77SUPPLEMENTARY MATERIALS:

eTable 1. Description and purpose of each data source utilized in the study

Database	Description	Information collected
MOMBABY Database	Contains inpatient admission records for delivering mothers and their respective newborns (including stillbirths), linked by a unique matching identifier on each hospitalization record. This administrative dataset, maintained and annually updated at ICES, links approximately 98% of maternal-infant records for in-hospital deliveries in Ontario.	Used to assemble study cohort and to collect maternal and newborn information such as gestational age at birth, maternal age, birth weight, baby's sex, parity, and plurality.
Registered Persons Database (RPDB)	Demographic repository containing information on all Ontario residents eligible for publicly funded health care in the province.	Used to establish how long each participant was eligible for health care services, and to obtain demographic information on neighbourhood income quintile and region of residence.
Ontario Health Insurance Plan (OHIP) Database	Contains health care billing information made by physicians or other health care providers, for service reimbursement. This database includes information on the diagnosis (i.e., reason for the visit), type of service received, and the associated billing code.	Specific OHIP fee codes are used when a vaccine is administered. This provided the information to identify the exposure group.
Canadian Institute for Health Information Discharge Abstract Database (CIHI-DAD)	Captures demographic and clinical information about hospital admissions from all acute care institutions in Canada.	Used to collect information about pre-existing maternal medical conditions, obstetrical complications, and mode of delivery.
Ontario Marginalization Index (ON-Marg)	Data tool that quantifies level of marginalization in Ontario, based on Census data from Statistics Canada. It consists of four dimensions that indicate marginalization: residential instability, material deprivation, dependency, and ethnic concentration. Scores corresponding to each of these four dimensions were previously divided into quintiles, where quintile 1 represents the least marginalized areas, and quintile 5, the most marginalized areas. The ON-Marg user guide can be found here:	Information about the four indices of marginalization.

	https://www.publichealthontario.ca/-/media/documents/o/2017/on-marg-userguide.pdf	
ICES Physician Database (IPDB)	Contains annual demographic data on all physicians in Ontario, such as specialty training, year of graduation, and whether medical training was completed in Canada.	Used to identify health care provider specialties for prenatal care visits via MAINSPECIALTY variable with values restricted to "GP/FP" and "OBSTETRICS AND GYNECOLOGY"

eTable 2. Definitions and diagnostic/procedural codes used to define study variables

Study Variable	Record	Definition	Data source, ICD10 diagnostic code, OHIP fee code, and/or CCI procedure code
Stillbirth	Fetal/infant	Fetal death occurring at or after 20 weeks of gestation.	O36.4; Z37.1; Z37.3; Z37.4; Z37.6; Z37.7
Tdap vaccine	Mother	Adult tetanus, diphtheria and acellular pertussis (Tdap) vaccine.	OHIP fee codes: G847
Maternal characteristics			
Maternal age	Mother	Age of the mother at the time of giving birth.	Measured using MOMBABY variable.
Parity	Mother	Total number of previous pregnancies (live births and stillbirths) that reached a viable gestational age.	Measured using MOMBABY variable.
Pre-existing chronic hypertension	Mother	Identified through ICD-10 codes in the DAD on the mother's delivery abstract.	I10, I15, O10.0
Pre-existing asthma	Mother	Identified through ICD-10 codes in the DAD on the mother's delivery abstract.	J45-46
Pre-existing diabetes	Mother	Identified through ICD-10 codes in the DAD on the mother's delivery abstract.	O24.0, O24.1 O24.3, O24.5, O24.6, O24.7, E10, E11, E13, E14
Pre-existing heart disease	Mother	Identified through ICD-10 codes in the DAD on the mother's delivery abstract.	O10.1, I05-I09, I34-I39, I150.0, I20, I25, Q20-26, O99.4
Pre-existing thyroid disease	Mother	Identified through ICD-10 codes in the DAD on the mother's delivery abstract.	E00-E07
Income quintile	Mother	Nearest Census Based Neighbourhood Income Quintile.	Measured using "INCQUINT" variable within RPDB.
Residential instability	Mother	Refers to area-level concentrations of people who experience high rates of family or housing instability.	Measured using "residential instability factor score" variable within the ON-Marg database.
Material deprivation	Mother	Refers to inability for individuals and communities to access and attain basic material needs. This dimension is closely connected to poverty.	Measured using "material deprivation factor score" variable within the ON-Marg database.

