

TORONTO STAFF REPORT

April 28, 2003

To: Board of Health
From: Dr. Sheela V. Basrur, Medical Officer of Health
Subject: Healthy Babies, Healthy Children Evaluation

Purpose:

The purpose of this report is to provide an overview of the provincial program evaluation that was conducted by the Integrated Services for Children Division of the Ministry of Health and Long Term Care on the Healthy Babies Healthy Children program.

Financial Implications and Impact Statement:

There are no financial implications related to this report. The Healthy Babies Healthy Children program is 100% funded by the Ministry of Health and Long Term Care. The total 2003 Operating Budget for this program is \$14,603,383.00.

Recommendations:

It is recommended that:

- (1) the Board of Health acknowledge the Ministry of Health and Long Term Care's commitment to supporting local Healthy Babies Healthy Children programs by co-ordinating and funding both the Integrated Services for Children Information System (ISCIS) database and the program evaluation;
- (2) the Board of Health advocate to the Ministry of Health and Long Term Care for funding levels that fully support the delivery of the Healthy Babies Healthy Children in accordance with provincial program standards; and
- (3) the appropriate City Officials be authorized and directed to take the necessary action to give effect thereto.

Background:

Healthy Babies Healthy Children (HBHC) is a 100% funded Ministry of Health and Long Term Care (MOHLTC) program. Initiated in 1998, it was phased in over a two-year period. It now includes universal postpartum screening and follow-up, assessment, counselling, referral and service co-ordination for high-risk families, and early identification initiatives. The goals of the HBHC program are to promote optimal physical, cognitive, communicative and psychosocial development in children and to act as a catalyst for a co-ordinated, effective, integrated system of service supports for healthy child development.

In late 1999, the Integrated Services for Children Division of the MOHLTC initiated a province-wide evaluation of the thirty-seven HBHC programs in Ontario. The purpose of this evaluation was to inform local program planning, monitor program progress, assess effectiveness of program strategies, assess its impact on children, families and systems of services, validate assessment instruments and build capacity to support a long-term evaluation. Applied Research Consultants (ARC) in partnership with the University of Guelph, Centre for Families were contracted as the principal investigators.

The evaluation plan was reviewed and approved by the University of Guelph and the City of Toronto to ensure that it met acceptable ethical research standards. As required by The Municipal Freedom of Information Protection and Privacy Act, an agreement between ARC and the City was signed. This agreement ensured that informed consent was obtained from all evaluation participants and that the confidentiality of health information was protected.

The evaluation was conducted in two phases. Phase 1 included an environmental scan, a key informant survey, a data extraction from the Integrated Service for Children Information System (ISCIS) database and a family survey. This phase was carried out from March to December of 2000. Phase 2 included two more ISCIS data extractions, a second key informant survey and environmental scan, in-depth family surveys, validation of the Parkyn Postpartum Screening Tool, the Family Assessment Instrument, and the Nipissing Early Identification Screening Tool, and a one-day time study. This phase was carried out from September to December of 2001. The data presented in this staff report is specifically from Phase 2 of the evaluation.

The environmental scan was completed for all 37 health units. Using a standardized template, it provided a description of program implementation and service delivery in each health unit.

The key informant survey focused on program operations. It asked informants about their perceptions of the various parts of HBHC, the contribution of public health nurses (PHN) and lay home visitors (Toronto Public Health lay home visitors are referred to as family home visitors) to the program, and the contribution of the program to the integration of services for families within each community. Informants included community partners, service providers, advocacy organizations, family home visitors, public health nurses and other relevant community stakeholders. Potential respondents were contacted by e-mail and/or fax. In Toronto, 707 key informants were invited to participate, with 190 completing the survey (a 27% response rate).

The ISGIS data extraction included an anonymous extraction of family information, screening and assessment details and data on any referrals or services provided by the HBHC program. Specific families could not be identified. An extraction was also done on families who completed a signed consent form to provide more detailed information on a smaller subset of families.

The family survey gathered information about outcomes of the HBHC program, reactions to services provided and additional background information about the families. Health unit staff contacted randomly selected families to obtain their consent to participate. ARC staff conducted the family interviews by phone in English and 13 other languages. In Toronto, 900 families completed a consent to participate, with 577 families participating in the survey (a 64% response rate).

