

Health in the North

A report on geography and the health of people in Ontario's two northern regions



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On the cover: Caitlin, near her home in Moose Factory.

See page 2 for her story. We thank Caitlin and the other people who have shared their experiences with us for this report.

(Cover photo by Brooke Kruithof)

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Photo of Mae Katt by Jason Spun.
See her story on page 17.

A long way to care

Wendy receives a frightening diagnosis while far from home, and begins an exhausting journey of tests and treatments in all corners of Ontario

“I was grateful my father went with her, but the rest of her family was miles and miles away while she was told the horrible diagnosis ... It’s upsetting not being able to be there for your loved ones when they go through something like that.”

- Caitlin, who helped care for her mother, Wendy, in Moose Factory

Wendy collapsed to the ground, shaking violently. She was rushed to her local hospital in Moose Factory, a remote town on an island at the southern tip of James Bay. Suffering a seizure, Wendy, 53, found herself in the small hospital where she worked in the finance department for the past 30 years. This time, she was a patient.

The local hospital did not have the facilities or specialists that Wendy needed to deal with the severity of the seizure, so she got airlifted to a larger hospital in Kingston, about 850 kilometres away.

Far from home, in Kingston, Wendy received the crushing news that she had lung cancer. Worse still, doctors told her the cancer cells had spread to her brain. She was devastated, and thought back to all the years she had spent smoking, which she started when she was just 12.

Wendy’s husband was able to go with her to Kingston, but she was far away from the rest of her family, community and support system.

“I was grateful my father went with her,” says Wendy’s daughter, Caitlin. “But the rest of her family was miles and miles away while she was told the horrible diagnosis. We all rushed out, with my father paying our ways, which took a lot out of them financially. It’s upsetting not being able to be there for your loved ones when they go through something like that.”

Wendy’s husband had recently been diagnosed with thyroid cancer and couldn’t help care for her after she was discharged from hospital, so Wendy and two of her five sons moved in with Wendy’s mother in Moose Factory. Caitlin, who was studying in the Ottawa area, travelled back home to help out when she could.

Wendy was eventually transferred to another hospital in Toronto for an MRI and radiation treatments on her brain.

“It definitely got harder for her to travel,” Caitlin says. “She wasn’t able to walk to her appointments [in Toronto], or stay out of bed long. We would have to take a two-minute cab ride. The last appointment she went to there, she asked us ‘Is this it? Did they just write me off?’ We had nothing to say to her. The doctor didn’t really leave us with a good note.”

After returning home to Moose Factory when her treatments were completed in Toronto, Wendy got word from a hospital in Sudbury that they could do radiation treatments on her lungs. Wendy was eligible for a subsidy to cover her airfare to and from Sudbury, but decided to travel by train and car with Caitlin. (There is no direct flight from Moose Factory and with all the transfers, Wendy felt that flying would be just as disruptive a trip, and very hard on her physically.)

“All the driving was pretty hard on her,” Caitlin says. “She had some seizure episodes [in the car], which were scary. She probably shouldn’t have been on the highway, but flying wasn’t the way to go, either.”

Doctors initially told Wendy she would only have months to live, but she responded well to the radiation treatments and the tumours in her brain and lungs shrank. About six months later, however, they started growing again, and neither chemotherapy nor radiation were options.

“I can’t do much,” Wendy says, her friendly voice halting. “Right now, I can’t even keep track of my medicine. I’m losing touch.”

Wendy received home care services for palliative care, but the family struggled as her condition worsened. “We were all grateful for the care provided from the home care team, hospital and paramedicine staff,” Caitlin says. “My mom’s choice was to be in home care, and our family tried our best to keep up with her needs and make sure she was comfortable. There is definitely a learning curve from this.”

Caitlin, who is in Pembroke studying to be an ultrasound and X-ray technician, feels that the health system in the north could use a lot more attention. “In the beginning, when my mom got diagnosed, I was angry,” she says. “Mom had been getting stressed about her eyesight going, but even after seeing several doctors, no one sent her for a CT scan.” She hopes to see improvements in illness prevention, diagnosis and palliative care services in the north. “We need to figure out a better way to do things in the northern communities. And more people need to care.”

In memoriam: Wendy died peacefully in the Moose Factory hospital shortly after the writing of this story.

“ We need to figure out a better way to do things in the northern communities. More people need to care.”

