

## EARLY CHILDHOOD LEARNING

Knowledge Centre

# Bulletin

March 2008

## Re-Creating Florence Nightingale

### Home-Visiting Programs with At-Risk Families

by Ray DeV. Peters

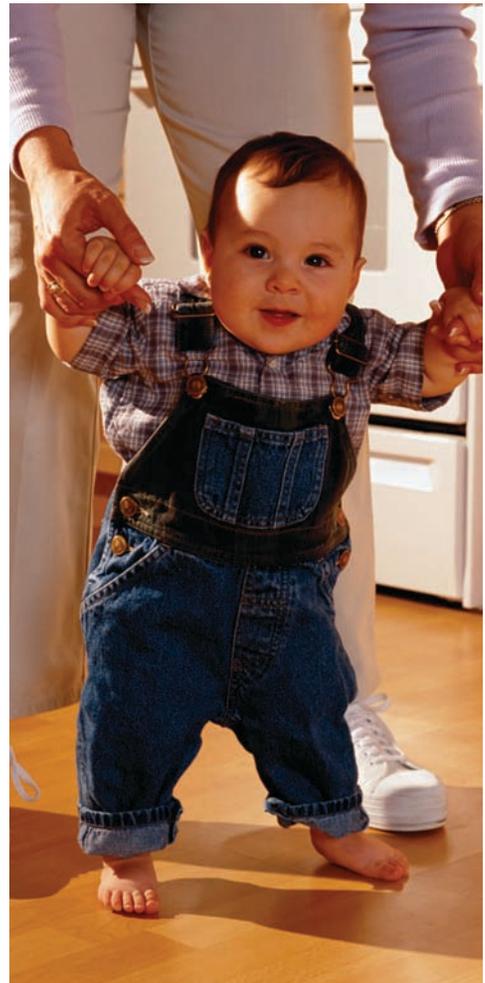
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In the late 19<sup>th</sup> century in England, Florence Nightingale began to encourage nurses to visit sick people in their own homes. She also strongly recommended that nurses receive special training for the new role of home visiting, and she was instrumental in establishing a school of nursing in Liverpool to provide this training.<sup>1</sup>

Nightingale's pioneering work greatly influenced the field of public health nursing, which has provided home-visiting services to new mothers in Canada, the U.S., Europe, and elsewhere for many years. It was not until the 1970s however, that systematic studies were undertaken to closely evaluate the outcome effects on mothers and their children of providing a high quality home-visiting program to new mothers.

David Olds and his colleagues developed and implemented a nurse home-visiting program for poor, first-time mothers in a high-risk area of Albany, New York, beginning in 1977. This program, called the Nurse-Family Partnership (NFP) program, begins during pregnancy and provides nurse home visitation to mothers until their children are two years old. The NFP program consists of a clear delineation of the target population, program content, methods of engaging and bringing about adaptive behaviour change and the importance of employing nurses in serving families during pregnancy and the early years of the child's life.<sup>2</sup>

Three separate randomized controlled trials of the NFP program conducted in 1978, 1990 and 1994 demonstrated that the program improves pregnancy outcomes, improves the health and



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development of young children and helps parents create a positive course for themselves.

In 1996, Olds and his colleagues began to disseminate the NFP program to local communities in the U.S. Since then, the program has grown tremendously, with NFP currently serving poor, first-time mothers in 290 counties and 23 states.<sup>3</sup> Currently a pilot study has begun under the direction of Harriet MacMillan from MacMaster University to look at the feasibility of conducting the first randomized controlled trial of the NFP program in Canada.

Based to a great extent on the positive findings from the NFP program, many home-visiting programs for at-risk mothers have been developed and implemented, including all 10 Canadian provinces. The results of research concerning these programs are summarized in the following two articles of this *Bulletin*. Although these programs appear to have substantial promise in improving the lives of young children and their families, most have had poor or nonexistent evaluations. None of the Canadian programs are faithful replications of the NFP model or any other well-researched home-visiting program. Until these programs are subjected to a rigorous evaluation, such as those being carried out in Manitoba and planned for Saskatchewan, their benefits to young children and their families will remain unclear.

