Information:

Background

Prenatal and early childhood experiences have a profound effect on health and well-being in later life. In Ontario, public health units are mandated to support healthy pregnancies through the entire reproductive health continuum (preconception, prenatal, and transition to parenthood). The Family Health Division provides services to individuals who are in their reproductive years who are making choices regarding future family life. These programs are intended to protect and promote the health of families, prevent disease and assist in the attainment of an optimal level of health. Specific initiatives and programs provided include:

- Development/dissemination of preconceptional health resources
- Prenatal classes and groups
- Healthy Babies, Healthy Children Prenatal/Postpartum Program
- Breastfeeding support
- Health Connections Telephone Information Line

Prenatal Goals - Mandatory Health Programs and Services Guidelines (MHPSG):

In Ontario, public health units are mandated to support healthy pregnancies through the entire reproductive health continuum (preconception, prenatal, and transition to parenthood). Specific goals for the preconceptional and prenatal periods include:
• Promote and provide public education through group sessions (prenatal classes)
• Provide ongoing information through print material
• Provide and coordinate annual local health campaigns addressing preconception health, prenatal health and the transition to parenthood
• Work with health professionals to enhance their knowledge and skills re reproductive health
• Work with coalitions/networks of community agencies to coordinate services

Postpartum depression is the most frequent psychiatric disorder seen after childbirth, with a prevalence rate of 10% to 15%. Many of the risk factors for developing postpartum depression are present during the pregnancy and immediate post-partum period. Prenatal classes are therefore an ideal time to connect with expectant women and their partners. The content provided in prenatal classes specifically addresses issues of personal health (optimal nutrition, physical exercise), feelings of self-esteem (infant care, parenting, signs of postpartum depression), promotion of breastfeeding, preparation for childbirth, and safety and security in the community (family violence, substance use). Classes are taught using a standardized, evidence-based curriculum developed in partnership with local hospitals and physicians. Classes stress the element of choice in planning for the birth of the baby in collaboration with physicians, midwives, and hospitals. Classes and groups are targeted at specific populations as indicated in the table below.

### Prenatal Classes - 2005

<table>
<thead>
<tr>
<th>Type of Prenatal Class</th>
<th>Format</th>
<th>Number of Series</th>
<th>Number of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult Evening</td>
<td>8 Classes</td>
<td>54</td>
<td>470 Couples</td>
</tr>
<tr>
<td>Adult Weekend</td>
<td>3 Classes</td>
<td>24</td>
<td>234 Couples</td>
</tr>
<tr>
<td>Adult Refresher*</td>
<td>3 Classes</td>
<td>8</td>
<td>8 Couples</td>
</tr>
<tr>
<td>Adult Single</td>
<td>7 Classes</td>
<td>8</td>
<td>75 (plus support person)</td>
</tr>
<tr>
<td>Teen</td>
<td>7 Classes</td>
<td>4</td>
<td>32 (plus support person)</td>
</tr>
<tr>
<td>Drop-in**</td>
<td>Open-ended</td>
<td>5 locations</td>
<td>1119***</td>
</tr>
<tr>
<td>Canadian Prenatal Nutrition Program</td>
<td>Open-ended</td>
<td>8</td>
<td>536</td>
</tr>
<tr>
<td>Prenatal Health Fair****</td>
<td>Biannual</td>
<td>2</td>
<td>~700</td>
</tr>
</tbody>
</table>

*For couples who have previously taken classes  
**Drop-in classes are provided at Grace Haven, Mission Services (Murray Street), St Martin’s Manor, Transitional Youth, and Wesley Ontario Early Years Centre (multicultural classes)  
*** There is no formal registration for these classes so total attendance at each session is counted  
****Next Health Fair is September 26 at Liuna Station 5-8 pm

### Canadian Prenatal Nutrition Program (CPNP)

The City of Hamilton receives funding from the Public Health Agency of Canada to provide CPNP groups for vulnerable pregnant women at a variety of sites in the community. CPNP aims to reduce the incidence of unhealthy birth weights, improve the health of both infant and mother and encourage breastfeeding. CPNP also enhances
access to services and strengthens inter-sectoral collaboration to support the needs of pregnant women facing conditions of risk. As a comprehensive program, the services provided include nutrition counselling, breastfeeding support, education, counselling on health and lifestyle issues, and referral to other community supports. Each group entails preparing a healthy snack and participants receive a food voucher. Participants also receive vouchers for prenatal vitamin supplements. The funding in Hamilton is shared by Public Health Services (Welcome Baby Program), St. Joseph’s Centre for Ambulatory Health Services (Baby’s Best Start), and North Hamilton Community Health Care Centre (Healthy Moms, Healthy Babies).

