

August 2014

Fact Sheet

A Look at Gestational Diabetes Across Alberta Health Services Zones

The DON SCN strives to improve the health and well-being of individual Albertans and our communities through a collaborative network that: encourages uptake of best practices, promotes improvements, and champions innovation in nutrition and in the prevention and management of diabetes and obesity across the health system to promote equitable access, quality and sustainability.

DON SCN Fast Facts

- Between April 1, 1999 and March 31, 2010, the prevalence of gestational diabetes mellitus (GDM) among pregnant women in Alberta was 4.0%.
- The highest rates of GDM in Alberta are in Calgary (4.9%) and Edmonton (4.3%) Zones.
- Women with GDM had higher rates of C-Section births (12.0% higher), induction of labour (15.1% higher), and newborns admitted to a Neonatal Intensive Care Unit (NICU) (7.1% higher), compared to women without GDM.
- Among women with GDM, rates of C-Sections were highest in the Central Zone (39.1%), rates of induction were highest in the Edmonton Zone (46.1%), and rates of NICU admissions were highest in the South Zone (48.1%).

What is the Prevalence of Gestational Diabetes in Alberta?

- 4.0% of pregnant women have GDM in Alberta.
- The prevalence of GDM ranges from 2.5% to 4.9% across all zones. **(Figure 1)**
- The Alberta Health Zones with the highest prevalence of GDM are Calgary (4.9%) and Edmonton (4.3%).

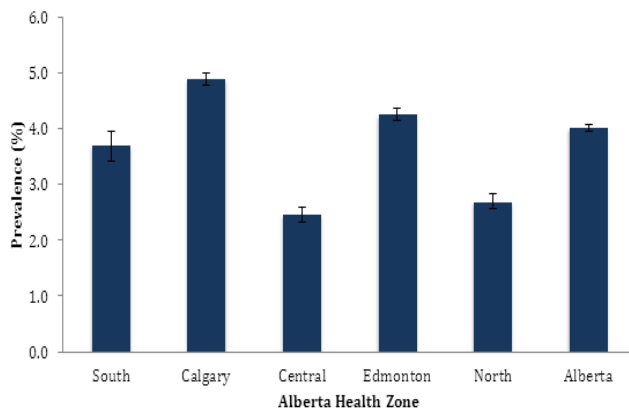


Figure 1. Prevalence of GDM across Alberta Health Zones.

How Do Rates of C-Section Births Vary Among Women With and Without GDM in Alberta?

- Rates of C-Section are 36.0% among women with GDM in Alberta, compared to 24.0% among women without gestational diabetes. **(Figure 2)**
- Rates of C-Section among women with GDM varied between 31.3% (South) and 39.1% (Central).

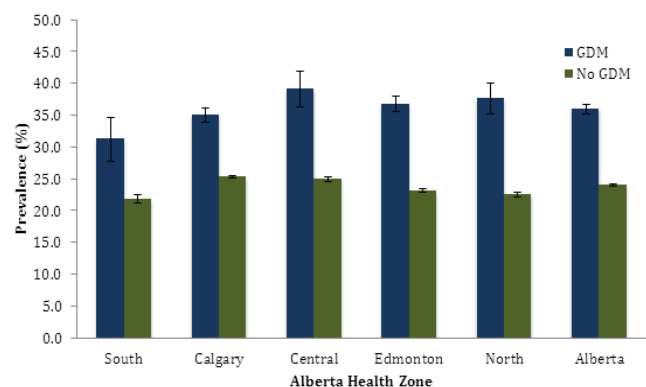


Figure 2. Prevalence of C-Section Among Women With and Without GDM Across Alberta Health Zones.

What is the Prevalence of Labour Inductions Among Women With and Without GDM in Alberta?

- The prevalence of inductions is 15.1% higher in women with GDM (42.5%), compared to women without GDM (27.4%) in Alberta. **(Figure 3)**
- Among women with GDM, the highest rate of inductions was in the Edmonton Zone (46.1%) and the lowest rate was in the South Zone (28.5%).

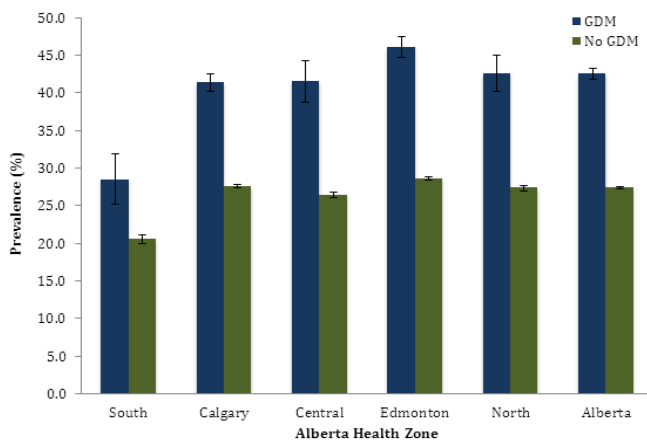


Figure 3. Prevalence of Labour Inductions Among Women With and Without GDM Across Alberta Health Zones.

What Are The Rates of NICU Admissions for Babies Born to Women with GDM in Alberta?

- Rates of NICU admissions were 7.1% higher among babies born to women with GDM (25.4%), compared to women without GDM (18.3%) in Alberta. **(Figure 4)**
- Among women with GDM, the rates of NICU admissions were highest in the Central (40.2%) and South (48.1%) Zones, and the lowest in the North (17.0%) Zone.
- Interestingly, rates of NICU admissions among babies born to women without GDM, varied greatly from 8.4% in the North Zone and 26.7% in the Central Zone.

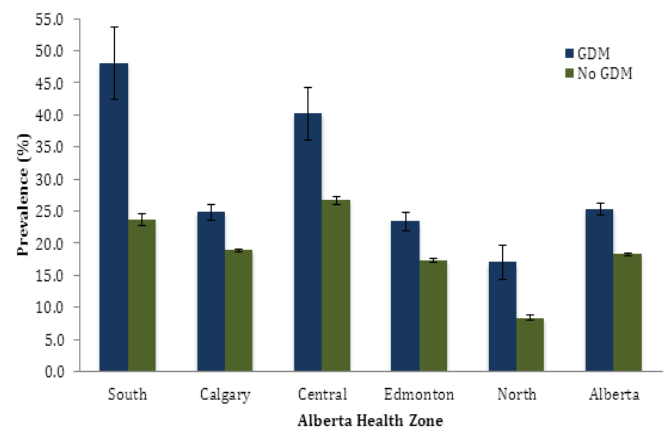


Figure 4. Prevalence of NICU Admissions Among Babies Born to Women With and Without GDM Across Alberta Health Zones.

Data Source

We used linked data from the Alberta Perinatal Health Program (APHP) clinical registry and the Alberta Health and Wellness (AHW) administrative databases, including the Discharge Abstract Database where NICU is defined. The APHP captures perinatal data from the provincial delivery record for all hospital and registered midwife attended home births in Alberta. Whereas the PHN of the mother was captured from April 1, 1999 onwards, child PHNs were not captured until April 1, 2004. The AHW databases include data from April 1, 1997 to March 31, 2010. The APHP and AHW data was linked using the mother's Personal Health Number (PHN).

The following exclusions were applied to the data: we excluded records with missing or incorrect maternal PHN, non-singleton deliveries, records with missing or out-of-province maternal residency, records with maternal age <12 or >54 years, out-of-hospital deliveries, and women with pre-existing diabetes mellitus (type 1 or type 2), records with missing or non-Albertan child residency (for NICU admissions), and records with incorrect newborn birthdates (for NICU admissions).