

Appendix 1 (as supplied by the authors): Supplementary tables

SUPPLEMENTARY TABLE S1: Multiple health care provider assignment algorithm

The following algorithm was applied to assign antenatal HCP in cases where a woman had multiple HCPs.

Midwife + Obstetrician:	A woman would be assigned to the midwife group, with the assumption that she started her pregnancy with a midwife and was transferred to an obstetrician, where shared care was followed. The assumption will be the majority of antenatal care would be provided by the midwife.
Family Physician + Obstetrician:	It is not uncommon for women to see their family physician until 32 weeks and then have their care transferred to an obstetrician. An assumption cannot be applied reliably for this scenario and thus Family Physician + Obstetrician will comprise a category in itself.
Family Physician + Midwife	A woman would be assigned to the midwife group as this generally represents the scenario where a woman was seen by a family physician once and transferred to a midwife for the remainder of their care.
Family Physician + Midwife + Obstetrician	A woman would be assigned to the midwife group for this scenario. This generally represents a scenario where a woman was initially seen by a family physician and was subsequently transferred to a midwife and is then later transferred to an obstetrician. The midwife and the obstetrician will follow a shared care model, where the midwife will provide the majority of antenatal care.

SUPPLEMENTARY TABLE S2: Total gestational weight gain recommended for singleton pregnancies based on pre-pregnancy BMI (adapted from: IOM, 2009).

BMI (kg/m²)	BMI < 18.5	BMI 18.5 - 25	BMI 25 - 30	BMI ≥ 30
Pre-pregnancy BMI Category	Underweight	Normal weight	Overweight	Obese
Recommended Total Gestational Weight Gain (kg)	12.5 - 18.0	11.5 - 16.0	7.0 - 11.5	5.0 - 9.0
Recommended Weekly Gain in 2nd and 3rd Trimester (kg)	0.44-0.58	0.35-0.50	0.23-0.33	0.17-0.27

Institute of Medicine, National Research Council Committee to Reexamine. The National Academies Collection: Reports funded by National Institutes of Health. In: Rasmussen KM, Yaktine AL, eds. *Weight Gain During Pregnancy: Reexamining the Guidelines*. Washington (DC): National Academies Press (US) National Academy of Sciences, 2009.

SUPPLEMENTARY TABLE S3: Rate (%) and adjusted relative risk of adverse maternal and neonatal outcomes with gestational weight gain