Regional Perinatal Advisory Committee (RPAC)

Public Health Services chairs a network of service providers (hospitals, physicians, community agencies) to provide strategic direction for collaborative planning, implementation and evaluation of services for expectant and new parents. This group meet 3-4 times per year. Current activities include: analysis of relevant data sources to identify trends and issues in Hamilton, and the development/review of preconceptional health information materials to be disseminated to women and their partners.

Prevention Initiatives:

Research evidence highlights three areas where preconceptional intervention can result in improved health outcomes: tobacco use, alcohol use, and violence. With input from RPAC members, Public Health Services has produced a resource kit for pregnant families living in the City of Hamilton. The kit introduces topics including tobacco use, risky or problem drinking, and intimate partner violence during pregnancy. It offers recommendations to potential parents for the healthiest pregnancy possible and information to facilitate self or professional referral to community services. These kits are available free of charge to physicians for distribution to their patients:
- Let’s Plan a Healthy Baby (planning a pregnancy)
- Let’s Grow a Healthy Baby (prenatal information)

Healthy Babies, Healthy Children Postpartum Goals (MHPSG):

The Healthy Babies, Healthy Children (HBHC) Postpartum Program seeks to achieve a continuum of care from the hospital to the community for all mothers and newborns. This goal is achieved by providing all families with support and access to services immediately following the birth of a child. Hospitals are to provide mothers with the option of staying in hospital for up to 60 hours following a normal birth and to refer all mothers (with their consent) to public health. This includes completion of the Parkyn screening tool to assess level of risk. Public Health is to provide all consenting mothers with a telephone call within 48 hours of their day of discharge and, if requested by the mother, a Public Health Nurse home visit. The Canadian Pediatric Society and the Society of Obstetricians and Gynaecologists of Canada recommend that when discharge occurs before 48 hours after birth, that the mother and baby be assessed by a health professional within 48 hours post-discharge. For discharge > 48 hours after birth, follow-up assessment is recommended within seven days of discharge for newborns, and within six weeks for mothers.
### HBHC Monitoring Report Data 2004-2005

<table>
<thead>
<tr>
<th>Program Component</th>
<th>Benchmark</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
<td>Number</td>
</tr>
<tr>
<td>Number of Live Births (includes multiple births)</td>
<td>N/A</td>
<td>5608</td>
<td>N/A</td>
</tr>
<tr>
<td>Number of Families with Live Births</td>
<td>N/A</td>
<td>5588</td>
<td>N/A</td>
</tr>
<tr>
<td>Families who consented to a telephone call (% of families who consent to contact)</td>
<td>100%</td>
<td>4764</td>
<td>85%</td>
</tr>
<tr>
<td>Prenatal Screening with Larson (% who will be screened prenatally)</td>
<td>25%</td>
<td>536</td>
<td>10%</td>
</tr>
<tr>
<td># Women Scoring ≥ 13 on Larson (High Risk)</td>
<td>N/A</td>
<td>295</td>
<td>55%</td>
</tr>
<tr>
<td>Postpartum Screening in Hospital with Parkyn (% of families with live births screened)</td>
<td>100%</td>
<td>4737</td>
<td>85%</td>
</tr>
<tr>
<td># Families Scoring ≥ 9 on Parkyn (High Risk)</td>
<td>N/A</td>
<td>1166</td>
<td>21%</td>
</tr>
<tr>
<td>Telephone Brief Assessment (% of consenting families who are screened)</td>
<td>100%</td>
<td>4163</td>
<td>87%</td>
</tr>
<tr>
<td>Postpartum Telephone Assessment within 48 hrs (% of consenting families contacted within 48 hrs)</td>
<td>100%</td>
<td>3552</td>
<td>85%</td>
</tr>
<tr>
<td>Postpartum Home Visit (PPHV) (% of families contacted who accepted PPHV)</td>
<td>75%</td>
<td>2284</td>
<td>55%</td>
</tr>
<tr>
<td>Number of Families Recommended for IDA (% of positive Brief Assessments)</td>
<td>N/A</td>
<td>1027</td>
<td>25%</td>
</tr>
<tr>
<td>In-depth Assessment (IDA) (% of families with a live birth who receive an IDA)</td>
<td>12%</td>
<td>704</td>
<td>13%</td>
</tr>
</tbody>
</table>

