To: Mayor and Members  
    Board of Health

From: Elizabeth Richardson, MD, MHSc,  
    FRCP  
    Medical Officer of Health  
    Public Health Services

Date: November 12, 2007

Re: Breastfeeding Program Review BOH07061 (City Wide)

Council Direction:

This report is provided in keeping with the Board of Health policy on communication between the Medical Officer of Health and the Board of Health, as outlined in Report PH06038.

Information:

Benefits of Breastfeeding

In addition to the excellent nutritional benefits of human milk for infants, breastfeeding provides known health benefits for infants and mothers. Breastfed babies have fewer infections, a lower risk of Sudden Infant Death Syndrome (SIDS) and a reduced likelihood of tooth decay and obesity in later life. For example, breastfeeding also offers health benefits to the mother including a reduced risk of breast, ovarian and uterine cancers, and a more rapid return to pre-pregnancy weight. Some literature also mentions the link between breastfeeding and protection from osteoporosis. Some psychosocial benefits of the breastfeeding relationship have also been reported in the research literature including closer maternal-infant bonding and lower rates of postpartum depression. The Public Health Agency of Canada and the World Health Organization (WHO), recommend that babies are exclusively breastfed (no supplemental foods or liquids) for at least six months. The WHO also recommends that breastfeeding can continue on until the child is over two years old.
Mandatory Health Programs and Services Guidelines

The new draft Ontario Public Health Standards (April, 2007) set the specific goals to:

- Increase the rates of breastfeeding initiation
- Increase the rate of exclusive breastfeeding until 6 months and continued breastfeeding with the introduction of appropriate complementary foods until 12 months and beyond

Requirements to achieve these goals focus on areas of surveillance, health promotion and policy development (e.g. increasing public awareness, facilitating the development and implementation of policies that support breastfeeding, ensuring people are linked to relevant services, outreach to vulnerable groups and analysis of surveillance data in order to enhance service delivery and policy work).

Overview of Family Health Division Breastfeeding Interventions

Currently, the PHS breastfeeding interventions span three key areas: direct client services, breastfeeding promotion, and policy development. The target populations are postpartum mothers, prenatal and preconception populations and the general public. The overarching goals are to increase breastfeeding initiation and duration, and to promote supportive breastfeeding environments (see Appendix A for a description of the breastfeeding team and details of the interventions).

Prior to the review, no formal evaluation of the breastfeeding interventions had been conducted.

Program Review

The purpose of the program review was to:

- Provide an overview of the breastfeeding interventions/services currently provided by Public Health Services (PHS) Public Health in Hamilton
- Review current best practices and research evidence to ensure services provided are effective and evidence-based
- Make recommendations for any relevant changes to current breastfeeding programming based on information obtained from the review

Elements of the program review included a review of the research evidence, program description, Hamilton-based data, learning from other health units, identification of service gaps, aligning with best practices, and recommendations for program changes.

Breastfeeding Review Questions:

- What evidence exists regarding the effectiveness of different components of PHS breastfeeding programs?
- How are the three key areas of the breastfeeding program being delivered or accomplished in Hamilton at present?
• Are there obvious patterns among selected indicators and/or outcomes of interest in Hamilton (e.g., inequalities among sub-groups of target populations)?
• How do Hamilton activities contrast with existing statements of best practice?
• How does the breastfeeding program in Hamilton compare to other health units in Ontario?
• In terms of benchmarking data, how does Hamilton compare to other health units in Ontario?
• Based on the program review findings what are the recommendations for:
  o Any changes to service delivery
  o Establishing ongoing review of the breastfeeding program

Review Analysis and Findings

An extensive array of information and data was examined for the review. Formal searches of research evidence were conducted to examine factors that influence breastfeeding at the individual, group and societal level. Current practices and available Hamilton data (mainly from hospitals and breastfeeding clinics) were therefore compared to up to date research evidence in addition to best practice guidelines, general population data, benchmarking data (provincial breastfeeding data), practices and services in other health units (Ontario).

In terms of findings, there is a large pool of evidence to inform decisions in all aspects of breastfeeding promotion and interventions. The research evidence validates the approach that PHS is taking with its breastfeeding programs including: face-to-face support, multi-faceted interventions, interventions that span from prenatal to postpartum, and availability of clinics. In terms of benchmarking, best practice guidelines and criteria to achieve “Baby-Friendly Initiative” designation, Hamilton is on par with many health units in Ontario.

There is however, a need to collect more comprehensive data in Hamilton. It is worth noting here that four McMaster University students are currently assisting PHS in collecting and reviewing local breastfeeding data.