There were a number of limitations to the evaluation as it was conducted for the Toronto HBHC program. Because the HBHC program was introduced during the initial stages of the City's amalgamation, its implementation and operation were complicated by the lack of harmonized Family Health resources across the city and a new management infrastructure. This was also an unsettling time for many community service providers resulting in low key informant/stakeholder participation. Implementation of the postpartum component of HBHC was delayed due to the large number of hospitals in Toronto. Consequently, this component was being evaluated at a very early stage in its implementation. The ISGIS database, which was operating on a desktop platform, was not robust enough to manage the volume of Toronto's data, raising concerns about the consistency and reliability of the data. Finally, part of the data analysis included a comparison with "similar" sized health units. However, there are no comparators with which to analyze Toronto data.

Nevertheless, the HBHC evaluation was a comprehensive evaluation that included multiple stakeholder perspectives and relatively high levels of family participation. Testing of the instruments in their formative stage was particularly important to ensure the validity and reliability of the assessment tools that were and are still being used. This evaluation has provided Toronto Public Health with valuable information that is being used for both HBHC program planning and early years systems planning in the community.

Comments:

ARC has prepared both a provincial report card and an "Evaluation of the Healthy Babies Healthy Children Program Report" for each health unit. A copy of the full Toronto Public Health Report is on file in the City Clerk's office. The Evaluation Report summarizes data from all of the sources used in the evaluation and is divided into four main sections. The first section describes how HBHC is working with other programs for families and young children in the health unit. The second section relates to direct service delivery in the areas of screening, assessment and initial contact with families, home visiting, service co-ordination, and referrals. The third section describes service integration in Toronto as a whole and within each of the local networks. The fourth section summarizes the impact on services, perceived changes in local services for families with young children and HBHC family responses to the program.

HBHC in the Health Unit

The environmental scan showed that Toronto Public Health manages its HBHC program in much the same way that most other health units do. All directors responsible for HBHC program, including Toronto's, have responsibilities for other programs as well, primarily child and family health programs. Most health units, including Toronto, have integrated HBHC with other programs. This integrated service delivery or continuity of contact model ensures that the PHN who has first contact with the family (usually during the postpartum call) continues to provide all HBHC services to the family. Through this model efficiencies can be achieved by sharing such things as forms and documentation, office space and inservice and training.

Public Health Nurses at Toronto Public Health deliver both HBHC services and other child health programs. This is the case in 78% of all health units. Based on HBHC funding and total Family Health complement, each Family Health PHN in Toronto should be spending approximately 38% of his/her time on HBHC. Unfortunately, at the present time, Toronto does not have the capacity to measure the proportion of time allocated to each program area and confirm this allocation of resources. However, the Evaluation Report noted that a one-week manual time study conducted by Toronto Public Health indicated that the actual proportion could be closer to 50%.

Toronto Public Health Nurses appear to allocate their time in much the same way that Public Health Nurses in the rest of the province do. They spend 35% of their time home visiting (compared with 33% of PHN in the rest of the province) and 13% of their time conducting screening and assessment and postpartum services (compared with 18% of the province). Client-related administration such as documentation and travel consumed 28% of their time (compared with 27% of the province). The remaining 24% of the time (22% provincially) was allocated to other HBHC program administration.

The evaluation found that, to deliver the HBHC program, most health units, including Toronto, use both health unit hired staff and contract staff. Sixty-four percent of health units have contracted out some HBHC services. Toronto Public Health contracts out approximately half of its 97.5 FTE complement of Family Home Visitor (FHV) service. This is done in communities where a Family Home Visitor program existed prior to HBHC. The evaluation only administered the one day time study on public health hired Family Home Visitors (contracted FHV were excluded from the time study). It showed that they spent 46% of their time doing home visits, 42% at client-related administration, and 12% of their time at other HBHC program administration (compared with 60%, 31% and 10% respectively for the rest of the province).

Direct Service

The evaluation of direct service examined health unit performance against provincial program targets in four main areas: screening and initial contact with families, home visiting, service co-ordination and referrals.

