

### New This Month:

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## PREGNANCY AND DIABETES UPDATE

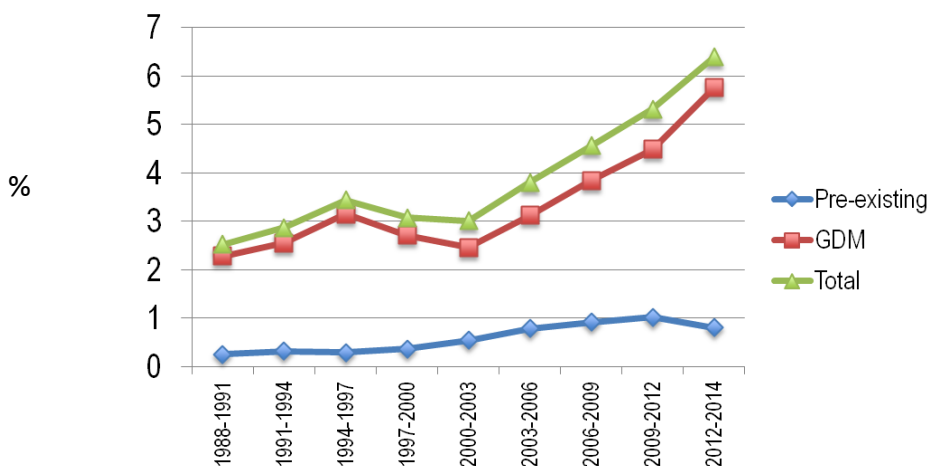
**Jillian Coolen, MD FRCSC**

*Maternal-Fetal Medicine Specialist, IWK Health Centre*

*DCPNS Pregnancy & Diabetes Working Group*

The number of pregnancies complicated by diabetes is on the rise. In Nova Scotia, diabetes affected 6.4% of pregnancies in 2014, compared with 3% of pregnancies in 2001 (see Figure 1). Specifically, there has been a 37% increase in the incidence of gestational diabetes mellitus (GDM) in the past 3 years. This is likely secondary to increasing maternal age and body mass index.

**Figure 1. Incidence of Diabetes in Pregnancy in Nova Scotia**



(Nova Scotia Atlee Perinatal Database, 2014)

Several adverse pregnancy outcomes have been linked to diabetes in pregnancy. For the mother, both pre-existing diabetes and GDM are associated with hypertensive disorders of pregnancy. For the fetus, complications include fetal overgrowth, respiratory distress syndrome, and neonatal metabolic complications. Fetal overgrowth increases the risk of operative delivery, shoulder dystocia and birth trauma for both mother and baby. Poorly controlled pre-existing diabetes at conception and in the first trimester increases the risk for birth defects and with GDM there is an increased risk of development of type 2 diabetes later in life. The management of pregnancies complicated by diabetes can be complex and intensive, requiring immediate and ongoing support from a qualified interprofessional team to prevent adverse pregnancy outcomes. The Diabetes Care Program of Nova Scotia (DCPNS) has recently released *Diabetes and Pregnancy Guidelines: Approaches to Practice, 2014*. Developed to provide health care providers with comprehensive guidelines for the (cont'd p. 2)

management of pregnancies complicated by pre-existing and gestational diabetes, this resource has 13 sections addressing everything from preconception to postpartum care.

Included in the manual is a new approach to screening and diagnosis of GDM. Building on recommendations found in the 2013 Canadian Diabetes Association (CDA) Clinical Practice Guidelines (CPGs), Nova Scotia will continue to promote the preferred 2-step approach (*see Figure 2, p. 3*). Most women will be screened with a 50-g glucose challenge test (GCT) at 24-28 weeks gestation. Women at high risk for GDM should be screened as early in the pregnancy as feasible, ideally in the first trimester. The cutoff for the diagnosis of GDM on a 50-g GCT has increased to  $\geq 11.1$  mM. An indeterminate 50-g GCT (7.8 – 11.0 mM) should be followed by a 75-g oral glucose tolerance test (OGTT). The cutoff for the 2-hour plasma glucose on the 75-g OGTT has increased to  $\geq 9.0$  mM, and the diagnosis of impaired glucose tolerance (IGT) of pregnancy has been eliminated. If one value is met or exceeded on the 75-g OGTT, GDM is diagnosed. If GDM is strongly suspected (ex: women with pre-diabetes, morbid obesity and/or previous pregnancy complicated by GDM requiring insulin), a 75-g OGTT can be performed without an initial 50-g GCT using the same cutoffs.

