Our Health Counts

An inclusive community-driven health survey for First Nations, Inuit, and Métis populations in Ontario cities

Diabetes

The Truth and Reconciliation Commission of Canada (TRC) Call to Action 19 calls for an establishment of "measurable goals to identify and close the gaps in health outcomes" between Indigenous and non-Indigenous populations on indicators including chronic diseases, such as diabetes.[1] First Nations and Metis peoples are at disproportionate risk of diabetes - and associated co-morbidities and complications such as chronic kidney disease - due to ongoing colonial injustices, which include barriers to safe, timely, adequate healthcare.[2,3] Given limitations and gaps in health data for First Nations, Inuit, and Métis (FNIM) populations living in urban and related homelands, a meta-analysis technique was developed for respondent-driven sampling (RDS) data and applied to Our Health Counts (OHC) Hamilton, Toronto, London, Thunder Bay, and Kenora data sets. The aim of this meta-analysis technique is to obtain an overall pooled prevalence of diabetes among FNIM adults living in Ontario cities.

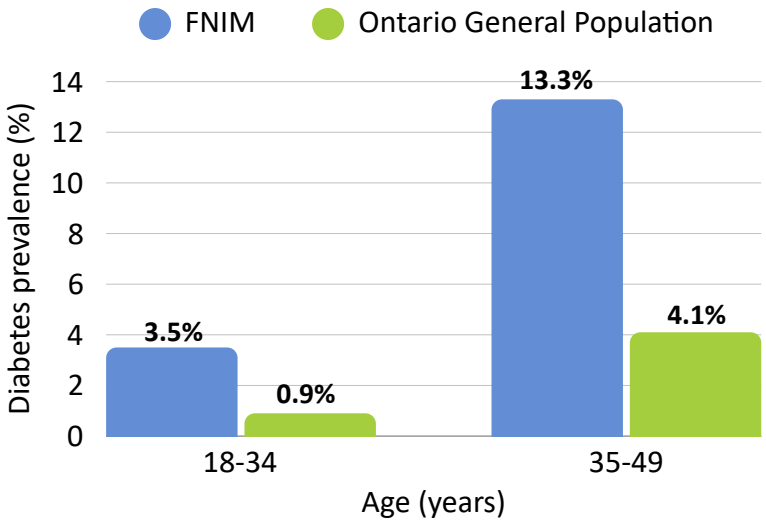
11.3% **of FNIM adults living in Hamilton, Toronto, London, Thunder Bay, and Kenora** report a diabetes diagnosis

This prevalence is about **1.6 times higher than the general adult population living in Ontario** (CCHS 2015-18),[5] which is in part due to a lack of access to upstream health supports and traditional foods. Since FNIM populations are much younger than the general Ontario population and less likely to have access to health services[6] to diagnose diabetes, this prevalence difference is concerning.

FNIM adults in younger age groups have **3-4 times higher prevalences of reported diabetes diagnosis** compared to their non-Indigenous counterparts,[4] as show in the graph below.

"I don't always have access to the traditional foods I want or need. These foods are essential for maintaining good health, controlling blood sugar, and managing high blood pressure"

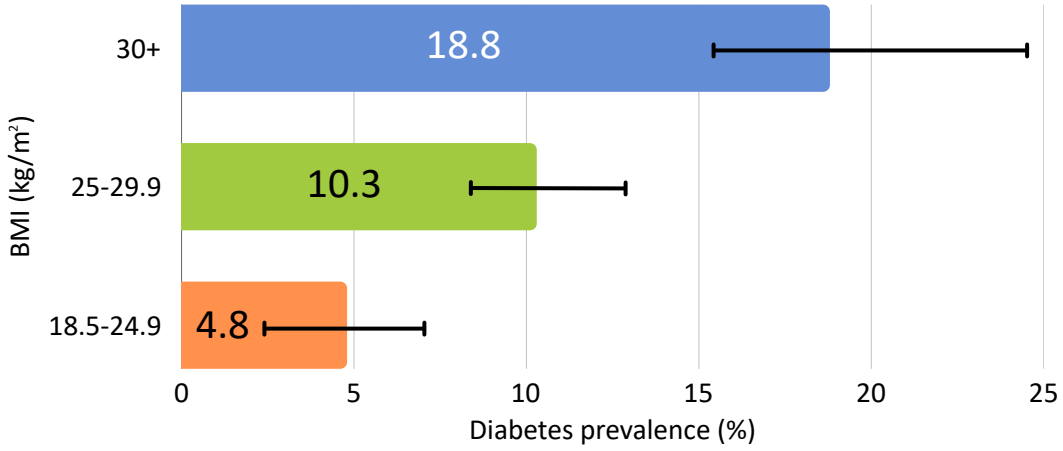
- OHC Ontario survey participant



11.9% **of FNIM adult women living in Hamilton, Toronto, London, Thunder Bay, and Kenora** report a diabetes diagnosis