- *Caitlin*



Photo of Caitlin by Brooke Kruithof.



The image shows a stylized map of Ontario, Canada, with two regions highlighted. The North West LHIN region is colored purple and covers the western part of the province. The North East LHIN region is colored teal and covers the eastern part of the province. The rest of the province is shown in a light grey color. A thick teal horizontal bar is at the top of the page.

North West LHIN region

Covers an area of about **460,000 square kilometres**, with a total population of **236,000 people** and a population density of **0.6 people per square kilometre**

Source: North West LHIN

North East LHIN region

Covers an area of about **400,000 square kilometres**, with a total population of **565,000 people** and a population density of **1.4 people per square kilometre**

Source: North East LHIN

Geography of the north

Wendy, Caitlin and their family travelled hundreds of kilometres by land, water and air to access the health services Wendy needed. It shows the challenges of geography for health care in Ontario's north.

For the purposes of this report, “the north” and “the northern regions” refers to the northern part of Ontario that covers the North East and North West Local Health Integration Network (LHIN) regions. These regions extend north of Lake Huron to Hudson Bay and James Bay, and from the Quebec border in the east to the Manitoba border in the west.

More than 860,000 square kilometres in area, these two vast LHIN regions together cover nearly 80% of Ontario's landmass, an area larger than that of France and the U.K. combined. With a combined population of about 800,000 people, or about 6% of the Ontario population, the northeast and northwest regions of Ontario have a population density of less than one person per square kilometre, compared to 4,100 people per square kilometre in Toronto.[1]

Quick Facts



North West LHIN region

- Nearly half of the people (**46.0%**) live in a large urban centre and about one-third (**34.2%**) live in a rural area (with the remaining percentages of people in small and medium-sized population centres), compared to Ontario overall with **69.3%** in a large urban centre and **14.1%** in a rural area
- Nearly one in five people (**18.3%**) in the North West LHIN region identify as Indigenous, compared to **2.4%** in Ontario overall[6] (these survey results likely underrepresent the Indigenous populations[7])
- Although **2.8%** of people identify French as their first official language spoken, which is slightly lower than the Ontario rate of **3.9%**, in some areas of the North West LHIN region, the rate is much higher than the Ontario average,[8] such as certain regions in the district of Thunder Bay, where **13.0%** of people identify as francophone[9]



North East LHIN region

- Nearly one in five people (**19.3%**) live in a large urban centre and **30.2%** live in a rural area (with the remaining percentages of people in small and medium-sized population centres), compared to Ontario overall with **69.3%** in a large urban centre and **14.1%** in a rural area
- More than one in 10 people (**11.0%**) identify as Indigenous, more than four times the Ontario rate of **2.4%**[2] (these survey results likely underrepresent the Indigenous populations[3])
- More than one in five people (**21.6%**) identify French as their first official language spoken (more than five times the Ontario rate of **3.9%**)[4]
- In the Cochrane region, nearly half the population (**46.6%**) identify as francophone[5]

Populations in the north

First Nations, Métis and Inuit

The Canadian constitution recognizes First Nations, Métis and Inuit as three distinct cultural identity groups, each of which has a unique history, set of traditions and cultural practices, and governance structures.[10] Nearly one in five people (18.3%) identify as First Nations, Métis or Inuit in the North West LHIN region and more than one in 10 people (11.0%) in the North East LHIN region, compared to 2.4% in Ontario overall.[11] These numbers are likely an underestimation of the true populations of Indigenous peoples in the northern LHIN regions and in Ontario.[12]

While few data exist to provide a more detailed cultural breakdown of Indigenous people in the north, the large proportion are either First Nations or Métis. This Métis presence is evident in places like Dryden and Atikokan, where about 70% of the local Indigenous population are Métis, and in towns like Kenora, Fort Frances, North Bay, and Timmins, where the Métis population represents around 50% of the local Indigenous population.[13]

First Nations, Métis and Inuit peoples have faced various discriminatory policies in Ontario (and across Canada) that created inequities that continue to affect the health of populations, including forced relocations, residential schools and forced sterilizations.[14]

In recognition of this history, the Truth and Reconciliation Commission released its final report in 2015 to create

a historical record of the country's dark past,[15] and to establish 94 calls to action that, if addressed, will guide paths to reconciliation. The report clearly articulated the ongoing legacy of colonialism and its harmful effects on the wellbeing of First Nations, Métis and Inuit peoples. According to the Commission, reconciliation is "an ongoing process of establishing and maintaining respectful relationships." Many governments, religious organizations, academic institutions, and other organizations are responding to the calls to action. Ontario is working with First Nations, Métis and Inuit partners to address these issues and establish greater equity across the province.[16]

There are also substantial differences in the way health care is funded and delivered for First Nations, Métis and Inuit peoples in Ontario, which creates gaps in some of the health data used to derive the health indicators in this report. This means the performance measures may not represent First Nations, Métis and Inuit populations' experiences as well as they do for the general population of the northern regions.

