SUBJECT: Nurse Family Partnership Pilot Research Project  BOH07035 (City Wide)

RECOMMENDATION:

That the Board of Health approve the proposal to conduct a pilot of the Nurse Family Partnership (NFP) in Hamilton.

EXECUTIVE SUMMARY:

The Nurse Family Partnership (NFP) is a program of prenatal and infancy home visiting by nurses for low-income, first-time mothers. It has proven effectiveness in improving pregnancy, health and social outcomes for mothers and their children, and in preventing child maltreatment. This evidence-based program has been shown to positively change the life trajectory of vulnerable children and their mothers.

If feasible, this intervention holds the best promise for improving pregnancy outcomes, maternal physical, mental and social health, child health and development, reducing child maltreatment, and producing substantial cost savings to government. This is the first opportunity being given for a Canadian site to test the feasibility of replicating the NFP intervention and research in a local context.
**BACKGROUND:**

On May 4, 2007, through the leadership of the Community Child Abuse Council, several community agencies worked together to bring Dr. David Olds to Hamilton to speak on the topic of *Benefits of Home Visiting by Nurses*. In addition to the Community Child Abuse Council these agencies included the Hamilton Public and Catholic School Boards, the Hamilton Children’s Aid and Catholic Children’s Aid, Affiliated Services for Children and Youth, the City of Hamilton Public Health Services and the Ontario Early Years Centres. Dr. Olds’ presentation was very inspiring.

Dr. Olds is the co-founder and lead investigator of the NFP, an evidence-based program that has been shown to positively change the life trajectory of vulnerable children and their mothers. Over the past 30 years, Dr. Olds’ research has proven effectiveness through the NFP initiative in improving pregnancy, health and social outcomes for mothers and their children, and in preventing child maltreatment. It is now being evaluated and implemented in communities across the United States, Europe and Australia. To date this program has not been implemented in Canada.

Representatives of the Research Advisory Committee, chaired by the City of Hamilton Public Health Services, met with Dr. Olds to explore the potential for bringing this initiative to Hamilton. The Research Advisory Committee brings together a diverse group of child-focused professionals from research, academic and service providing agencies to help the Family Health Division support, promote and conduct collaborative research that advances the knowledge of effective public health interventions from preconception to age 6. Membership includes representatives from the Offord Centre for Child Studies and the School of Nursing at McMaster University, Hamilton Health Sciences, and the City of Hamilton Public Health Services.

There is support and commitment from the Research Advisory Committee and Dr. Harriet Macmillan to the implementation of this research pilot. Dr. Macmillan is a Professor, Department of Psychiatry and Behavioural Neurosciences and Pediatrics, and the David R. Offord Chair in Child Studies, McMaster University. Dr. MacMillan and Dr. Olds share a strong working relationship and a passion for improving the lives of children and their families.

**ANALYSIS/RATIONALE:**

This pilot project is based on existing scientific and theoretical evidence for how best to assist high-risk families, and has the potential to be highly significant. It will test the feasibility of the NFP intervention in a local context. If feasible, this intervention holds the best promise for improving pregnancy outcomes, maternal physical, mental and social health, child health and development, reducing child maltreatment, and producing substantial cost savings to government.

Healthy Babies, Healthy Children (HBHC) began 10 years ago as a provincial initiative combining PHN and lay home visiting in a program targeting at risk families prenatal to
age 6 years. At the time of the inception of HBHC, home visiting programs were in their infancy across the United States. Although the province founded the HBHC program from elements of other model home visiting programs, the NFP has since been the only program that has been able to successfully generate, and verify through rigorous study, client outcomes. The NFP is also unique in that it offers standardized and specific interventions as part of the program, supported by extensive training and supervision of the nurse home visitor, as well as agency consultation. The results from this pilot project could potentially inform or contribute to the analysis and refinement of our existing home visiting model, Healthy Babies, Healthy Children.

The joining together in Hamilton of the academic and research communities with those agencies collaborating to provide front-line service through the Hamilton Best Start Initiative to implement the NFP trial makes this a truly unique opportunity.

