

# MATERNAL DIABETES IN CANADA

## SUMMARY

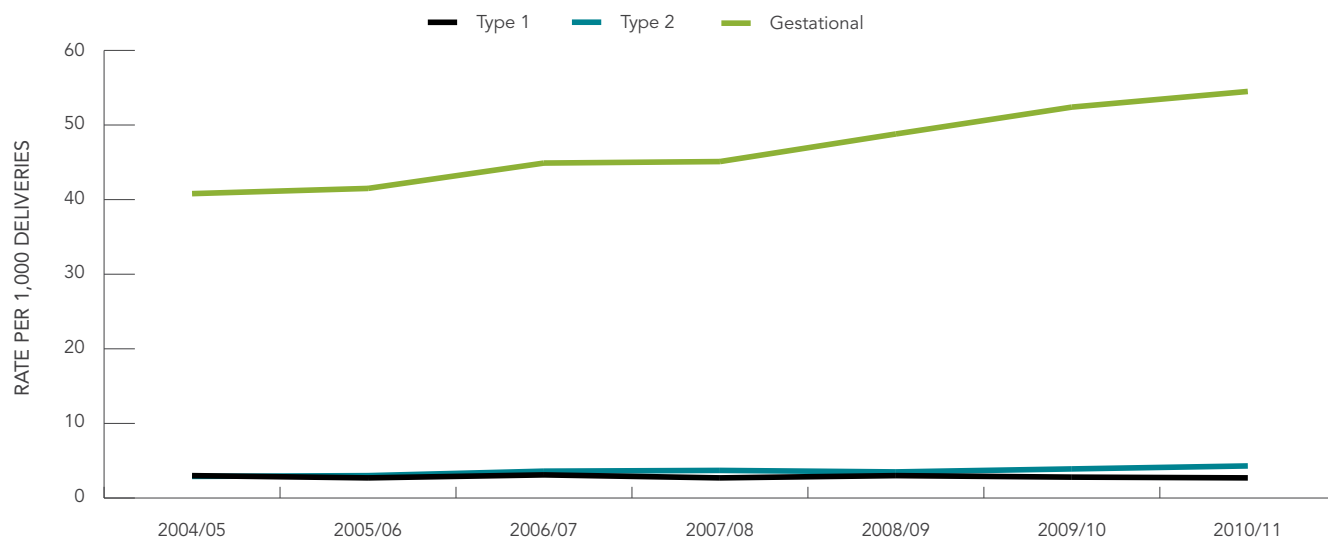
- In 2010/11, the rate of gestational diabetes mellitus (GDM) in Canada (except Quebec) was 54.5 (95% CI: 53.6–55.4) per 1,000 deliveries. The overall rates of GDM increased between 2004/05 and 2010/11 (Table 1 and Figure 1).
- Over the seven-year time period (2004/05–2010/11), the rate of Type 1 diabetes remained stable, while the rate of Type 2 diabetes increased (Table 1 and Figure 1).
- Differences in rates of maternal diabetes were observed across age groups. Rates of Type 2 and GDM increased with age, probably due to increases in weight and body mass index, while those of Type 1 diabetes showed little variation between age groups (Figure 2).
- The overall rates of GDM varied across provinces and territories. The rates were highest in British Columbia and lowest in Nunavut (Table 2).

