's outcomes among those participating in a given home visiting program and the amount of community support for such programs, seems to be a logical step in light of the present findings.

### **Implications for practice**

In addition to the implications of this study for future research directions, the findings have implications for practice. Ecological perspectives can guide municipal and provincial efforts to design systems that incorporate multiple ecological levels to nurture the healthy development of children. There is evidence that multiple ecological systems surrounding the development of children are far more effective than concentrating solely on his or her area of deficit (e.g., academic achievement) (Pianta & Rimm-Kaufman, 2006). Translating these suggestions to practice, such as introducing services and organizations that are streamlined and

closely connected, would be a worthwhile step towards improving developmental trajectories in health and psychosocial outcomes for children.

As identified earlier, NFP model element 17 requires that implementing agencies create and sustain a long-term Community Advisory Board. The primary goal of this board is to create a system of support within the community to support the NFP agency with implementation and delivery challenges. In the US, the NFP National Service Office has developed guidelines to support the process of developing these boards (NFP, 2010). This document provides recommendations for board membership, functions and roles. The document also provides insight into some of the challenges that boards may experience, and recommendations on how to identify and address these issues as they arise.

The data collected through individual interviews can also provide insight into the key components required for enhancing the success of integrating a long-term home visiting program into an existing network of community services. Findings from this study would inform administrators and policymakers as they attempt to meet the needs of young, high-risk mothers. These findings can be relevant to provincial jurisdictions and health services researchers who will be evaluating the effectiveness of the intervention in a randomized controlled trial, which is currently underway in British Columbia (BC) as the next phase of NFP implementation in Canada. For instance, the trial in BC can use the information within this study to help establish stronger collaborations with community agencies serving low-income, young mothers as well as to gain insight into nurturing the partnerships formed. The present study brings together the perspectives of community professionals who can help inform health administrators about community readiness for implementing an evidence-based home visitation within the Canadian healthcare system.

## **Conclusions**

This is the first qualitative study to explore the acceptability of a long-term home visiting program from the perspectives of healthcare and social service providers within a community. Specifically, the findings from this study inform the knowledge base about some of the community influences shaping the success of a home visiting program for first-time, high-risk, young mothers. These young mothers are a stigmatized, vulnerable group of parents who tend to be disadvantaged as children and then drift into motherhood given the multiple risk factors in their life course (Burton, 1990). Mounting evidence have supported that motherhood for young mothers may be presented as a catalyst or a turning point with the ability to redirect their lives in numerous positive ways when provided with sufficient support from social and community resources. These include aspirations to pursue education, become a good role model for the child, and adopt good parenting practices (Clemmens, 2003; Hermann, 2008; Rolfe, 2008; Spear & Lock, 2003). Home visiting remains as the key strategy to maternal-child programs in the US and Europe, and has been recognized as most effective for disadvantaged, first-time young mothers (Howard & Brooks-Gunn, 2009). As the first community in Canada to implement the NFP, the City of Hamilton Public Health Services in collaboration with their community colleagues, appear to be building a network for NFP from “inside out” by focusing on the ecological space, time and resources within a given community; then recognizing the characteristics and the unmet needs of the target population (Mulroy, 1997, pp.262). These efforts may potentially help cultivate a manageable scale of synergistic relationships within the community which continues to be strengthened as they work in close proximity toward a shared vision: fostering long-term success and creating opportunities to thrive for vulnerable, first-time mothers and their children. In the future, it would be useful to examine the perceptions of

healthcare and social service providers about the ongoing implementation of the NFP and the extent to which it is perceived as meeting the needs of the community.

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**Appendix A – Literature Search Strategy and Results**