For example, the federal government provides funding and sometimes direct health services for First Nations populations on-reserve through Health Canada's First Nations and Inuit Health Branch, including the hiring of environmental health officers and outpost nurses in nursing stations and health centres, public health services, and health promotion and prevention programs for First Nations and Inuit people. Health

benefits cover a range of services including prescription medications, vision care, dental services and medical transportation.[17,18] At present, such federal supports are not available to Métis people in Canada. Because of these funding differences, there may be additional barriers to health care for Métis people in the north.

Aboriginal Health Access Centres, which are funded by the province, provide services to First Nations populations both on and off reserve. Their services include urban and outreach primary health care for diverse Indigenous populations.

Because we don't have more detailed data for these at-risk Indigenous populations, in this report we are unable to provide First Nations-, Inuit- or Métis-specific results, despite the need for these kinds of data. To do so, we would need health system performance measures that are designed to evaluate the efficacy of different health services that aim to improve health outcomes specifically for First Nations, Métis and Inuit populations. These measures would have to be developed from Indigenous perspectives, and with direct input and involvement of the various First Nations, and the Métis Nation of Ontario, in order to address these data gaps, and to ensure relevance and usefulness. In the interim, we have attempted to represent the experiences and health of First Nations, Métis and Inuit populations within the broader, shared experiences of people living in the North East and North West LHIN regions compared to Ontario overall.

Francophone populations

The legislative and political rights acquired by francophones over time in Ontario are recognized in the French Language Services Act (FLSA). The act guarantees a person's right to receive services – including health services – in French from Government of Ontario ministries and agencies in 25 designated areas. Many of those designated areas are in the north [19] where there are large francophone populations in the North East LHIN region, and smaller but significant francophone populations in areas of the North West LHIN region. More than one in five people (21.6%) in the North East LHIN region identify French as their first official language spoken, which is more than five times the Ontario rate of 3.9%.[20] There is overlap in the francophone and Métis data categorizations, in that many Métis people also identify as francophone, and vice-versa.

In the North West LHIN region 45% of the francophone population perceive their health as very good or excellent, compared to 62% for the overall francophone population in Ontario.[21] The francophone population in the North East LHIN region are more likely to smoke and to have inadequate fruit and vegetable consumption than the francophone population in Ontario overall.[22]

If they don't feel they have access to health services in French, the francophone populations may hesitate to get the care they need, or if they do receive care, they might not understand an English-speaking health provider's directions for treatments.[23] To avoid language barriers in health care, the francophone

population needs to have health services available to them in French, at a comparable level to services that are offered in English. Those French-language services also need to be actively offered, meaning that the measures are publicized and easily accessible.

Francophones remain mostly invisible in the data, which makes it difficult to identify them and collect information. There is a lack of identification of francophone patients in general and a lack of data on the health status of the francophone population, making it difficult to provide an accurate picture of their health. However, a review of studies that have investigated the impact on patients of language barriers indicates that language barriers can have an impact on access to care, safety and quality of care.[24]

One example of the language barrier affecting care, from Diane Quintas, executive director of the Réseau du mieux-être francophone du Nord de l'Ontario, a

Francophone planning group in northern Ontario: A 90-year-old francophone man with acute hearing loss went to the emergency department in extreme pain. He was admitted on the floor, but since no one understood his French, and because of his hearing problems, he spoke very loudly. The caregivers, who only spoke English, considered him incoherent, delirious and possibly aggressive because of his loud voice. They felt he was a danger to them and to himself, so he was tied to his bed. He spent much of the day alone and restrained, and when someone did come to see him, they spoke to him in English. It was later determined that the problem was a lack of communication related to the fact that he was a francophone and did not understand English at all.