This prevalence is close to **DOUBLE** the prevalence of diabetes (6%) among adult women in the general adult population (CCHS 2015-18).[4]

FNIM adults with higher BMI have higher prevalences of reported diabetes diagnosis, as shown in the graph below.



* *BMI is a measure of body fat based on height and weight*

Policy Implications

Implement TRC Call to Action 19[1]: We call upon the provincial and federal governments to work in partnership with Indigenous peoples in reducing gaps in health outcomes between Indigenous and non-Indigenous populations.

Implement TRC Call to Action 20[1]: We call upon the provincial and federal governments to recognize, respect, and address the distinct health needs of First Nations living off reserve, Inuit, and Métis.

Implement TRC Call to Action 21[1]: We call upon the provincial and federal governments to provide sustainable funding to existing and new Indigenous healing centers to address the physical, mental, emotional and spiritual harms.

Such efforts include:

- Identifying gaps in health outcomes by obtaining valid, representative, population-level health information through Indigenous-led surveys
- Establishing measurable goals for health outcomes to track progress in gap reduction
- Reducing barriers to access to healthcare services to address modifiable risk factors of chronic diseases, such as diabetes
- Provide funding for longitudinal and survival data analyses in order to better understand chronic diseases, such as diabetes, among Indigenous populations
- Increase access to diabetes prevention methods, including but not limited to geography-specific traditional foods for diabetes control as well as culturally relevant prevention programs

Definitions	Indigenous adults: persons 15 years and older self-identified as Indigenous, such as First Nations, Métis, Inuit or other Indigenous nations, living or using services in the cities of Hamilton, Toronto, London, Thunder Bay, Kenora
Notes	Older age groups were not included in this fact sheet due to smaller sample sizes in those age groups and, thus, risk of identification
Sources	1. Truth and Reconciliation Commission of Canada (2015); 2. Diabetes Canada Clinical Practice Guidelines...et al. (2018); 3. Walker et al., (2020); 4. Government of Canada (2022)
Authors	Octavia Wong, Janet Gasparelli, Cheryllee Bourgeois, Jan Martin, Micheal Hardy, Melissa Calder, Michael Rotondi, Marcie Snyder, Julia Iannace, Janet Smylie
Citation	Wong, O., Gasparelli, J., Bourgeois, C., Martin, J., Hardy, M., Calder, M., Rotondi, M., Snyder, M., Iannace, J., & Smylie, J. (2025). Our Health Counts: Diabetes [Fact sheet].
More info	http://www.welllivinghouse.com/what-we-do/projects/our-health-counts/

Population-based estimates created using respondent-driven sampling

Well Living House

Seventh Generation Midwives Toronto

Southwest Ontario Aboriginal Health Access Centre

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Ontario Ministry of Health & Long Term Care

Funding was provided by the Ministry of Health and Long-Term Care (MOHLTC) Capacity Award

Our Health Counts

Diabetes Reference

Our Health Counts (OHC) is an inclusive community-based health survey for First Nations, Inuit, and Métis (FNIM) populations living in Ontario cities and is part of the largest Indigenous population health study in Canada.

Adult participants were selected using respondent-driven sampling, a statistical method which uses social networks in the community to recruit FNIM populations living in Ontario cities.

The following prevalence estimates were obtained based on OHC participants in Hamilton, Toronto, London, Thunder Bay, and Kenora.

OHC diabetes survey question: "Do you have diabetes as diagnosed by a healthcare provider?"