Dependency	Mother	Refers to area-level concentrations of people who don't have income from employment.	Measured using "dependency factor score" variable within the ON-Marg database.
Ethnic concentration	Mother	Refers to high area-level concentrations of recent immigrants and people belonging to a 'visible minority' group.	Measured using "ethnic concentration factor score" variable within the ON-Marg database.
Rural residence	Mother	Rurality determined using second digit of postal code from Canada Post Corporation.	Measured using rural flag variable from postal code conversion file (PCCF).
Local Health Integration Network (LHIN) Group	Mother	Local Health Integration Networks (LHINs) are not-for-profit corporations that are responsible for planning, integrating and funding local health services in 14 different geographic areas of the province. In collaboration with the Ontario Ministry of Health, ICES developed the geographic building blocks for LHINs by defining areas within which residents received most of their hospital care from local hospitals.	Using the LHIN database, the 14 LHIN corporations were grouped into 5 regions according to the Ontario's Ministry of Health website: **Error! Hyperlink reference not valid.**
Pregnancy characteristics			
Multiple birth	Mother	Total number of fetuses in the current pregnancy.	Z372, Z373, Z374, Z375, Z376, Z377, Z3790, O31, and O30
Revised Graduated Prenatal Care Index (R-GINDEX)	Mother	Categorizes adequacy of prenatal care into 5 groups: inadequate, intermediate, adequate, intensive, no care/missing.	Derived from a combination of gestational age of the infant at birth (**GEST**), trimester when prenatal care began (**TCPB**), and total number of prenatal care visits (**PCV**). The index is based on work from Alexander and Kotelchuck.[1] The codes associated with prenatal care visits are shown in eTable 3.
Composition of prenatal care visits	Mother	Categorizes proportion of prenatal care visits into 4 groups: no visits, ≥ 75% with GP/FP, ≥ 75% with OBGYN, mix of providers.	Measured using OHIP fee codes associated with prenatal visits to a GP/FP or OBGYN (defined using IPDB MAINSPECIALTY variable with values restricted to "GP/FP" and "OBSTETRICS AND GYNECOLOGY"). The codes associate with prenatal care visits are shown in eTable 3.
Temporal characteristics			

Fiscal year of conception	Mother and infant	Refers to the fiscal year that the infant was conceived.	Estimated by subtracting gestational age from date of birth.
Pre-and post-Tdap policy subgroups			
National Advisory Committee on Immunization (NACI) released updated maternal Tdap recommendations in February 2018 which advised all pregnant women to receive the Tdap vaccine during every pregnancy between 27 and 32 weeks' gestation. For this reason, we chose February 1st, 2018 as the index date to create the two subgroups below. As vaccination is recommended between 27-32 weeks' gestation, we chose to include individuals that were pregnant but not beyond the 27th week of pregnancy by February 1st 2018 in the "post-Tdap policy group".			
Pre-Tdap policy	Mother	Maternal record that either: − Completed pregnancy prior to February 1st 2018 − Pregnancy was beyond the 27th week by Feb 1st, 2018	Date of last menstrual period (LMP), date of delivery
Post-Tdap policy	Mother	Maternal record that either: − Began pregnancy after Feb 1st 2018 − Pregnancy did not surpass the 27th week by Feb 1st 2018	Date of last menstrual period (LMP), date of delivery

eTable 3. OHIP fee codes associated with prenatal visits

OHIP fee code	Description
A005, A205	Consultation
A006, A206	Re-consultation/Repeat consultation
A204	Partial assessment
A665	Prenatal consult
A920	Medical management of early pregnancy, initial visit
A921	Medical management of early pregnancy, subsequent visit
P002	High risk prenatal assessment
P003	Obs.-prenatal care-general assess - major prenatal visit
P004	Obs.-prenatal care-minor prenatal assess - subsequent prenatal visit
P005	Antenatal health screen
Q606	Prenatal care - gen. Assess - major prenatal visit
Q607	Prenatal care - min. Assess - subsequent prenatal visit

* Prenatal visits will be defined as any OHIP record between LMP and date of delivery (limited to one record per person per type of doctor per day) to a GP/FP or OBGYN (defined using IPDB MAINSPECIALTY with values restricted to "GP/FP" and "OBSTETRICS AND GYNECOLOGY") with an associated OHIP fee code identified above.

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eAppendix 1. Coding algorithm for Revised Graduated Prenatal Care Utilization Index (R-GINDEX)
The R-GINDEX, first proposed by Alexander and Kotelchuck has 6 categories of prenatal care based on the current ACOG recommendations: inadequate, intermediate, adequate, intensive, no care, and missing. The index calculation relies on three pieces of information: the gestational age of the infant, the trimester during which prenatal care was initiated, and the total number of prenatal care visits during pregnancy. Please see coding algorithm used below:

<u>Key Variables:</u>
GEST = Gestational Age (18-45 weeks based on LMP)
PCV = Number of Prenatal Care Visits (0 = None)
TPCB = Trimester Prenatal Care Began (0 = None, 1-3 trimesters) *
GINDEX = Graduated Prenatal Care Utilization Index

*NOTE: Trimester 1 = (0-13 weeks or 1-91 days)
               Trimester 2 = (14-27 weeks or 92-189 days)
               Trimester 3 = (28+ weeks or 190+ days)

