

# Our Health Counts Toronto linkage to Institute of Clinical and Evaluative Sciences (ICES) COVID-19 data holdings

Incidence of positive COVID-19 cases and proportion of COVID-19 tests, hospitalizations and vaccinations among First Nations, Inuit, and Métis (FNIM) living in Toronto.

Data reported as of: March 13, 2022

Principal Investigator: Dr. Janet Smylie

Community Leads: Seventh Generation Midwives Toronto

**Presentation prepared by:** Stephanie McConkey & Raman Brar (Well Living House)





Well Living House

Table 1: Proportion of Indigenous adults who have received first, second and third doses of COVID-19 vaccination as of March 13, 2022 in comparison to general Toronto and Ontario population. Results from Our Health Counts Toronto data linkage to ICES COVID-19 data.

	FNIM Population in Toronto*		<b>City of Toronto Population</b>		Ontario Population	
	n	HCG-Adjusted Proportion % [95% Confidence Interval]	n	Proportion %	n	Proportion %
First Dose	502	70.25 [64.29, 76.22]	1,986,361	84.18	10,484,858	85.35
Second Dose	466	64.82 [58.71, 70.94]	1,947,957	82.55	10,284,559	83.70
Third Dose	267	40.16 [34.13, 46.19]	1,282,166	54.34	6,641,479	54.05
Total	687		2,359,684		12,286,949	

\*Our Health Counts FNIM adult (15+) population living in Toronto as of December 31, 2019, excluding seeds

Figure 1: Proportion of Indigenous adults who have received <u>first</u> <u>dose</u> of COVID-19 vaccination over time in comparison to general Toronto and Ontario population. Results from Our Health Counts Toronto data linkage to ICES COVID-19 data.

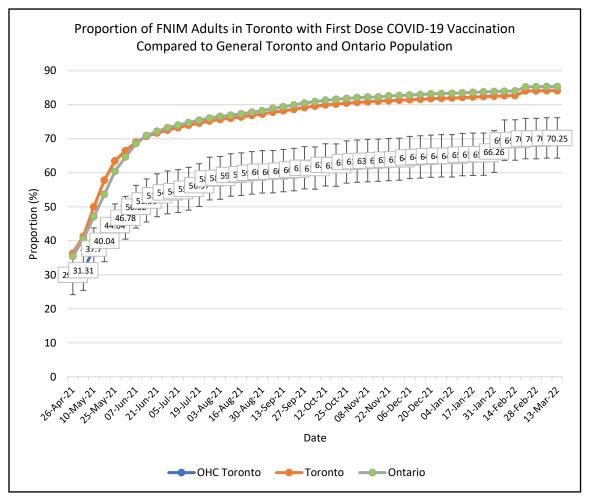


Figure 2: Proportion of Indigenous adults who have received <u>second</u> <u>dose</u> of COVID-19 vaccination over time in comparison to general Toronto and Ontario population. Results from Our Health Counts Toronto data linkage to ICES COVID-19 data.