More than one in five people (**21.6%**) in the North East LHIN region identify French as their first official language spoken, which is more than five times the Ontario rate of **3.9%**.

Take a breath

Pierre's long and expensive road to a double-lung transplant

As a francophone, Pierre sometimes had trouble understanding what the doctors and nurses were saying, even though his English is good.

Pierre woke up after the surgery knowing he had a new pair of lungs in his chest. As they removed the breathing tube from his throat, he wasn't sure the new lungs would work. "They kept yelling at me: 'Breathe, breathe, breathe!' but at first I didn't know how," says Pierre, a 71-year-old retired mechanic from the rural town of Nakina, northeast of Thunder Bay. "But then I took a breath and there was no more pain."

There was the pain of the operation, of course, but Pierre's double lung transplant at a hospital in Toronto left him otherwise pain-free. During the 12 years he spent living with emphysema before the operation, every breath sent a burning sensation through his lungs. It was an amazing feeling, Pierre thought, after so much travel and so many expenses that he and his wife Suzanne endured.

Pierre's many health-related journeys began in 1996 when he was diagnosed with emphysema. He and Suzanne drove back and forth to the

closest hospital to Nakina several times, which is 60 kilometres away in the town of Geraldton.

"Finally, in 2001, my wife got fed up and took me to a Thunder Bay hospital," Pierre says, "and I stayed there for three months to rebuild a little bit so I'd be able to get a double-lung transplant."

As a francophone, Pierre sometimes had trouble understanding what the doctors and nurses were saying, even though his English is good. He was happy to discover that his lung specialist in Thunder Bay spoke perfect French, which made communication much easier for discussions about treatments and tests.

Even after being released from hospital, Pierre still needed to be nearby for tests and treatments, so he and his wife moved their mobile home from Nakina to a trailer park in Thunder Bay. Their son also moved to Thunder Bay to help out and to set up the trailer, since Pierre's lung condition was getting worse.

Finally, in 2008, Pierre got word that he could get on the lung transplant waiting list, but it would mean they had to move again, this time to Toronto. They packed up their belongings and drove from Thunder Bay to an apartment they rented in Toronto. Four-and-a-half months later, Pierre had the transplant operation and stayed in Toronto another four months for recovery and follow-ups.

Between rent, moving expenses and medication bills, Pierre says he spent \$70,000 out of pocket for his transplant. “Before you get on the waiting list, they ask you if you have enough money,” Pierre says. “They ask you if you’re well-off or not. You don’t know what to answer, but I told them I had about \$75,000 or \$85,000 and they said that was OK.”

Beyond the money, the experience was different for the couple in other ways. “It was very hard for my wife,” Pierre says. “I couldn’t walk anymore and she had to push me everywhere I went, to all the appointments.” The travel took a toll on both of them as well. Before they moved to Toronto for the transplant, the couple travelled back and forth between Thunder Bay and Toronto for tests. “I travelled five or six times back and forth to Toronto,” Pierre says. “My wife drove there. It took about 20 hours every time. Twenty hours when you’re sick was really tough.”

Pierre and Suzanne still live in Thunder Bay to stay close to medical support that is not available in Nakina. Pierre is planning to do a walk-a-thon in 2017. “I can walk quite a few miles,” he says.

Between rent, moving expenses and medication bills, Pierre says he spent \$70,000 out of pocket for his transplant.



Photo of Pierre by Jason Spun.

Charting health inequity in the north

People living in the north of Ontario often have very different experiences with their health, and with the care they receive, than is typical in the province overall. Health care providers also face enormous challenges in delivering care to people across such a large area with an extremely low population density compared to the south of the province. Another challenge is to provide culturally safe care from health practitioners who are informed about trauma related to Indigenous peoples in northern regions.

In Ontario's two northern Local Health Integration Network (LHIN) regions:

- People have shorter expected lifespans than the average in Ontario
- People are far more likely to die prematurely (before age 75) from suicide, heart disease or other causes
- People are much less likely to report being able to see a primary care provider, such as a family doctor or nurse practitioner when they're sick

How do we bridge the health gap between the north and south of Ontario? How do we move closer to achieving health equity, the state in which all people living in Ontario are able to reach their highest level of health and receive high-quality health care that is fair and appropriate, no matter where they live, who they are, or what they have?