Prevalence of diabetes among FNIM adults within Hamilton, Kenora, London, Thunder Bay, and Toronto

Ontario City	Prevalence (%) (95% CI)
Hamilton	**14.8 (29.4, 20.3)**
Kenora	**4.5 (0.0, 9.2)**
London	**14.7 (0.5, 20.0)**
Thunder Bay	**8.2 (4.8, 11.6)**
Toronto	**14.7 (10.6, 18.7)**
Pooled	**11.3 (7.1, 15.4)**

Prevalence of diabetes among FNIM adults across Hamilton, Kenora, London, Thunder Bay, and Toronto within each BMI category

BMI (kg/m^2)	Prevalence (%) (95% CI)
30+	**18.8 (12.4, 25.1)**
25-29	**10.3 (6.8, 13.8)**
18.5-24	**4.8 (1.8, 7.8)**

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Our Health Counts

An inclusive community-driven health survey for First Nations, Inuit, and Métis populations in Ontario cities

Prescription opioid use

The Truth and Reconciliation Commission of Canada (TRC) Call to Action 19 calls for an establishment of "measurable goals to identify and close the gaps in health outcomes" between Indigenous and non-Indigenous populations on indicators including mental health and the availability of appropriate health services, which are related to use of prescription opioids (POs).[1] Around 60 million people globally use POs without a prescription or out of keeping with how they were prescribed.[2] In 2017, 11.8% of the Canadian population used POs and approximately 3% of these individuals reported using them for non-medical purposes.[3] First Nations, Inuit, and Métis (FNIM) adults have been reported to have higher rates of hospitalization due to opioid poisoning compared to non-Indigenous populations.[4,5] Given limitations and gaps in health data for FNIM populations living in urban and related homelands, a meta-analysis technique was developed for respondent-driven sampling (RDS) data and applied to Our Health Counts (OHC) Hamilton, Toronto, London, Thunder Bay, and Kenora data sets. The aim of this meta analysis technique is to obtain an overall pooled prevalence of prescription opioid use among FNIM adults living in Ontario cities.

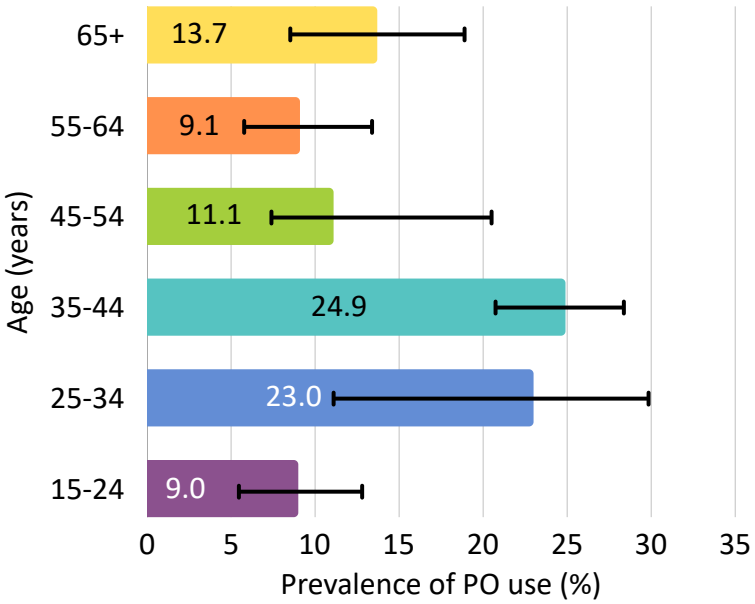
15.8% **of FNIM adults living in Hamilton, Toronto, London, Thunder Bay, and Kenora** report using POs without a prescription or out of keeping with how they were prescribed.

This use is about **1.6 times higher than the general adult population living in Ontario** (CCHS 2015-18).[3]

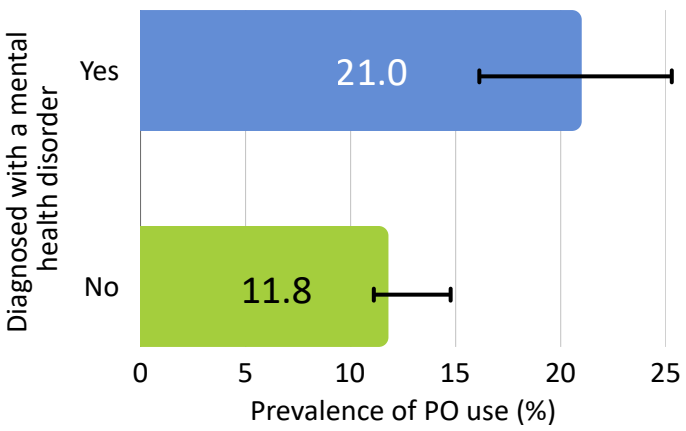
"Our communities need more Indigenous-specific mental health supports, safe injection services, and chronic care facilities that are rooted in Indigenous ways of care."