**TABLE 1:** Temporal trends in rates (per 1,000 deliveries) of maternal diabetes in Canada, 2004/05–2010/11

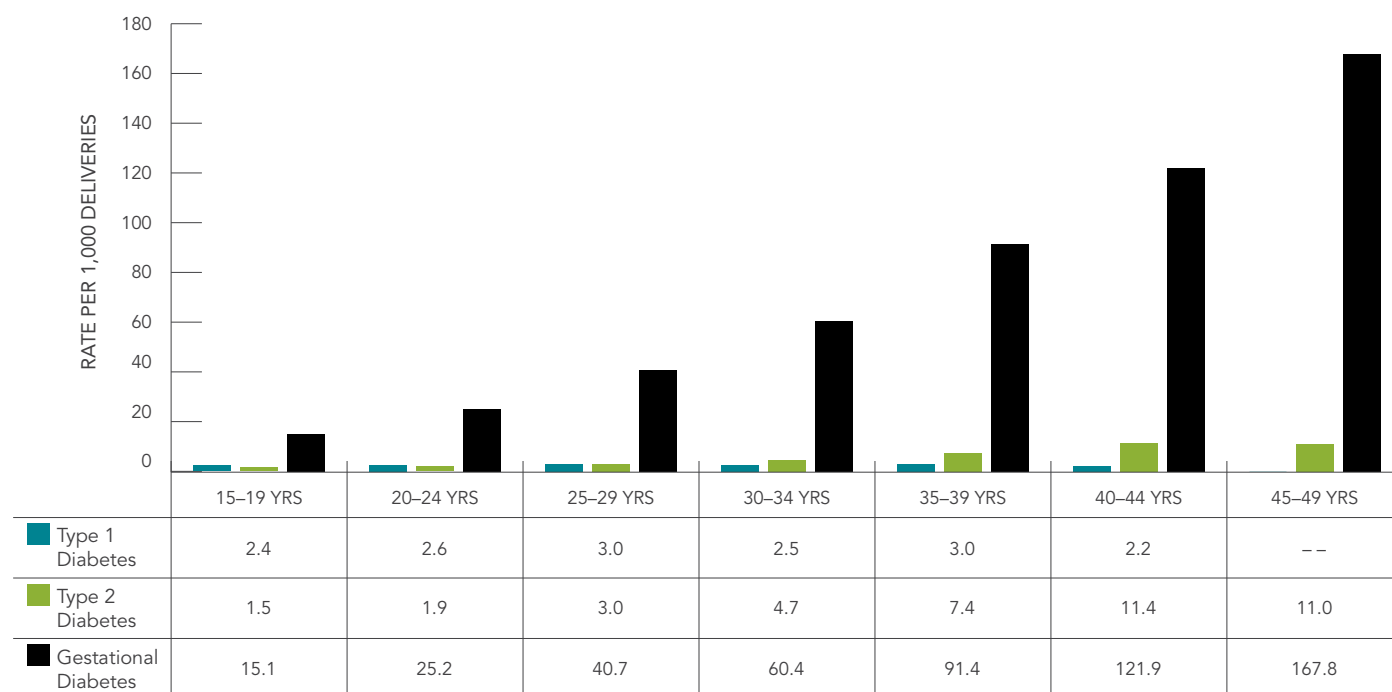
	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Type 1 diabetes	3.0	2.7	3.1	2.7	3.0	2.8	2.7
Type 2 diabetes	2.9	3.0	3.6	3.7	3.5	3.9	4.3
Gestational diabetes	40.8	41.5	44.9	45.1	48.8	52.4	54.5

**SOURCE:** Canadian Institute for Health Information, Discharge Abstract Database (DAD). Quebec data was not included because it does not contribute to DAD

**FIGURE 1:** Rates of diabetes among pregnant women in Canada, 2004/05–2010/11



**SOURCE:** Canadian Institute for Health Information, Discharge Abstract Database (DAD). Quebec data was not included because it does not contribute to DAD

**FIGURE 2:** Rates of maternal diabetes by age group in Canada, 2010/11

**SOURCE:** Canadian Institute for Health Information, Discharge Abstract Database (DAD). Quebec data was not included because it does not contribute to DAD

--- Rates have been suppressed <5

**TABLE 2:** Rates of GDM, by province and territory, Canada, 2004/05–2010/11

PROVINCE/TERRITORY	RATE PER 1,000 DELIVERIES	95% CI
Newfoundland and Labrador	36.0	33.9–38.1
Prince Edward Island	20.6	17.9–23.7
Nova Scotia	36.6	35.0–38.1
New Brunswick	33.3	31.8–35.0
Ontario	44.0	43.6–44.4
Manitoba	40.9	39.7–42.1
Saskatchewan	37.7	36.5–39.0
Alberta	44.3	43.6–45.1
British Columbia	73.7	72.7–74.7
Yukon	44.5	36.5–53.7
Northwest Territories	21.5	17.8–25.7
Nunavut	11.7	8.0–16.7
Canada	47.1	46.8–47.5

**SOURCE:** Canadian Institute for Health Information, Discharge Abstract Database (DAD). Quebec data was not included because it does not contribute to DAD

## DEFINITION

Maternal diabetes is categorized as gestational diabetes mellitus (GDM), pre-existing Type 1 or Type 2 diabetes during pregnancy. GDM is defined as any degree of glucose intolerance with onset or first recognition during pregnancy. Type 1 diabetes is defined as is a chronic condition in which the pancreas produces little or no insulin, and Type 2 diabetes is defined as a chronic condition where the body becomes resistant to the effects of insulin or doesn't produce enough insulin. The Canadian Perinatal Surveillance System uses ICD-10 CA codes for case ascertainment of maternal diabetes. The rate is expressed per 1,000 deliveries in a given place and time.

## DATA SOURCE

Rates of maternal diabetes were calculated using data from the Discharge Abstract Database (DAD) of the Canadian Institute for Health Information for the period 2004/10–2010/11. This database contains information on all hospital discharges in Canada (except Quebec). Diagnoses in the database are coded using the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision (ICD-10CA).

The rates are calculated based on fiscal years (i.e., April 1 to March 31).

## LIMITATIONS

Our data may underestimate the actual rates of maternal diabetes in Canada, as all maternal diabetes could not be identified due to limitations of the ICD-10CA codes (i.e. miscoding, unspecified diabetes). Maternal diabetes rates in Quebec could not be estimated because this province's data were not part of the Discharge Abstract Database (DAD). Case ascertainment was limited to the province/territory of occurrence; therefore the data may therefore not accurately reflect the provincial/territorial differences in Canada.

The Public Health Agency of Canada's Canadian Perinatal Surveillance System monitors and reports on key indicators of maternal, fetal and infant health in Canada. For more information visit: [www.phac-aspc.gc.ca/rhs-ssg/](http://www.phac-aspc.gc.ca/rhs-ssg/)