Database	Search terms	Articles identified by electronic search (duplicates removed)
MEDLINE	1. "Early intervention".mp.	404
EMBASE	2. "Home visit".mp.	
PSYCINFO	3. "Prevention service" OR "Preventive service".mp.	
Social Sciences Abstracts	4. 1-3/OR	
ERIC	5. Stakeholder*.mp	
	6. Service provider*.mp.	
	7. Professionals.mp.	
	8. Community.mp.	
	9. Collaborat*.mp.	
	10. Partner*.mp.	
	11. Ecolog*.mp.	
	12. 5-11/OR	
	13. Perception*.mp.	
	14. Lived experience*.mp.	
	15. Qualitative.mp.	
	16. Case study.mp.	
	17. 13-16/OR	
	18. Nurse family partnership.mp.	
	19. Child*.mp.	
	20. Infant*.mp.	
	21. Toddler*.mp.	
	22. Newborn*.mp.	
	23. 19-22/OR	
	24. 4 AND 12 AND 17 AND 23	
	25. 12 AND 17 AND 18 AND 23	
CINAHL  Limits: Years 1990 to 2014, English	S1: (MH "Preventive Health Care") OR (MH "Safety") OR "early intervention* OR home visit* OR prevention service* OR preventive service*" OR (MH "Early Childhood Intervention") OR (MH "Nursing Home Professional") OR (MH "Early Intervention") OR (MH "Home Health Care") OR (MH "Home Visits") OR (MH "Home Safety")  S2: (MH "Community Mental Health Services") OR (MH "Community Service") OR (MH "Community Special Services (Saba CCC)")	182

	<p>OR (MH "Community Health Services/ED/PF/EV") OR (MH "Health Services Needs and Demand/ED") OR (MH "Community Health Centers/ED/EV/OG/PF") OR (MH "Health Services Accessibility") OR (MH "Community Mental Health Nursing") OR (MH "Community Networks") OR (MH "Community Violence") OR (MH "Community Assessment") OR (MH "Psychiatric Service") OR (MH "Correctional Health Services") OR (MH "Community Role") OR (MH "Community Health Nursing") OR (MH "Association of Community Health Nursing Educators") OR (MH "Social Work Service") OR (MH "Professional-Client Relations") OR (MH "Obstetric Service") OR (MH "Health Services Research") OR (MH "Child Health Services") OR (MH "Communities") OR (MH "Community Programs") OR (MH "Home Nursing, Professional") OR (MH "Maternal Health Services") OR (MH "Midwifery Service") OR (MH "Nurse Specialist Service (Saba CCC)") OR (MH "Nursing Service")</p> <p>S3: "perception OR lived experience* OR qualitative OR case stud*" OR (MH "Case Studies") OR (MH "Qualitative Validity") OR (MH "Qualitative Studies") OR (MH "Life Experiences") OR (MH "Patient Attitudes")</p> <p>S4: (MH "Family Nursing") OR (MH "Family Nurse Practitioners") OR (MH "Student Nurses Organizations") OR (MH "Practical Nurses") OR (MH "Nursing Organizations") OR (MH "Physicians, Family") OR (MH "Nursing Home Professional") OR (MH "Community Health Nursing") OR (MH "Family Relations") OR (MH "Nursing Skills") OR (MH "Nursing Leaders") OR (MH "Community Mental Health Nursing") OR (MH "Nursing Home Patients")</p> <p>S5: (MH "Health Services Needs and Demand") OR (MH "Shared Services, Health Care") OR "stakeholder* OR service provider* OR communit* OR collaborat* OR partner* OR ecolog*" OR (MH "Health Services Research")</p>	
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	<p>OR (MH "Women's Health Services") OR (MH "School Health Services") OR (MH "Nurse-Midwifery Service") OR (MH "Midwifery Service") OR (MH "Community Service")</p> <p>S6: S1 AND S2 AND S3 AND S4 AND S5</p> <p>S7: S1 AND S3 AND S4 AND S5</p>	
Proquest Theses & Dissertations	<p>all(home intervention* OR home visit* OR "prevention service" OR "preventive service") AND all((perception* OR lived experience* OR qualitative OR case study)) AND all((child* OR infant* OR toddler* OR newborn*)) AND all((professionals OR community OR service provider* OR stakeholder* OR collaborat* OR partner* OR ecolog*))</p>	532
PubMed	<p>(((((home intervention[Title/Abstract]) OR home visit[Title/Abstract]) OR "prevention service"[Title/Abstract])) AND (((perception*[Title/Abstract]) OR lived experience*[Title/Abstract]) OR qualitative[Title/Abstract]) OR case study[Title/Abstract])) AND (((child*[Title/Abstract]) OR infant*[Title/Abstract]) OR toddler*[Title/Abstract]) OR newborn[Title/Abstract])) AND ((((((professionals) OR community[Title/Abstract]) OR service provider*[Title/Abstract]) OR stakeholder*[Title/Abstract]) OR collaborat*[Title/Abstract]) OR partner*[Title/Abstract]) OR ecolog*[Title/Abstract])</p>	15
<b>TOTAL</b>		<b>1133</b>