<u>**INTENSIVE PRENATAL CARE UTILIZATION;**</u>

IF (TPCB=1) &
     $(((18 <= GEST <= 21)$ & $(11 =< PCV))$ | $((22 <= GEST <= 25)$ & $(13 =< PCV))$
     | $((26 <= GEST <= 29)$ & $(14 =< PCV))$ | $((30 <= GEST <= 31)$ & $(15 =< PCV))$
     | $((32 <= GEST <= 36)$ & $(16 =< PCV))$ | $((37 <= GEST <= 40)$ & $(17 <= PCV))$
     | $((41 <= GEST <= 42)$ & $(18 =< PCV))$ | $((43 <= GEST <= 45)$ & $(19 <= PCV)))$
THEN GINDEX = **'INTENSIVE (1st Trimester)'**;
IF (TPCB=2) &
     $(((18 <= GEST <= 21)$ & $(10 =< PCV))$ | $((22 <= GEST <= 25)$ & $(11 =< PCV))$
     | $((26 <= GEST <= 31)$ & $(12 =< PCV))$ | $((32 <= GEST <= 35)$ & $(13 =< PCV))$
     | $((36 <= GEST <= 37)$ & $(14 =< PCV))$ | $((38 <= GEST <= 40)$ & $(15 =< PCV))$
     | $((41 <= GEST <= 42)$ & $(16 =< PCV))$ | $((43 <= GEST <= 45)$ & $(17 <= PCV)))$
THEN GINDEX = **'INTENSIVE (2nd Trimester)'**;
IF (TPCB=3) &
     $(((GEST=25)$ & $(9 =< PCV))$ | $((26 <= GEST <= 31)$ & $(10 =< PCV))$
     | $((32 <= GEST <= 35)$ & $(11 =< PCV))$ | $((36 <= GEST <= 37)$ & $(12 =< PCV))$
     | $((38 <= GEST <= 40)$ & $(13 =< PCV))$ | $((41 <= GEST <= 42)$ & $(14 =< PCV))$
     | $((43 <= GEST <= 45)$ & $(15 =< PCV)))$

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 THEN GINDEX = **'INTENSIVE (3rd Trimester)'**;

ADEQUATE PRENATAL CARE UTILIZATION CRITERIA;

IF (TPCB=1) &
    (((18<=GEST<=21) & (3=<PCV<=10)) | ((22<=GEST<=25) & (4=<PCV<=12))
    |((26<=GEST <=29) & (5=<PCV<= 13)) | ((30<=GEST<=31) & (6=<PCV<= 14))
    |((32<=GEST<=33) & (7=<PCV<=15)) | ((34<=GEST<=35) & (8=<PCV<=15))
    |((GEST=36)   & (9=<PCV<=15)) | ((GEST =37) & (10<=PCV<=16))
    |((GEST=38)   & (11=<PCV<=16)) | ((GEST =39) & (12=<PCV<=16))
    |((GEST=40) & (13=<PCV<=16)) | ((GEST =41) & (14=<PCV<=17))
    |((GEST=42) & (15=<PCV<=17)) | ((43<=GEST<=45) & (16=<PCV<=18)))
THEN GINDEX = **'ADEQUATE (1st Trimester)'**;

INTERMEDIATE PRENATAL CARE UTILIZATION CRITERIA;

IF (TPCB=1) &
    (((18<=GEST<=21) & (1<=PCV<=2)) | ((22<=GEST<=25) & (2=<PCV<=3))
    |((26<=GEST<=29) & (2=<PCV<=4)) | ((30<=GEST<=31) & (3=<PCV<=5))
    |((32<=GEST<=33) & (4=<PCV<=6)) | ((34<=GEST<=35) & (5=<PCV<=7))
    |((GEST=36) & (5=<PCV<=8)) | ((GEST=37) & (6=<PCV<=9))
    |((GEST=38) & (7=<PCV<=10)) | ((GEST=39) & (7=<PCV<=11))
    |((GEST=40) & (8=<PCV<=12)) | ((GEST=41) & (8=<PCV<=13))
    |((GEST=42) & (9=<PCV<=14)) | ((43<=GEST<=45) & (9=<PCV<=15)))
THEN GINDEX = **'INTERMEDIATE (1st Trimester)'**;
IF (TPCB=2) &
    (((18<=GEST<=21) & (1=<PCV<=9)) | ((22<=GEST<=25) & (2=<PCV<=10))
    |((26<=GEST<=29) & (2=<PCV<=11)) | ((30<=GEST<=31) & (3=<PCV<=11))
    |((32<=GEST<=33) & (4=<PCV<=12)) | ((34<=GEST<=35) & (5=<PCV<=12))
    |((36<=GEST<=37) & (6=<PCV<=13)) | ((38<=GEST<=39) & (7=<PCV<=14))
    |((GEST=40) & (8=<PCV<=14)) | ((GEST =41)   & (8=<PCV<=15))
    |((GEST=42) & (9=<PCV<=15)) | ((43<=GEST<=45) & (9=<PCV<=16)))
THEN GINDEX = **'INTERMEDIATE (2nd Trimester)'**;

INADEQUATE PRENATAL CARE UTILIZATION CRITERIA;