Outcome	Antenatal HCP	Gestational Weight Gain < recommended (n, %)	Gestational Weight Gain = recommended (n, %)	Gestational Weight Gain > recommended (n, %)	Gestational Weight Gain < recommended		Gestational Weight Gain > recommended	
					Crude RR (95% CI)	Adjusted RR (95% CI)	Crude RR (95% CI)	Adjusted RR (95% CI)
Small for gestational age <10¹	<i>Family Physician</i>	538 (15.1)	817 (10.5)	895 (6.1)	1.42 (1.29-1.58)	1.43 (1.28-1.59)	0.58 (0.53-0.63)	0.59 (0.53-0.65)
	<i>Obstetrician</i>	3,190 (16.0)	5,317 (12.3)	5,543 (7.5)	1.30 (1.25-1.36)	1.34 (1.28-1.40)	0.61 (0.59-0.63)	0.64 (0.62-0.66)
	<i>Midwife</i>	488 (13.0)	949 (9.1)	993 (5.5)	1.44 (1.30-1.59)	1.44 (1.29-1.59)	0.60 (0.55-0.65)	0.61 (0.56-0.67)
	<i>Family Physician + Obstetrician</i>	656 (14.4)	1,097 (10.6)	1,310 (6.1)	1.35 (1.24-1.48)	1.38 (1.26-1.52)	0.58 (0.53-0.62)	0.61 (0.57-0.66)
	<i>All</i>	4,872 (15.3)	8,180 (11.4)	8,741 (6.8)	1.34 (1.30-1.39)	1.37 (1.32-1.42)	0.60 (0.58-0.62)	0.63 (0.61-0.64)
	Large for gestational age >90²	<i>Family Physician</i>	203 (5.7)	482 (6.2)	1,951 (13.3)	0.92 (0.79-1.08)	0.79 (0.67-0.94)	2.13 (1.94-2.35)
<i>Obstetrician</i>		1,010 (5.1)	2,389 (5.5)	9,186 (12.4)	0.92 (0.86-0.99)	0.82 (0.76-0.88)	2.25 (2.15-2.35)	1.94 (1.85-2.03)
<i>Midwife</i>		245 (6.5)	835 (8.0)	2,645 (14.5)	0.81 (0.71-0.93)	0.72 (0.63-0.83)	1.80 (1.67-1.94)	1.69 (1.56-1.82)
<i>Family Physician + Obstetrician</i>		284 (6.2)	732 (7.1)	3,085 (14.4)	0.88 (0.77-1.00)	0.77 (0.68-0.88)	2.03 (1.88-2.19)	1.85 (1.71-2.00)
<i>All</i>		1,742 (5.5)	4,438 (6.2)	16,867 (13.2)	0.89 (0.84-0.94)	0.79 (0.75-0.83)	2.12 (2.05-2.19)	1.88 (1.82-1.94)
Preterm Birth³		<i>Family Physician</i>	201 (5.6)	314 (4.0)	625 (4.2)	1.39 (1.17-1.65)	1.31 (1.09-1.57)	1.05 (0.92-1.20)
	<i>Obstetrician</i>	1,666 (8.4)	2,573 (5.9)	4,714 (6.4)	1.41 (1.32-1.49)	1.29 (1.22-1.38)	1.07 (1.03-1.13)	1.03 (0.98-1.08)
	<i>Midwife</i>	235 (6.3)	430 (4.1)	805 (4.4)	1.52 (1.30-1.77)	1.48 (1.26-1.73)	1.07 (0.95-1.20)	1.02 (0.91-1.15)
	<i>Family Physician + Obstetrician</i>	387 (8.5)	596 (5.8)	1,176 (5.5)	1.46 (1.29-1.65)	1.37 (1.21-1.55)	0.95 (0.86-1.04)	0.91 (0.83-1.01)
	<i>All</i>	2,489 (7.8)	3,913 (5.5)	7,320 (5.7)	1.43 (1.37-1.51)	1.33 (1.26-1.40)	1.05 (1.01-1.09)	1.01 (0.97-1.05)
	Cesarean Delivery³	<i>Family Physician</i>	585 (16.4)	1,258 (16.2)	3,217 (21.9)	1.01 (0.92-1.1)	1.02 (0.94-1.11)	1.34 (1.27-1.42)
<i>Obstetrician</i>		5,464 (27.4)	11,848 (27.4)	24,397 (33.1)	1.00 (0.97-1.03)	0.99 (0.96-1.01)	1.20 (1.18-1.22)	1.12 (1.10-1.14)
<i>Midwife</i>		592 (15.8)	1,720 (16.5)	4,101 (22.5)	0.96 (0.88-1.04)	0.96 (0.89-1.03)	1.36 (1.29-1.43)	1.20 (1.14-1.25)
<i>Family Physician + Obstetrician</i>		1,197 (26.3)	2,689 (26.0)	6,627 (31.0)	1.00 (0.95-1.06)	0.95 (0.91-1.00)	1.18 (1.14-1.23)	1.10 (1.06-1.13)
<i>All</i>		7,838 (24.6)	17,515 (24.4)	38,342 (29.9)	1.01 (0.99-1.03)	0.98 (0.96-1.00)	1.21 (1.20-1.23)	1.10 (1.08-1.11)

Data Sources: *BORN Ontario (2014-2016)*

Abbreviations *RR, Relative Risk*

Notes: ¹Adjusted for maternal age, parity, gestational age at birth, pre-pregnancy BMI, income quintile, education quintile, smoking, depression, pre-existing diabetes, pre-existing hypertension

²Adjusted for maternal age, parity, gestational age at birth, pre-pregnancy BMI, income quintile, education quintile, smoking, depression, pre-existing diabetes, pre-existing hypertension, gestational diabetes mellitus

³Adjusted for maternal age, parity, gestational age at birth, pre-pregnancy BMI, income quintile, education quintile, smoking, pre-existing diabetes, pre-existing hypertension, gestational diabetes mellitus, drug exposure, alcohol consumption, mental illness, previous: cesarean, term birth, preterm birth, vaginal birth, stillbirth, abortion; non-vertex presentation, male newborn

⁴Small for gestational age<10 defined as birth weight less than the 10th centile as per the Canadian reference population adjusted for gestational age and sex; Kramer et al. (2001)

⁵Large for gestational age>90 defined as birth weight greater than the 90th centile as per the Canadian reference population adjusted for gestational age and sex; Kramer et al. (2001)

⁶Preterm birth defined as a live birth or stillbirth < 37 weeks (gestational age at birth)