Screening and initial contact with HBHC families is primarily achieved through the postpartum component of the program. Given the universal nature of the postpartum component, the province has established a target that health units will receive a postpartum Parkyn screen on all consenting mothers of newborns. The Parkyn screening tool is completed by hospital staff and

then sent to the local health unit when the mother is discharged. To measure success in meeting this target, the number of families with Parkyn screens received was calculated as a percentage of families with live births. According to ISCIS, Parkyn postpartum screens received by Toronto Public Health for the period July 2000 to June 2001 represented 64% of total families with newborns. While this is the lowest percentage in the province, the Evaluation Report acknowledged that the live birth statistic in ISCIS may misrepresent the actual number of births in a jurisdiction mainly because local hospital counts include families living out-of-jurisdiction. This is particularly true in Toronto where approximately 8,000 of the total 40,000 births in Toronto hospitals are to out-of-jurisdiction mothers. Nineteen percent of families were scored as at risk (i.e. a score of nine or higher) on the Parkyn Screens received. This compares with 22% provincially.

Similarly, the data extraction results indicated that Toronto provided postpartum telephone calls for only 59% of families (compared with a 91% call rate for the entire province). However, when call rates are calculated as a percentage of Parkyn screens received (instead of total live births), this percentage jumps to 87%. Seventy-one percent of these phone calls were made within 48 hours of the mother leaving hospital.

The offer of a home visit is made as part of all postpartum phone calls. Fifty-six percent of families accepted a visit, compared to 49% in the rest of the province. Activities at these visits primarily included assessing risk, family health needs or strengths (25% of total visit time), teaching, providing written information and showing mothers how to do something (37% of visit time), and listening, reflecting or supporting (20% of visit time). This distribution of activities is similar to the rest of the province. The key informant survey identified caregiving (e.g. feeding, diapering breast-feeding, nutrition), mother's health, parent-child relationship building, community resources and child health and development as the most frequently discussed topics. Ninety-five percent of Toronto families (compared with 91% for the rest of the province) rated the postpartum call as very or fairly helpful.

During the evaluation period, Toronto Public Health provided a total of 31,983 home visits (excluding the initial postpartum visit) to 3,522 high-risk families. Ongoing HBHC home visiting provides early intervention to children at high risk for poor child development through a blended model of regular visits to families in their own homes by Public Health Nurses and Family Home Visitors. The ratio of total FHV to PHN visits in Toronto is 5 to 1. This falls within the provincial range of 3:1 to 6:1. Home visitors identified that activities during home visits included teaching (28% of the total time), assessing (25% of the time), and listening (22% of the time). This is similar to the rest of the province. Topics covered in Toronto, and the rest of the province, included child development, caring for the child, mother's health, the parent-child relationship, community resources and stress management. The family survey asked families about the helpfulness of the home visiting. Seventy-five percent of Toronto families stated that it increased their parenting confidence and knowledge, 73% identified increased access to appropriate services and supports, 71% experienced decreased parent stress, and 68% reported positive parent-child interactions.

Service co-ordination is an important component of the HBHC program. It involves bringing service providers together to plan appropriate services for families, connect families to the

services, and monitor families progress in reaching the goals that the services intended to achieve. A service co-ordinator should be assigned to all high-risk families. However, in Toronto, only 58% of high-risk families were assigned service co-ordinators (compared with 93% for the rest of the Province). Although no explanation for this difference is provided in the Evaluation Report, it is believed that this was largely due to the fact that the service co-ordination component of the Toronto HBHC program was not fully developed at the time of the evaluation and that there was some confusion regarding how service co-ordination was to be recorded in ISCIS.

The final component of HBHC direct service is the referral and linkage of families to community supports and services. Provincial targets require that health units make community referrals for at least three-quarters of HBHC families. Fifty-two percent of Toronto HBHC high-risk families received community referrals, compared with 59% provincially. In Toronto, as was the case throughout the province, families were most often referred to formal professional services, general community supports, medical services (including child development programs) and breastfeeding/nutrition/and infant health services. Seventy-seven percent of key informants rated the Toronto HBHC program as successful in getting families at high risk the services they needed.