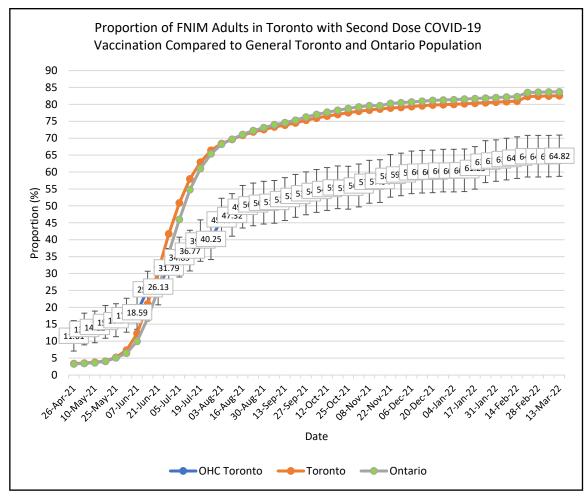
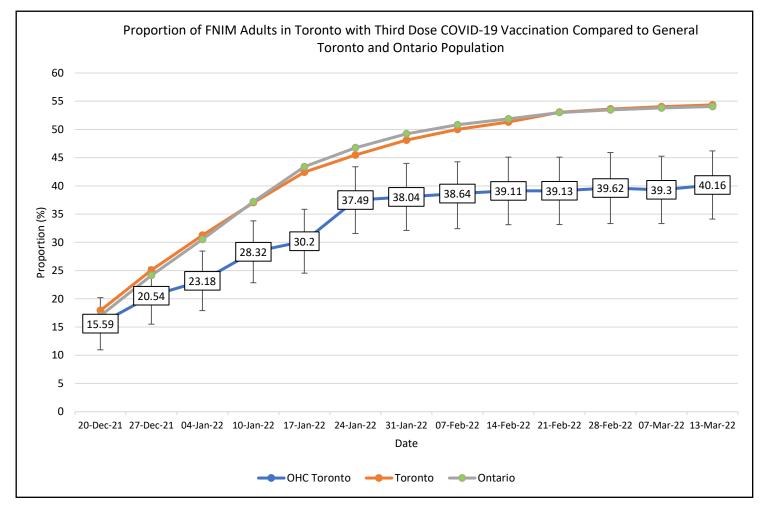


Figure 3: Proportion of Indigenous adults who have received <u>third dose</u> of COVID-19 vaccination over time in comparison to general Toronto and Ontario population. Results from Our Health Counts Toronto data linkage to ICES COVID-19 data.



# **FIRST DOSE COVID-19 VACCINATIONS**

Figure 3:RDS-II Adjusted Proportion of Indigenous adults who have received <u>first dose</u> of COVID-19, stratified by age

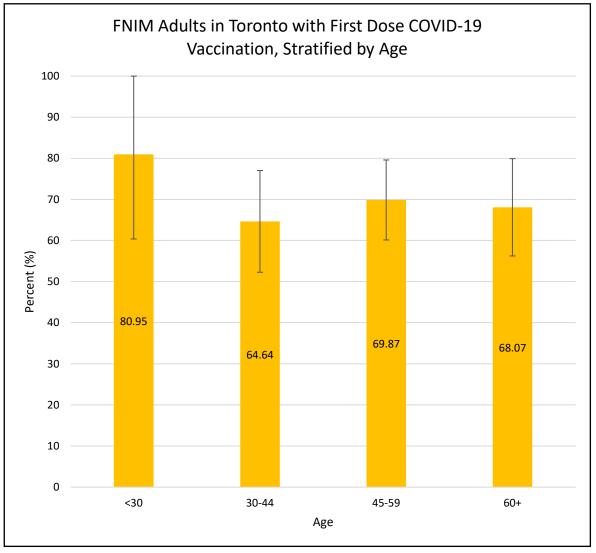
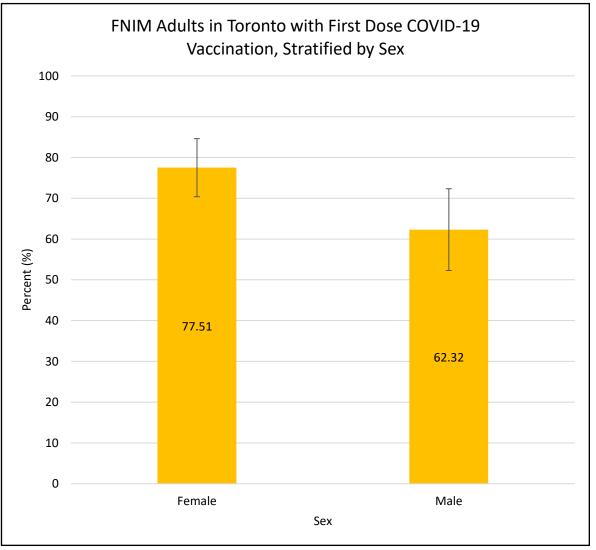


Figure 4: HCG Adjusted Proportion of Indigenous adults who have received <u>first dose</u> of COVID-19, stratified by sex



