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Healthy Babies Healthy Children Process Implementation Evaluation:

Executive Summary

EVALUATION REPORT

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Public Health Ontario

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Authors

Adrienne Alayli-Goebbels, MSc, PhD
Evaluation Specialist, Health Promotion, Chronic Disease and Injury Prevention (HPCDIP)

Helen Cerigo, MSc
Epidemiologist, HPCDIP

Eunice Chong, MPH
Evaluation Specialist, HPCDIP

Heather Manson, MD, FRCPC, MHSc
Project Lead and Chief, HPCDIP

Anne Philipneri, MPH, PhD(c)
Epidemiologist Lead, HPCDIP

Sarah Muir, MPH
Research Coordinator, HPCDIP

Lori Webel-Edgar, RN, MN, CCHN(C)
Senior Program Specialist, HPCDIP

Acknowledgements

PHO Reviewers

Laura Rosella, PhD
Scientist, Public Health Sciences

Vivek Goel, MD, CM, MSc, SM, FRCPC
President and CEO, PHO

Special Thanks

Aaron Furfaro
Communications Advisor, Communications

Steven Janovsky
Graphic Designer, Communications

Carly Heung, MPH
Research Coordinator, HPCDIP

Jennifer Robertson, PhD
Senior Evaluator, HPCDIP

Erin Berenbaum, MSc
Research Assistant, HPCDIP

Chi Yon Seo, MSc
Research Assistant, HPCDIP

Natalie Bocking, MD
Public Health and Preventive Medicine
Resident, University of Toronto

Anna Vanderlaan, MPH(c)
Practicum Student, HPCDIP

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Contents

List of Acronyms

BHV	Blended Home Visiting
FHV	Family Home Visitor
FSP	Family Service Plan
HBHC	Healthy Babies Healthy Children
IDA	In-Depth Assessment
IDAC	In-Depth Assessment Contact
IRSS	ISCIS Reporting Sub-System
ISCIS	Integrated Services for Children Information System
MCYS	Ministry of Children and Youth Services
NCAST	Nursing Child Assessment Satellite Training
OHIP	Ontario Health Insurance Plan
PHN	Public Health Nurse
PHO	Public Health Ontario
PHU	Public Health Unit
PIPE	Partners in Parenting Education
PPC	Postpartum Contact
RM	Registered Midwife
SLN	Screening Liaison Nurse

Introduction

Healthy Babies Healthy Children (HBHC) is a program funded by the Ministry of Children and Youth Services (MCYS) designed to help children in Ontario have a healthy start in life and provide them with opportunities to reach their potential. This voluntary program is delivered through 36 public health units (PHUs) in Ontario in partnership with hospitals and other community partners. The program consists of universal screening with targeted assessments and interventions for families and children from the prenatal period until their transition to school.[1]

In 2012–13, MCYS introduced enhancements to strengthen the HBHC program. These enhancements included a new HBHC Screen, universal 48-hour contact in the postpartum period, introduction of a screening liaison nurse (SLN) model to collaborate with community partners, and introduction of standardized education and training to use evidence-informed interventions during home visiting.[1] Public Health Ontario was commissioned by MCYS to undertake a process implementation evaluation of the enhanced HBHC program (Phase III evaluation) over the first six months of implementation. Two questions guided this evaluation: (1) what are the process implementation outcomes in terms of reach, fidelity and impact on program change goals? and (2) what factors (innovation, providers, program participants, organization, system, and facilitation) contribute to implementation outcomes?

The findings in this report were obtained through analysis of the HBHC-ISCIS Reporting Sub-System (IRSS), role-based health unit staff survey and focus groups, and training evaluation surveys. The main findings are summarized below.