Laboratory Services across Nova Scotia are in the process of implementing the new approach to screening and diagnosis of GDM. Specifically in the Capital District Health Authority, both the 50-g GCT and 75-g OGTT will be accessible in all rural and regional laboratory facilities. A brochure to help standardize the preparation and proper conditions for the screening tests is in development and will soon be available on the DCPNS website. Order information is located on the DCPNS website:

<http://diabetescare.nshealth.ca/sites/default/files/files/Preg%26DMGuidelines2014.pdf> or

via telephone at (902)-473-3219 and email: [info@DCPNS.nshealth.ca](mailto:info@DCPNS.nshealth.ca)

### KEY MESSAGES

- *The incidence of pregnancies complicated by diabetes is increasing in Nova Scotia.*
- *Untreated hyperglycemia is associated with an increased risk of adverse pregnancy complications.*
- *Care by an interprofessional diabetes health care team composed of diabetes nurse educators, dietitians, obstetricians & endocrinologists, has been shown to minimize maternal & fetal risks in women with diabetes.*
- *DCPNS has developed resources for health care providers caring for women with diabetes in pregnancy, including an algorithm for the screening and diagnosis of GDM, a brochure for 75-g OGTT preparation and new Pregnancy and Diabetes Guidelines.*

## SAVE THE DATE!

## PREGNANCY TEST POSITIVE . . . TIME TO THINK ABOUT DIABETES

Presented by the Diabetes Care Program of Nova Scotia (DCPNS) in partnership with the Reproductive Care Program of Nova Scotia (RCP) and Dalhousie Continuing Professional Education

Date and Location: **Thursday, April 9, 2015; 6:00 - 9:00 p.m. @ the Cunard Centre, Halifax, NS**

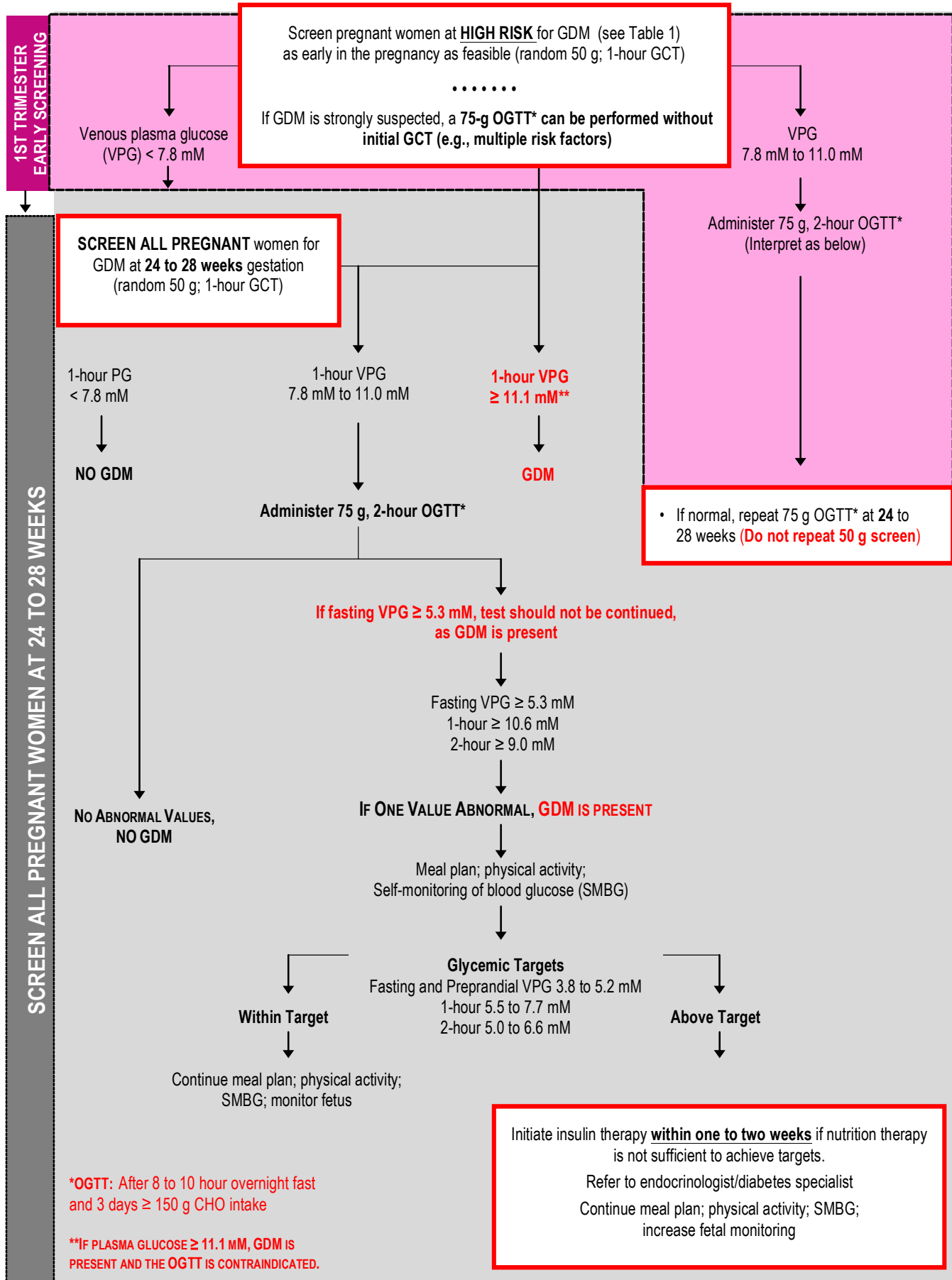
Registration and light dinner at 5:30 pm. **No fee for the workshop but pre-registration is required.**