# **SECOND DOSE COVID-19 VACCINATIONS**

Figure 5: RDS-II Adjusted Proportion of Indigenous adults who have received <u>second dose</u> of COVID-19, stratified by age

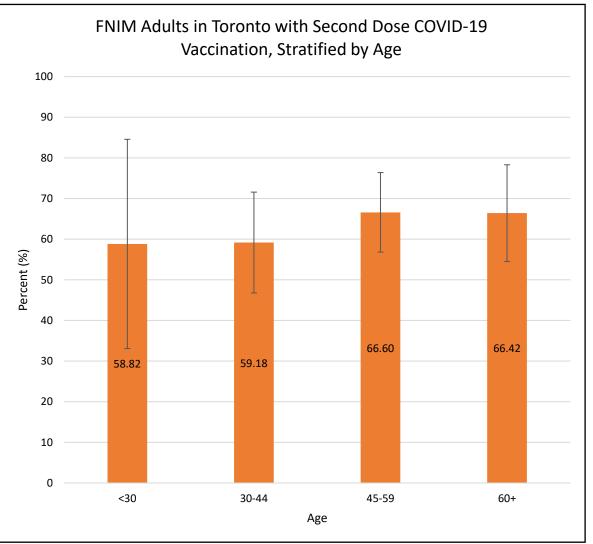
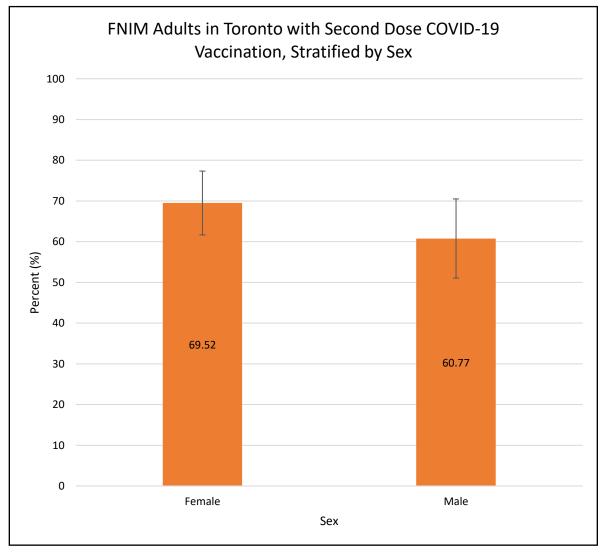


Figure 6: HCG Adjusted Proportion of Indigenous adults who have received <u>second dose</u> of COVID-19, stratified by sex



#### **THIRD DOSE COVID-19 VACCINATIONS**

Figure 7: RDS-II Adjusted Proportion of Indigenous adults who have received <u>third dose</u> of COVID-19, stratified by age

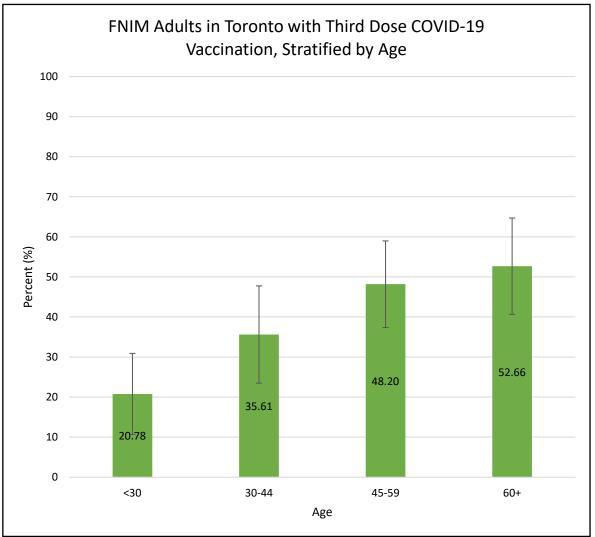


Figure 8: HCG Adjusted Proportion of Indigenous adults who have received <u>third dose</u> of COVID-19, stratified by sex