With regard to the two breastfeeding clinics (SEARS Limeridge Mall and the Wesley Ontario Early Years Centre), they were both established September 2001. SEARS has been highly attended. Wesley was stopped for 2-3 years because of low attendance, and re-started in 2005 along with marketing efforts to increase attendance. The SEARS clinic is open five afternoons per week, the Wesley clinic is open two half days per week (Tuesday, Friday). Services provided include assessment, education and support to breastfeeding mothers. Mothers can also weigh their babies at the clinics. Clinics are accessible on a drop-in basis, by appointment or referral/consult (see Table 1). The present Sears breastfeeding Clinic space is grossly undersized and is becoming increasingly difficult to safely accommodate the large numbers of clients and family members who access it. There is a lack of privacy, no access to a sink or water and it has become extremely challenging to provide optimal service delivery.
Table 1. Visit information for the two Community Breastfeeding Clinics (2006)

<table>
<thead>
<tr>
<th>Type of visit*</th>
<th>SEARS</th>
<th>Wesley OEYC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>% of total visits</td>
</tr>
<tr>
<td>Drop-in</td>
<td>2908</td>
<td>87.5</td>
</tr>
<tr>
<td>Appointment</td>
<td>265</td>
<td>8.0</td>
</tr>
<tr>
<td>Consult</td>
<td>150</td>
<td>4.5</td>
</tr>
<tr>
<td>Total</td>
<td>3323</td>
<td>104</td>
</tr>
</tbody>
</table>

Source: PHS breastfeeding clinic data collected from January 1 to December 31, 2006.

Key recommendations based on results from Breastfeeding Program Review:

1) **Establish and implement a breastfeeding data collection strategy - that is useful for setting priorities, developing indicators and monitoring outcomes.**

   **General plan:**
   - Utilize existing data bases that can provide breastfeeding data
   - Utilize McMaster Nursing students to collect additional breastfeeding data
   - Revise breastfeeding clinic log sheets to provide more comprehensive data

2) **Change service delivery model at Wesley OEYC due to low attendance:**
   - Discontinue breastfeeding clinic appointments except:
     - CAS clients who are breastfeeding will be supported through scheduled appointments
     - Special circumstances for those clients with privacy issues (e.g., anxiety)
   - Partner with Wesley OEYC staff to pilot a breastfeeding peer support group for multicultural women in 2008. If successful consider expanding to other OEYCs

3) **Explore opportunities and the feasibility of replacing the Wesley breastfeeding clinic with a new site in the East End of Hamilton:**
   - Due to the Best Start Network model, the plan is to relocate to an East Hamilton OEYC if possible
   - However, opportunities such as existing PH facilities or shopping malls will also be considered

4) **Explore a new model and/or a new site for the SEARS breastfeeding clinic.**
   - A new partnership with the Hill Park OEYC is currently being explored.
   - If not successful, will look for other sites that promote strong community partnerships with potential for all visitors to participate and benefit from each partner’s programs and services.
   - Looking for a site that has easy public accessibility, sufficient space with options for privacy.
5) Reduce barriers to accessing services for those women needing additional breastfeeding support/intervention but who are unable to get to a breastfeeding clinic and or their family physician:
   - Provide an additional home visit by an Lactation Consultant or a PHN skilled in breastfeeding issues
   - Develop eligibility criteria for second visit to ensure consistency and alignment with HBHC mandate and guidelines

6) Strive to achieve “Baby Friendly Community Initiative”\(^1\) accreditation, by 2011:
   - Data collection in line with breastfeeding criteria (see data collection details above).
   - Orientation training is already in place (14 hrs)
   - Expand breastfeeding training for designated staff by 6-8 hours and modify training curriculum
   - Operationalize the community-wide component beginning in 2008 starting with OEYCs, Best Start Network and city sites
   - Expand to the community at large (e.g., public places, restaurants) 2009-2010

7) Explore opportunities with the Boards of Education for further curriculum development to promote breastfeeding as the norm:
   - The Healthy Living Division School Program provides curriculum support and has indicated they will continue to work with school boards to facilitate the promotion of breastfeeding where feasible

8) Include breastfeeding within other aspects of Public Health Services programs:
   - Include breastfeeding on the agenda for active discussion re the obesity strategy
   - Encourage the inclusion of consistent breastfeeding promotional messaging in other Family Health Division child health work (e.g., parenting groups, injury prevention, Incredible Years, Beyond the Basics, nutrition programs, postpartum mood disorder program).

9) Ensure that any future breastfeeding evaluation plans are strategic:
   - Develop an evaluation plan to determine the effectiveness of the new peer support at Wesley OEYC
   - Monitor the use of the additional breastfeeding home visits provided by Lactation Consultants to determine demand for service, compliance with eligibility criteria, and outcomes.
   - Ongoing collection and monitoring of data relevant for breastfeeding accreditation

\(^1\) The Baby-Friendly Initiative (breastfeeding) in Community Health Services is a systematic approach focused on helping mothers extend the duration of exclusive breastfeeding. Public Health units may receive breastfeeding accreditation based on successfully completing “seven steps” based on certain criteria that “protect, promote and support breastfeeding”. The evidence base for each of these steps has been confirmed by systematic reviews and studies around the world.
Summary

The nine recommendations can be implemented within existing FTE and budget allocation. Based on the preliminary 2007 data collected (Appendix B), PHS will also need to:

- Develop a specific strategy to support women at risk of early breastfeeding cessation (first postpartum month)
- Determine ways to identify women at risk for early breastfeeding cessation

A range of breastfeeding programs will therefore continue to be offered, some universal and some targeted to specific populations, ensuring that families have access to a variety of effective, accessible, and fiscally accountable services.