Registration form available by contacting DCPNS at [info@dcpsn.nshealth.ca](mailto:info@dcpsn.nshealth.ca) or 902-473-3219

Application has been made for CME credits

## APPENDIX A: SCREENING FOR GESTATIONAL DIABETES (GDM)

### Figure 2. DCPNS Algorithm for the Screening and Diagnosis of GDM



Reference: Canadian Diabetes Association Clinical Practice Guidelines Expert Committee. Canadian Diabetes Association 2013 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada. *Canadian Journal of Diabetes*. 2013;37 (Suppl 1):S1-212.

Key: OGTT = oral glucose tolerance test; GCT = oral glucose challenge test

(continued on next page)

# BREASTFEEDING & DIABETES



We all know the message that breastfeeding is the optimal way for infants to be fed with immediate and enduring health and wellbeing outcomes for mother and baby. What do we know about breastfeeding and diabetes?

Some would argue that much of the research around breastfeeding and diabetes is difficult to interpret. So many things may influence breastfeeding beyond the diabetic state. Researchers in Ottawa conducted a retrospective cohort analysis

using data from four Ontario hospitals to examine these lower rates more closely.<sup>12</sup> Measuring breastfeeding rates at a standardized time in the postpartum period, they found that women with insulin-treated diabetes or gestational diabetes were less likely than women without diabetes or women with non-insulin-treated diabetes to be exclusively breastfeeding at hospital discharge. The results remained significant after adjusting for multiple maternal confounders, type of delivery and NICU admissions.

Another group of researchers discovered that women with gestational diabetes who breastfed their infants had a >40% reduction in the risk of developing diabetes after birth, especially if breastfeeding continued for at least three months.<sup>13</sup> Further, this decreased risk of developing diabetes after having breastfed continued for up to 15 years postpartum.

Returning to our question regarding what we know about breastfeeding and diabetes, it is clear that women with diabetes are a priority population with whom to emphasize the importance of breastfeeding. From the perspective of diabetes, breastfeeding, breastfeeding exclusivity and breastfeeding duration have a profound impact on the health and quality of life of women and their infants.

