Supervisor Name:  Dr. Lorraine L. Lipscombe MD, MSc, FRCPC

Hospital/Research Institution:  Women’s College Hospital, Women’s College Research Institute

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Field of Research (2 keywords): diabetes, epidemiology

Department:  Medicine

School of Graduate Studies Appointment (IMS, LMP, IHPME etc)?  Yes/No:  Yes

If YES, please name:  Institute for Health Policy, Management and Evaluation

Project Title:  Novel risk factors for type 2 diabetes in women with gestational diabetes.

Brief Project Description (<300 words):

Gestational diabetes mellitus (GDM) is a temporary condition of pregnancy that predicts a high risk of future type 2 diabetes (T2DM) in women. Up to 20% of women develop T2DM within 5 years of delivery; however this risk varies widely depending on other modifiable and non-modifiable risk factors.

To better guide risk-reducing intervention strategies for women with GDM, this project will aim to identify which key modifiable risk factors predict the highest 5-year incidence of T2DM in women with GDM. This retrospective cohort study will use chart and survey data collected from 700 Ontario women with GDM from 2009-2013 during their pregnancy and in the first year after delivery, which contains information on behavioural and psychosocial variables such as weight, physical activity, diet habits, breastfeeding, diabetes risk perception, competing demands, mood, self-rated health, and motivation. These data will be linked to healthcare administrative databases at the Institute for Clinical Evaluative Sciences, to analyze associations between baseline variables and incidence of diagnosed T2DM in the following 5 years (2014-2018). Baseline cohort data will be supplemented with healthcare variables available within ICES databases. Multivariable Cox proportional hazards regression models will be created to identify and quantify independent modifiable risk factors for early T2DM. These factors will serve as targets for healthy behavior interventions offered to postpartum women with GDM, to lower their risk of T2DM.

Responsibilities of the student will include literature review, development of a proposal, data cleaning, dataset creation plan, presentation of results, manuscript preparation, and publication of findings.