Finally, it is important to recognize that even the most effective home-visiting programs are only one part of what is considered an optimal, comprehensive service system for early childhood development. ☺

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# Creating Optimal Learning Conditions for Children

## Home-Visiting Programs Reach Out to At-Risk Families

by Sandra Braun

The quality of care children receive from pregnancy to age 5 is particularly important. Within the family and home environment, caregivers do more than just supervise children; they nurture them and offer them the interaction with the social and physical world that children need in order to grow, learn and thrive. It is not always easy for caregivers to provide the best care for their children – some families struggle with financial, social, or mental health problems. But help for families does exist. Family support services aim to help mothers experience healthier

pregnancies, care for their newborns, and set the family on a life path that fosters the children's learning and healthy development. Unique among these services are home-visiting programs, which send visitors into the home to work directly with families.

Home-visiting programs offer a number of additional benefits that other supportive services do not. By introducing visitors into the family home, these programs reach out to families who might not otherwise seek supportive services. Meeting with



*“As a result of some home-visiting programs, young children have been able to form more secure attachments with others.”*

families in their home can create a sense of comfort that enables families to open up and identify their needs. Service providers can directly observe the family home environment, and have greater opportunity to build on family strengths (for example, devotion to their child, social support from extended family) as well as address risk factors that may negatively affect the child's learning and development (for example, poor parenting practices, lack of knowledge of child development, or lack of available support services in the community). Through this direct, more intimate contact, providers are also better able to tailor their support and guidance to meet the needs of their clients.

### The Many Varieties of Home-Visiting Programs

These programs are offered in many ways – they may consist of one-time appointments or regularly scheduled visits; they may be implemented universally or they may target specific populations, such as families that are at risk or those with low-birthweight babies. And just as programs vary, so do their effects on participating families. Researchers are still cautious about the outcomes arising from these programs. Much depends on the qualifications of the visitors, the content of the program, how it is implemented, and the broader system of supportive services in which it is set.<sup>1</sup>

### Effects of Home-Visiting Programs on Children and Families

Studies show that the effects of home-visiting programs are not consistent from one program to another, or even between two sites using the same program model. Home-visiting programs can produce positive outcomes, but when they do, the effects are often modest in magnitude.<sup>1</sup> Nevertheless, some studies show that certain participants, such as at-risk families, can experience particularly large and long-term positive effects.



*“Effective home-visiting programs can influence many aspects of the prenatal environment and the family life, thereby improving the conditions needed for children’s optimal brain development and learning.”*

Effective home-visiting programs can influence many aspects of the prenatal environment and the family life, thereby improving the conditions needed for children's optimal brain development and learning. Changes have been seen in parents and children alike – in lifestyle, health, and behaviour. One study showed that parental smoking rates and instances of pregnancy-induced hypertension declined while diets improved as a result of participating in home-visiting programs. In another study, mothers who received home visits were more supportive and sensitive, less detached, and more likely to stimulate children's cognitive development, language and literacy. They also reported using spanking less frequently, opting instead for milder forms of discipline.

Home-visiting programs can affect child health and well-being as well. These outcomes have been seen in lower rates of child abuse, neglect and injuries, and in higher rates of immunization. From these results, we can see how positive changes in parental behaviour greatly improve the lives of children.

Positive results do not necessarily end in childhood; in some cases they remain apparent throughout a child's life, continuing even into adulthood. As a result of some home-visiting programs, young children have been able to form more secure attachments with others. In middle childhood, they have been found to have fewer emotional and behavioural problems, have an easier time adapting to school, and learn more in school. As teenagers, some studies have found that they are less likely to use alcohol or tobacco, be sexually promiscuous, or drop out of school. And finally, as adults, they may be more likely to be employed and less likely to participate in criminal activities.

Each family has its own unique needs, so not surprisingly, home-visiting programs have varying effects on different families. For instance, in some studies, low-income families and those with unmarried mothers have experienced the largest effects from participating in home-visiting programs.

Many different family factors have been found to moderate the effects of home-visiting programs. Participation is perhaps one of the most prominent variables to influence outcomes experienced through home-visiting programs – the more they participate, the greater the effects. Families' perceptions of their child's needs are also significant. If parents believe their child needs the services (to resolve a behavioural or developmental problem, for instance), they may experience greater benefits from the program.<sup>1</sup>

## Key Ingredients

It is challenging to pinpoint the aspects of a home-visiting program that make it effective; but it is possible to identify general characteristics of successful programs. These characteristics have to do with the number of visits of a program, the qualifications of the visitors, and the content of the program. It is important to keep in mind, though, that none of these elements alone guarantee positive outcomes – they work in concert with one another to produce positive results.<sup>2</sup>

