

**Appendix 5. Adjusted vaccination analysis for birthing persons by age (<25 versus ≥25 years and age group)**

**Supplementary Table 1. Crude analysis of vaccine outcomes, birthing persons <25 versus ≥25 years**

Outcomes	Tdap vaccination	First SARS-CoV-2 dose	Second SARS-CoV-2 dose
	Relative risk (95% CI)	Relative risk (95% CI)	Relative risk (95% CI)
Age <25 years <sup>a</sup>	0.60 (0.57-0.63)	0.78 (0.76-0.81)	0.73 (0.70-0.75)
<sup>a</sup> Birthing persons aged less than 25 years old			

**Supplementary Table 2. Factors associated with Tdap vaccination among pregnant persons aged <25**

	Adjusted Relative Risk <sup>b</sup> (95% CI)
<b>Birthing Group</b>	
2019 birth <sup>a</sup>	-
2021 birth	1.46 (1.42-1.50)
2022 birth	1.51 (1.47-1.55)
<b>Sociodemographic Characteristics</b>	
<b>Age</b>	
Mothers aged ≥25 <sup>a</sup>	-
Mothers aged <25	0.60 (0.58-0.63)
<b>Rural residence</b>	
	0.83 (0.78-0.87)
<b>Neighbourhood-level Ethnocultural composition</b>	
	-
1, least diversity <sup>a</sup>	1.08 (1.04-1.13)
2	1.18 (1.14-1.23)
3	1.21 (1.16-1.26)
4	1.19 (1.15-1.24)
5, greatest diversity	
<b>Neighbourhood-level Economic dependency</b>	
	-
1, least dependency <sup>a</sup>	0.96 (0.93-0.99)
2	0.91 (0.88-0.94)
3	0.88 (0.85-0.91)
4	0.85 (0.82-0.89)
5, greatest dependency	
<b>Neighbourhood-level Residential instability</b>	
	-
1, least instability <sup>a</sup>	0.97 (0.94-1.01)
2	0.94 (0.91-0.98)
3	0.91 (0.88-0.95)
4	0.90 (0.87-0.93)
5, greatest instability	
<b>Perinatal Health Services Contact</b>	

Appendix 5, as supplied by the authors. Appendix to: Greyson D, Correia R, Howard M, et al. SARS-CoV-2, Tdap, and influenza vaccination during pregnancy from 2019 to 2022 in Ontario, Canada: a population-based retrospective cohort study. *CMAJ* 2024. doi: 10.1503/cmaj.231522. Copyright © 2024 The Author(s) or their employer(s). To receive this resource in an accessible format, please contact us at [cmajgroup@cmaj.ca](mailto:cmajgroup@cmaj.ca).

<b>Use of assistive fertility for current pregnancy</b>	1.02 (0.97-1.07)
<b>Early prenatal care visits<sup>c</sup></b>	1.04 (1.03-1.04)
<b>Parity</b>	
0 <sup>a</sup>	-
1	0.83 (0.81-0.85)
2	0.65 (0.62-0.67)
3 or more	0.47 (0.44-0.50)
<b>Prenatal care provider type</b>	
Obstetrician <sup>a</sup>	-
Family physician	1.37 (1.34-1.41)
Midwife	1.04 (1.00-1.08)
Shared care	1.19 (1.12-1.26)
No care/Other	0.51 (0.43-0.60)
<sup>a</sup> Reference group	
<sup>b</sup> Adjusted for age group, rurality, CIMD measures (i.e., ethnocultural composition, economic dependency, residential instability, use of assistive fertility, early prenatal care visits, parity, and prenatal care provider type)	
<sup>c</sup> Early prenatal care visits occurred prior to 32 weeks of gestation.	