IF (TPCB=1) &
 (((22<=GEST<=29) & (PCV=1)) | ((30<=GEST<=31) & (1<=PCV<=2))
 |((32<=GEST<=33) & (1<=PCV<=3)) | ((34<=GEST<=36) & (1<=PCV<=4))
 |((GEST=37) & (1<=PCV<=5)) | ((38<=GEST<=39) & (1<=PCV<=6))
 |((40<=GEST<=41) & (1<=PCV<=7)) | ((42<=GEST<=45) & (1<=PCV<=8)))
THEN GINDEX = **'INADEQUATE (1St Trimester)'**;
IF (TPCB=2) &
 (((22<=GEST<=29) & (PCV=1)) | ((30<=GEST<=31) & (1<=PCV<=2))
 |((32<=GEST<=33) & (1<=PCV<=3)) | ((34<=GEST<=35) & (1<=PCV<=4))
 |((36<=GEST<=37) & (1<=PCV<=5)) | ((38<=GEST<=39) & (1<=PCV<=6))
 |((40<=GEST<=41) & (1<=PCV<=7)) | ((42<=GEST<=45) & (1<=PCV<=8)))
THEN GINDEX = **'INADEQUATE (2nd Trimester)'**;
IF (TPCB=3) &
 (((GEST =25) & (1<=PCV<=8)) | ((26<=GEST<=31) & (1<=PCV<=9))
 |((32<=GEST<=35) & (1<=PCV<=10)) | ((36<=GEST<=37) & (1<=PCV<=11))
 |((38<=GEST<=40) & (1<=PCV<=12)) | ((41<=GEST<=42) & (1<=PCV<=13))
 |((43<=GEST<=45) & (1<=PCV<=14)))
THEN GINDEX = **'INADEQUATE (3rd Trimester)'**;

<u>MISSING PRENATAL CARE CRITERIA</u>;

IF (((PCV=.) & (TPCB^=0)) | ((TPCB=3) & (1<=GEST<=24))
| ((TPCB=2) & (1<=GEST<=11)) | ((GEST=.) & (PCV^=0))
| ((TPCB=.) & (PCV^=0)) | (TPCB=0 & (PCV>0)))
THEN GINDEX = **'MISSING'**;

<u>NO PRENATAL CARE UTILIZATION</u>;

IF (PCV=0) | (TPCB=0 & PCV=.)
THEN GINDEX = **'NOCARE'**;

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eTable 4. Characteristics of pregnant individuals by Tdap vaccination status and Tdap policy eligibility					
	Pre-Tdap policy [a]			Post-Tdap policy [a]		
Characteristic	No Tdap (n=737,171) % [b]	Tdap (n=17,989) % [b]	**Standardized difference**	No Tdap (n=185,376) % [b]	Tdap (n=51,314) % [b]	**Standardized difference**
Maternal age (years)						
<20	2.2	1.4	0.06	1.5	0.7	0.07
20–24	10.6	6.8	0.13	9.2	6.0	0.12
25–29	26.8	27.4	0.01	25.6	24.1	0.04
30–34	36.9	39.7	0.06	37.5	41.7	0.08
≥35	23.6	24.6	0.02	26.2	27.6	0.03
Fiscal year of conception [c]						
2011-12	12.9	2.1	0.42	-	-	-
2012-13	16.7	7.4	0.29	-	-	-
2013-14	16.7	11.4	0.15	-	-	-
2014-15	16.5	13.5	0.08	-	-	-
2015-16	16.2	24.9	0.22	-	-	-
2016-17	16.0	28.5	0.30	-	-	-
2017-18	4.9	12.3	0.27	39.1	23.8	0.33
2018-19	-	-	-	49.6	59.2	0.19
2019-20	-	-	-	11.3	16.9	0.16
Parity						
0 (nulliparous)	43.8	52.3	0.17	40.5	51.1	0.21
≥1 (multiparous)	56.2	47.7	0.17	59.5	48.9	0.21
Multiple birth						
No	98.1	98.7	0.05	98.1	98.6	0.04
Yes	1.9	1.3	0.05	1.9	1.4	0.04
Pre-existing maternal medical condition [d]						
Asthma	0.2	0.2	0.00	0.2	0.2	0.00
Chronic hypertension	0.4	0.3	0.01	0.4	0.4	0.00
Diabetes	0.8	0.5	0.05	1.2	0.7	0.05
Heart disease	0.5	0.4	0.01	0.5	0.4	0.01
Thyroid disease	1.2	1.8	0.05	1.6	2.2	0.04
Any pre-existing maternal medical condition						
No	97.0	97.0	0.00	96.3	96.2	0.01