HBHC Program Components

HBHC SCREENING

- During the first six months of implementation, a total of 56,903 postpartum; 6,623 prenatal; and 2,509 early childhood clients were screened.
- Of all screened postpartum clients, 46% were identified with risk, whereas 60% of prenatal and 92% of early childhood clients were identified with risk.
- The five most common risk factors identified among postpartum clients were labour/delivery complications (23%); previous loss of pregnancy or baby (20%); maternal smoking of more than 100 cigarettes before pregnancy (15%); history of depression, anxiety, mental illness in client or partner (13%); and health conditions during pregnancy that impact infant (11%).
- Early childhood and prenatal clients reported higher prevalence of risk factors compared to postpartum clients.

IN-DEPTH ASSESSMENT CONTACT (IDAC)

- Provincially, 82% of postpartum, 68% of prenatal and 66% of early childhood clients identified with risk who did not decline an IDAC received a successful IDAC.
- The reason for the majority of unsuccessful IDACs across all entry stages was not reported; when reported, the most frequent reason was decline of further services.
- Among postpartum clients, 55% of successful IDACs were completed within 48-hours (two days). Reasons for IDACs after 48 hours were generally not documented (74%); however, in 11% of cases, initial telephone attempts were unsuccessful and in 4%, the HBHC Screen was received after 48 hours, or the 48-hour period ended on a weekend or holiday.
- On average, IDACs took longer to complete for prenatal (mean: 15 days) and early childhood (mean: 7 days) clients compared to postpartum clients (mean: 4 days).

POSTPARTUM CONTACT (PPC)

- The majority (95%) of postpartum clients not identified with risk received a PPC. Half of all PPCs were conducted through written communication.
- The reason for an unsuccessful PPC was not reported for the majority of unsuccessful contacts; when reported, the most frequent reason was the inability to contact the client.
- Provincially, 59% of successful PPCs were completed within 48 hours.
- Among successful PPCs, the majority of clients received the HBHC brochure prior to contact (64%). During the PPC, information on the HBHC program, PHU services and outside services was shared with 73%, 38% and 30% of clients, respectively.
- The result of PPC was discharge from the HBHC program for 66% of clients and discharge with recommendation to other services for 16% of clients. In total, 3% (n=735) of all clients who received a successful PPC were identified to have re-entered the HBHC program through a PPC. The rate of re-entry was higher in clients who received a PPC by telephone compared to written contact; however, the majority of clients who re-entered did not receive an IDA (59%) or were classified as no/low risk using IDA (26%).

IN-DEPTH ASSESSMENT (IDA)

- Among clients who received an IDAC, 74% of prenatal clients, 71% of postpartum clients, and 91% of early childhood clients received an IDA.
- The most common reasons for unsuccessful IDAs across all entry stages were that services were no longer required or that it was not possible to contact the client.

- During the IDA, only 31% of postpartum clients were assessed with a high risk rating, whereas 41% were assessed with a low risk rating. In contrast, the majority of prenatal (77%) and early childhood (81%) clients were assessed with a high risk rating and only 8% of both of these entry stages were assessed with a low risk rating. The use of the moderate risk rating was relatively low, averaging 10% or less across all entry stages.
- Among postpartum and early childhood clients, the most commonly reported areas of concern were prenatal education, ability to cope with stress, education/training and employment, availability of social supports and financial stability. Top-ranked areas of concern among prenatal clients were prenatal education, ability to cope with stress, motivation/responsibility, availability of social supports and financial stability.

BLENDED HOME VISITING (BHV) AND FAMILY SERVICE PLAN (FSP)

- The majority of high-risk postpartum (75%; n=2,191), prenatal (81%; n=851) and early childhood (83%; n=745) clients received referral to BHV.
- High-risk postpartum clients who received a BHV referral had a significantly higher prevalence of need for newcomer support, no OHIP number, and no partner involvement.
- FSPs were generally initiated in clients with a BHV referral. Across all entry stages, approximately three FSP goals per clients were identified and they were most commonly focused on growth and development, healthy attachment and positive parenting.