Developing interventions that focus specifically on prevention of early breastfeeding cessation and setting the goal to achieve designation for the Baby Friendly Community Initiative is consistent with the shared commitment to making Hamilton the Best Place to Raise a Child.

The full Breastfeeding Program Review report is available on the City website at: http://www.myhamilton.ca/myhamilton/CityandGovernment/HealthandSocialServices/

Elizabeth Richardson, MD, MHSc, FRCPC
Medical Officer of Health
Public Health Services
Description of Family Health Division Breastfeeding Team and Interventions

The PHS Breastfeeding team includes five Public Health Nurses (PHNs) who are certified as Lactation Consultants (PHN/LC) and one other PHN who is preparing to write her LC board certification exams during the summer of 2008. To continue to practice, LCs must be re-certified every five years. As noted earlier, the breastfeeding interventions in Hamilton span three key areas.

**Direct client services:**
- One-to-one breastfeeding support (home visits and clinics) by PHN/Lactation Consultant or specially trained PHNs
- Consultation via Health Connections phone line
- Breastfeeding support is provided directly by the team at two community-based breastfeeding clinics (SEARS Limeridge Mall and Wesley Ontario Early Years Centre (OEYC)), Queen St North
- PHS has one PHN/LC who is seconded to Hamilton Health Sciences, providing direct care and support to breastfeeding mothers in the postpartum unit and facilitating their transition to community breastfeeding support
- Breastfeeding support to mothers attending postpartum groups e.g. Parent Link, OEYCs, and Canada Prenatal Nutrition Programs (CPNP)
- One PHN/LC is available to support breastfeeding teens attending St Martins Manor and Grace Haven. This PHN/LC is also available to make home visits to any breastfeeding adolescents
- The PHN/LCs act as a resource for PHNs on the Health Connections phone line and to PHNs visiting mothers in the Healthy Babies Healthy Children (HBHC) Program

**Breastfeeding promotion:**
- Development and dissemination of breastfeeding resources and protocols to community agencies and health professionals
- Promotion initiatives to raise breastfeeding awareness and facilitate positive attitudes within the community e.g. World Breastfeeding Week
- Development of the breastfeeding curriculum for PHS prenatal classes
- Plans to create a breastfeeding section on the City website.

**Policy development:**
- Support for women continuing to breastfeed whose babies are in the care of the Children’s Aid Societies.
- PHS “Supportive Workplace for Breastfeeding Employees”
- HR Policy “Baby Friendly Workplace”
Preliminary Breastfeeding Data 2007 (n= 270)\(^1\)
Almost all new mothers (99.6\%) are breastfeeding at hospital discharge, however 22\% are supplementing with formula. By six months of age only 64\% are still breastfeeding. Of the women who had stopped breastfeeding by six months, 30\% did so by one month of age and 97\% had supplemented with formula after hospital discharge.

Discharge Feeding Method

<table>
<thead>
<tr>
<th>Feeding Method</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exclusive Breastfeeding</td>
<td>209</td>
<td>77.4</td>
</tr>
<tr>
<td>Breast + Formula</td>
<td>60</td>
<td>22.2</td>
</tr>
<tr>
<td>Formula only</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>270</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Age of Baby When Stopped Breastfeeding

<table>
<thead>
<tr>
<th>Age of Baby</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 week</td>
<td>6</td>
<td>6.3</td>
</tr>
<tr>
<td>2 weeks</td>
<td>7</td>
<td>7.4</td>
</tr>
<tr>
<td>3-4 weeks</td>
<td>16</td>
<td>16.8</td>
</tr>
<tr>
<td>1-2 months</td>
<td>32</td>
<td>33.7</td>
</tr>
<tr>
<td>3-4 months</td>
<td>19</td>
<td>20.0</td>
</tr>
<tr>
<td>5-6 months</td>
<td>15</td>
<td>15.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>95</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Source of Help for Breastfeeding

<table>
<thead>
<tr>
<th>Source of Help*</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lactation Consultant</td>
<td>58.4</td>
</tr>
<tr>
<td>PHN home visit</td>
<td>45.0</td>
</tr>
<tr>
<td>Family physician</td>
<td>17.5</td>
</tr>
<tr>
<td>Mom’s group</td>
<td>6.6</td>
</tr>
<tr>
<td>La Leche</td>
<td>3.8</td>
</tr>
</tbody>
</table>

* Note: Some mothers accessed more than one source of help

\(^1\) A database was created of all women delivering in Hamilton referred to the Healthy Babies, Healthy Children Program (~99\% of all women) from Jan 1-May 31, 2007. Clients were eliminated from the data base if they were PHS staff or had incomplete demographic information. A breastfeeding questionnaire was developed based on a previously validated survey tool. Breastfeeding surveys were mailed to every other woman in the data base (~700 women) with stamped addressed return envelopes. This preliminary analysis is based on the first 270 surveys returned.