In general, more intensive programs (i.e., those with more visits scheduled) see stronger effects; in fact, studies suggest that there may be a threshold (i.e., minimum number of visits) at which the program starts to be effective. Additionally, some programs that have used nurses rather than paraprofessionals to conduct home visits have shown better results, though this is not the case in all circumstances. The advantages of having professional, rather than paraprofessional, visitors, have been shown in relation to the improvement of children's cognition and the prevention of child abuse, but not in relation to other outcomes, such as parenting and maternal education.<sup>3</sup>

The content and structure of home-visiting programs can be particularly significant for their effectiveness. Studies have shown that the most effective programs are based on theories of development and behaviour change. They also address the many different dimensions of family life, target risk factors identified in the research literature, follow a well-constructed curriculum across the series of visits, and include a child education component.<sup>4</sup>

## Challenges for Practice and Research

One of the biggest challenges facing home-visiting programs is the inability to provide these services for all families. There are a number



*“The content and structure of home-visiting programs can be particularly significant for their effectiveness.”*

of reasons why participation in these programs is limited. Simple availability of home-visiting services is not equal across all regions in Canada. Canadian jurisdictions currently lack the necessary human resources to provide universal home-visiting services. Even where services exist, many families drop out of the program, which means they are not receiving the full number of planned home visits. This issue is hard to resolve since it is often not known why families drop out.

While home-visiting programs exhibit benefits for families, home-visiting programs alone can't fulfill all the needs of at-risk families. Instead, as researchers remind us, home-visiting programs should form one component of a broader approach that also includes other family support services, such as high-quality child care. In some

cases, the services offered by home-visiting programs may need to be supplemented by centre-based care to reduce child behaviour problems and promote language and cognitive development more effectively.

There is still a need for further investigation into home-visiting programs to identify what works and what does not work. We need to determine the essential components of home-visiting programs that produce the greatest long-term effects on children's learning, behaviour and well-being; the ideal program intensity, duration, and combinations with other child development programs to produce desired outcomes. Examining programs in real-world situations, across a range of settings, would help to assess the effectiveness of program content, delivery and cost.

## Recommendations: What the Experts Are Saying

Researchers are cautious in their assessment of home-visiting programs and suggestions for moving forward. They point to the significance of quality and proven results when evaluating programs for implementation.<sup>1</sup> Even when faced with cost restrictions, it is important to implement established program models that have proven to be effective; only those that have shown significant outcomes in well-designed evaluation studies should be considered.

Context is also a key issue. Each community has unique strengths and challenges, which programs must take into account and address. Programs should be evaluated in their actual context. For example, programs that have shown positive outcomes in the United States should be researched in the Canadian context prior to their broader implementation.

Researchers also call for modest expectations for what home-visiting programs alone can accomplish. To support families fully, home-visiting

programs should be set within a broader system of care – one that is built on a foundation of healthy public policies that address the systemic causes of poverty and family disadvantage, one that includes a comprehensive system of early childhood development programs and services, and one that is connected by a nationwide resource network that supports rigorous evaluation of early childhood development programs. In such a system, we can evaluate the role that home-visiting programs play and determine how they interact with other supportive services. ↗

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# An Overview of Home-Visiting Services Across Canada

by Amélie Petitclerc

As part of their early childhood development programs, all provinces and most territories across Canada currently offer home-visiting services for families who face risk factors that may interfere with their children’s learning and development (see table). This article provides an overview of these home-visiting programs, based on information collected from government websites and through key informants from almost every provincial or territorial government. It describes the programs’ main characteristics and efforts made to evaluate their impacts on families.

## Program Characteristics

Home-visiting programs offered in Canadian provinces and territories share common objectives, often use similar approaches to screen and recruit participating families, and to achieve their objectives. They aim to foster safe and healthy child development, improve parenting knowledge and skills, promote positive parent-child relationships, help families access community services, and enhance family functioning. Several home-visiting programs identify potential participating families at birth in the hospital or during a universal home visit (i.e., systematically offered to all families) by a public health nurse shortly after birth (see box). Most of them use standardized tools to identify families at risk and to assess their needs. Generally, home visitors provide emotional



support and information, model positive parenting practices, and help families link with community services.