Yes	3.0	3.0	0.00	3.7	3.8	0.01
Neighbourhood median family income quintiles						
1 (Lowest)	21.4	19.5	0.05	21.8	18.0	0.10
2	20.1	21.1	0.02	20.4	19.7	0.02
3	20.8	19.6	0.03	21.5	21.2	0.01
4	21.1	20.7	0.01	20.4	22.1	0.04
5 (Highest)	16.6	19.2	0.07	16.0	19.0	0.08
Rural residence						
No	90.7	91.9	0.05	90.2	92.4	0.08
Yes	9.3	8.1	0.05	9.8	7.6	0.08
LHIN Group [e]						
Central	33.3	31.5	0.04	33.0	33.8	0.02
East	23.8	38.8	0.33	23.8	25.0	0.03
North	5.3	3.4	0.09	5.4	2.4	0.15
Toronto	9.3	11.2	0.07	8.6	11.6	0.10
West	28.4	15.1	0.33	29.2	27.2	0.04
Marginalization Indices [f]						
Residential instability quintile						
1 (least marginalized)	22.1	20.4	0.04	20.6	21.5	0.02
2	18.6	19.7	0.03	18.3	18.7	0.01
3	18.1	17.9	0.00	18.8	18.6	0.01
4	18.8	17.6	0.03	19.1	17.7	0.03
5 (most marginalized)	22.4	24.3	0.04	23.2	23.5	0.01
Material deprivation quintile						
1 (least marginalized)	19.7	25.7	0.14	20.6	26.6	0.14
2	19.6	20.4	0.02	19.7	21.8	0.05
3	18.9	17.8	0.03	18.7	18.3	0.01
4	19.0	18.0	0.03	18.8	17.0	0.05
5 (most marginalized)	22.7	18.1	0.11	22.2	16.3	0.15
Dependency quintile						
1 (least marginalized)	34.1	31.7	0.05	32.8	35.9	0.06
2	21.1	21.0	0.00	21.1	21.7	0.01
3	16.9	17.6	0.02	16.9	16.2	0.02
4	15.0	16.7	0.05	15.4	14.4	0.03
5 (most marginalized)	12.9	13.0	0.00	13.7	11.9	0.05
Ethnic concentration quintile						

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1 (least marginalized)	13.3	12.0	0.04	14.0	10.9	0.09
2	15.1	14.6	0.01	15.6	14.6	0.03
3	17.0	16.9	0.00	17.0	18.2	0.03
4	21.1	21.6	0.01	20.9	23.4	0.06
5 (most marginalized)	33.5	35.0	0.03	32.4	32.9	0.01
Prenatal care [g]						
Intensive	5.6	7.3	0.07	4.8	5.8	0.04
Adequate	41.2	53.6	0.25	38.9	46.4	0.15
Intermediate	34.6	30.4	0.09	32.8	31.0	0.04
Inadequate	13.0	7.0	0.20	16.8	12.9	0.11
No care/Missing [h]	5.5	1.6	0.21	6.7	3.9	0.13
Composition of prenatal care visits						
No visits	5.5	1.6	0.21	6.7	3.9	0.13
≥ 75% with GP/FP	13.9	31.4	0.43	12.7	19.4	0.19
≥ 75% with OBGYN	61.7	50.0	0.24	62.0	54.0	0.16
Mix of providers	18.8	17.0	0.05	18.6	22.7	0.10

Abbreviations: GP/FP, general practitioner/family physician; LHIN, Local Health Integration Network; OBGYN, obstetrician-gynecologist

[a] In February 2018, Canada's National Advisory Committee on Immunization (NACI) released their updated Tdap vaccine recommendation which advised all pregnant women to receive Tdap vaccination during every pregnancy, ideally between 27-32 weeks' gestation. We categorized pregnancies as "post-policy" if they either reached a minimum of 27 weeks' gestation by February 1st 2018 (since NACI's updated policy recommended vaccination between 27-32 weeks' gestation) or began their pregnancy after this index date. Pregnancies that either ended prior to February 1st 2018 or did not reach 27 weeks' gestation by this date were considered "pre-policy" as they were not yet eligible to receive vaccination according to the updated NACI policy.

[b] Percentages shown are column percentages

[c] A fiscal year begins on April 1 and ends on March 31. As the cohort was created using the delivery date on the maternal record (April 1 2012 to March 31 2020), fiscal years 2011-12 and 2019-20 are incomplete which explains the lower number of births shown in these two fiscal years.

[d] Sum of each individual condition does not equal number of women with any condition, as categories were not mutually exclusive

[e] Local Health Integration Networks (LHIN) groups were assigned according to the Ontario's Ministry of Health (see eTable 2 in supplement)

[f] Scores corresponding to each of these four dimensions were previously divided into quintiles, where quintile 1 represents the least marginalized areas, and quintile 5, the most marginalized areas. Please see eTable 2 in supplement for complete descriptions of what is captured in each of these four dimensions.

[g] Adequacy of prenatal care characterized using the Revised-Graduated Prenatal Care Utilization Index (R-GINDEX).

[h] Mother did not have any prenatal visits within our definition.