## Appendix B – Letter of Information and Consent



### LETTER OF INFORMATION / CONSENT

#### Implementing a long-term home visiting program for vulnerable, young mothers within a community: Perspectives from healthcare and social service providers



#### Investigators:

##### Local Principal Investigator:

Dr. Susan Jack  
School of Nursing  
McMaster University  
Hamilton, Ontario, Canada  
(905) 525-9140 ext. 26383  
E-mail: [jacksm@mcmaster.ca](mailto:jacksm@mcmaster.ca)

##### Student Investigator:

Shelly-Anne Li  
Department Clinical Epidemiology & Biostatistics  
McMaster University  
Hamilton, Ontario, Canada  
416-662-2232  
E-mail: [lisy5@mcmaster.ca](mailto:lisy5@mcmaster.ca)

#### Purpose of the Study

You are being invited to participate in a research study about the factors influencing acceptability of a long-term home visiting program, Nurse Family Partnership (NFP), being delivered to young, low-income, first-time mothers living in Hamilton. This qualitative study is being conducted by Shelly-Anne Li, a Master of Science student from the Health Research Methodology program at McMaster University (Supervisor: Dr. Harriet MacMillan). Information from this study will help to evaluate the intervention as it was delivered in Hamilton.

**Procedures.** You are being asked to participate in an interview with Shelly-Anne Li. The interview will take approximately 60 minutes to complete. The interview will be conducted at a place that you choose, and where you are comfortable and there is privacy available. The researcher will ask for your permission to digitally record the interview to make sure that everything you say is accurately captured. She will also take notes. No identifying information will be recorded, or if it is, it will be deleted from the tapes and any transcripts made from the tapes. You may request to review the interview tape if you wish. A short demographic questionnaire will also be completed. After this initial interview, you will be asked to participate in an additional 30-minute interview either over the phone or in person approximately three weeks later. In the second interview, the student investigator will share with you a summary of the first interview and ask you to comment on the accuracy of the information collected and summarized. I will also ask you for some demographic/background information like your education.

#### Potential Harms, Risks or Discomforts:

The risks involved in participating in this study are minimal. You do not need to answer questions that you do not want to answer or that make you feel uncomfortable. If you experience feelings of emotional distress, the interviewer will ask you to stop the interview immediately. Dr. Harriet MacMillan (clinician with mental health expertise) is prepared to follow up with you. You can also withdraw (stop taking part) at any time.

#### Potential Benefits

Although the research will not benefit you directly, we hope that by what is learned as a result of this study will help us to better understand how to implement NFP within the Hamilton, Ontario community.

**Payment or Reimbursement**

In appreciation for your time, you will be offered a \$25 Chapters gift card when you finish the first interview. You will receive a signed copy of this form.

**Confidentiality**

The interviewer will provide strict **confidentiality**. Your name will not appear on the digital recording or on any of the forms with your answers. Only pseudonyms will be used. Any documents that contain specific client data or information will not be requested or copied. Confidentiality will be protected further by storing all research data, including digital recordings, in a locked file or on a password-protected computer. If the results of the study are published, your name will not be used. Once the study has been completed, the data will be destroyed. Once the study is complete, an archive of the data, without identifying information, will be deposited

**Participation and Withdrawal**

Your participation in this study is voluntary. You may refuse to participate, refuse to answer any questions, or withdraw from the study at any time with no effect on you or any of the services you provide. If you decide to withdraw, there will be no consequences to you, and you will have the option of removing the data that has been already collected from you. If you do not want to answer some of the questions you do not have to, but you can still be in the study. Refusing participation in this study will in no way affect your current associations with the local NFP program.

**Information about the Study Results**

The student investigator expects to have this study completed by approximately *September 2014*. If you would like a brief summary of the results, please let me know how you would like it sent to you.

**Questions about the Study**

If you have questions or need more information about the study itself, please contact me at: [lisy@mcmaster.ca](mailto:lisy@mcmaster.ca), or by phone at 416-662-2232

This study has been reviewed by the Hamilton Integrated Research Ethics Board (HIREB). The HIREB is responsible for ensuring that participants are informed of the risks associated with the research, and that participants are free to decide if participation is right for them. If you have any questions about your rights as a research participant, please call the Office of the Chair, HIREB at 905.521.2100 x 42013.