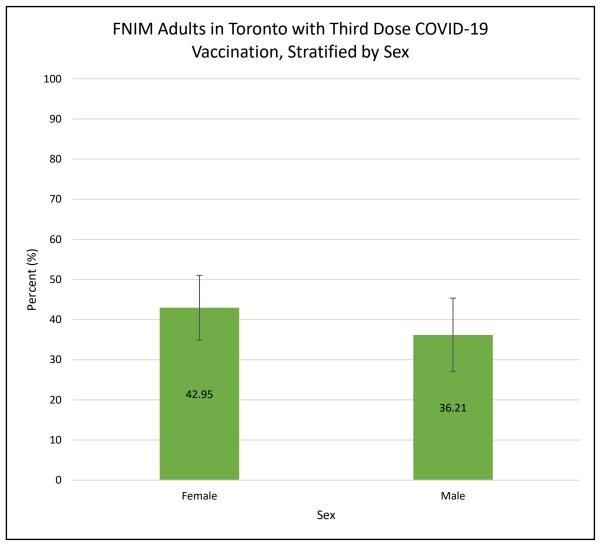


Table 2: Non-conservative 2021 Population Estimates for FNIM Adults in Toronto and Estimated Required Number of Vaccine Events to Fully Vaccination FNIM Adults in Toronto

Non-conservative population estimates for FNIM adults (15+) in	Estimated required number of vaccine events
Toronto in 2021	(FNIM population x 3 doses)
71,097*	213,291

\*Non-conservative population estimates for FNIM adults (15+) in Toronto in 2021. Estimate includes assumption that Indigenous population has grown by 5% since 2016

Table 3: Estimated number of FNIM vaccination events required for complete vaccination, including third dose booster of FNIM adult population in Toronto.

Vaccination	HCG-Adjusted Proportion of First & Second Dose Vaccinations Administered to FNIM OHC Toronto Adults (%)	Non-conservative 2021 population estimates for FNIM adults (15+) in Toronto	Estimated # of Vaccinations Given (FNIM population x % vaccines administered)	Estimated # of Vaccinations Required (Estimated required number of vaccine events - Estimated # of Vaccinations Given)
First Dose	70.25 [64.29, 76.22]	71,097	49,946	
Second Dose	64.82 [58.71, 70.94]	71,097	46,085	
Third Dose	40.16 [34.13, 46.19]	71,097	28,553	
Total			124,584	88,707

# **COVID-19 HOSPITALIZATIONS**

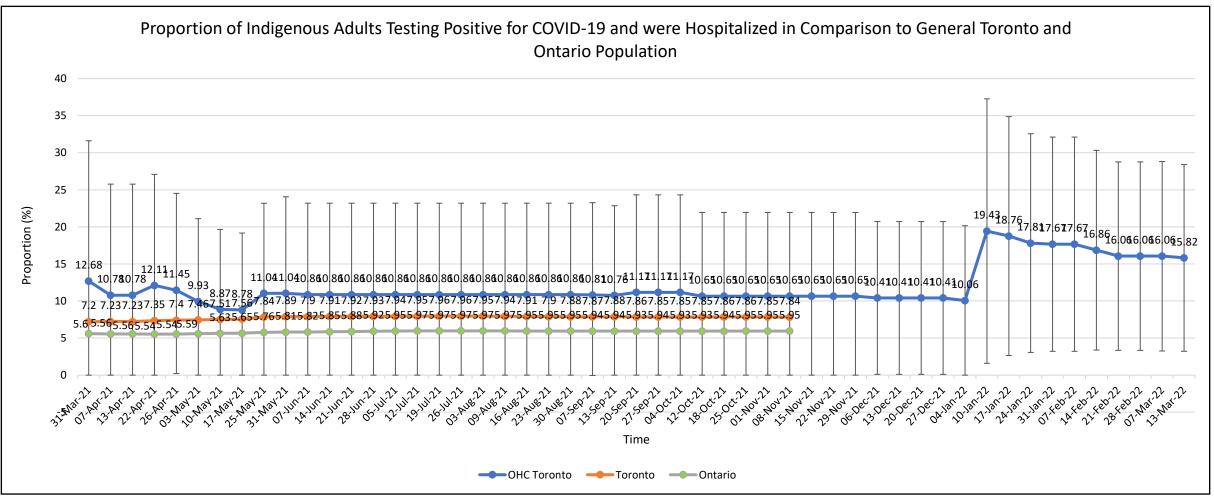
Table 4: Proportion of Indigenous adults testing positive for COVID-19 and were hospitalized in comparison to general Toronto and Ontario population from January 2020 to March 13, 2022. Total sample n= 687, representing n=71,096 FNIM in Toronto\*\*. Results from Our Health Counts Toronto data linkage to ICES COVID-19 data holdings.