Implementation Outcomes

REACH

Reach measures the distribution and characteristics of those receiving the HBHC program services, and describes differences in characteristics between those receiving and not receiving the program activities.

HBHC Screening

- Overall, there is a need for improvements in HBHC screening reach across all three entry stages to attain the current HBHC service targets (100% of all provincial births in the postpartum entry stage, 25% of provincial births in the prenatal entry stage and 20–35% of children aged 6 weeks to 70 months for the early childhood entry stage).[2]
- According to preliminary live-birth data from 2013, HBHC screening reached approximately 81% (n=56,903) of postpartum families and 9% (n=6,623) of prenatal families. Using population projection estimates, less than 1% of potential early childhood clients were reached.

- Health unit staff survey and focus group participants identified various challenges related to the HBHC Screen content and consent process that may impact screening reach across all entry stages. Groups that were reported to be difficult to reach included new immigrants, families with language barriers, and families with low socio-economic status.

Program Reach across the HBHC Flowchart

- Overall program reach decreases as a result of cumulative losses due to declines, inability to contact clients, and unsuccessful contacts at each stage of the program flowchart. For example:
    - Approximately two-thirds of postpartum and prenatal clients and half of early childhood clients identified with risk did not receive an IDA, with the majority of the losses related to client declines.
    - Nine per cent of postpartum, 22% of prenatal and 33% of early childhood clients originally identified with risk were referred to BHV.
- In-Depth assessment was the program component with the highest rate of decline. Provincially, 34% of postpartum, 23% of prenatal and 12% of early childhood clients who received a successful IDAC, declined further services at the IDA stage. Decline rates were much lower for both IDAC and FSP program components (<10% across all entry stages). The most common reason for client decline reported by health unit staff was lack of perceived need for HBHC services by families.
- Clients with higher prevalence of risk factors related to pregnancy, labour, and delivery were more often lost to follow-up as they progressed through the flowchart. These risk factors were more prevalent in clients who declined IDA services and those who were discharged after an IDAC with the reason that services were completed.

FIDELITY

This evaluation primarily assessed fidelity through the measurement of adherence to HBHC program requirements. Across the HBHC program components, deviations from the HBHC program documentation were identified, for example:

- Overall, 66% of the screens were found to be complete (all questions answered). Among postpartum screens, the questions with the highest rate of non-response related to parenting and social factors. Among early childhood screens, the highest rate of non-response was related to pregnancy.
- For both PPC and IDAC, just over half of successful 48-hour contacts were completed within 48 hours (or two calendar days). Clients who received an IDAC within 48 hours had a higher rate of successful IDA.
- Use of one-way communication methods to complete IDACs was reported for 8% of postpartum, 11% of prenatal and 5% of early childhood contacts.

- Over a quarter of prenatal and postpartum clients identified with risk who did not decline, did not receive an IDA. Many clients screened with risk were discharged with the reason that services were no longer required.
- The majority of families referred to BHV and who received an FSP had a high or moderate IDA risk rating. A small number of families with no/low risk were referred to BHV and went on to receive an FSP.

Consistency, Variability and Local Adaptation

- HBHC staff indicated that they understood that program consistency was part of the rationale for implementation of the enhanced HBHC program; however, they reported awareness of program inconsistencies. Half of HBHC managers and PHNs agreed or strongly agreed that the enhanced HBHC program contributed to more consistent HBHC services across Ontario.
- IRSS analysis revealed high levels of variation across PHUs for each program component. For example, contact within 48 hours for IDAC varied across PHUs (postpartum range: 9–89%) and peer groups (postpartum range: 9–77%).
- Most health unit staff felt their health unit successfully implemented the HBHC program as planned. Almost half of managers and PHNs felt that the enhanced HBHC program can be easily adapted to fit local needs.
- A total of 125 local adaptations across all aspects of program delivery were reported to be implemented provincially. Local adaptations to the 48-hour postpartum contact for clients with and without risk were most frequently reported.