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**CONSENT**

I have read the information presented in the information letter about a study being conducted by Shelly-Anne Li, of McMaster University.

I have had the opportunity to ask questions about my involvement in this study and to receive additional details I requested.

I understand that if I agree to participate in this study, I may withdraw from the study at any time. I have been given a copy of this form. I agree to participate in the study.

1. *I agree that the interview can be audio/video recorded.*                                 Yes     No

2. *I would like to receive a summary of the study's results.*                                 Yes     No

*If yes, where would you like the results sent:*

*Email:* \_\_\_\_\_

*Mailing address:* \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

3. *I agree to be contacted about the follow-up 30-minute phone interview and I understand that I can always decline the request.*                                 Yes     No

*Please contact me at:* \_\_\_\_\_



\_\_\_\_\_  
 Name of Participant (Printed)                                 Signature                                 Date

Consent form explained in person by:

\_\_\_\_\_  
 Name and Role (Printed)                                 Signature                                 Date

Version #\_\_ - Version Date \_\_\_\_\_

Page 3 of 3

### **Appendix C – Recruitment Scripts**

#### **Invitation to participants in the primary study to participant in the present study (sent by principal investigator of the primary study, Dr. Jack):**

Dear (Name of potential participant),

As you may recall, you participated in the study about the acceptability of the Nurse Family Partnership (NFP) Program being delivered to young, low-income, first-time mothers living in Hamilton, Ontario. This qualitative study was led by researchers at McMaster University, including myself and Dr. Harriet MacMillan, as well as Debbie Sheehan (past Director, Family Health, Hamilton Public Health Services).

Shelly-Anne Li is a Master's student enrolled in the HRM program at McMaster University and a member of our research team. For her Master's thesis, she is completing a project that includes a qualitative secondary analysis of the original set of interviews completed by the NFP community partners. Specifically, the thesis explores the perspectives of health and social service providers on a nurse-home visitation program (Nurse-Family Partnership (NFP)) within the Hamilton, Ontario community. In this current and second phase of the study, the student investigator is looking to expand on the themes that emerged from secondary analysis and more specifically to better understand the delivery of the program in the community as well as how the work of agencies that collaborate with NFP has changed or been influenced by the ongoing provision of the NFP in Hamilton. As such, the student investigator wishes to interview participants and collect data to support findings from the first phase of the study. This would involve conducting a new interview with you that would last approximately 60 minutes, at a location most convenient for you.

If you are interested in possibly participating, I'd like to receive your permission for me to release your contact information (email and phone number) to the student investigator (Shelly-Anne Li), so she can contact you directly and provide more information to you about the study and review the informed consent form with you.

Please remember that you can decline the invitation, or change your mind about being contacted at any time.

I look forward to hearing back from you.

#### **Student investigator's invitation information for Dr. Jack to pass along to new participants:**

Dear (Name of potential participant),

I am contacting you about a study exploring the perspectives of health and social service providers about the acceptability of the Nurse Family Partnership (NFP) Program being delivered to young, low-income, first-time mothers living in Hamilton, Ontario. This is a Master's thesis conducted by one of our student investigators. She is completing a project that includes two analytical phases. The first phase was a secondary analysis on a subset of the data provided from my case study on the adaptation and implementation of NFP from the



perspectives of community stakeholders. The thesis focuses on the community professionals' perspectives of NFP and how it impacts their current services and clients. For phase two, we'd like to confirm and expand the findings from phase one. We're interested in understanding more about how the community has accepted NFP when it was implemented here in Hamilton, specifically on any challenges or positive points to communication and collaboration with NFP or public health nurses who deliver NFP to clients. As such, the student investigator wishes to interview participants and collect data to support findings from the first phase of the study. This would involve conducting a new interview with you that would last approximately 60 minutes, at a location most convenient for you.

If you are interested in possibly participating, I'd like to receive your permission for me to release your contact information (email and phone number) to the student investigator (Shelly-Anne Li), so she can contact you directly and provide more information to you about the study and review the informed consent form with you.

Please remember that you can decline the invitation, or change your mind about being contacted at any time.

I look forward to hearing back from you.

**Follow-up e-mail script from student investigator:**

Dear (potential participant),

I am contacting you about my current research study exploring the perspectives of health and social service providers on a nurse-home visitation program (Nurse-Family Partnership (NFP)) within the Hamilton, Ontario community. Dr. Susan Jack has relayed your contact information to me and has indicated that you provided permission for me to contact you. I have attached the information sheet/consent form to give you further information about the study. Please feel free to let me know if you have any further questions or concerns about the study. I can be reached by email and by phone.