Note: References available on the RCP website at [rcp.nshealth.ca](http://rcp.nshealth.ca)

## Did You Know?

Mothers who breastfeed have a decreased risk of developing Type 2 diabetes & infants who are breastfed have a decreased risk of developing Type 1 and Type 2 diabetes.<sup>1, 2, 3</sup>

These effects are more pronounced the longer breastfeeding continues.<sup>4, 5</sup>

However, women with Type 1, Type 2 and gestational diabetes have lower breastfeeding rates.<sup>6, 7, 8, 9, 10, 11</sup>



## CODING CORNER

One of the common challenges for Health Information Professionals (HIP) is having complete documentation on the patient's chart. The query below is an example.

**HIP Question:** *If all prenatal forms are not on the patient's chart at the time of coding, do I enter Y or N when asked if it is on the chart?*

**RCP Answer:** *In consultation with health information professionals across the province and the RCP clinical advisors, the decision was made to modify the guideline currently in the NSAPD coding manual (pg. 29) to read "If the complete Prenatal Record was filed on the chart at time of coding enter Y."*

RCP welcomes Mary MacPherson, HIP at Cape Breton Regional Hospital. Many thanks and Best Wishes to HIP, Janet Ross at the Aberdeen Hospital who will be retiring in the spring 2015.

# A PATIENT-CENTRED MINIMAL INTERVENTION METHOD FOR ADDRESSING GESTATIONAL WEIGHT GAIN

Helena Piccinini-Vallis, MD MSc CCFP\*

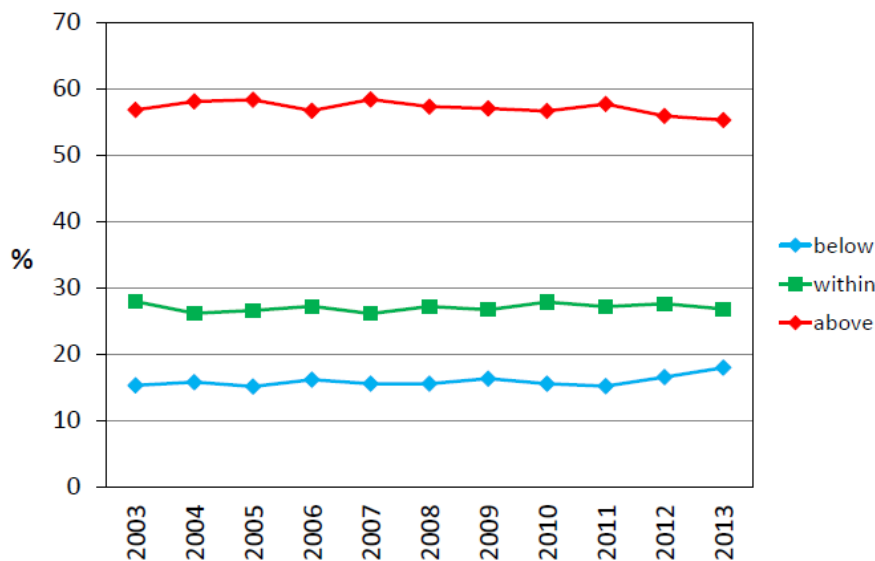
Michael Vallis, PhD RPsych\*\*

\*Department of Family Medicine, Dalhousie University

\*\*Departments of Family Medicine and Psychiatry, Dalhousie University

Excess weight gain in pregnancy is a risk factor for numerous adverse outcomes for mothers and their offspring, including childhood obesity. Both the Society of Obstetricians and Gynecologists of Canada and the Institute of Medicine recommend weekly and total weight gain based on women's pre-pregnancy body mass index category.<sup>1,2</sup> The higher the body mass index, the less weight gain is recommended, which can be challenging for women who already have trouble managing their weight. It is therefore not a surprise that approximately 60% of women gain weight in excess of the guidelines (Figure 1). Guideline-concordant gestational weight gain is influenced by cultural beliefs, socioeconomic and demographic characteristics. Another influence, of particular interest to us, is advice from a clinician.<sup>3</sup> Although research shows that patients want their clinicians to address gestational weight gain, such discussions occur infrequently. When discussions do take place, they are typically of a prescriptive nature. While this clinician-centred approach might increase patient knowledge, it does not necessarily translate into patient behaviour change and, in fact, could set up an uncomfortable dynamic between the clinician and the patient. In contrast, a patient-centred approach incorporating motivational and behaviour change strategies can promote increased patient acceptance, intention and adherence to recommendations.<sup>4</sup> This approach involves the clinician striving to understand the whole person, explore the patient's illness and health experience, find common ground and cultivate the clinician-patient relationship in order to address the barriers to initiating and sustaining behaviour change. In one recent meta-analysis, a physician's patient-centredness increased the odds of patient adherence to recommendations by 2.16.<sup>5</sup>

