

Table S1. Balance of study covariates before and after propensity score weighting

	Before weighting, %			After weighting, %		
	Gestational diabetes	Type 1 and 2	No maternal diabetes	Gestational diabetes	Type 1 and 2	No maternal diabetes
Maternal age, years						
<25	8.9	8.4	16.0	15.0	16.5	15.4
25-34	59.4	59.2	67.2	66.4	65.7	66.5
≥35	31.7	32.4	16.8	18.5	17.8	18.2
Parity						
0	43.4	40.8	49.4	49.2	50.9	48.8
1	34.7	34.0	34.9	34.5	34.4	34.9
≥2	21.9	25.2	15.7	16.3	14.7	16.3
Birth weight, g						
<2500	6.0	7.5	4.8	5.2	5.9	4.9
2500-3999	84.0	72.7	86.0	85.4	85.4	85.7
≥4000	10.0	19.7	9.2	9.4	8.7	9.4
Cesarean section						
Yes	31.0	52.2	23.2	24.2	23.9	24.1
No	69.0	47.8	76.8	75.8	76.2	75.9
Congenital or chromosomal anomaly						
Yes	5.8	9.9	5.6	5.7	5.3	5.7
No	94.2	90.1	94.4	94.4	94.7	94.3
Maternal comorbidity*						
Yes	18.2	37.6	7.4	8.5	8.1	8.5
No	81.8	62.4	92.7	91.5	91.9	91.6
Maternal history of cancer						
Yes	0.5	0.6	0.4	0.4	0.5	0.4
No	99.5	99.4	99.6	99.6	99.6	99.6
Socioeconomic disadvantage						
Yes	24.0	30.8	19.6	19.7	18.8	20.0
No	72.0	69.2	76.4	80.3	81.4	80.0
Place of residence						
Urban	82.4	76.3	79.9	80.6	81.4	80.1
Rural	16.2	22.7	18.4	17.8	16.8	18.3
Air pollution†						
Low	29.1	36.2	34.3	33.1	32.9	33.9
Middle	28.2	26.8	29.7	29.6	30.2	29.5
High	40.6	35.4	34.0	35.1	34.7	34.5

*Preeclampsia, preexisting hypertension, obesity, dyslipidemia.

†Particulate matter_{2.5} (low <0.14, middle 0.14-0.22, high ≥0.23 µg/m³).

Table S2. Association between gestational diabetes and childhood cancer excluding infants with chromosomal or congenital anomalies

	Hazard ratio* (95% confidence interval)		
	<2 years (n=578 cancers)	2-5 years (n=655 cancers)	≥6 years (n = 304 cancers)
Any cancer	1.34 (1.06-1.70)	1.04 (0.76-1.43)	0.91 (0.56-1.48)
Blood cancer	1.45 (0.90-2.34)	1.20 (0.80-1.82)	1.16 (0.50-2.72)
Leukemia, any	1.54 (0.92-2.58)	1.21 (0.79-1.85)	1.62 (0.65-4.07)
Acute lymphoblastic leukemia	1.12 (0.42-3.01)	1.19 (0.73-1.92)	1.74 (0.63-4.82)
Acute myeloid leukemia	1.15 (0.35-3.73)	0.86 (0.11-6.59)	0.87 (0.17-4.33)
Other or unspecified leukemia	2.24 (1.14-4.41)	1.58 (0.60-4.16)	1.03 (0.20-5.20)
Lymphoma	0.93 (0.12-7.00)	0.94 (0.29-3.09)	1.10 (0.24-4.99)
Solid cancer	1.33 (0.98-1.82)	0.92 (0.54-1.55)	0.76 (0.39-1.50)
Neuroblastoma	1.46 (0.80-2.67)	1.00 (0.30-3.74)	-
Sarcoma	1.49 (0.76-2.93)	0.82 (0.40-1.70)	0.61 (0.12-3.00)
Central nervous system	0.83 (0.33-2.06)	0.57 (0.28-1.18)	1.41 (0.72-2.79)
Renal	1.08 (0.34-3.47)	1.67 (0.57-4.92)	-
Retinoblastoma	1.14 (0.46-2.81)	1.22 (0.16-9.32)	-
Hepatic	-	-	-

*Hazard ratio for gestational diabetes vs. no maternal diabetes, adjusted for maternal age, parity, birth weight, cesarean section, maternal comorbidity, maternal history of cancer, socioeconomic disadvantage, place of residence, pollution, and birth year.

Table S3. Association between gestational diabetes and childhood cancer before 2 years of age by time period

	Whole study period	Hazard ratio (95% confidence interval)* Prior to changes in gestational diabetes screening (2006-2012) [†]	After changes in gestational diabetes screening (2013-2019) [†]
Any cancer	1.47 (1.21-1.79)	1.79 (1.32-2.43)	1.08 (0.72-1.63)
Blood cancer	1.61 (1.09-2.36)	1.83 (1.10-3.04)	1.22 (0.50-2.97)
Leukemia, any	1.74 (1.13-2.67)	1.95 (1.14-3.35)	1.37 (0.55-3.44)
Solid cancer	1.44 (1.12-1.87)	1.82 (1.25-2.63)	1.05 (0.66-1.69)
Neuroblastoma	1.31 (0.73-2.34)	1.27 (0.55-2.93)	1.36 (0.60-3.09)
Sarcoma	1.58 (0.90-2.78)	2.42 (1.09-5.36)	0.82 (0.37-1.80)

*Hazard ratio for gestational diabetes vs. no maternal diabetes, adjusted for maternal age, parity, birth weight, cesarean section, congenital or chromosomal anomaly, maternal comorbidity, maternal history of cancer, socioeconomic disadvantage, place of residence, pollution, and birth year.

[†]In 2013, Diabetes Canada reduced the number of abnormal glucose values to diagnose gestational diabetes from 2 to 1, and introduced an alternative screening approach.

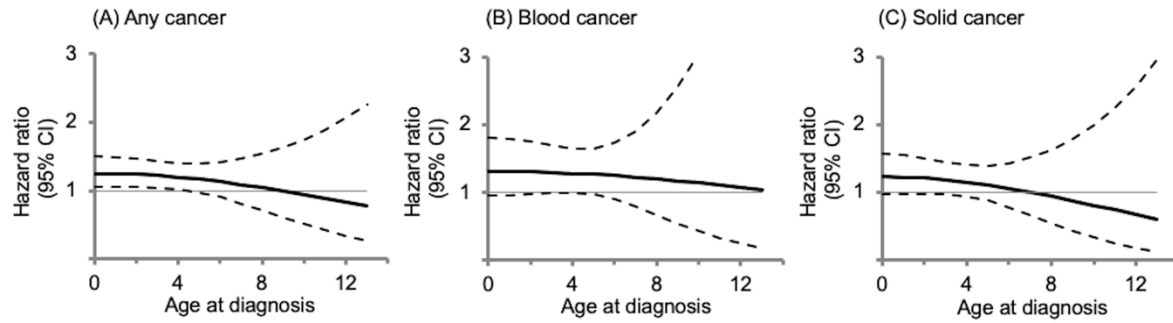


Figure S1. Association of gestational diabetes with any pediatric cancer (panel A), blood cancer (panel B), and solid cancer (panel C) by age. Hazard ratio (solid line) and 95% confidence interval (dashed line) for gestational diabetes relative to no diabetes, adjusted for maternal age, parity, birth weight, cesarean section, congenital or chromosomal anomaly, maternal comorbidity (obesity, pre-existing hypertension, dyslipidemia, preeclampsia), maternal history of cancer, socioeconomic disadvantage, place of residence, pollution, and birth year.