- OHC Ontario survey participant

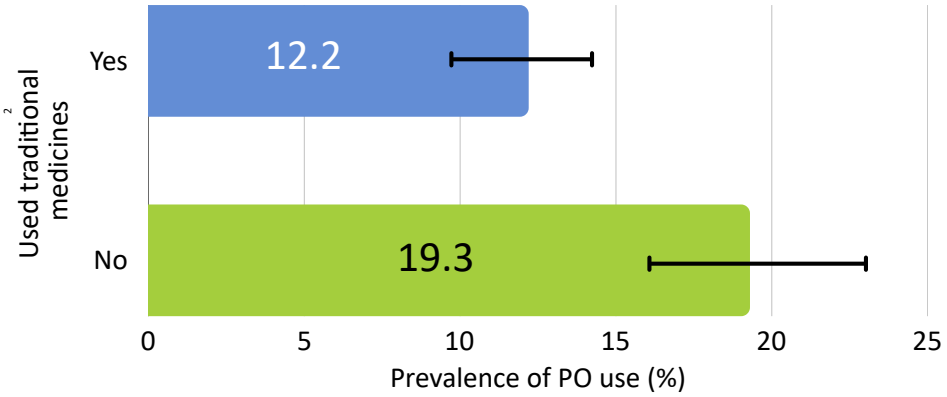
FNIM adults aged 25 to 34 years and 35 to 44 years have the highest prevalences of prescription opioid (PO) use, as shown in the graph below.



FNIM adults diagnosed with a mental health disorder are almost **2 times** more likely to use POs without or out of keeping with a prescription than those without a mental health disorder diagnosis, as shown in the graph below.



FNIM adults who use traditional medicines have a significantly lower prevalence of PO use than those who do not use traditional medicines, as shown in the graph below.



Policy Implications

Implement TRC Call to Action 19[1]: We call upon the provincial and federal governments to work in partnership with Indigenous peoples in reducing gaps in health outcomes between Indigenous and non-Indigenous populations.

Implement TRC Call to Action 20[1]: We call upon the provincial and federal governments to recognize, respect, and address the distinct health needs of First Nations living off reserve, Inuit, and Métis.

Implement TRC Call to Action 21[1]: We call upon the provincial and federal governments to provide sustainable funding to existing and new Indigenous healing centers to address the physical, mental, emotional and spiritual harms.

Such efforts include:

- Identifying gaps in health outcomes by obtaining valid, representative, population-level health information through Indigenous-led surveys
- Reducing barriers to access to healthcare services to address modifiable risk factors of mental health disorders, which are linked to PO use without a prescription or out of keeping with the prescription
- Increase access to culturally appropriate healthcare services, including traditional medicines, to reduce the use of POs without a prescription or out of keeping with the prescription

Definitions Indigenous adults: persons 15 years and older self-identified as Indigenous, such as First Nations, Métis, Inuit or other Indigenous nations, living or using services in the cities of Hamilton, Toronto, London, Thunder Bay, Kenora

Sources 1. Truth and Reconciliation Commission of Canada (2015); 2. The Lancet Regional Health-Americas (2023); 3. Canadian Centre on Substance Use and Addiction (2020); 4. Lavalley et al. (2018); 5. Hatt (2022)

Authors Octavia Wong, Janet Gasparelli, Cheryllee Bourgeois, Jan Martin, Micheal Hardy, Melissa Calder, Michael Rotondi, Marcie Snyder, Julia Iannace, Janet Smylie

Citation Wong, O., Gasparelli, J., Bourgeois, C., Martin, J., Hardy, M., Calder, M., Rotondi, M., Snyder, M., Iannace, J., & Smylie, J. (2025). Our Health Counts: Prescription Opioid Use [Fact sheet].

More info http://www.welllivinghouse.com/what-we-do/projects/our-health-counts/

Population-based estimates created using respondent-driven sampling

Funding was provided by the Ministry of Health and Long-Term Care (MOHLTC) Capacity Award

Our Health Counts

Prescription Opioids Use Reference

Our Health Counts (OHC) is an inclusive community-based health survey for First Nations, Inuit, and Métis (FNIM) populations living in Ontario cities and is part of the largest Indigenous population health study in Canada.

Adult participants were selected using respondent-driven sampling, a statistical method which uses social networks in the community to recruit FNIM populations living in Ontario cities.