	FNIM Population in Toronto*		City of Toronto Population		Ontario Population	
	n	RDS-II Adjusted Proportion % [95% Confidence Interval]	n	Proportion %	n	Proportion %
Hospitalizations	-	15.82 [3.22 <i>,</i> 28.41]	11,771	5.49	37,757	4.11
Total COVID-19 positive cases	87		214,585		918,135	

\*Our Health Counts FNIM adult (15+) population living in Toronto as of December 31, 2019 and have tested positive for COVID-19, excluding seeds \*\*Non-conservative population estimates for FNIM adults (15+) in Toronto in 2021

## **COVID-19 HOSPITALIZATIONS**

Figure 9: Proportion of Indigenous adults testing positive for COVID-19 and were hospitalized over time in comparison to general Toronto and Ontario population. Results from Our Health Counts Toronto data linkage to ICES COVID-19 data holdings.



#### **INCIDENCE OF COVID-19 POSITIVE CASES**

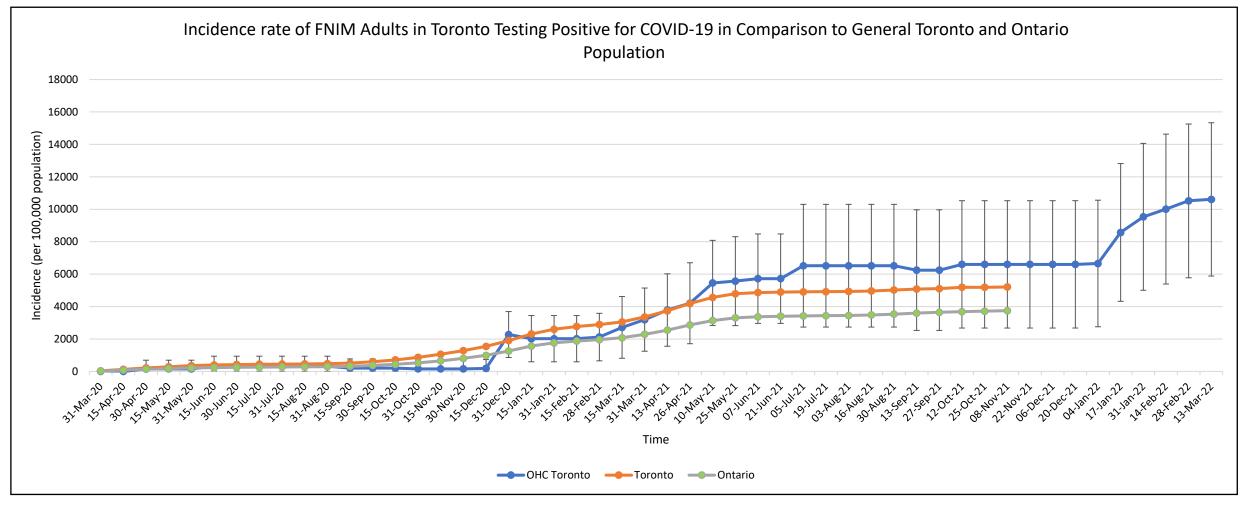
Table 5: Incidence rate of Indigenous adults testing positive for COVID-19 in comparison to general Toronto and Ontario population from January 2020 to March 13, 2022. Results from Our Health Counts Toronto data linkage to ICES COVID-19 data holdings.

