



INFORMATION REPORT

TO: Mayor and Members Board of Health	WARD(S) AFFECTED: CITY WIDE
COMMITTEE DATE: January 13, 2014	
SUBJECT/REPORT NO: Healthy Birth Weights Project Update (BOH14002) (City Wide)	
SUBMITTED BY: Elizabeth Richardson, MD, MHSc, FRCPC Medical Officer of Health Public Health Services Department	PREPARED BY: Jennifer Vickers-Manzin 905-546-2424 Ext. 3559 Vanessa Parlette 905-546-2424 Ext. 6462
SIGNATURE: 	

Council Direction:

Not Applicable

Information:

Background

The purpose of this report is to update the Board of Health on the work addressing the City’s strategic objective 1.5 (v), “the development and implementation of a maternal health strategy to decrease low birth weight.”

About Low Birth Weight

Combined research and local data highlight low birth weight (LBW) as an important issue in the City of Hamilton. Neighbourhood level data reveal that the rates and effects of LBW are much higher in areas with lower socioeconomic status. Research shows

that having a low income negatively impacts birth outcomes and overall maternal and child health.¹ The Hamilton Spectator's Code Red series showed pockets within Hamilton where the LBW rate is double that in other areas.² The same neighbourhoods with high LBW rates also have high rates of smoking, teen pregnancy and low income.³

Teenage mothers have two times the risk for developing pregnancy complications and for delivering a LBW baby.⁴ This is because teens' reproductive organs are not fully developed and teens are more likely to have social risk factors such as, smoking, poor nutrition and an unstable home environment.^{5,6} Teen mother rates are much higher in the same areas where we see the highest rates for LBW and smoking during pregnancy. Code Red reported that there are 16 neighbourhoods in Hamilton where the teen mother rate is 10% or higher, compared to 5% City wide.⁷ There are many factors that contribute to both planned and unintended teenage pregnancies for example, teen risk-taking behaviour, perceived lack of opportunities by youth, a culture of young parenting and lack of knowledge, access and effective use of contraception.^{8,9}

Women who smoke during pregnancy are twice as likely to have a LBW baby.¹⁰ Supporting pregnant women and their partners to quit smoking and reduce exposure to second-hand smoke is one of the most important strategies we can take to reduce the risk of LBW and other major health problems.¹¹ The City average for smoking during pregnancy is 16.7%. Areas with higher socioeconomic status have very low rates of smoking during pregnancy for example, 6.6% on Stoney Creek Mountain, 7.4% in Ancaster, and 8.5% in Waterdown. However, in some Hamilton neighbourhoods 30-40% of pregnant women smoke.^{12,13}

Healthy Birth Weight Coalition

In 2011, Public Health Services (PHS) initiated the Healthy Birth Weight (HBW) Coalition, made up of health care providers and community organizations working together to reduce the risk of LBW in the City of Hamilton. (Coalition members are listed in Appendix A.) Regular communication ensures coordination with the Neighbourhood Development Strategy.

The vision of the Coalition is to strengthen our community by supporting healthy lives and healthy relationships for moms, babies, and neighbourhoods. A temporary HBW Project Manager has led the PHS work addressing LBW and facilitated the formation of the HBW Coalition.

Taking a community driven approach, focus groups were conducted with pregnant and postpartum women in Hamilton. We heard first-hand accounts of the struggles that pregnant women in priority neighbourhoods face in accessing healthy food, community supports and effective methods for quitting smoking. Teen mothers especially noted that they experienced judgment and lack of support related to their pregnancies, from both care providers and family members. Teens also stated that they felt confused about the services available to them, and that they would like care that is non-judgmental and youth-friendly. Community women tell us that we need to improve

collaboration and coordination to find better ways to work with those in our community who face the greatest barriers and risks to health. In addition to focus groups, an environmental scan was completed to map community resources.

The HBW Coalition is developing City wide and targeted strategies to reduce the risk of LBW. The City wide approach focuses on building capacity and coordination of services. The targeted strategy focuses on five postal code areas (L8H, L8K, L8L, L8M, L8N) that have the highest LBW, smoking, teen pregnancy and low income rates (Appendix B). These five postal codes are home to 55% of teen mothers in Hamilton,¹⁴ and will be the starting point for a long-term project that may expand to include other risk factors and vulnerable populations.

The strategies fall under two broad directions:

1. Best possible care during pregnancy to support healthy birth weights, and
2. Teen pregnancy prevention.

Over the next two years the Coalition will focus on three key strategic actions, building on existing community resources:

1. Building a Care Pathway for young parents to reduce duplication of services and have a streamlined approach to community collaboration.
2. Developing consistent community-wide education for professionals working with youth in Hamilton to build capacity and create a common approach.
3. Developing smoking cessation supports/programs targeted to pregnant and postpartum women that are based on best practices.

These three strategic actions will link to new and existing system-level initiatives. These initiatives are designed to foster re-orientation of health and social services at a broader level to improve community health and contribute to better outcomes.

Public Health Services Programs

Below are the existing high quality universal programs that PHS has been enhancing to promote healthy birth weights:

Quit Smoking Clinics: The Family Health Division has partnered with the Healthy Living Division to provide intensive quit smoking supports specific to pregnant and postpartum women and their partners. By improving the way PHS staff assess and refer pregnant and postpartum women, the Quit Smoking Clinic has seen the same numbers of pregnant and postpartum women in the past 5 months, as were seen in the previous 18 months. We are building new relationships with community partners to improve assessment and referral throughout the City.