The following prevalence estimates were obtained based on OHC participants in Hamilton, Toronto, London, Thunder Bay, and Kenora.

OHC prescription opioid (PO) use survey question: "Have you used prescription opiates (codeine, morphine, Percodan, Tylenol 3, fentayl, talwin, etc.) in the last 12 months without a prescription or out of keeping with how they were prescribed?"

Prevalence of PO use without a prescription or out of keeping with the prescription among FNIM adults within Hamilton, Kenora, London, Thunder Bay, and Toronto

Ontario City	Prevalence (%) (95% CI)
Hamilton	**18.3 (3.4, 33.2)**
Kenora	**17.5 (11.9, 23.0)**
London	**17.4 (13.8, 21.0)**
Thunder Bay	**10.5 (7.7, 13.6)**
Toronto	**18.6 (15.4, 21.8)**
Pooled	**15.8 (12.6, 19.1)**

Funding was provided by the Ministry of Health and Long-Term Care (MOHLTC) Capacity Award

Our Health Counts

Prescription Opioids Use Reference

Our Health Counts (OHC) is an inclusive community-based health survey for First Nations, Inuit, and Métis (FNIM) populations living in Ontario cities and is part of the largest Indigenous population health study in Canada.

Adult participants were selected using respondent-driven sampling, a statistical method which uses social networks in the community to recruit FNIM populations living in Ontario cities.

The following prevalence estimates were obtained based on OHC participants in Hamilton, Toronto, London, Thunder Bay, and Kenora.

Pooled prevalence of PO use without a prescription or out of keeping with the prescription among FNIM adults across OHC sites within each age group

Age (years)	Prevalence (%) (95% CI)
15-24	9.0 (2.6, 15.4)
25-34	23.0 (11.2, 34.9)
35-44	24.9 (19.6, 30.3)
45-54	11.1 (5.7, 16.5)
55-64	9.1 (3.0, 15.1)
65+	13.7 (3.6, 23.9)

Pooled prevalence of PO use without a prescription or out of keeping with the prescription among FNIM adults across OHC sites with and without a mental health disorder diagnosis

Mental health disorder diagnosis	Prevalence (%) (95% CI)
No	11.8 (9.5, 14.0)
Yes	21.0 (12.6, 29.3)

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Adult participants were selected using respondent-driven sampling, a statistical method which uses social networks in the community to recruit FNIM populations living in Ontario cities.

The following prevalence estimates were obtained based on OHC participants in Hamilton, Toronto, London, Thunder Bay, and Kenora.

Prevalence of PO while also using traditional Indigenous medicines among FNIM adults across OHC sites.

Traditional medicine usage	PO use prevalence (%)(95% CI)
No	**19.3 (13.4, 25.2)**
Yes	**12.2 (8.6, 15.8)**

Funding was provided by the Ministry of Health and Long-Term Care (MOHLTC) Capacity Award

Our Health Counts

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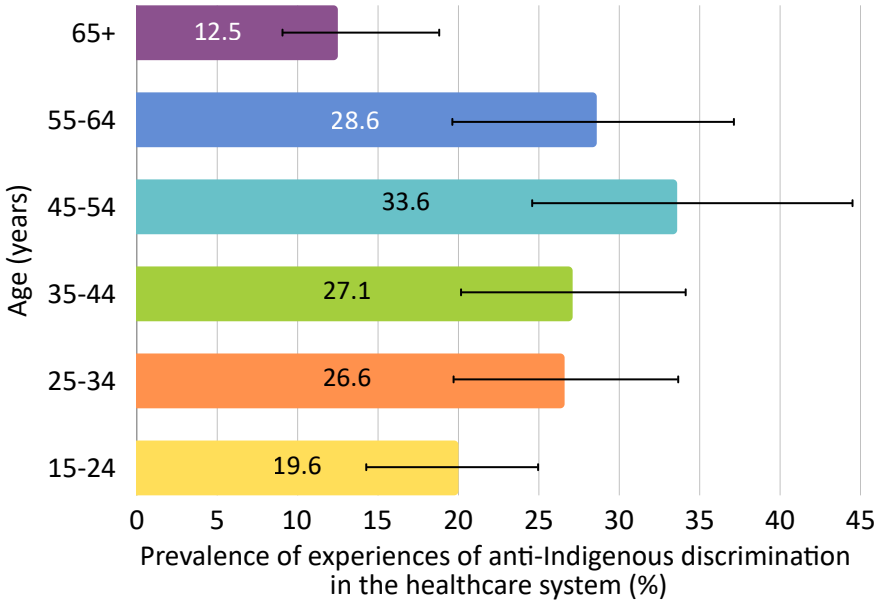
Indigenous Experience in the Healthcare System