Impact on Program Change Goals

The impact of the introduction of the enhanced HBHC program on program change goals (as defined in the *HBHC Communication and Implementation Toolkit*)[3] was assessed in relation to the implementation process. HBHC-IRSS data and HBHC staff perspectives have provided insights and opportunities for improvements to ensure that these goals are met in the long term.

STRENGTHEN

"*Strengthen the Program through education and training to support blended home visiting.*"[3]

- Health unit staff survey and focus group findings from the first six months were mixed on the usefulness of NCAST and PIPE training in improving interactions by PHNs and FHVs with clients during blended home visiting.

- The main limitation of NCAST and PIPE training to date appears to be inconsistencies in accessing the training. Staff stated the importance of universal training to consistently apply NCAST and PIPE provincially and within PHUs.

STREAMLINE

"*Streamline the screening process to eliminate the need for multiple contacts before the service is started and help families access targeted services more quickly.*"[3]

- Forty-five per cent of HBHC staff in the health unit staff survey felt the HBHC Screen eliminated multiple contacts before the service is started. Different screening models used by the health units have advantages and challenges which may have contributed to streamlining the screening process.
- Only a small proportion of postpartum clients (2%) are receiving duplicate screens, which suggests that multiple contacts are not occurring through duplicate screening.
- The average time from the HBHC Screen to IDA completion was 28 days for prenatal, 12 days for postpartum and 17 days for early childhood clients. The differences in the time it takes to complete the IDA across the entry stages may impact the families' access to the services they need.
- IRSS database analysis showed that FSPs were generally started on the same date as the IDA for clients in all three entry stages. This suggests that providers are able to streamline services for with-risk clients once the IDA has been completed.

EFFICIENT

"*Improve the Program's efficiency by introducing the common HBHC Screen at three points in time-prenatal, postpartum, and early childhood.*"[3]

- Half of the HBHC program staff in the health unit staff survey felt that having one HBHC Screen for all three entry stages makes the program more efficient.
- An advantage reported is that using the HBHC Screen for all entry stages has simplified the ISCIS data-entry process.
- Reported challenges for using the HBHC Screen for all three entry stages include: (1) not all questions are relevant to clients in all three stages, and (2) some community partners use one HBHC Screen for a client across multiple entry stages, leading to confusion and additional work for program staff.

EFFECTIVE

"*Improve the Program's effectiveness by providing validated tools to support identification and service delivery to vulnerable families.*"[3]

- Determining HBHC program effectiveness will ultimately require assessment of client-level outcomes, but identification, contact and confirmation of those with risk are steps towards establishing program effectiveness.

- Since the introduction of the HBHC Screen, the proportion of postpartum clients identified with risk increased to an identification rate similar to that of the Phase I study (46% versus 42.8%). However, the rate of clients confirmed with high/moderate risk was lower in the first six months of implementation compared to the Phase I study (41% versus 66.4%). Almost half of postpartum clients are screened with risk; however, two thirds do not receive an IDA and, for those going on to IDA, only 41% are confirmed with high or moderate risk.

- The difference in risk confirmation rates between the Phase I and Phase III evaluations may be due to differences in the population screened between the pilot and large scale implementation, differential losses to follow-up, the presence of clients with an unknown IDA rating and other factors.

- Focus group participants noted an increase in the number of postpartum clients identified with risk due to the introduction of the HBHC Screen. In some cases this resulted in additional workload and the introduction of local adaptations.

- Staff reported mixed opinions on the extent to which the HBHC Screen is more effective than previous screening tools in identifying risk, and its ability to distinguish well between those who need HBHC services and those who do not.

- Clients screened with risk and referred to BHV and/or FSP had on average, higher screen scores and a greater prevalence of socioeconomic- and parenting-related risk factors compared with those screened with risk and not referred to BHV and/or FSP. This suggests that more vulnerable clients (i.e., those with a higher risk score) are being confirmed with risk through IDA and receiving services.