Truly looking forward to hearing back from you.

## **Appendix D – Final Interview Guide for Community Providers**

Thank you for agreeing to take some time out of your busy schedule to meet with me to discuss your experiences with the implementation and delivery of the Nurse Family Partnership (NFP) here in Hamilton. I'd like to tell you a bit more about our study. From 2008 to 2012, Dr. Susan Jack conducted a case study as part of the Hamilton NFP pilot study to explore the acceptability of this nurse home visitation program to a range of stakeholders, including community partners, the public health nurses and managers responsible for the delivery of this program, and of course NFP clients and their family members.

For my master's thesis, I am conducting a two phase study that builds on Dr. Jack's work. In my first phase, I conducted a secondary data analysis of the interviews that were conducted with community professionals about their perceptions of the NFP. In this current and second phase of my study, I am looking to expand on the themes that emerged from secondary analysis and more specifically to better understand the delivery of the program in the community as well as how your work or the work of the agency has changed or been influenced by the ongoing provision of the NFP in Hamilton.

The interview will last approximately 60 minutes, and there are no right or wrong answers. Please also remember that you can stop the interview at any time. The interview will be digitally recorded. Is this okay? I will also be taking a few short notes during our interview.

### **Nature of Interactions with NFP Program**

1. How did you become involved with the NFP?
2. What is your nature of interaction with the NFP program housed within Hamilton Public Services?
  - a. **Probe:** Do you share clients with NFP, are you a direct service provider, or for collaborative service planning, coordination, or safety planning? Or would it be more at an agency/organizational level?
  - b. **Probe:** Can you describe to me the extent and with whom you interact with that is part of NFP?
3. What are usually discussed when you interact with professional that are part of NFP?
4. As a nurse home visitation program, for young, socially disadvantaged mothers living in Hamilton, what are your general perceptions of the NFP program as delivered by Hamilton Public Health Services?
  - a. From your perspective, how is this program perceived in the community?
  - b. Have you received feedback or information from mothers enrolled in the program that reflects their perceptions of this program?
  - c. What role does the NFP provide to mothers in the community? [probe for roles such as connecting mothers to community resources]

- d. Some of the participants from earlier interviews felt collaborating with NFP creates a synergistic relationship with their agency, which ultimately enhances care for the client that they share. Would you agree?
    - i. Why or why not?
5. The interviews from phase one had instances where NFP was compared to Healthy Babies Healthy Children (HBHC). Why would you think that HBHC comes to mind for the community professionals when we talk about NFP?
  - a. Are there any differences between HBHC and NFP in terms of communicating and collaborating with community agencies?
6. What is your impression about the state of collaboration between NFP and Hamilton agencies? Can you describe them for me?
  - a. What would you like to see change if anything with respect to how NFP collaborates with community agencies?
  - b. Do you think a strong link between Hamilton community agencies and the program can lead to better service delivery for the clients? How so?
7. Based on your knowledge of the structure and curriculum of NFP, do you see any areas where there would be a duplication of services with other community agencies?
  - a. If so, which ones would they be?
  - b. How can NFP avoid duplication with existing services?
8. Can you speak to the level of communication between NFP and the community agencies?
  - a. **Probe:** for type of communication – meetings (i.e., whether PHNs and service provider met to discuss a client they shared together), briefing (via email or phone about the shared client), logistics (i.e., use of space in maternity home for meeting with mother for visit, etc.)
  - b. **Probe:** for frequency of communication – case-by-case (i.e., give social worker a quick call/email about the home visit), monthly/weekly, incident-focused (i.e., PHN notifies community professional only when a special incident happened)
  - c. What are some of your suggestions or thoughts about the NFP’s approach to communication with other agencies?
9. How familiar are you with the referral process (either referral to or from the program)? (if not familiar at all, skip to question 11)
  - a. What are the challenges with referral (if any) faced by NFP?
  - b. What are the strengths that NFP had for the referral process?
  - c. How does strong collaborations promote appropriate referral to the program?
10. We are also trying to understand how the Children’s Aid Society (CAS) is impacted by NFP. Can you share with me your insights and perspectives on this?
11. What is the level of acceptance that you feel NFP is experiencing from the community (specifically clients and agencies)?
  - a. **Probe:** How might we better promote or disseminate NFP?