The Truth and Reconciliation Commission of Canada (TRC) Calls to Action 23 and 24 call for training in cultural and intercultural competency, human rights, and anti-racism among healthcare professionals.[1] Systemic barriers, such as racism leading to distrust of healthcare systems, are some of the main reasons for the lack of primary care access and thus unmet health needs and disparities experienced by Indigenous peoples.[2] The lack of understanding or addressing of relevant social determinants of health and culturally relevant care for Indigenous patients in the Canadian healthcare system contributes to the health inequities experienced by Indigenous peoples, a link that has already been shown in previous Our Health Counts (OHC) studies.[2-4] Moreover, the TRC Call to Action 22 calls for the implementation of Indigenous healing practices, including traditional medicines, for treatment of Indigenous patients in collaboration with Indigenous healers and Elders where requested by Indigenous patients.[1] Given limitations and gaps in health data for First Nations, Inuit, and Métis (FNIM) populations living in urban and related homelands, a meta-analysis technique was developed for respondent-driven sampling (RDS) data and applied to OHC Hamilton, Toronto, London, Thunder Bay, and Kenora data sets. The aim of this meta analysis technique is to obtain an overall pooled prevalences of anti-Indigenous discrimination in the healthcare system and use of traditional medicines among FNIM adults living in Ontario cities.

32.1% **of FNIM adults living in Toronto, London, Thunder Bay, and Kenora** report experiences of anti-Indigenous discrimination in the healthcare system

Middle-aged FNIM adults have significantly higher prevalences of experiences of anti-Indigenous discrimination in the healthcare system than those aged 65 years and older, as shown in the graph below.

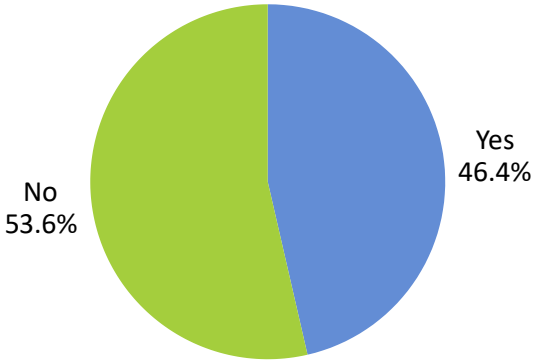


"I was at the emergency room and noticed that all the Indigenous patients were left waiting together, while white patients were brought in first. In the end, we were all waiting the longest. I've seen this happen many times, and it makes me feel there are serious racial issues in the hospital. I've been overlooked as a patient, sitting for hours while others are seen right away. Even nurses have taken over an hour to bring me water."

- OHC Ontario survey participant

* *Through consultation with Indigenous community partners, it was raised that OHC Hamilton is an older study as it was completed in 2010 [5] and was thus not included in these analyses. See notes for more details.*

46.4% **of FNIM adults living in Hamilton, Toronto, London, Thunder Bay, and Kenora** report using traditional medicines



This prevalence is consistent across all ages and genders.

However, previous studies have found that there are still high rates of gaps in access to traditional medicines across OHC sites.[6,7]

Policy Implications

Implement TRC Call to Action 14[1]: We call upon the policy makers and others who can affect change in the Canadian healthcare system to recognize the importance and value of Indigenous healing practices, including traditional medicines, and incorporate them in collaboration with Indigenous healers and Elders into the treatment of Indigenous patients upon request.

Implement TRC Call to Action 23[1]: We call upon the provincial and federal governments to Increase the number of Indigenous professionals working in the healthcare field and ensure their retention. We call upon these governments to ensure cultural competency training for all healthcare professionals.

Implement TRC Call to Action 24[1]: We call upon the provincial governments to ensure medical and nursing school curricula include skills-based training in intercultural competency, human rights, and anti-racism in the context of Indigenous health.