**Supplementary Table 3. Factors associated with first and second SARS-CoV-2 vaccination, pregnant persons aged <25**

	SARS-CoV-2 Dose 1	SARS-CoV-2 Dose 2
	Adjusted Relative Risk <sup>b</sup> (95% CI)	Adjusted Relative Risk <sup>b</sup> (95% CI)
<b>Sociodemographic Characteristics</b>		
<b>Age</b>		
Mothers aged ≥25 <sup>a</sup>	-	-
Mothers aged <25	0.92 (0.90-0.94)	0.90 (0.88-0.91)
<b>Rural residence</b>	0.97 (0.95-0.99)	0.97 (0.95-0.98)
<b>Neighbourhood-level Ethnocultural composition</b>		
1, least diversity <sup>a</sup>	0.99 (0.98-1.01)	0.99 (0.98-1.01)
2	1.00 (0.98-1.01)	1.00 (0.98-1.01)
3	1.00 (0.99-1.01)	1.00 (0.98-1.01)
4	1.01 (0.99-1.02)	1.00 (0.98-1.01)
5, greatest diversity		
<b>Neighbourhood-level Economic dependency</b>		
1, least dependency <sup>a</sup>	0.99 (0.98-1.00)	1.00 (0.98-1.00)
2	0.98 (0.97-0.99)	0.98 (0.97-0.99)
3	0.98 (0.96-0.99)	0.97 (0.96-0.99)
4	0.97 (0.96-0.99)	0.97 (0.96-0.99)
5, greatest dependency	-	-
<b>Neighbourhood-level Residential instability</b>		
1, least instability <sup>a</sup>	1.00 (0.98-1.01)	1.00 (0.98-1.01)
2	1.00 (0.99-1.01)	1.00 (0.99-1.01)
3	0.99 (0.98-1.01)	0.99 (0.98-1.01)
4	0.99 (0.97-1.00)	0.99 (0.97-1.00)

Appendix 5, as supplied by the authors. Appendix to: Greyson D, Correia R, Howard M, et al. SARS-CoV-2, Tdap, and influenza vaccination during pregnancy from 2019 to 2022 in Ontario, Canada: a population-based retrospective cohort study. *CMAJ* 2024. doi: 10.1503/cmaj.231522. Copyright © 2024 The Author(s) or their employer(s). To receive this resource in an accessible format, please contact us at [cmajgroup@cmaj.ca](mailto:cmajgroup@cmaj.ca).

5, greatest instability		
<b>Perinatal Health Services Contact</b>		
Use of assistive fertility for current pregnancy	1.02 (1.00-1.04)	1.03 (1.01-1.04)
Early prenatal care visits <sup>c</sup>	1.00 (1.00-1.01)	1.01 (1.00-1.01)
<b>Parity</b>		
0 <sup>a</sup>	-	-
1	0.99 (0.98-1.00)	0.99 (0.98-1.00)
2	0.95 (0.94-0.96)	0.94 (0.93-0.95)
3 or more	0.90 (0.89-0.92)	0.88 (0.86-0.90)
<b>Prenatal care provider type</b>		
Obstetrician <sup>a</sup>	-	-
Family physician	1.007 (1.00-1.02)	1.01 (1.00-1.02)
Midwife	1.002 (0.99-1.02)	1.01 (0.99-1.02)
Shared care	0.995 (0.97-1.02)	1.00 (0.97-1.02)
No care/Other	0.99 (0.96-1.03)	0.99 (0.95-1.03)
<sup>a</sup> Reference group		
<sup>b</sup> Adjusted for age, rurality, CIMD measures (i.e., ethnocultural composition, economic dependency, residential instability), use of assistive fertility, early prenatal care visits, parity, and prenatal care provider type		
<sup>c</sup> Early prenatal care visits occurred prior to 32 weeks of gestation.		