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eTable 5. Vaccine coverage and rate ratios for Tdap vaccination among pregnant women by Tdap vaccination status and Tdap policy eligibility

Characteristic	Pre-Tdap policy [a]			Post-Tdap policy [a]		
	Vaccine coverage % (95% CI)	Unadjusted RR (95% CI)	Adjusted RR (95% CI) [b]	Vaccine coverage % (95% CI)	Unadjusted RR (95% CI)	Adjusted RR (95% CI) [b]
Overall	2.4 (2.3,2.4)	-	-	27.7 (27.5, 27.9)	-	-
Maternal age (years)						
<20	1.6 (1.4, 1.8)	0.61 (0.54, 0.69)	0.70 (0.62, 0.79)	11.7 (10.6, 12.9)	0.50 (0.45, 0.55)	0.51 (0.46, 0.56)
20–24	1.6 (1.5, 1.6)	0.61 (0.57, 0.64)	0.65 (0.61, 0.69)	15.3 (14.8, 15.8)	0.65 (0.63, 0.67)	0.69 (0.67, 0.72)
25–29	2.4 (2.4, 2.5)	0.95 (0.92, 0.99)	0.95 (0.91, 0.98)	20.6 (20.3, 21.0)	0.88 (0.86, 0.90)	0.89 (0.88, 0.91)
30–34	2.6 (2.5, 2.6)	1.00 (ref)	1.00 (ref)	23.5 (23.2, 23.8)	1.00 (ref)	1.00 (ref)
≥35	2.5 (2.4, 2.6)	0.97 (0.93, 1.00)	1.00 (0.97, 1.04)	22.6 (22.3, 22.9)	0.96 (0.94, 0.98)	1.00 (0.98, 1.02)
Fiscal year of conception [c]						
2011-12	0.4 (0.4, 0.4)	0.097 (0.088, 0.11)	0.098 (0.088, 0.11)	-	-	-
2012-13	1.1 (1.0, 1.1)	0.26 (0.24, 0.27)	0.26 (0.24, 0.27)	-	-	-
2013-14	1.6 (1.6, 1.7)	0.39 (0.37, 0.41)	0.39 (0.37, 0.41)	-	-	-
2014-15	2.0 (1.9, 2.0)	0.47 (0.45, 0.49)	0.46 (0.44, 0.48)	-	-	-
2015-16	3.6 (3.5, 3.7)	0.87 (0.84, 0.90)	0.85 (0.82, 0.88)	-	-	-
2016-17	4.2 (4.0, 4.3)	1.00 (ref)	1.00 (ref)	-	-	-
2017-18	5.8 (5.6, 6.0)	1.40 (1.33, 1.47)	1.41 (1.35, 1.48)	14.4 (14.2, 14.7)	1.00 (ref)	1.00 (ref)
2018-19	-	-	-	24.9 (24.6, 25.1)	1.72 (1.69, 1.75)	1.70 (1.67, 1.73)
2019-20	-	-	-	29.2 (28.7, 29.8)	2.03 (1.98, 2.08)	1.99 (1.95, 2.04)
Parity						
0 (nulliparous)	2.8 (2.8, 2.9)	1.40 (1.36, 1.44)	1.39 (1.35, 1.44)	25.9 (25.6, 26.2)	1.40 (1.38, 1.42)	1.39 (1.37, 1.41)
≥1 (multiparous)	2.0 (2.0, 2.1)	1.00 (ref)	1.00 (ref)	18.5 (18.3, 18.7)	1.00 (ref)	1.00 (ref)
Multiple birth						
No	2.4 (2.4, 2.4)	1.00 (ref)	1.00 (ref)	21.8 (21.6, 21.9)	1.00 (ref)	1.00 (ref)
Yes	1.6 (1.4, 1.9)	0.68 (0.60, 0.78)	0.76 (0.67, 0.86)	16.7 (15.6, 17.9)	0.77 (0.72, 0.82)	0.77 (0.72, 0.82)
Pre-existing maternal medical condition [b]						
No	2.4 (2.3, 2.4)	1.00 (ref)	1.00 (ref)	21.7 (21.5, 21.8)	1.00 (ref)	1.00 (ref)
Yes	2.4 (2.2, 2.6)	1.01 (0.93, 1.10)	0.95 (0.87, 1.03)	22.3 (21.4, 23.1)	1.03 (0.99, 1.07)	0.97 (0.93, 1.01)
Neighbourhood median family income quintiles						
1 (Lowest)	2.2 (2.1, 2.2)	0.79 (0.76, 0.83)	1.04 (0.96, 1.13)	18.6 (18.2, 18.9)	0.75 (0.73, 0.77)	1.05 (1.01, 1.10)
2	2.5 (2.4, 2.6)	0.91 (0.87, 0.96)	1.10 (1.03, 1.17)	21.1 (20.8, 21.5)	0.85 (0.83, 0.88)	1.04 (1.01, 1.08)
3	2.3 (2.2, 2.3)	0.82 (0.79, 0.86)	0.93 (0.88, 0.98)	21.5 (21.1, 21.8)	0.87 (0.85, 0.89)	0.96 (0.94, 0.99)
4	2.3 (2.3, 2.4)	0.86 (0.82, 0.90)	0.93 (0.89, 0.98)	23.1 (22.8, 23.5)	0.94 (0.91, 0.96)	0.98 (0.95, 1.00)