### Analysis of postpartum component of HBHC Program based on 2005 Data:
- 13% of the women referred to the postpartum HBHC Program are never reached despite multiple attempts by public health to contact them
- 13% of the women referred to postpartum HBHC are contacted first by telephone voice mail
- 26% of women & newborns are not seen by a health professional within 48 hours post discharge (policy guidelines)
- Only 49% of women have a home visit (below provincial bench mark)
- Many women do not have a family physician (FP) or their FP is not available to see the baby for urgent concerns.
- Regardless of length of hospital stay, most women identify that at the time of discharge they are “not ready to leave hospital.”
- Not all women and babies are assessed within the time frame established by policy guidelines
- **Recommendation is to implement a hospital-based model in partnership with the two local hospitals and physicians based on the successful program in Waterloo**

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Prenatal Assessment Clinic (PAC):
- All women will be seen in prenatal assessment clinic by hospital nurse and public health nurse
- These are separate but complementary visits
- Hospital nurse focuses on: signs of impending labour, when to come to hospital, birth plan, pain relief in labour, hospital stay
- PHN focuses on: prenatal risk assessment, health teaching, access to community resources, discussion re post birth clinic etc.
- PHN obtains consent to participate in HBHC

Postpartum Assessment Clinic (PPAC):
- Two streams:
  - Family Physician within 48 hours, PPAC within 7 days
  - PPAC within 48 hours, Family Physician within 7 days
- Clinic at each site will be open daily 8:30-4:30 staffed by PHN
- Content of visit is the same as the current telephone call but will have increased accuracy because it is done face to face
- Focus is referral to community resources including PHN home visit
- Primary backup is the patient’s own Family Physician
- Hospitals provide access to Lactation Consultant, on-call Pediatrician, and Obstetrician
- PHN provides written/verbal communication to Family Physician regarding visit

Note: This approach will be modified for women already involved in HBHC home visiting program or situations where returning to hospital would be a hardship.

Benefits of Proposed PPAC Model
- Universal approach (available to all women and babies)
- Prenatal assessment visit will ensure early identification and resolution of issues (e.g. no family physician)
- Provides a comprehensive assessment postpartum (seen twice in the first seven days postpartum)
- Increase in the number of women receiving home visits will ensure early identification of issues (e.g. post partum depression)
- Face to face visits will increase accuracy of assessment
- Health professionals are using a coordinated efficient, consistent approach, evidence-based approach to care
- The provision of weekend clinics means increased access to care
- Meets professional and ministry policy guidelines
- Note: This new model will be implemented without incurring additional costs. Staff currently providing telephone assessments will be assigned to the hospital clinics
Breastfeeding Goals (MHPSG): 

Public health units are mandated to support breastfeeding using the following strategies:

- Distribute information regarding the benefits of breastfeeding
- Promote positive community attitudes and awareness re the benefits of breastfeeding
- Support breastfeeding by collaborating with community providers to refer to or provide one-to-one, face-to-face breastfeeding support by appropriately trained professionals.
- Develop and disseminate collaborative community wide breastfeeding protocols and resources.

Research demonstrates that breastfeeding reduces infectious diseases in early and later childhood, promotes of optimal brain development, and reduces the risk of breast and ovarian cancer for mothers, and is economical compared to formula. The breastfeeding relationship provides both the baby and parent(s) with valuable relationship experiences. Breastfeeding also contributes to a more productive workforce as breastfeeding mothers have less absenteeism as a result of healthier children.

Sixty-four percent of mothers in the City of Hamilton surveyed in 2003 attempted or initiated breastfeeding. This is a 23% decrease from the 2000/01 proportion of 87%. Mothers 19 to 30 years old were more likely to attempt or initiate breastfeeding compared to mothers 30 years of age and older (71% compared to 61% respectively). In both age groups the proportion of recent mothers who breastfed or attempted to breastfeed was lower in the City of Hamilton than Ontario (64.3% compared to 72.6% respectively). The Family Health Division has developed a variety of evidence-based comprehensive programs in collaboration with community partners to promote and support breastfeeding which should reverse these negative trends.

Source: Statistics Canada, Canadian Community Health Survey (CCHS) Cycle 2.1, 2003
Health Connections and HBHC Postpartum Program

Health Connections is a telephone information line staffed by PHNs available to parents of children 0-6 years of age, Monday to Friday from 8:30 to 4:30. To date in 2006, 389 breastfeeding phone calls have been received. The Health Connections PHN responds to the caller’s breastfeeding concerns and/or schedules an appointment at one of the breastfeeding clinics. A Public Health Nurse who is a certified Lactation Consultant (PHN-LC) is always available to speak directly to the caller or to consult with the Health Connections PHN. During the HBHC Postpartum Program telephone assessment, breastfeeding progress and needs are assessed. Clients experiencing difficulties are encouraged to accept a home visit. If the mother and infant continue to experience breastfeeding difficulties following the home visit, the PHN will schedule a follow up appointment at one of the breastfeeding clinics. Clients declining a postpartum home visit are provided with information regarding community breastfeeding resources.