Service Integration

One of the main goals of the HBHC program is to facilitate access to a wide range of health and social services for families and their children. In support of this goal, HBHC programs are required to build a prevention and early intervention network for children and their parents. Toronto is unusual in Ontario in that it operates with one HBHC Advisory Committee and seven Local Area Networks. This is because the networks were established as HBHC planning workgroups prior to amalgamation and built upon the existing children's service planning infrastructure within each of the former municipalities (the former City of Toronto had two networks). This arrangement has continued post-amalgamation as an effective means of managing the large and complex nature of the City.

Service integration was evaluated using two measurements. The first measurement was the service integration index, which identified five stages of service integration: awareness, communication, co-operation, collaboration and fusion. The second measurement was the degree of connectedness between the HBHC program and other services in the community.

The key informant survey rated Toronto at the low end of the distribution of health unit jurisdictions in the perceived degree of service integration; at the awareness and communication stages. This describes Toronto's level of integration as separate and independent agencies in a community that have knowledge of each other's services and an active program of communication and information sharing. The Evaluation Report notes, however, that this rating is likely of limited value because of the recency of the municipal amalgamation as well as the sheer size and complexity of the system of human services in Toronto.

As part of the environmental scan, health units were asked to self-rate the extent to which the HBHC program was connected, in its working relationships, to other services or agencies in the

community. This was done by each of the seven Local Area Networks in Toronto. Overall, the ratings suggested a low to moderate degree of connectedness with mean connectedness ratings ranging from 8.3 to 13.5 (out of a possible score of 20), compared with an average range of 10.5 to 13 for the rest of the province. Again the Evaluation Report acknowledges that it was possible that the rating scale was used very conservatively and that the rating given may have been an underestimate of the actual degree of connectedness.

Impact on Services and Families

HBHC family reactions to the program, and to the services they received, provides important feedback on program delivery and a preliminary indication of the program's potential impact. This impact was measured from four perspectives: awareness of the HBHC program, HBHC's impact on services, connecting families to services, and family satisfaction with services.

In almost all jurisdictions, including Toronto, key informants indicated that the program is much better known among health and social service professionals than among families with young children. Eighty percent of Toronto key informants indicated that HBHC was very or fairly well known among health and social service professionals, compared to 42% who reported that the program was very or fairly well known among families with young children. All health units identified barriers to building local awareness of HBHC. In Toronto, key informants identified limited funding, cultural and linguistic barriers, and perceived overlap with other services as barriers. Stigmatization created by the perception that the HBHC program targets specific high-risk populations was also identified as a barrier. However, when parents were asked to identify the kinds of families they thought the HBHC program is intended to serve, 68% stated that HBHC is intended to serve everyone with children.

The key informant survey asked local service providers and stakeholders whether services for families with young children had expanded since HBHC began. Toronto respondents were about as positive as their counterparts in most other jurisdictions, with 48% indicating that services had increased and relatively more Toronto respondents (54%) indicating that culturally and linguistically appropriate services had increased. Key informants in Toronto, and the rest of the province, also indicated that they perceived fewer gaps in services, fewer inappropriate service referrals and less service duplication since HBHC began. However, informants also indicated that waiting lists for services had increased since HBHC began. This is likely due to increased early identification initiatives and improved service co-ordination/referral to community agencies that are associated with the program.

The family survey asked HBHC families about their home visitors' helpfulness in connecting them to community supports and services. Families seemed to find Public Health Nurses and Family Home Visitors equally helpful. Ninety-four percent of Toronto families (91% provincially) stated that the Public Health Nurse have been very or fairly helpful in getting the family the help they needed and 86% (87% provincially) stated that the PHN had been very or fairly helpful in connecting the family with other community services. Similarly, 88% of Toronto families found the Family Home Visitor very or fairly helpful in getting them the help they need and 82% said the Family Home Visitor was very or fairly helpful in connecting them with other community services.