Canadian Prenatal Nutrition Program: This group program, taught by Public Health Nurses and Public Health Dietitians, offers prenatal education and supports for

developing healthy choices and lifestyles during and beyond pregnancy, that targets low-income pregnant women. A recent evaluation of this national program showed that participation contributed to reduced smoking, reduced alcohol abuse, reduced LBW, increased breastfeeding and increased intake of vitamins and minerals during pregnancy.¹⁵ Hamilton's version of this program, called Welcome Baby, has been successful in reaching women with risk of poor health and pregnancy outcomes. From October 2012 to April 2013, Welcome Baby had 272 participants. Of these women, 19% were teens, 52% were immigrants and 25% smoked cigarettes when they entered the program. We also found that teens attending the program were three times more likely to smoke than adult women. PHS will continue to evaluate this program to ensure that it is reaching the right population and achieving the best possible outcomes. We are working with community partners to pursue new opportunities that will improve access to this program.

PHS is also reviewing strategies related to teen pregnancy prevention to make sure that these strategies are based on research and are meaningful to our population of youth.

Challenges

Current resource allocations are based on direct service delivery for programs such as Healthy Babies Healthy Children, reproductive health and related areas. While temporary resources are available to manage strategic initiatives such as the HBW strategy, current policies do not allow this arrangement to continue beyond 2015. Staff are reviewing possible strategies to address this resource gap.

References

- ¹ O'Campo P., Urquia, M. (2012). Aligning Method with Theory: A comparison of two approaches to modeling the social determinants of health. *Maternal and Child Health Journal*, 16 (9), 1870-8.
- ² DeLuca, P.F., Buist, S., Johnston, N. (2012). Engaging Communities in Health System Change – The Code Red Project in Hamilton, Canada. *Social Indicators Research*, 108(2), 317-327.
- ³ Better Outcomes Registry & Network (BORN) Information System. [2007-2011], Extracted: November, 2012.
- ⁴ Institute of Health Economics. (2007). Healthy Mothers, Healthy Babies: How to prevent low birth weight. *Institute of Health Economics Consensus Statements*, 2, 1-24.
- ⁵ Brunton, G., Thomas, H. (2001). The Effectiveness of Public Health Strategies to Reduce or Prevent the Incidence of Low Birth Weight in Infants Born to Adolescents: A systematic review. *Effective Public Health Practice Project*, 1-49.
- ⁶ Feldman, J. (2012). Best Practice for Adolescent Prenatal Care: Application for an attachment theory perspective to enhance prenatal care and diminish birth risks. *Child Adolesc Soc Work J*, 29, 151-166.
- ⁷ Pecoskie, T., Buist, S. (2011, November 19). Groundbreaking Analysis Exposes Relationship between Poverty and Teenage Pregnancy. *Hamilton Spectator*, WR1-WR7.
- ⁸ Brunton, G., Thomas, H. (2001). The Effectiveness of Public Health Strategies to Reduce or Prevent the Incidence of Low Birth Weight in Infants Born to Adolescents: A systematic review. *Effective Public Health Practice Project*, 1-49.
- ⁹ Feldman, J. (2012). Best Practice for Adolescent Prenatal Care: Application for an attachment theory perspective to enhance prenatal care and diminish birth risks. *Child Adolesc Soc Work J*, 29, 151-166.

¹⁰ Albrecht, S.A., Rosella, J.D., Patrick, T. (2007). Smoking Among Low-Income Pregnant Women: Prevalence rates, cessation interventions, and clinical Implications. *Birth Issues in Perinatal Care*, 21(3), 155-62.

¹¹ Schwartz, R., O'Connor, S., Minian, N., Borland, T., Babyan, A., Ferrence, R., Cohen, J., Dubray, J. (2010). *Evidence to Inform Smoking Cessation Policymaking in Ontario: A Special Report by the Ontario Tobacco Research Unit*. Toronto: Ontario Tobacco Research Unit.

¹² Better Outcomes Registry & Network (BORN) Information System. [2007-2011], Extracted: November, 2012.

¹³ DeLuca, P.F., Buist, S., Johnston, N. (2012). Engaging Communities in Health System Change – The Code Red Project in Hamilton, Canada. *Social Indicators Research*, 108(2), 317-327.

¹⁴ Better Outcomes Registry & Network (BORN) Information System. [2007-2011], Extracted: March, 2013.

¹⁵ Muhajarine, N., Ng, J., Green, K., Bowen, A., Cushon, J., Johnson, S., Macqueen Smith, F. (2009). *Understanding the Impact of the Canada Prenatal Nutrition Program: A quantitative evaluation*. Submitted to the Public Health Agency of Canada. Retrieved from <http://www.spheru.ca/publications/files/CPNPEvaluation-Report.pdf>.

HBW Coalition: List of Participating Organizations

Access Midwives
Affiliated Services for Children and Youth
Catholic Children's Aid Society
Catholic Family Services
Centre de Sante Communicaire
Children's Aid Society
City of Hamilton Community Services (Social Development and Early Childhood)
City of Hamilton, EMS
City of Hamilton Public Health Services (Family Health; Healthy Living)
Community Midwives of Hamilton
Good Shepherd –Angela's Place, Notre Dame
Hamilton Best Start
Hamilton Community Foundation
Hamilton Family Health Team
Hamilton Health Sciences
Hamilton Regional Indian Centre
Hamilton Urban Core
Hamilton Wentworth District School Board
Hamilton Wentworth District Catholic School Board
Maternity Centre of Hamilton
McMaster Children's Hospital
McMaster School of Nursing
Midwifery Education Program
Native Women's Centre
North Hamilton Community Health Centre
Salvation Army –Grace Haven and New Choices
St. Joseph's Healthcare
St. Joseph's Immigrant Women's Centre
Victoria Order of Nurses
Wesley Urban Ministries
Young Mothers Study