- Future evaluations on the effectiveness of the HBHC Screen in the provincial setting are essential. Continued support and training for staff to ensure screen completion and that a rating is assigned to all completed IDAs will also be important.

Factors That Facilitate and Hinder Implementation

Mixed methods findings provided insights on the contributing factors that impact the implementation outcomes from the evaluation framework. This section focuses on key findings from each multi-level factor that support or hinder the implementation.

INNOVATION-LEVEL FACTORS

HBHC Screen

- Staff were divided regarding their perception of the helpfulness of the HBHC Screen layout (40% agreed and 40% disagreed) and 84% of staff felt that the HBHC Screen took longer to complete than the previous tools. Focus group discussions supported the health unit staff survey findings and provided examples of challenges in relation to the length, content, format and consent purposes of the HBHC Screen.

- Staff reported that these challenges may lead to resistance of some community partners in using or completing the HBHC Screen. Additional time and effort may be required by HBHC staff to follow up with community partners, which can contribute to the delay in contacting clients for a PPC or an IDAC.

- The format and wording of the consent on the HBHC Screen may have led to confusion about the clients' consent process. Some focus group participants believed that this resulted in higher decline rates for the program.

HBHC Screening Models

- Different screening processes used by PHUs have advantages and challenges for streamlining the implementation. For example:

- PHNs conducting the HBHC Screen with clients have the opportunity to provide health education to clients, as well as to triage clients based on the interaction at the time of screening.

- Health units may require additional administrative steps to collect clients' information when community partners conduct HBHC screening with clients.

- Challenges related to communicating HBHC Screen information between hospitals and PHUs on weekends and statutory holidays was noted to be a barrier to contacting clients for a PPC or an IDAC within the 48-hour timeline.

ISCIS Database and IRSS Reports

- Over 60% of staff who use the ISCIS database reported in the health unit staff survey that it is easy to use and it captured clients' information accurately. However, focus groups reported a number of challenges (e.g., lack of user-friendliness).

- Challenges with the ISCIS database may contribute to increases in data-entry-related work. In some cases, health units made modifications to data-entry practices to address workload issues.

PROGRAM PARTICIPANT-LEVEL FACTORS

- Different risk profiles exist across health units and peer groups may have implications in terms of percentages and numbers of clients identified with risk. This may also impact staff workload and result in local adaptations.

PROVIDER-LEVEL FACTORS

HBHC Workforce

- HBHC program staff represent a highly experienced and committed workforce who provide HBHC services to clients in need using a client-centered approach. Many indicated that they enjoy new challenges in their work (85%) and have no problem changing their old routines (76%).
- The majority of staff felt confident to perform specific HBHC program tasks (e.g., screening). Staff reported the lowest level of agreement in being confident to engage community partners for program delivery (72%).

Workload

- Results from training evaluation surveys showed that the additional workload and tight timelines to prepare for the implementation presented challenges for the change champions in fulfilling their roles. These challenges may have reduced or disappeared over time.
- Two-thirds of program staff participating in the health unit staff survey expressed ongoing workload challenges related to screening, IDA and data entry. The perceived reasons for the increased workload included the large number of clients identified with risk by the new HBHC Screen.
- Some PHUs reported local adaptations to cope with the increased workload (e.g., implementing triage processes or waitlists), which may conflict with the effectiveness of the HBHC Screen and the streamlining of the screening process.

Family Home Visitors (FHVs)

- Among HBHC providers, FHVs provided a unique perspective about their involvement in the enhanced HBHC program.
- Some FHVs felt disengaged from their team within their health unit (e.g., not part of regular team meetings). FHVs reported the lowest percentage compared to other roles for receiving pre-implementation training and the ability to access or thoroughly read the HBHC program documents.
- These challenges may have resulted in FHV's lack of understanding of the overall enhanced HBHC program, and a lack of clarity of their roles within the program.