Breastfeeding Clinics

Research evidence indicates that breastfeeding support (telephone, in-person clinic, and home visits) provided by lactation consultants significantly increase short and long-term breastfeeding duration. Combining in-person or telephone support with educational programs increases initiation, short-term and long-term breastfeeding rates. Public Health Services run two community-based breastfeeding clinics: Sears at Limeridge Mall and the Wesley Ontario Early Years Centre, as part of a continuum of comprehensive breastfeeding services. The clinics are staffed by PHN-LCs. The clinics accept self-referrals, referrals from professionals, and drop-in clients. The Wesley Clinic has been under-utilized despite the OEYC location with its high user volume and despite marketing by PHS. Referral criteria and access to the clinic is the same as for the Sears Clinic. Public Health Services is currently evaluating the service offered at each site. Hamilton Health Sciences seconds a 0.5 FTE PHN-LC who provides services to postpartum inpatients promoting a smooth transition from hospital to home for breastfeeding mothers.

Average Number of Clients Attending Each Breastfeeding Clinic in 2006

<table>
<thead>
<tr>
<th></th>
<th>Sears *</th>
<th>Wesley **</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>13</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>February</td>
<td>14</td>
<td>8</td>
<td>22</td>
</tr>
<tr>
<td>March</td>
<td>14</td>
<td>14</td>
<td>28</td>
</tr>
<tr>
<td>April</td>
<td>14</td>
<td>7</td>
<td>21</td>
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<tr>
<td>May</td>
<td>14</td>
<td>8</td>
<td>22</td>
</tr>
<tr>
<td>June</td>
<td>13</td>
<td>16</td>
<td>29</td>
</tr>
<tr>
<td>July</td>
<td>14</td>
<td>11</td>
<td>25</td>
</tr>
</tbody>
</table>

* Sears Breastfeeding Clinic is at Limeridge Mall
** Wesley Centre Breastfeeding Clinic is at the Wesley Ontario Early Years Centre, 155 Queen St. North
Other Community-Based Breastfeeding Initiatives

A PHN-LC is assigned to support the breastfeeding teen population in Hamilton. The two teen maternity homes in Hamilton (St. Martin’s Manor and Grace Haven) actively promote referrals to public health. The PHN-LC provides direct service to teens at these sites and offers education sessions to their staff. The PHN-LC also provides in home visits to the teen breastfeeding population. All Canadian Prenatal Nutrition Program groups actively promote and support breastfeeding. Rates of breastfeeding initiation are extremely high at all sites, demonstrating the effectiveness of the current model of PHN and Dietician co-facilitating the groups. The Family Health Division has recently increased the number of PHN-LCs by 0.5 FTE through the approved 2006 budget enhancements. This additional resource will address barriers to initiating and sustaining breastfeeding, specifically targeting women thirty years of age and over.

**Breastfeeding Rates - CPNP 2005**

<table>
<thead>
<tr>
<th>Program</th>
<th>% Breastfed</th>
<th>% Did not Breastfeed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy Moms, Healthy Babies</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Welcome Baby</td>
<td>98.7</td>
<td>1.3</td>
</tr>
<tr>
<td>Baby’s Best Start</td>
<td>83.6</td>
<td>16.4</td>
</tr>
<tr>
<td>CPNP – All Sites *</td>
<td>93.3</td>
<td>6.7</td>
</tr>
</tbody>
</table>

* # of participants who breastfed out of the total # of individuals who attended all CPNP groups

**Summary**

The Family Health Division offers a variety of evidenced based programs for families through the stages of preconception, prenatal, and transition to parenthood. Interventions are a blend of services funded through the Healthy Babies, Healthy Children Program and PHS Child/Reproductive Health Budgets. The antenatal and postnatal period provides an ideal opportunity to screen women for risk factors and ensure they are well connected to community resources. The women identified to be at risk can be identified and preventive interventions can be implemented. The postpartum home visiting component of HBHC is reaching most women through telephone follow-up. However, rates of acceptance of a home visit are low. It is expected that the introduction of the proposed hospital based postpartum clinic model will enable provision of more comprehensive and timely services to pregnant women and new families. Breastfeeding initiation rates in Hamilton have declined, particularly in older women. The Family Health Division has developed comprehensive programs in collaboration with community partners to promote and support breastfeeding which should reverse this trend.

Elizabeth Richardson, MD, MHSc, FRCPC
Medical Officer of Health
Public Health Services