- b. **Probe:** What are the barriers that community professionals might have with regards to buy-in?
  - c. **Probe:** What are the barriers for clients?
  - d. **Probe:** For the healthcare system in Canada?
12. Although NFP is actively running in the US, they have a different healthcare system and geographic distribution than Canada. Can you speak to any differences that Canada might have in terms of NFP uptake?
13. That’s all I have for the interview. Do you have any questions for me?
14. Could you please provide me some of your demographic information? If you don’t feel comfortable answering to any of the following, we can skip.

Participant Demographic Information

Professional Designation	
Title	
Number of years with current agency	
Number of years in current role	
Gender	

**Thank you so much for your participation and for sharing your perspectives and experiences. You have very valuable insights and it was a pleasure to be here with you.**

## **Appendix E – Final Interview Guide for CAS Professional**

Thank you for agreeing to take some time out of your busy schedule to meet with me to discuss your experiences with the implementation and delivery of the Nurse Family Partnership (NFP) here in Hamilton. I'd like to tell you a bit more about our study. From 2008 to 2012, Dr. Susan Jack conducted a case study as part of the Hamilton NFP pilot study to explore the acceptability of this nurse home visitation program to a range of stakeholders, including community partners, the public health nurses and managers responsible for the delivery of this program, and of course NFP clients and their family members.

For my master's thesis, I am conducting a two phase study that builds on Dr. Jack's work. In my first phase, I conducted a secondary data analysis of the interviews that were conducted with community professionals about their perceptions of the NFP. In this current and second phase of my study, I am looking to expand on the themes that emerged from secondary analysis and more specifically to better understand the delivery of the program in the community as well as how your work or the work of the agency has changed or been influenced by the ongoing provision of the NFP in Hamilton.

The interview will last approximately 60 to 90 minutes, and there are no right or wrong answers. Please also remember that you can stop the interview at any time. The interview will be digitally recorded. Is this okay? I will also be taking a few short notes during our interview.

### **Nature of Interactions with NFP Program**

1. What is your nature of interaction with the NFP program housed within Hamilton Public Services?
  - a. Probe: Do you share clients with NFP, are you a direct service provider, or for collaborative service planning, coordination, or safety planning? Or would it be more at an agency/organizational level?
  - b. Probe: Can you describe to me the extent and with whom you interact with that is part of NFP?
2. What are usually discussed when you interact with professional that are part of NFP?

### **Perceptions of the NFP Program**

3. As a nurse home visitation program, for young, socially disadvantaged mothers living in Hamilton, what are your general perceptions of the NFP program as delivered by Hamilton Public Health Services?
  - a. From your perspective, how is this program perceived in the community?
  - b. Have you received feedback or information from mothers enrolled in the program that reflects their perceptions of this program?
  - c. What role does the NFP provide to mothers in the community? [probe for roles such as connecting mothers to community resources]
  - d. What role does the NFP provide to the direct service providers in your agency?

4. Young, socially disadvantaged mothers are often identified as hard-to-reach and difficult to engage and retain in a range of health or social care services. How has the introduction of the NFP program begun to address some of these issues?
  - a. It was identified in the first round of interviews that the NFP program was filling an important gap in service delivery by providing health promotion and prevention services to clients with a high level of needs. Has the NFP continue to fill this gap in services? If so, why or why not?
5. How is NFP working or not in Hamilton, based on the services that we currently offer to low-income, young mothers?
  - a. Some of the participants from earlier interviews felt collaborating with NFP creates a synergistic relationship with their agency, which ultimately enhances care for the client that they share. Would you agree?
    - i. Why or why not?
6. How familiar are you with the referral process (either referral to or from the program)? (if not familiar at all, skip to question 8)
  - a. What are the challenges with referral (if any) faced by NFP?
  - b. What are the strengths that NFP had for the referral process?
  - c. How does strong collaborations promote appropriate referral to the program?

