



Summary Report

Short- and Longer-Term Impacts of the
Healthy Families, Healthy Babies (HFHB)
Postnatal Home Visiting Program on
Child Health and Developmental
Outcomes in New Brunswick

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Project Title

Short- and longer-term impacts of the Healthy Families, Healthy Babies (HFHB) postnatal home visiting program on child health and developmental outcomes in New Brunswick

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Why is This Study Important?

Becoming a new parent can be a difficult time for anyone. Even when new families have a strong support system in place, the struggles that can surround a first-time pregnancy, breastfeeding a newborn, and supporting an infant's health and nutritional needs are challenging. For new or expectant parents who struggle with poverty, low levels of education, or poor health behaviours, these challenges only increase. For this reason, there are home visiting programs in place to help support those who need it most.



In New Brunswick, the Healthy Families, Healthy Babies public health program supports first-time families by providing free services from pregnancy until a child is 2 years old. Parts of the program are universal (i.e. newborn screening and healthy toddler assessments) and help to identify families in need of more support. Families at higher risk of poor health and child development outcomes are eligible to receive targeted services: including postnatal home visits from a public health nurse or dietitian.

In this report, we look at the targeted postnatal home visiting component of Healthy Families, Healthy Babies, which includes breastfeeding support and resource referrals for first-time qualifying parents. Comparing outcomes of children who received postnatal home visits and those who did not, we examine whether participating in the program had an impact on how long the child and mother breastfed, and whether the child had developmental concerns at 18 months and before entering kindergarten.

Longer durations of breastfeeding are associated with better health outcomes, and early childhood development is associated with long-term academic and employment outcomes. By measuring these outcomes, this study helps us evaluate the short- and longer-term impacts of the Healthy Families, Healthy Babies program.

How Was This Study Completed?

To undertake this study, researchers at NB-IRDT used Healthy Families, Healthy Babies (HFHB) universal newborn screening data (Public Health Priority Assessment [PHPA] data) to identify births in New Brunswick between April 1, 2012 and March 31, 2014, as well as HFHB program data to identify families who participated in postnatal home visiting. The birth cohort was restricted to first-time families using linked Discharge Abstract Data, Vital Statistics, and Citizen Data. Using these data holdings on health records, demographics, and participation in public health programming, propensity score matching was used to find a group of non-participating first-time families in the data comparable to participating families by demographic, socioeconomic, and health-related characteristics. At 18 months, breastfeeding duration was assessed using the Healthy Toddler Assessment, and child development was assessed using the Ages & Stages Questionnaire. Child development was assessed again at age 4-5 using the Early Years Evaluation Direct Assessment.



Limitations

While reading the results on the next pages, it is important to remember that there are certain limitations to this study. For instance, because the PHPA data were not originally collected for research purposes, this data set contains some missing, incomplete, or inconsistent data.

Similarly, because participation in the HFHB program, Healthy Toddler Assessment, and Early Years Evaluation Direct Assessment is voluntary, there are missing data that may have biased study results. Due to missing outcome data, sample sizes decreased by one-third at the school readiness assessment and by one-half at the 18-month assessment.

Healthy Families, Healthy Babies (postnatal program)

Between April 1, 2012, and March 31, 2014, **6,096** families of first-time parents in New Brunswick were identified and were followed in administrative data from their child's birth until school age.



- Of these families, **1,211** were identified as being "higher risk" and participated in Healthy Families, Healthy Babies postnatal visiting.
- Of the 4,885 families who did not participate in the program, **1,366** were similar to program participants and were used for comparison.

Did Postnatal Home Visits Impact Breastfeeding?

Participating in Healthy Families, Healthy Babies postnatal home visits had a **positive impact** on the duration of breastfeeding.

- ↳ Participants breastfed **33 days longer** than non-participants and were **2.25 times more likely** to be breastfeeding at 18 months.
- ↳ Surprisingly, postnatal participants were also **1.59 times more likely** to be breastfeeding at 18 months when compared to the average family (not only similar families).



What About Child Development Outcomes?

Participating in Healthy Families, Healthy Babies postnatal home visits **did not impact** child development outcomes.

- ↳ Participating children were **as likely** as similar non-participating to have a developmental concern identified at 18 months or to have significant difficulty identified before kindergarten.

Conclusions

Overall, the results of this study show that postnatal home visiting has a positive impact on breastfeeding duration among vulnerable families, though no significant impacts on early childhood development were found.

This last finding may seem surprising. While the Healthy Families, Healthy Babies postnatal program fosters healthy child development by providing parents with referrals to specialized services, improvements in child development were not found. However, as this program is targeted towards high-risk families, more focused and integrated services may be required to meaningfully impact child development. This is valuable to know, as this information can help inform the future delivery of the postnatal program.

This research study is among the first in Canada to derive evidence that is needed to inform the delivery of home visiting programs like Healthy Families, Healthy Babies. However, while filling a valuable gap, the results leave questions about the impact of prenatal enrollment (during pregnancy) in Healthy Families, Healthy Babies. These questions are the focus of ongoing research at NB-IRDT.

