The incidence of GDM in Canada is approximately 4%.

### Type 1 Diabetes (T1DM)
- Primarily a result of pancreatic beta cell destruction from an autoimmune process

### Type 2 Diabetes (T2DM)
- Predominantly insulin resistance

### Gestational Diabetes Mellitus (GDM)
- Refers to glucose intolerance with onset or first recognition in pregnancy
- Approximately 2.4 million Canadians have diabetes
- By 2019, the number is expected to be 3.7 million
- The incidence of diabetes in Canada among the general population aged 12 years and older has increased from 5.8% to 6.5% from 2007 to 2012

### Problem
- Women who are obese have higher rates of GDM and T2DM
- Obesity is associated with reduced initiation and duration of breastfeeding
- Intention to breastfeed is lower in women with diabetes
- Breastfeeding duration and exclusivity are lower in women with diabetes

### Maternal Value of Breastfeeding
- Breastfeeding is associated with a reduced risk of developing metabolic syndrome
- Longer duration of breastfeeding is associated with improved insulin and glucose response in women with a history of GDM
- Increased duration of breastfeeding can reduce the risk of developing T2DM
- Infants born to mothers with diabetes are at an increased risk of hypoglycemia
- Early and prolonged breastfeeding can delay the introduction of infant formula
- Breastfeeding offers a beneficial effect on childhood obesity
- Breastfeeding exclusivity and increased duration offer protective factors against infants developing T1DM

### Infant Value of Breastfeeding
- Breastfeeding protects against type 1 diabetes mellitus: A case-sibling study
- Longer breastfeeding is an independent protective factor against development of type 1 diabetes mellitus in childhood

### Long-Term Value of Breastfeeding
- Obesity and diabetes may delay the onset of milk production
- Most lactating mothers lose body weight and subcutaneous fat during the postpartum period which decreases the risk of progression to T2DM
- Lactation may reduce the load on the pancreatic B-cells through reduced demand for insulin secretion and decreases the progression to T2DM

### References


#### Crume et al. (2011). Long-term impact of neonatal breastfeeding on childhood adiposity and fat distribution among children exposed to diabetes in utero.