### **Intersections Between Child Welfare and Public Health**

7. We are also trying to understand how the Children's Aid Society (CAS) is impacted by NFP. Can you share with me your insights and perspectives on this?
8. How does NFP affect CAS assessment of families in general?
9. How has NFP impacted services provided by CAS?
10. Were there any difficulties with differentiating the role between CAS workers and NFP PHNs?
11. Do you think clients perceive CAS and NFP differently? If so, how?
12. From your understanding, does CAS and NFP share the same goals for the client?
13. How has CAS and NFP worked together to provide services for the client?
14. Do you have any suggestions for NFP in terms of communicating and collaborating with CAS?
15. There is one clinical issue that public health nurses in the NFP often struggle to resolve successfully. In the situation where a mother experiences intimate partner violence (physical abuse, emotional abuse, being threatened or intimidated, sexual coercion etc) and there is an infant or toddler in the home (who has not been physically harmed directly related to IPV). PHNs often experience conflicting feelings, where they understand they

have a legal responsibility to report infant exposure to IPV to CAS – yet PHNs often anticipate that as soon as the call to CAS is made – that the nurse-client relationship is irrevocably altered, the client leaves the NFP program and if the report is not investigated or substantiated, a client is ultimately left with fewer supports as she is no longer in the NFP program.

- a. What guidance can you offer to public health nurses in these situations?
- b. How can CAS and public health work together to support women and children exposed to intimate partner violence?

16. That’s all I have for the interview. Do you have any questions for me?

17. Could you please provide me some of your demographic information? If you don’t feel comfortable answering to any of the following, we can skip.

Participant Demographic Information

Professional Designation	
Title	
Number of years with current agency	
Number of years in current role	
Gender	

**Thank you so much for your participation and for sharing your perspectives and experiences. You have very valuable insights and it was a pleasure to be here with you.**

## **Appendix F – Nurse-Family Partnership Model Elements**

Source:

<http://www.nursefamilypartnership.org/communities/model-elements#sthash.sWSHC1fa.dpuf>

The Nurse-Family Partnership Model Elements are supported by evidence of effectiveness based on research, expert opinion, field lessons, and/or theoretical rationales. When the program is implemented in accordance with these model elements, implementing agencies can have a high level of confidence that results will be comparable to those measured in research.

- Element 1: Client participates voluntarily in the Nurse-Family Partnership program.
- Element 2: Client is a first-time mother.
- Element 3: Client meets low-income criteria at intake.
- Element 4: Client is enrolled in the program early in her pregnancy and receives her first home visit by no later than the end of week 28 of pregnancy.
- Element 5: Client is visited one-to-one, one nurse home visitor to one first-time mother or family.
- Element 6: Client is visited in her home.
- Element 7: Client is visited throughout her pregnancy and the first two years of her child's life in accordance with the current Nurse-Family Partnership guidelines.
- Element 8: Nurse home visitors and nurse supervisors are registered professional nurses with a minimum of a baccalaureate degree in nursing.
- Element 9: Nurse home visitors and nurse supervisors complete core educational sessions required by the Nurse-Family Partnership National Service Office and deliver the intervention with fidelity to the Nurse-Family Partnership model.
- Element 10: Nurse home visitors, using professional knowledge, judgment, and skill, apply the Nurse-Family Partnership visit guidelines, individualizing them to the strengths and challenges of each family and apportioning time across defined program domains.
- Element 11: Nurse home visitors apply the theoretical framework that underpins the program, emphasizing self-efficacy, human ecology, and attachment theories, through current clinical methods.
- Element 12: A full-time nurse home visitor carries a caseload of no more than 25 active clients.
- Element 13: A full-time nurse supervisor provides supervision to no more than eight individual nurse home visitors.
- Element 14: Nurse supervisors provide nurse home visitors clinical supervision with reflection, demonstrate integration of the theories, and facilitate professional development essential to the nurse home visitor role through specific supervisory activities including one-to-one clinical supervision, case conferences, team meetings, and field supervision.
- Element 15: Nurse home visitors and nurse supervisors collect data as specified by the Nurse-Family Partnership National Service Office and use Nurse-Family Partnership reports to guide their practice, assess and guide program implementation, inform clinical supervision, enhance program quality, and demonstrate program fidelity.



- Element 16: A Nurse-Family Partnership Implementing Agency is located in and operated by an organization known in the community for being a successful provider of prevention services to low-income families.
- Element 17: A Nurse-Family Partnership Implementing Agency convenes a long-term community advisory board that meets at least quarterly to promote a community support system to the program and to promote program quality and sustainability.
- Element 18: Adequate support and structure shall be in place to support nurse home visitors and nurse supervisors to implement the program and to assure that data are accurately entered into the database in a timely manner.