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5 (Highest)	2.7 (2.6, 2.8)	1.00 (ref)	1.00 (ref)	24.7 (24.3, 25.1)	1.00 (ref)	1.00 (ref)
Rural residence						
No	2.4 (2.4, 2.5)	1.00 (ref)	1.00 (ref)	22.1 (21.9, 22.3)	1.00 (ref)	1.00 (ref)
Yes	2.1 (2.0, 2.2)	0.85 (0.81, 0.90)	0.83 (0.78, 0.88)	17.6 (17.1, 18.1)	0.80 (0.77, 0.82)	0.92 (0.89, 0.95)
LHIN Group [d]						
Central	2.3 (2.2, 2.3)	0.79 (0.75, 0.83)	0.86 (0.82, 0.91)	22.1 (21.8, 22.4)	0.82 (0.79, 0.84)	0.90 (0.88, 0.93)
East	3.8 (3.7, 3.9)	1.33 (1.27, 1.40)	1.45 (1.38, 1.53)	22.5 (22.2, 22.8)	0.83 (0.81, 0.85)	0.96 (0.93, 0.99)
North	1.5 (1.4, 1.7)	0.53 (0.49, 0.59)	0.63 (0.58, 0.70)	11.0 (10.5, 11.6)	0.41 (0.39, 0.43)	0.55 (0.52, 0.59)
Toronto	2.9 (2.8, 3.0)	1.00 (ref)	1.00 (ref)	27.1 (26.5, 27.7)	1.00 (ref)	1.00 (ref)
West	1.3 (1.2, 1.3)	0.45 (0.42, 0.47)	0.53 (0.50, 0.56)	20.5 (20.2, 20.9)	0.76 (0.74, 0.78)	0.91 (0.89, 0.94)
Marginalization Indices [e]						
Residential instability quintile						
1 (least marginalized)	2.2 (2.1, 2.3)	1.00 (ref)	1.00 (ref)	22.4 (22.0, 22.8)	1.00 (ref)	1.00 (ref)
2	2.5 (2.4, 2.6)	1.15 (1.10, 1.20)	1.05 (1.01, 1.10)	22.0 (21.6, 22.4)	0.98 (0.96, 1.00)	1.01 (0.99, 1.04)
3	2.4 (2.3, 2.4)	1.07 (1.02, 1.12)	1.00 (0.95, 1.05)	21.5 (21.1, 21.9)	0.96 (0.94, 0.98)	1.02 (1.00, 1.05)
4	2.2 (2.2, 2.3)	1.02 (0.97, 1.07)	1.02 (0.97, 1.08)	20.5 (20.1, 20.9)	0.91 (0.89, 0.94)	1.04 (1.01, 1.07)
5 (most marginalized)	2.6 (2.5, 2.7)	1.17 (1.12, 1.22)	1.08 (1.02, 1.14)	21.9 (21.6, 22.3)	0.98 (0.96, 1.00)	1.03 (1.00, 1.06)
Material deprivation quintile						
1 (least marginalized)	3.1 (3.0, 3.2)	1.00 (ref)	1.00 (ref)	26.4 (26.0, 26.7)	1.00 (ref)	1.00 (ref)
2	2.5 (2.4, 2.6)	0.80 (0.77, 0.84)	0.86 (0.82, 0.90)	23.4 (23.1, 23.8)	0.89 (0.87, 0.91)	0.94 (0.92, 0.96)
3	2.2 (2.2, 2.3)	0.76 (0.69, 0.76)	0.77 (0.73, 0.81)	21.2 (20.9, 21.6)	0.81 (0.79, 0.82)	0.87 (0.85, 0.89)
4	2.3 (2.2, 2.3)	0.73 (0.70, 0.76)	0.75 (0.70, 0.79)	20.1 (19.7, 20.5)	0.76 (0.74, 0.78)	0.81 (0.79, 0.83)
5 (most marginalized)	1.9 (1.8, 2.0)	0.62 (0.59, 0.65)	0.65 (0.61, 0.69)	16.9 (16.6, 17.2)	0.64 (0.62, 0.66)	0.69 (0.66, 0.71)
Dependency quintile						
1 (least marginalized)	2.2 (2.2, 2.3)	1.00 (ref)	1.00 (ref)	23.2 (22.9, 23.5)	1.00 (ref)	1.00 (ref)
2	2.4 (2.3, 2.4)	1.07 (1.02, 1.11)	1.16 (1.12, 1.21)	22.2 (21.8, 22.5)	0.95 (0.93, 0.97)	1.03 (1.01, 1.05)
3	2.5 (2.4, 2.6)	1.12 (1.07, 1.16)	1.27 (1.22, 1.33)	20.9 (20.5, 21.3)	0.90 (0.88, 0.92)	1.00 (0.98, 1.03)
4	2.6 (2.6, 2.7)	1.19 (1.14, 1.25)	1.39 (1.33, 1.46)	20.5 (20.1, 20.9)	0.88 (0.86, 0.90)	1.01 (0.99, 1.04)
5 (most marginalized)	2.4 (2.3, 2.5)	1.08 (1.03, 1.14)	1.25 (1.18, 1.32)	19.3 (18.9, 19.8)	0.83 (0.81, 0.85)	0.98 (0.95, 1.01)
Ethnic concentration quintile						
1 (least marginalized)	2.1 (2.1, 2.2)	1.00 (ref)	1.00 (ref)	17.7 (17.3, 18.2)	1.00 (ref)	1.00 (ref)
2	2.3 (2.2, 2.4)	1.07 (1.01, 1.13)	1.07 (1.01, 1.13)	20.5 (20.1, 20.9)	1.16 (1.12, 1.19)	1.07 (1.03, 1.10)
3	2.4 (2.3, 2.5)	1.10 (1.04, 1.16)	1.10 (1.04, 1.17)	22.8 (22.4, 23.2)	1.29 (1.25, 1.33)	1.11 (1.08, 1.15)
4	2.4 (2.4, 2.5)	1.13 (1.07, 1.19)	1.17 (1.10, 1.25)	23.7 (23.3, 24.0)	1.33 (1.30, 1.37)	1.13 (1.10, 1.17)