**Supplementary Table 4. Factors associated with first and second SARS-CoV-2 vaccine among pregnant persons, by age group**

SARS-CoV-2 vaccine dose	Dose 1	Dose 2
	Relative Risk (95% CI)	Relative Risk (95% CI)
<b>CRUDE ANALYSIS</b>		
<b>Age group</b>		
<25 years	0.761 (0.74-0.79)	0.71 (0.68-0.73)
25 to 29 years	0.906 (0.89-0.92)	0.90 (0.88-0.91)
30 to 34 years <sup>a</sup>	-	-
35 to 39 years	0.995 (0.98-1.01)	1.00 (0.99-1.02)
>40 years	0.990 (0.97-1.01)	0.99 (0.96-1.02)
<b>ADJUSTED ANALYSIS</b>		
	Adjusted Relative Risk <sup>b</sup> (95% CI)	Adjusted Relative Risk <sup>b</sup> (95% CI)
<b>Sociodemographic Characteristics</b>		
<b>Age group</b>		
<25 years	0.91 (0.89-0.93)	0.88 (0.87-0.90)
25 to 29 years	0.97 (0.96-0.98)	0.96 (0.95-0.97)
30 to 34 years <sup>a</sup>	-	-
35 to 39 years	1.00 (0.99-1.02)	1.01 (1.00-1.02)
>40 years	1.01 (0.99-1.03)	1.01 (0.99-1.03)
<b>Rural residence</b>	0.97 (0.95-0.99)	0.97 (0.95-0.99)
<b>Neighbourhood-level Ethnocultural composition</b>		
	-	-
1, least diversity <sup>a</sup>	0.99 (0.98-1.01)	0.99 (0.98-1.01)
2	0.99 (0.98-1.01)	0.99 (0.98-1.01)

3	1.00 (0.98-1.01)	0.99 (0.98-1.01)
4	1.00 (0.98-1.02)	0.99 (0.98-1.01)
5, greatest diversity	-	-
<b>Neighbourhood-level Economic dependency</b>	0.99 (0.98-1.00)	0.99 (0.978-1.002)
1, least dependency <sup>a</sup>	0.98 (0.97-1.00)	0.98 (0.967-0.992)
2	0.98 (0.97-0.99)	0.98 (0.962-0.988)
3	0.98 (0.96-0.99)	0.97 (0.96-0.989)
4	-	-
5, greatest dependency	-	-
<b>Neighbourhood-level Residential instability</b>	1.00 (0.99-1.01)	1.00 (0.983-1.012)
1, least instability <sup>a</sup>	1.00 (0.99-1.02)	1.00 (0.988-1.016)
2	1.00 (0.98-1.01)	1.00 (0.982-1.011)
3	0.99 (0.98-1.00)	0.99 (0.974-1.004)
4	-	-
5, greatest instability	-	-
<b>Perinatal Health Services Contact</b>		
<b>Use of assistive fertility for current pregnancy</b>	1.01 (0.99-1.03)	1.01 (0.99-1.03)
<b>Early prenatal care visits <sup>c</sup></b>	1.00 (1.00-1.01)	1.01 (1.00-1.01)
<b>Parity</b>	-	-
0 <sup>a</sup>	-	-
1	0.99 (0.98-1.00)	0.98 (0.97-0.99)
2	0.94 (0.93-0.96)	0.93 (0.92-0.94)
3 or more	0.89 (0.88-0.91)	0.87 (0.85-0.89)
<b>Prenatal care provider type</b>	-	-
FP/GP	1.01 (1.00-1.02)	1.01 (1.00-1.02)
Midwife	1.00 (0.99-1.02)	1.01 (0.99-1.02)
OB/GYN	-	-
No care/Other/Missing	0.99 (0.96-1.03)	0.99 (0.95-1.03)
Shared care	1.00 (0.97-1.02)	1.00 (0.97-1.02)
<sup>a</sup> Reference group <sup>b</sup> Adjusted for age group, rurality, CIMD measures (i.e., ethnocultural composition, economic dependency, residential instability), use of assistive fertility, early prenatal care visits, parity, and prenatal care provider type <sup>c</sup> Early prenatal care visits occurred prior to 32 weeks of gestation.		