	FNIM Population in Toronto*		City of Toronto Population		Ontario Population	
	n	HCG-Adjusted Incidence Incidence per 100,000 FNIM population [95% Confidence Interval]	n	Crude Incidence Incidence per 100,000 population	n	Crude Incidence Incidence per 100,000 population
Positive COVID-19 test	87	10,610 [5,883, 15,329]	214,585	9,093.80	918,135	7,472.44
Total	687		2,359,684		12,286,949	

\*Our Health Counts FNIM adult (15+) population living in Toronto as of December 31, 2019, excluding seeds

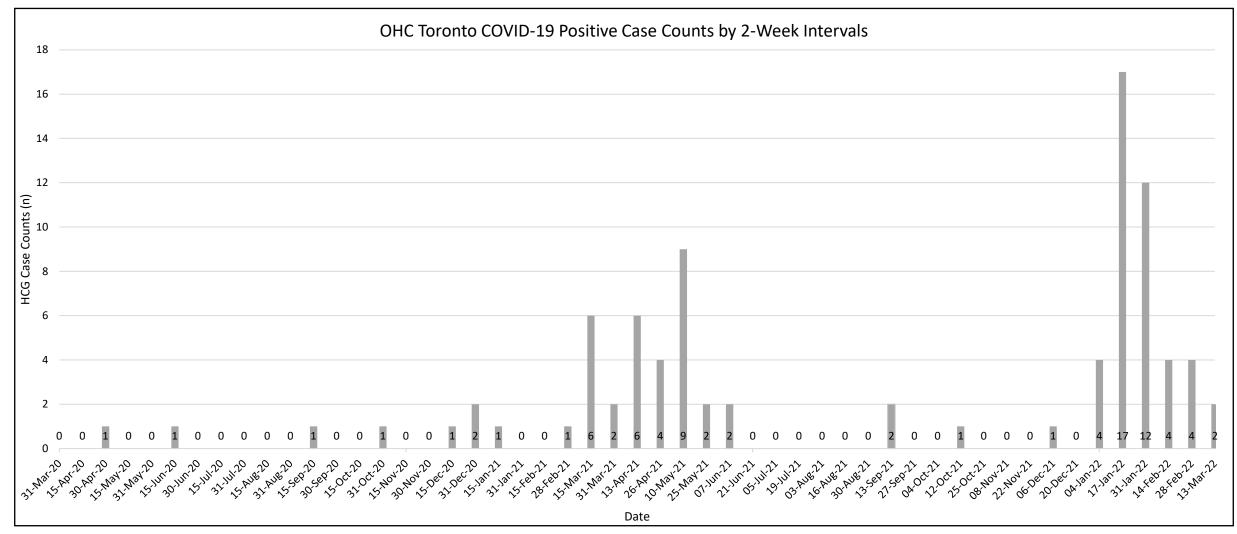
# **INCIDENCE OF COVID-19 POSITIVE CASES**

Figure 11: Incidence rate of Indigenous adults testing positive for COVID-19 over time in comparison to general Toronto and Ontario population. Results from Our Health Counts Toronto data linkage to ICES COVID-19 data holdings.



#### **COVID-19 POSITIVE CASES**

Figure 12: Indigenous adult COVID-19 positive case counts by two-week intervals. Results from Our Health Counts Toronto data linkage to ICES COVID-19 data holdings.



#### **COVID-19 TESTING PREVALENCE**

Table 6: Prevalence of COVID-19 testing among FNIM adults in Toronto in comparison to general Toronto and Ontario population from January 2020 to March 13, 2022. Results from Our Health Counts Toronto data linkage to ICES COVID-19 data holdings.