In some programs (e.g., *Building Blocks* and *Infant Development Program (IDP)* in British Columbia, *Families First* in Manitoba, *Kids First* in Saskatchewan, *Les services intégrés en périnatalité et pour la petite enfance* in Quebec, *Direct Home Services* in Newfoundland-Labrador, *Healthy Beginnings* in Nova Scotia, *Best Start* in Prince Edward Island, and *Healthy Families* in the Northwest Territories), home visitors' objectives and activities follow a curriculum, in addition to tailoring activities to the families' objectives and progress. In other programs an individual family plan is built with the parents based on objectives selected and prioritised by the parents themselves. The frequency of visits varies from weekly to monthly and, in most programs, is adapted according to the families' needs, age of the child, or progress through the program, within the limits of available financial and human resources.

All programs provide initial internal training for home visitors, and



varying levels of ongoing training and supervision. However, requirements for visitors' background training vary widely, ranging from none to an undergraduate university degree in a relevant field. Although the highest education requirements are generally found in programs targeting children with or at risk for a developmental delay (e.g., the *Infant Development Program* in British Columbia, the

*Early Intervention Home Visiting Program* in New Brunswick), other programs also require professional training for their home visitors. For instance, the *Healthy Beginnings* program in Newfoundland and Labrador employs community health nurses, Quebec's program employs nurses or other health or psychosocial professionals, and some other programs (e.g., British Columbia's *Building Blocks*, Ontario's *Healthy Babies*, *Healthy Children* program, Newfoundland and Labrador's *Child, Youth and Family Services*) draw on a blend of professional and paraprofessional home visitors.

As an example of program that uses universal screening, the *Healthy Babies, Healthy Children* program (HBHC) screens families in Ontario either before or shortly after birth (in 2001, 88% of families with new babies consented to be screened). In addition, these families receive a phone call by a public health nurse within the first 48 hours after hospital discharge. Data from 2001 indicate that more than 80% of families with newborns received this phone call that year. On this phone conversation, the nurse provides information, answers questions, conducts a brief assessment of the family's needs, and offers a one-time home visit. During that visit, the nurse provides further information about parenting and available services, provides nursing services, and assesses several dimensions of the child's health, the parent-child relationship, and the family situation. If the family is identified as being at risk (about 7% of families are), the nurse conducts an in-depth assessment and makes appropriate referrals to services, including the home-visiting program.

### Program Evaluation

Provinces and territories usually report on the number and profile of the families served by their home-visiting programs, and some conduct evaluations about quality assurance and organisational issues (e.g., service coordination). However, in terms of evaluating how effective the programs are in improving children's development and learning, and in improving family functioning, most of the approaches taken do not allow for

clear conclusions to be drawn, at least according to the information we could gather.

In order to be confident that changes observed in participating families are due to their participation in the program, the ideal approach is to assign families to either the participating or control group at random, which ensures that the two groups were equivalent before the intervention or that group differences were chance occurrences. When random assignment is not feasible, a few other valid research designs may be used.

One such design (the regression-discontinuity design) was used to evaluate the *Families First* program in Manitoba. This research design requires that families be assigned to participating and control groups solely on the basis of a cut-off score on a measure, such as a risk scale. Specific analyses can be conducted that allow for an assessment of the effect of participation in the program. Results of the *Families First* evaluation showed that, after one year, participation in the program led to outcomes similar in magnitude to those reported in recent meta-analyses of home visiting programs, including increased positive parenting behaviour, improved parental psychological wellbeing, but no effect on some other outcomes such as social support. Manitoba is continuing to evaluate these outcomes