Figure 1: Gestational Weight Gain in Pregnancy in Nova Scotia (2003-2013)



(Nova Scotia Atlee Perinatal Database, 2014)



The *5As of Healthy Pregnancy Weight Gain* is a point-of-care tool that incorporates principles of behaviour change science and patient-centredness to assist clinicians to engage in conversations about gestational weight gain with their patients. Clinicians trained in the use of this tool learn to systematically:

- 1) **ASK** permission to initiate discussions about gestational weight gain in a respectful manner;
- 2) **ASSESS** the patient's body mass index, and be non-judgmentally curious about the patient's context and her barriers and facilitators in achieving guideline-concordant gestational weight gain;
- 3) **ADVISE** on the risks to mothers and babies pertaining to guideline-discordant gestational weight gain and on management options;
- 4) **AGREE** on a plan to achieve health behaviour outcomes;
- 5) **ASSIST** women in identifying and addressing barriers and facilitators, suggest resources, refer to appropriate providers and offer follow up.

A pilot study to evaluate this framework is underway in the Capital District Health Authority and will involve family physicians who provide prenatal care. This mixed methods study involves a quantitative randomized evaluation of training in the use of the 5As of Healthy Pregnancy Weight Gain tool compared to usual care. Physician self-efficacy and patient perception of patient-centeredness along with Gestational weight gain will be assessed as outcomes. Next is a qualitative phase, in which family physicians' experiences of using the 5As of Healthy Pregnancy Weight Gain will be explored.

Note: References available on the RCP website at [rcp.nshealth.ca](http://rcp.nshealth.ca)

#### Links:

Canadian Obesity Network-5As: <http://www.obesitynetwork.ca/5As>

Behaviour Change Institute: [www.behaviourchangeinstitute.ca](http://www.behaviourchangeinstitute.ca)

## SAVE THE DATE!

### BREASTFEEDING WORKSHOP



**Title: Off to the Breast Start!**

**Date: April 30, 2015 (evening)-May 1, 2015 (full day)**

**Location: Best Western Glengarry, Truro, NS**

**Guest Speaker: Teresa Pitman**

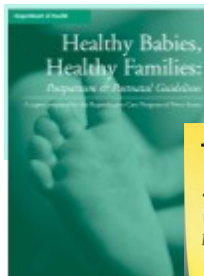
**RSVP by April 1, 2015: Maggie's Place (attention: Carla Carey)**

**tel: 902-895-0200 or email: [colchester@maggiesplace.ca](mailto:colchester@maggiesplace.ca)**

Organized by: Central NS Breastfeeding Coalition. Sponsored by:







## HEALTHY BABIES, HEALTHY FAMILIES: POSTPARTUM & POSTNATAL GUIDELINES



Nova Scotia's postpartum and postnatal standards/guidelines, "Healthy Babies, Healthy Families: Postpartum and Postnatal Guidelines" are undergoing revision. A timeline/toolkit and (Nightingale) EMR templates based on the 2014 version of the Rourke Baby Record have been developed to support primary care providers to practice in a way that is consistent with the new standards. The Rourke Baby Record has been modified to include key Nova Scotia messages after negotiating changes with Dr. Rourke. The templates are currently being tested in several demonstration sites. Webinars highlighting the changes and focusing on Nova Scotia key messages will be provided prior to province-wide distribution of the revised well baby visit templates. Options for sharing the EMR templates developed for Nightingale with users of other EMR systems are being explored. It is anticipated that the revised well-baby records will be available for widespread use mid-to-late 2015.