Such efforts include:

- Provide funding and scholarships for Indigenous students on track for medical and nursing school
- Ensure diversity, equity, and inclusion initiatives are in place at all healthcare institutions
- Implementing cultural and intercultural competency, human rights, and anti-racism training in the education system, particularly in medical and nursing school
- Emphasizing the effectiveness of the inclusion of Indigenous healing practices for Indigenous patients who request them to healthcare professionals, which has already been shown in the research of health outcomes
- Reducing barriers to access to traditional medicines

Definitions Indigenous adults: persons 15 years and older self-identified as Indigenous, such as First Nations, Métis, Inuit or other Indigenous nations, living or using services in the cities of Hamilton, Toronto, London, Thunder Bay, Kenora

Notes It was likely still less socially unacceptable to discuss experiences of discrimination at the time of the OHC Hamilton study (as compared to the other more recent OHC studies). Thus, the number of cases of discrimination may have been underreported, contributing to the considerable between-study heterogeneity when OHC Hamilton was pooled with the other sites. The Indigenous community partners advised removing OHC Hamilton from analyses of experiences of anti-Indigenous discrimination in the healthcare system.

Population-based estimates created using respondent-driven sampling

Sources 1. Truth and Reconciliation Commission of Canada (2015); 2. Kitching et al. (2020); 3. Boyer (2017); 4. Beckett et al. (2018); 5. Smylie et al. (2024); 6. Seventh Generation Midwives Toronto (2018); 7. O'Brien et al. (2023)

Authors Octavia Wong, Janet Gasparelli, Cheryllee Bourgeois, Jan Martin, Micheal Hardy, Melissa Calder, Michael Rotondi, Marcie Snyder, Julia Iannace, Janet Smylie

Citation Wong, O., Gasparelli, J., Bourgeois, C., Martin, J., Hardy, M., Calder, M., Rotondi, M., Snyder, M., Iannace, J., & Smylie, J. (2025). Our Health Counts: Diabetes [Fact sheet].

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Our Health Counts

Experiences of Anti-Indigenous Discrimination in the Healthcare System Reference

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Adult participants were selected using respondent-driven sampling, a statistical method which uses social networks in the community to recruit FNIM populations living in Ontario cities.

The following prevalence estimates were obtained based on OHC participants in Hamilton, Toronto, London, Thunder Bay, and Kenora.

OHC experiences of anti-Indigenous discrimination in the healthcare system survey question: "Have you ever been treated unfairly (e.g. treated differently, kept waiting) by a health professional (e.g. doctor, nurse, etc.) because you are Indigenous?"

Prevalence of experiences of anti-Indigenous discrimination in the healthcare system among FNIM adults within Kenora, London, Thunder Bay, and Toronto

Ontario City	Prevalence (%) (95% CI)
Kenora	37.0 (28.5, 45.4)
London	26.0 (19.6, 32.4)
Thunder Bay	39.0 (32.9, 45.1)
Toronto	27.4 (22.5, 32.3)
Pooled	32.1 (25.5, 38.6)

* *Through consultation with Indigenous community partners, it was raised that OHC Hamilton is an older study as it was completed in 2010 [5] and was thus not included in these analyses. See notes for more details.*

Prevalence of experiences of anti-Indigenous discrimination in the healthcare system among FNIM adults across OHC sites within each age group

Age (years)	Prevalence (%) (95% CI)
15-24	19.6 (8.2, 30.9)
25-34	26.6 (16.5, 37.7)
35-44	27.1(15.6, 38.6)
45-54	33.6 (16.8, 50.4)
55-64	28.6 (13.3 , 43.8)
65+	12.5 (5.8, 19.2)

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Our Health Counts

Traditional Medicines Use Reference

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Adult participants were selected using respondent-driven sampling, a statistical method which uses social networks in the community to recruit FNIM populations living in Ontario cities.

The following prevalence estimates were obtained based on OHC participants in Hamilton, Toronto, London, Thunder Bay, and Kenora.

OHC traditional medicines use survey question: "Do you use traditional Indigenous medicine or practices to maintain your health and wellbeing?"

Prevalence of traditional medicines use among FNIM adults within Hamilton, Kenora, London, Thunder Bay, and Toronto

Ontario City	Prevalence (%) (95% CI)
Hamilton	**31.0 (24.2, 37.8)**
Kenora	**51.1 (42.0, 60.1)**
London	**62.0 (54.5, 69.5)**
Thunder Bay	**39.4 (33.3, 45.4)**
Toronto	**49.0 (43.4, 56.7)**
Pooled	**46.4 (36.0, 56.7)**

Funding was provided by the Ministry of Health and Long-Term Care (MOHLTC) Capacity Award