	FNIM Population in Toronto*		City of Toronto Population		Ontario Population	
	n	HCG-Adjusted Period Prevalence % [95% Confidence Interval]	n	Crude Period Prevalence %	n	Crude Period Prevalence %
Tested	450	56.78 [50.57 <i>,</i> 62.99]	1,157,217	49.04	5,938,946	48.34
Not Tested	237	43.22 [37.01, 49.43]	1,202,467	50.96	6,348,003	51.66
Total	687		2,359,684		12,286,949	

\*Our Health Counts FNIM adult (15+) population living in Toronto as of December 31, 2019, excluding seeds

# References

Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to March 31, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021. Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to April 13, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021. Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to April 22, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021. Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to April 26, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021 Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to May 3, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021. Rachlis B. Schultz S. Mecredy G. Avery L. McConkey S. Rotondi M. Smylie J. COVID-19 in First Nations. Métis and Inuit communities in Toronto. Ontario-Update to May 10. 2021. Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences: 2021. Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to May 17, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021. Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to May 25, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021. Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to May 31, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021. Rachlis B. Schultz S. Mecredy G. Avery L. McConkey S. Rotondi M. Smylie J. COVID-19 in First Nations. Métis and Inuit communities in Toronto. Ontario-Update to June 7, 2021. Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences: 2021. Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to June 14, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021 Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to June 21, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021. Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to June 28, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021. Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to July 5, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021 Rachlis B. Schultz S. Mecredy G. Avery L. McConkey S. Rotondi M. Smylie J. COVID-19 in First Nations. Métis and Inuit communities in Toronto. Ontario-Update to July 12, 2021. Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021 Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to July 19, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021. Rachlis B. Schultz S. Mecredy G. Avery L. McConkey S. Rotondi M. Smylie J. COVID-19 in First Nations. Métis and Inuit communities in Toronto. Ontario-Update to July 26, 2021. Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences: 2021. Rachlis B. Schultz S. Mecredy G. Avery L. McConkey S. Rotondi M. Smylie J. COVID-19 in First Nations. Métis and Inuit communities in Toronto. Ontario-Update to August 3. 2021. Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021. Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to August 9, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021. Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to August 16, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021 Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to August 23, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021 Rachlis B. Schultz S. Mecredy G. Avery L. McConkey S. Rotondi M. Smylie J. COVID-19 in First Nations. Métis and Inuit communities in Toronto. Undate to August 30, 2021. Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021 Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to September 7, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021 Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to September 13, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021 Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to September 20, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021 Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to September 27, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021

# References

Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to October 4, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021 Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to October 12, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021. Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to October 18, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021. Rachlis B. Schultz S. Mecredy G. Avery L. McConkey S. Rotondi M. Smylie J. COVID-19 in First Nations. Métis and Inuit communities in Toronto. Ontario-Update to October 25, 2021. Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021. Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to November 1, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021. Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to November 8, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021. Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to November 15, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021 Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to November 22, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021 Rachlis B. Schultz S. Mecredy G. Avery L. McConkey S. Rotondi M. Smylie J. COVID-19 in First Nations. Métis and Inuit communities in Toronto. Ontario-Update to November 29, 2021. Applied Health Research Questions (AHRQ) #00950.088.000. Toronto: Institute for Clinical Evaluative Sciences: 2021 Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to December 6, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021. Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to December 13, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021 Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to January 4, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021. Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to January 10, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021 Rachlis B. Schultz S. Mecredy G. Avery L. McConkey S. Rotondi M. Smylie J. COVID-19 in First Nations. Métis and Inuit communities in Toronto. Ontario-Update to January 17, 2021. Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences: 2021. Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to January 24, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021. Rachlis B. Schultz S. Mecredy G. Avery L. McConkey S. Rotondi M. Smylie J. COVID-19 in First Nations. Métis and Inuit communities in Toronto. Ontario-Update to January 31, 2021. Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences: 2021. Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to February 7, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021. Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to February 14, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021 Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to February 20, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021. Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to February 28, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021. Rachlis B. Schultz S. Mecredy G. Avery L. McConkey S. Rotondi M. Smylie J. COVID-19 in First Nations. Métis and Inuit communities in Toronto. Ontario-Update to March 7, 2021. Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences: 2021. Rachlis B, Schultz S, Mecredy G, Avery L, McConkey S, Rotondi M, Smylie J. COVID-19 in First Nations, Métis and Inuit communities in Toronto, Ontario-Update to March 13, 2021, Applied Health Research Questions (AHRQ) #p0950.088.000. Toronto: Institute for Clinical Evaluative Sciences; 2021