

Building on the cesarean work you published last year . . .  
**A SHORT SUMMARY FOR CPPC OF POTENTIAL RESEARCH PROPOSAL  
 AND SOME QUESTIONS**

**PROBLEM STATEMENT**

More than half of women exceed the 2009 national guidelines for weight gain during pregnancy, and approximately one fifth of women gain below. Both excess and inadequate gestational weight gain (GWG) significantly increases maternal and infant risks. Recently we found that excess GWG contributed more to adverse outcomes than BMI, contributing to 18% of PTB and 16% of LGA. Inadequate GWG's contribution exceeds that of prenatal smoking for PTB and SGA. Hence, GWG is an important clinical and public health issue.

The **overarching aim** of this proposal would be **to understand the extent of excess and inadequate gestational weight gain in Canada, regional variation for both, and regional variation in the impact of both on key perinatal indicators.**

**OBJECTIVES**

To understand the proportion of singleton Canadian pregnancies complicated by excess and inadequate GWG in provinces with provincial perinatal databases.

To understand regional variation in excess and inadequate GWG.

To understand regional variation in the impact of excess and inadequate GWG on key perinatal indicators for infants (PTB, SGA, LGA) and mothers (gestational diabetes, preeclampsia, cesarean section, breastfeeding initiation) using population-attributable fractions (PAF).

**RESEARCH APPROACH**

**Study design:** Multiple, concurrent population-based retrospective cohort studies, using provincial perinatal databases for *data comparison* (i.e not data sharing)

**Population inclusion criteria:** women after 20 weeks + 0 days gestation who gave birth to a live, singleton fetus with information on pre-pregnancy BMI (or weight and height) and GWG

**Population exclusion criteria:** women with: i) twins, triplets or higher order multiples (including women with pregnancies that spontaneously or were selectively reduced), ii) a fetus with a suspected lethal or chromosomal *anomaly*, and i iii) where available a history of severe *morbidities that impact weight gain* (e.g. bariatric surgery, anorexia, and bulimia), iv) were less than 18 years old

**Analyses:** descriptive stats, then outcomes stratified by primip, multip; logistic regression controlling for confounders, calculation of PAF

Some practical points to consider:

1. SAS code is written and could be shared for PAF, etc, parts of REB recycled
2. Do all databases have prepregnancy BMI ( or prepregnancy wt, and height), GWG?

Variable available	is	BC	Alberta	Ontario	NS	Newfoundland & Labrador	PEI	?others
Prepregnancy BMI OR height and weight				+	+			
GWG				+	+			

3. Would people be interested?
4. Costs?