## Home-visiting programs across Canada and target populations:

| Province or Territory            | Program name   | Target families  |
|----------------------------------|--|--|
| <b>British Columbia</b>          | Building Blocks  | Vulnerable families and children (0 to 3 years)  |
|                                  | Infant Development Program (IDP) <a href="http://www.idpofbc.ca">www.idpofbc.ca</a> and Aboriginal IDP <a href="http://www.aidp.bc.ca">www.aidp.bc.ca</a>  | Families with an infant at risk for or with a developmental delay or disability (0 to 3 years)   |
| <b>Alberta</b>                   | Home visitation programs: <a href="http://www.ahvna.org">www.ahvna.org</a>   | Parents or parents-to-be who face challenges that may place their babies at risk and prevent them from reaching their full potential   |
| <b>Saskatchewan</b>              | Parent Mentoring Program of Saskatchewan (PMPs) <a href="http://www.pmps.ca">www.pmps.ca</a>   | Pregnant women and parents of children 0-5 who are at low psychosocial risk  |
|                                  | Kids First   | Pregnant women and families with children 0-5 living in vulnerable conditions, who are at moderate to high risk  |
|                                  | Early Childhood Intervention Program (ECIP)  | Children at-risk of developmental delays or handicaps, aged birth to school age, and their families  |
| <b>Manitoba</b>                  | Families First   | At-risk families from pregnancy to age 5   |
| <b>Ontario</b>                   | Healthy Babies Healthy Children program (HBHC)   | Families with risks to healthy child development, from pregnancy to age 6  |
| <b>Quebec</b>                    | Services intégrés en périnatalité et pour la petite enfance à l'intention des familles vivant en contexte de vulnérabilité   | Pregnant women and families with children 0-5, where the mother is less than 20 years of age, or pregnant women and families with children 0-5 living under extreme poverty conditions |
| <b>New Brunswick</b>             | Early Intervention Home Visiting Program <a href="http://www.gnb.ca/0017/Children/ecireviewindex-e.asp">http://www.gnb.ca/0017/Children/ecireviewindex-e.asp</a> <a href="http://www.gnb.ca/0017/ELCC/index-e.asp">http://www.gnb.ca/0017/ELCC/index-e.asp</a> | Children 0-4 with an identified developmental delay or "at risk" of developing one due to environment, established or biological factors   |
| <b>Newfoundland and Labrador</b> | Healthy Beginnings: Supporting Newborns, Young Children and their Families (home visiting is part of program)  | Families with young children who have increased potential for physical, cognitive, communicative or developmental difficulties   |
|                                  | Direct Home Services Program   | Families of infants and preschool aged children who display delayed development or are at risk for delayed development   |
|                                  | Child, Youth and Family Services (Family support services) (home visiting is part of the program)  | Families who require additional support for basic life skills and parenting  |
| <b>Nova Scotia</b>               | Healthy Beginnings: Enhanced Home Visiting   | Families of children 0-3 who face challenges   |
| <b>Prince Edward Island</b>      | Best Start Program   | Families who face challenges for parenting   |
| <b>Yukon</b>                     | Healthy Families Program   | Overburdened families, prenatally and/or at birth, through school age  |
| <b>Northwest Territories</b>     | Healthy Families Program   | Families with children 0-6 who face greater parenting challenges   |
| <b>Nunavut</b>                   | No Nunavut-wide program; but it is possible for community groups to obtain funding for home-visiting programs through the Healthy Children Initiative  |  |

over a longer period of time, with other methods. Research is also being planned in Saskatchewan to evaluate *Kids First's* effectiveness and cost-benefits. This evaluation will match participating families and non-participating families according to important characteristics, to ensure they are as similar as possible before the intervention.

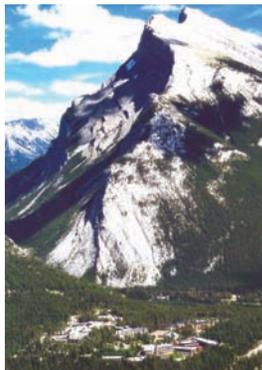
Aside from these two programs, based on the information we could review, the other home-visiting programs in Canada have not been submitted to such rigorous evaluation. The other available evaluation studies either did not use a control group, or they used a control group that was not equivalent to the participating group prior to the intervention. Therefore, it is currently not possible to draw clear conclusions about the effects of these home-visiting programs.

In conclusion, home-visiting programs across Canada share similar objectives and common approaches, but also vary in such characteristics as the background training required for home visitors and the use of a standard curriculum. Based on the information we could gather, only two provincial programs are being submitted to evaluation studies using valid research designs, which makes it difficult at this point to assess the impact of home-visiting programs on children's development in Canada. ☺

## 40<sup>th</sup> Annual Banff International Conference on Behavioural Science

# Effective Early Learning Programs: Research, Policy and Practice

**March 16-19, 2008,  
Banff, Alberta**



**This conference is organised by the Banff International Conferences on Behavioural Science, the Early Childhood Learning Knowledge Centre, the Centre of Excellence for Early Childhood Development and the Canadian Language & Literacy Research Network.**

This conference will highlight effective programs in three major areas of Early Childhood Learning: Development of Language and Literacy, Development of numeracy, and Early Social & Emotional Learning. For each area, leading researchers and practitioners will present the most effective early learning programs that have been implemented and well evaluated, and will discuss challenges faced while implementing and evaluating these programs.

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EARLY CHILDHOOD LEARNING

Knowledge Centre

# Bulletin

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