Health equity involves much more than just health care

The social determinants of health – factors such as income, employment status, ethnicity, gender, immigration status and rural or urban location – can have a large impact on individual and population health. For some of the performance measures presented in the report (particularly life expectancy, premature mortality, smoking rates, multiple chronic conditions), the findings are likely to be influenced by the broader social determinants of health and not solely influenced by how well the health system performs.

As Health Quality Ontario highlighted in our 2016 yearly report called *Measuring Up* (which reports on how the health system in Ontario is performing), we see unacceptable variation in health care quality and health outcomes by geography and population groups, such as those living in the north, and we've seen this as a stubborn trend over the years.

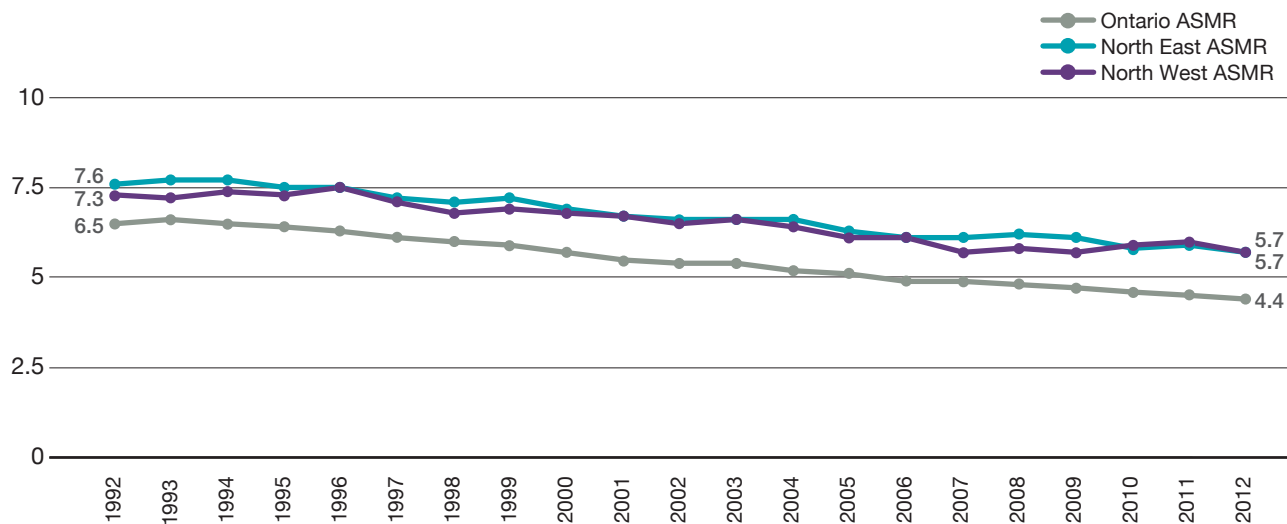
In many performance measures, Ontario overall has seen significant gains in recent years, but the northern regions continue to lag far behind the provincial averages. For example, the relative gap in the mortality rate between the northern regions and Ontario overall has been widening over time. The mortality rate was higher across all regions in Ontario in 1992, but the gap in the mortality rate between the north and the Ontario average was smaller. The relative gap has grown to 30% in 2012 from 12-17% in 1992.

To understand the inequalities in health and health care between the north and Ontario overall, we decided to look deeper into the data – going further than *Measuring Up* does – to gain a clearer picture of how Ontario's health system is performing for people living in the province's two northern regions. We also dig into some of the reasons behind health inequities in the north, and gain further perspective through the stories of people living in these regions.

We recognize that the average numbers for the performance measures we report in each of the two LHIN regions don't, by any means, tell the whole story. Because of limitations in the available data, we can't possibly present a complete picture of health equity in the north. Issues that require further investigations include:

- ensuring that the performance measures and benchmarks are the most appropriate to guide the provision of the right care at the right time by the right provider for the reality of the north

FIGURE 1
Age-standardized mortality rate (ASMR) per 1,000 people in Ontario, North East LHIN and North West LHIN, 1992-2012



Data Source: Ontario Registrar General's Death (ORG-D) file, provided by the Institute for Clinical Evaluative Sciences.