## AN UPDATE ON RCP'S QUALITY ASSESSMENT REVIEWS: NEWBORN TRANSITION FROM HOSPITAL TO HOME



*"Childbirth and going home after birth mark important transition events in the lives of mothers, their newborns, and families."<sup>1</sup>*

In keeping with the mandate to promote and advocate for optimal health for women, infants and families, RCP has completed a series of 'Quality Assessment (QA) reviews' in all DHAs focused on transition to the community/self-care following birth. The review teams were comprised of RCP nurses, RCP's Neonatal Clinical Advisor, a family physician, a public health nurse and an administrator. The review involved focus groups and interviews with primary care providers and new mothers, hospital maternal-child unit staff, representatives from primary health care, the public health and Healthy Beginnings teams, community health, family resource centres, pediatricians, lab staff, staff from First Nations health centres, new mothers from First Nations communities and senior leadership. The RCP QA team also reviewed both hospital and public health charts focusing on care planning and interprofessional communication. In addition, health and health service utilization data for residents of the DHA were gathered from both the Nova Scotia Atlee Perinatal Database (NSAPD) which is managed by RCP, and from the physicians' billing database (MSI) with the support of the Department of Health & Wellness.

Findings from the reviews have been presented to senior leadership in the different DHAs and will contribute to broader, system-level briefings to the Department of Health and Wellness. The findings will inform recommendations in a provincial report. This information is also contributing to the revisions of Nova Scotia's *Healthy Babies, Healthy Families: Postpartum & Postnatal Guidelines*.

1. Weiss, M. & Lokken, L. (2009). Predictors and outcomes of postpartum mothers' perceptions of readiness for discharge after birth. *Journal of Obstetric, Gynecologic and Neonatal Nursing*, 38(4), 406-17.

## Revised Data Reports from RCP

As many of you know, RCP manages a large provincial perinatal database, the Nova Scotia Atlee Perinatal Database (NSAPD). RCP is in the process of revising the Atlee Perinatal Health Report (ALPHA Report), the standard report from the NSAPD that we send to facilities every quarter and annually. Although the report has had minor modifications over the years, this is the first time we are revising the report based on feedback from users, common data requests and provincial health issues. The ALPHA is distributed in a variety of ways, depending on local needs and requests. The report is a 'snapshot' of a specific time period rather than providing trends over time. The majority of the information in the NSAPD is clinical in nature but there is some demographic information and several variables that focus on health and lifestyle behaviours (e.g. tobacco smoking, breastfeeding). Instead of providing one report that addresses a variety of topics, we will be providing a series of reports that can be distributed to the groups across the province that would find the information useful and relevant. The five reports will focus on maternal and infant characteristics; labour, birth and delivery characteristics; health status; health behaviours and social determinants and neonatal information. It is anticipated that some reports will be ready for distribution by spring 2015.



### Only Electronic Copies of the RCP Newsletter will be available as of April 1, 2015

Please visit the RCP website at [rcp.nshealth.ca](http://rcp.nshealth.ca) to sign up for upcoming issues of the RCP newsletter. As of April 1, 2015, the newsletter will not be available in print copy. This is a new subscription service so even if you have signed up in the past, please sign up again. If you have any questions or concerns, please contact us at 902 470-6798 or [rcp@nshealth.ca](mailto:rcp@nshealth.ca)



## ADVANCES IN LABOUR AND RISK MANAGEMENT

OCTOBER 24TH AND 25TH, 2015. HALIFAX, NS

Contact Marilyn Muise at [marilyn.muise@iwk.nshealth.ca](mailto:marilyn.muise@iwk.nshealth.ca) for registration information

### Staff News

*Congratulations and Best Wishes to Dr. Dora Stinson, Acting RCP Neonatal Clinical Advisor and her husband, Rev. Ted Thompson on their recent wedding.*

*Best of Luck to Emily Wang, RCP Health Information Programmer who recently accepted a new position with an international company.*

*Welcome back to Dr. Krista Jangaard who has returned as RCP Neonatal Clinical Advisor.*

#### Our Mission

Working with Nova Scotia hospital and community-based health professionals to promote excellence in reproductive, perinatal and newborn health through:

Leadership and Support	Guidelines and Standards
Education	Data Collection

#### Contact Us

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