

## **SUPPLEMENTARY MATERIAL**

**Supplemental Table S1: Demographic and obstetric characteristics of the study group**

<b>Characteristic</b>	<b>Value</b>
N	55,361
Maternal Age (years, mean $\pm$ SD)	30.55 $\pm$ 4.84
$\geq 35$ years (n [%])	10,553 (19.1%)
<i>Ethnicity (n [%])</i>	
South Asian	3,873 (7.0%)
Chinese	6,075 (11.0%)
Caucasian and other	45,413 (82.0%)
<i>Income quantile (n [%])</i>	
Quintile 1 (lowest)	11,241 (20.3%)
Quintile 2	12,041 (21.8%)
Quintile 3	11,920 (21.6%)
Quintile 4	11,855 (21.5%)
Quintile 5 (highest)	8,191 (14.8%)
<i>Rurality (n [%])</i>	
Rural	1,318 (2.4%)
Semi-urban	6,936 (12.6%)
Urban	46,897 (85.0%)
Missing	
Pre-existing hypertension	1,404 (2.5%)
Gestational age at birth (weeks, mean $\pm$ SD)	
< 37 weeks (n [%])	3,878 (7.0%)
< 34 weeks (n [%])	767 (1.4%)
Preeclampsia (n [%])	4,825 (8.7%)
Female infant sex (n [%])	26,908 (48.6%)
Birth weight (g, mean $\pm$ SD)	
<10 <sup>th</sup> percentile <sup>a</sup> (n [%])	6,302 (11.4%)
>90 <sup>th</sup> percentile <sup>a</sup> (n [%])	4,947 (8.9%)
<i>OGTT characteristics</i>	
Gestational week at testing (mean $\pm$ SD)	27.5 $\pm$ 1.7
Fasting value (mmol/L, mean $\pm$ SD)	4.47 $\pm$ 0.57
1-hour value (mmol/L, mean $\pm$ SD)	8.80 $\pm$ 1.84
2-hour value (mmol/L, mean $\pm$ SD)	7.22 $\pm$ 1.70

OGTT, 2-hour 75g-oral glucose tolerance test.

<sup>a</sup> Using a singleton-based Canadian growth chart for Kramer et al.

**Supplemental Table S2: Risk of future type-2 diabetes by number and type of abnormal OGTT values at 5-years post the index pregnancy**

Number and type of abnormal OGTT values	Proportion of women with OGTT abnormality (n [%])	Proportion of women with type-2 diabetes at 5 years post index pregnancy (% [95%-CI])	Risk of type-2 diabetes at 5-years post index pregnancy women meeting the criteria compared with women without GDM (0 abnormal values)	
			Crude relative risk (95%-CI)	Adjusted relative risk <sup>a</sup> (95%-CI)
<b>2013 DC criteria</b>				
0 abnormal values	41,507 (75.0%)	0.86% (0.77%, 0.94%)	Referent	Referent
≥1 abnormal values (GDM)	13854 (25.0%)	7.37% (6.93%, 7.80%)	<b>8.62 (7.65, 9.71)</b>	<b>8.58 (7.27, 10.11)</b>
1 abnormal value	8202 (14.8%)	4.44% (3.99%, 4.88%)	<b>5.19 (4.49, 5.99)</b>	<b>5.15 (4.02, 6.60)</b>
2 abnormal values	4270 (7.7%)	8.78% (7.93%, 9.63%)	<b>10.27 (8.91, 11.83)</b>	<b>10.17 (8.77, 11.79)</b>
3 abnormal values	1382 (2.5%)	20.41% (18.28%, 22.53%)	<b>23.86 (20.60, 27.63)</b>	<b>23.12 (20.34, 26.27)</b>
Fasting value abnormal (≥5.3 mmol/L [95 mg/dL])	4058 (7.2%)	12.67% (11.64%, 13.69%)	<b>14.81 (12.99, 16.89)</b>	<b>14.36 (12.63, 16.33)</b>
1-hour value abnormal (≥10.6 mmol [190 mg/dL])	8852 (15.7%)	9.06% (8.46%, 9.66%)	<b>10.59 (9.37, 11.98)</b>	<b>10.58 (9.12, 12.28)</b>
2-hour value abnormal (≥ 9.0 mmol/L [162 mg/dL])	7978 (14.2%)	8.07% (7.47%, 8.67%)	<b>9.44 (8.31, 10.72)</b>	<b>9.46 (7.91, 11.31)</b>
<b>IADPSG criteria</b>				
0 abnormal values	34,848 (62.9%)	0.70% (0.61%, 0.78%) <sup>b</sup>	Referent	Referent
≥1 abnormal values (GDM)	20513 (37.1%)	5.52% (5.21%, 5.84%) <sup>c</sup>	<b>7.92 (6.90, 9.09)</b>	<b>7.85 (6.45, 9.55)</b>
1 abnormal value	10898 (19.7%)	2.59% (2.29%, 2.89%) <sup>c</sup>	<b>3.71 (3.13, 4.40)</b>	<b>3.68 (2.90, 4.69)</b>
2 abnormal values	7194 (13.0%)	6.32% (5.76%, 6.89%) <sup>c</sup>	<b>9.07 (7.78, 10.58)</b>	<b>9.08 (7.26, 11.35)</b>
3 abnormal values	2421 (4.4%)	16.36% (14.88%, 17.83%) <sup>d</sup>	<b>23.46 (20.10, 27.37)</b>	<b>22.99 (19.02, 27.77)</b>
Fasting value abnormal (≥5.1 mmol/L [92 mg/dL])	6376 (11.3%)	9.94% (9.21%, 10.68%) <sup>c</sup>	<b>14.26 (12.33, 16.49)</b>	<b>13.89 (11.82, 16.32)</b>
1-hour value abnormal (≥10.0 mmol [180 mg/dL])	14238 (25.3%)	6.67% (6.26%, 7.08%) <sup>c</sup>	<b>9.57 (8.32, 11.00)</b>	<b>9.52 (7.86, 11.52)</b>
2-hour value abnormal (≥ 8.5 mmol/L [153 mg/dL])	11935 (21.2%)	6.67% (6.22%, 7.12%) <sup>c</sup>	<b>9.56 (8.30, 11.03)</b>	<b>9.63 (7.75, 11.95)</b>

CI, confidence interval; DC, Diabetes Canada; GDM, gestational diabetes mellitus; IADPSG, International Association of Diabetes and Pregnancy Study Groups; OGTT, 2-hour-75g-oral glucose tolerance test.

<sup>a</sup> Values reflect the results of modified Poisson regression analysis using women without GDM (0 abnormal values) as referent, and adjusted for the following variables: maternal age at the time of index birth, ethnicity, income quintile, and fetal sex. Significant associations are emphasized in bold font.

<sup>b</sup>  $p=0.014$  for the comparison of this incidence rate with the incidence rate associated with the corresponding predictor under the 2013 DC criteria

<sup>c</sup>  $p<0.001$  for the comparison of this incidence rate with the incidence rate associated with the corresponding predictor under the 2013 DC criteria

<sup>d</sup>  $p=0.002$  for the comparison of this incidence rate with the incidence rate associated with the corresponding predictor under the 2013 DC criteria