- addressing inequities within the northern regions, such as income or cultural disparities that might affect people's health access and outcomes
- taking a closer look at sub-populations within each of the LHIN regions for which research shows there are even greater health challenges, such as First Nations, Métis and francophone populations[25,26]
- exploring the reasons for the inequities that we see in the results presented in this report
- uncovering what's limiting people's access to care
- digging further into the what's being done to address these problems

Given these limitations, we recognize that the following key findings are just the start. There is much more to be explored to further understand the underlying disparities between groups within and across each of the two northern regions.

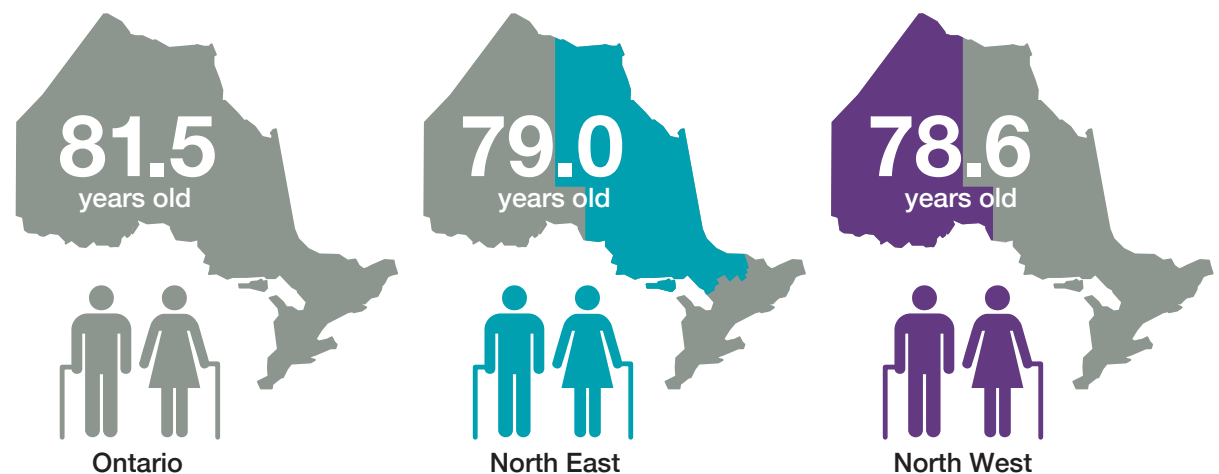
Key Findings:

1. **People in the north have a much shorter life expectancy than those in Ontario overall – 2.9 years lower than Ontario in the North West LHIN region and 2.5 years lower in the North East LHIN region.**

Life expectancy is shorter in the north. People in the North West LHIN region have a life expectancy of 78.6 years, compared to 81.5 years in Ontario. With life expectancy, even a fraction of a year makes a big difference in overall population health. For the sake of comparison, the life expectancy in Ontario as a whole hasn't been as low as 78.6 years since the period of 1995/1997.[27]

People in the North East LHIN region also have a markedly lower life expectancy than Ontario overall, of 79.0 years, or 2.5 years shorter than the Ontario average.

FIGURE 2
Life expectancy at birth, by LHIN region, 2007–2009



Data Source: Statistics Canada, Canadian Vital Statistics, Death Database and Demography Division, CANSIM table 102-4315. CANSIM table 102-4307.

2. People in the north are more likely to die younger.

To gain a broader perspective on health system performance, we can look at potential years of life lost, a way of measuring premature death by estimating all the years of potential life that are lost when someone dies prematurely (in this case, prematurely is deemed to be before age 75). Here are a couple of examples of how potential years of life lost is calculated:

- If someone died at age 25 by suicide, that would be equivalent to 50 potential years of life lost
- If someone died at age 74 of heart disease, that would be equivalent to one potential year of life lost

Potential years of life lost includes sudden deaths from accidents, as well as deaths from disease and illness. This performance measure is, in part, associated with the quality of health care people receive since disease prevention and management efforts can reduce the

prevalence of early deaths from conditions such as diabetes and heart disease. Public health and efforts outside the health system will also play a large role in preventing illness.[28]

The two northern LHIN regions have the highest rates of potential years of life lost from people dying prematurely in the province.[29]

The North West LHIN region has nearly double Ontario's number of potential years of life lost due to avoidable deaths, at 6,023 years lost per 100,000 people over a two-year period, compared to 3,243 years per 100,000 people in Ontario.

The North East LHIN region also has considerably higher potential years of life lost due to avoidable deaths than Ontario, at 4,763 years per 100,000 people.