Finally, the family survey asked parents about their satisfaction with HBHC services. Ninety-one percent of Toronto families stated that they were very or fairly satisfied with the services that they received through the HBHC program. More specifically, 100% (96% provincially) of Toronto families stated that they were treated with respect and 91% (93% provincially) stated that HBHC service provider understood their family's particular needs. When asked whether services were sensitive to their family's language and culture, 81% responded positively. A few quotes from the parents themselves says it best:

"I never knew it existed and I'm glad it does. It is an excellent program and should continue. Having someone call you and be there for you right after you get home from the hospital is awesome. My nurse is more than just a nurse. She seems to genuinely care about children and how they are doing."

"The home visitor is very helpful to me. Since it's my first child, she is giving me lots of tips and she watches my child to see if he is doing well. You feel connected to people and you know who to call in your community. It's really good for immigrants."

Next Steps

Evaluation findings are being disseminated to public health staff, the HBHC Advisory Committee and Local Area Networks, hospitals and community service partners. Working together, many of the issues identified in the evaluation are already being further explored and addressed.

The issue of increasing postpartum Parkyn screening transmission from hospitals to Toronto Public Health is being addressed with the hospitals. Through detailed tracking of births, completed Parkyns and transmitted Parkyns, Toronto Public Health is working to identify transmission problems. Increased training for hospital staff who complete the Parkyns is improving accuracy and the number of families who consent to the program. An electronic transmission pilot test has also clearly demonstrated improvements in accuracy and transmission rates and has reduced Public Health clerical time.

The need to increase the service co-ordination component of the Toronto program was also identified in the evaluation. A Service Co-ordination Model has been developed and incorporated into referral protocols with the Children's Aid Societies and Shelters. Extensive staff and community agency training is ensuring a clear understanding of each service providers' role.

The issue of access and equity is being addressed through the use of language and cultural interpreters. In addition, through a Public Health Nurse and Family Home Visitor recruitment strategy, Toronto Public Health is working towards the establishment of a pool of staff that better reflects the cultural diversity of the community.

Current and reliable data is essential to the effective management of this large and complex program. Service Level Agreements between the City and Smart Systems for Health that were

approved by the Board of Health in March of this year will allow Toronto Public Health to convert its HBHC database to the provincial ISCIS 2.1 application. This will substantially improve the quality of Toronto's HBHC data. Program and information technology staff from Toronto Public Health have worked extensively with the Province to develop a database that fully meets Toronto's unique needs and size. This database will be the first public health database to make use of the provincial Smart Systems for Health and is fully funded by the province. In addition, the Toronto Community Health Information System (TCHIS) will be critical to measuring the actual distribution of staff and ensuring that the Family Health program is not subsidizing the HBHC program.

The province is also committed to a follow-up evaluation of the HBHC program. This longer term evaluation will determine the medium term impacts of the program on children, families, and the system of prevention and early intervention services. The families who participated in the 2000/01 evaluation will continue to be monitored by ARC and the University of Guelph Centre for Families until 2005/06 when their children enter kindergarten. Toronto Public Health will be supporting this evaluation by assisting with the renewal of family consents and facilitating additional ISCIS data extractions.

Unfortunately, this early success and progress may be threatened by limited HBHC funding. The province has frozen funding at 2001 levels; thus provincial funding is not keeping pace with collective agreement and cost of living increases. Last year, service levels were maintained with the support of a provincial Early Childhood Development (ECD) Universal Screening grant of \$1,232,000. This year, annual cost of living increments have placed additional pressures on the HBHC budget and the ECD grant has fallen to \$1,015,690. Consequently, there will be an \$800,000 shortfall in the budget. Without additional funding from the province, it will be necessary to address this by holding 15 positions vacant. As a result, it will be impossible to maintain present levels of service delivery. The specific nature of these service impacts is currently under review.

Conclusions:

The evaluation of the Healthy Babies Healthy Children program has provided Toronto Public Health with valuable information about the program. Despite the fact that Toronto's HBHC program has been faced with the unique challenges of being the largest and most complex program in the province and implementation in the middle of amalgamation, the evaluation results indicate a substantial degree of success that compares favourably with the rest of the program. Where areas of potential improvement were identified, work has already begun to problem-solve and address these issues. However, limited provincial funding levels may threaten the initial success of this program.

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