**ALTERNATIVES FOR CONSIDERATION:**

Public Health Services could continue to provide universal and targeted programming through the Healthy Babies, Healthy Children alone, without the added dose of evidence-based prevention and intervention provided by the NFP initiative and needed by our most vulnerable children.

**FINANCIAL/STAFFING/LEGAL IMPLICATIONS:**

Six PHNs will attend the five-day intensive training program provided by the NFP National Office in Denver Colorado. First-time mothers will be recruited through City of Hamilton Public Health Services prenatal classes for at-risk groups (teen, single, multicultural, street youth), local Canadian Prenatal Nutrition Programs, as well as prenatal referrals to the Healthy Babies, Healthy Children (HBHC) program. To be eligible, women must be first-time mothers who are referred before 29 weeks gestation, who were receiving income assistance from Ontario Works or Employment Insurance prior to their pregnancy. Recruitment will continue until each nurse serves 10 to 15 families (50 – 75 families in total). In 2006, 570 pregnant women were referred to the HBHC Program. The majority of these referrals would meet low-income eligibility criteria for the NFP model so it is predicted recruitment of the study sample would take 2-3 months.

The schedule of visits will be identical to the NFP offered in the US: visits begin early in the second trimester (typically 14-16 weeks gestation, and certainly before the mother reaches 29 weeks gestation). Nurses visit weekly for the first month after enrollment and then every other week until the baby is born. Visits are weekly for the first 6 weeks after the baby is born, and then every other week through the child's first birthday. Visits continue on an every-other-week basis until the baby is 20 months. The last four visits are monthly until the child is 2 years old. However, for this pilot, the intervention will continue until the child is 1 year rather than 2.
Budget:
The projected costs for implementation of the Nurse Family Partnership Pilot Research Project include costs for the Public Health Nurses associated with the study ($546,000) and the study costs ($154,000), for a total of $700,000, as further detailed below.

A) PHN-related Costs:

Staff are requesting financial and system support from the Ministry of Children & Youth Services as follows for the PHNs that will deliver the program:

- Realignment from existing HBHC funding $273,000
- New funding from MCYS $273,000

With the combination of existing and new funding, current service targets could be maintained, while using the new model with a cohort of new clients over approximately 18 months.

B) Research Study Costs:

These are necessary to fund the Contractual Agreement with the Denver Group (Dr. Olds), on-site training of PHNs in Denver, and McMaster and Denver study personnel and administration costs

To date, the following have been allocated to the project:

- $100,000 – Existing PHRED funds:
- $ 53,000 – Community partners and child-focused foundations
- In-kind – Dr. Harriet MacMillan and Dr. David Olds time

As outlined above, further funding is being solicited from MCYS. Implementation of the pilot is contingent on receipt of that funding.

Return on Investment:
The Brookings Institute recently reported the government savings to cost ratios were as high as 4.4 to 1 in NFP programs.

POLICIES AFFECTING PROPOSAL:

HBHC is part of the Mandatory Health Programs and Services Guidelines for Boards of Health. The Board of Health is required to implement the HBHC Program in accordance with the Ministry of Health and Ministry of Community and Social Services Implementation Guidelines which stipulate the requirements for the program components.

Staff are requesting approval from MCYS to carry out the pilot project, while maintaining HBHC service levels.
RELEVANT CONSULTATION:

Public Health Services has consulted with the Program Supervisor of the Hamilton/Niagara Regional Office of the Ministry of Community and Social Services and Ministry of Children and Youth Services (MCYS) regarding the feasibility of implementing this pilot project. PHS has also consulted with Hamilton’s designated Healthy Babies, Healthy Children Program Consultant Program from the MCYS regarding this initiative.

CITY STRATEGIC COMMITMENT:

Community Well-Being is enhanced. ☑ Yes ☐ No

Environmental Well-Being is enhanced. ☑ Yes ☐ No

Economic Well-Being is enhanced. ☑ Yes ☐ No

Does the option you are recommending create value across all three bottom lines? ☑ Yes ☐ No

Do the options you are recommending make Hamilton a City of choice for high performance public servants? ☑ Yes ☐ No