- Changes to the role of PHNs in blended home visiting led to the confusion of FHV's responsibilities and created anxiety in relation to job security.

ORGANIZATION-LEVEL FACTORS

- Public health unit staff reported positive organizational culture and strong leadership within their health units, which may have facilitated the implementation of the enhanced HBHC program.

SYSTEM-LEVEL FACTORS

Screening Liaison Nurse (SLN) Funding

- The new SLN funding was viewed by staff as a facilitator to the implementation. Funding provided opportunities to build new relationships, strengthen existing partnerships, rejuvenate partnerships with community partners, and increase awareness of the HBHC program in their communities.

Collaboration with Community Partners and Service Integration

- PHNs also reported challenges in building partnerships with community partners. These included the resistance of community partners to use the HBHC Screen and refer clients to the HBHC program.
- These challenges may be due to a lack of understanding of the HBHC program by community partners and a lack of SLNs' experience in collaborating with external partners.
- Managers and PHNs felt that few community partners were confident to explain the enhanced HBHC program to families and able to perform skilled screening using the HBHC Screen.
- Registered midwives (RMs) were identified by HBHC staff as one group of community partners who have difficulty establishing relationships to promote HBHC screening and services. This may be due to the potential duplication of services between HBHC PHNs and RMs in the prenatal and postpartum periods.
- Barriers to establishing positive work relationships at the local level could also be linked to system-level challenges. Focus group participants felt that a more system-integrated HBHC program (e.g., improved alignment between ministries) could help deliver services to HBHC families in a more efficient and effective manner.

Overall HBHC Funding

- Insufficient funding was identified as an ongoing issue that hinders implementation of the enhanced HBHC program.
- While acknowledging the reality of fiscal restraint, HBHC directors, managers and front-line staff all agreed that more funding could lead to better services for clients.

- Further discussion about resource reallocation is required to address service expectations by MCYS.

FACILITATION-LEVEL FACTORS

- MCYS provided a multi-faceted and comprehensive approach to facilitate implementation of the program enhancements (e.g., printed education materials, change champion training, bi-weekly teleconferences).
- Despite the reported challenges by HBHC staff related to implementation (e.g., tight timelines, training that was too rushed, time consuming to prepare training), this multi-faceted approach was generally perceived as helpful in facilitating the implementation of the enhanced HBHC program.
- Staff expressed the importance of having ongoing professional development opportunities in order to deliver the HBHC program more effectively.

Summary

Findings from this first six months process implementation evaluation indicate that implementation of the enhanced HBHC program is well underway in all Ontario PHUs. However, there continues to be variability in implementation processes and reach and fidelity outcomes across clusters, peer groups, and PHUs. Factors that have facilitated implementation include the role of MCYS to facilitate the change management process and funding support for the SLN role. Key factors to support the ongoing implementation process include the highly engaged and experienced HBHC staff, the work of the SLNs to engage community partners, and positive leadership and organizational factors.

Challenges to implementation were found at the innovation and provider levels, specifically in regards to the HBHC Screen; the need to improve screening reach; the high number of clients who are screened with risk and do not go on to receive IDA, BHVs and FSPs; and issues associated with ISCIS/IRSS. The challenges at the participant, system, and facilitation levels related to variations in risk profiles across the province and in implementation across the 36 PHUs. At the PHU level, implementation challenges were staff workload, inconsistent use of NCAST and PIPE, and collaboration efforts needed to engage community partners. This initial six months process implementation evaluation is the first step in understanding implementation of the enhanced HBHC program. It provides an opportunity for MCYS and PHUs to reflect and take action on the results in order to strengthen program implementation and improve outcomes.

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Public Health Ontario
480 University Avenue, Suite 300
Toronto, Ontario
M5G 1V2

647.260.7100
communications@oahpp.ca
www.publichealthontario.ca