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5 (most marginalized)	2.5 (2.4, 2.5)	1.16 (1.10, 1.21)	1.29 (1.21, 1.38)	21.9 (21.6, 22.2)	1.24 (1.20, 1.27)	1.14 (1.10, 1.18)
Prenatal care [f]						
Intensive	3.1 (2.9, 3.2)	1.00 (0.95, 1.06)	1.08 (1.02, 1.14)	25.1 (24.3, 25.9)	1.01 (0.98, 1.04)	1.00 (0.97, 1.03)
Adequate	3.1 (3.0, 3.1)	1.00 (ref)	1.00 (ref)	24.8 (24.6, 25.1)	1.00 (ref)	1.00 (ref)
Intermediate	2.1 (2.0, 2.2)	0.68 (0.66, 0.71)	0.80 (0.77, 0.83)	20.8 (20.5, 21.0)	0.84 (0.82, 0.85)	0.90 (0.89, 0.92)
Inadequate	1.3 (1.2, 1.4)	0.43 (0.40, 0.45)	0.30 (0.29, 0.32) [e]	17.5 (17.1, 17.9)	0.70 (0.69, 0.72)	0.64 (0.62, 0.65) [h]
No care/Missing [g]	0.7 (0.6, 0.8)	0.23 (0.20, 0.25)	-	13.8 (13.2, 14.3)	0.55 (0.53, 0.58)	-
Composition of prenatal care visits						
No visits	0.7 (0.6, 0.8)	0.36 (0.32, 0.40)	1.13 (0.99, 1.29)	13.8 (13.2, 14.3)	0.71 (0.68, 0.74)	1.11 (1.06, 1.17)
≥ 75% with GP/FP	5.2 (5.1, 5.4)	2.69 (2.60, 2.78)	3.51 (3.39, 3.63)	29.8 (29.3, 30.3)	1.53 (1.50, 1.56)	1.72 (1.68, 1.75)
≥ 75% with OBGYN	1.9 (1.9, 2.0)	1.00 (ref)	1.00 (ref)	19.4 (19.2, 19.6)	1.00 (ref)	1.00 (ref)
Mix of providers	2.2 (2.1, 2.2)	1.11 (1.07, 1.16)	1.27 (1.22, 1.32)	25.2 (24.8, 25.6)	1.30 (1.27, 1.32)	1.31 (1.29, 1.34)

Abbreviations: RR, rate ratio; CI, confidence interval; GP/FP, general practitioner/family physician; LHIN, Local Health Integration Network; OBGYN, obstetrician-gynecologist

[a] In February 2018, Canada's National Advisory Committee on Immunization (NACI) released their updated Tdap vaccine recommendation which advised all pregnant women to receive Tdap vaccination during every pregnancy, ideally between 27-32 weeks' gestation. We categorized pregnancies as "post-policy" if they either reached a minimum of 27 weeks' gestation by February 1st 2018 (since NACI's updated policy recommended vaccination between 27-32 weeks' gestation) or began their pregnancy after this index date. Pregnancies that either ended prior to February 1st 2018 or did not reach 27 weeks' gestation by this date were considered "pre-policy" as they were not yet eligible to receive vaccination according to the updated NACI policy.

[b] The multivariable model included in all the independent variables listed in this table, except a dichotomous variable for pre-existing medical conditions was added instead of the individual conditions in this variable, and the category for *inadequate* prenatal care was combined with *no care/missing* prenatal care to allow for model convergence.

[c] A fiscal year begins on April 1 and ends on March 31. As the cohort was created using the delivery date on the maternal record (April 1 2012 to March 31 2020), fiscal years 2011-12 and 2019-20 are incomplete which explains the lower number of births shown in these two fiscal years.

[d] Local Health Integration Networks (LHIN) groups were assigned according to the Ontario's Ministry of Health (see eTable 2 in supplement)

[e] Scores corresponding to each of these four dimensions were previously divided into quintiles, where quintile 1 represents the least marginalized areas, and quintile 5, the most marginalized areas. Please see eTable 2 in supplement for complete descriptions of what is captured in each of these four dimensions.

[f] Adequacy of prenatal care characterized using the Revised-Graduated Prenatal Care Utilization Index (R-GINDEX).

[g] Mother did not have any prenatal visits within our definition.

[h] Estimate is for Inadequate and No Care/Missing Care combined