FIGURE 3
Potential Years of Life Lost, due to avoidable deaths, by LHIN region, per 100,000 population, 2010-2012



Data Source: Statistics Canada, Canadian Vital Statistics, Death Database and Demography Division. Results are age-standardized.
* Significantly different from the Ontario value.

3. People in the north are more likely to die prematurely due to suicide, circulatory disease and respiratory disease.

We can look further into the potential years of life lost by causes of death that are avoidable, and are, to some extent, associated with how well the health system performs.[30] These performance measures also show worse results in the north.

Suicide is the leading cause of death due to injury in the north of Ontario, and nearly two-thirds (61%) of deaths by suicide in the region were among people aged 20–54.[31] The suicide rate among First Nations youth is about five to six times higher than it is among youth in the general population.[32] We do not have Métis-specific data on suicide. The ongoing suicide crisis among youth is one example of the profound impact that has spanned generations as a result of discriminatory policies, such as residential schools. [33] Communities are increasingly calling attention to the current plight of the youth in their communities: A state of emergency was declared in the Attawapiskat First Nation on James Bay in 2016 due to the youth suicide crisis.[34]

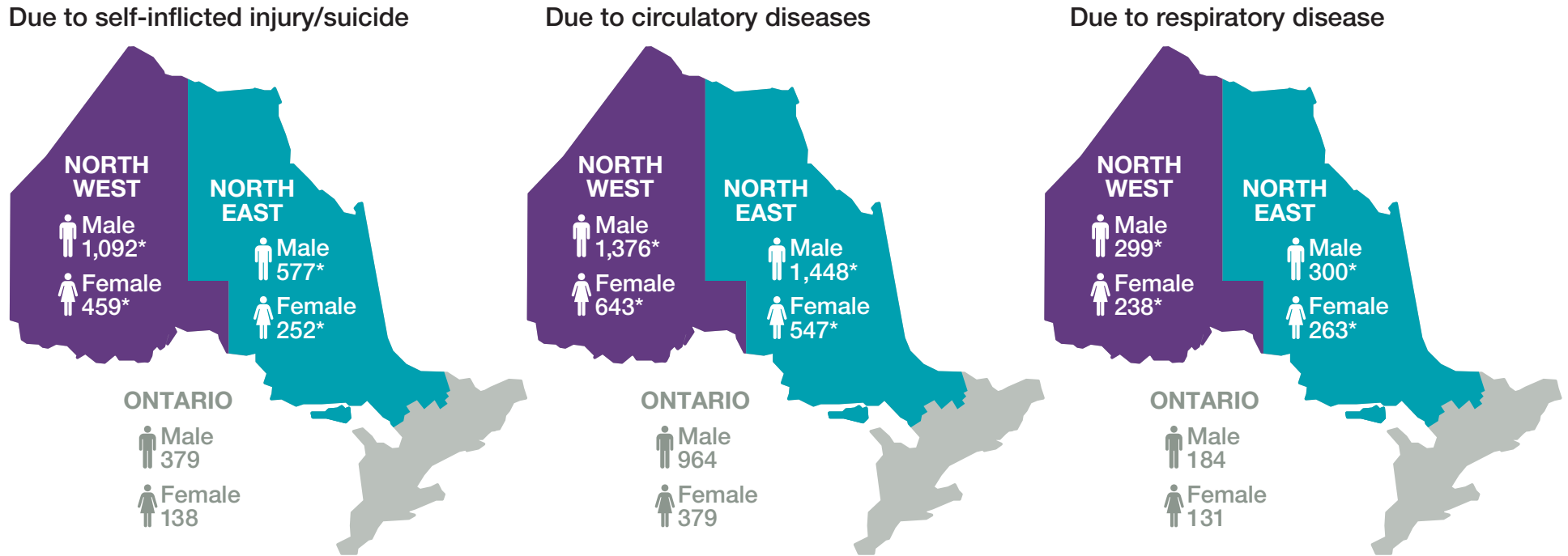
Nearly two-thirds (61%) of deaths by suicide in the region were among people aged 20–54.

Looking at the overall potential years of life lost due to suicide in the two northern LHIN regions compared to Ontario, in the North West LHIN region, the potential years of life lost due to suicide among men is nearly three times that of Ontario at 1,092 potential years of life lost per 100,000 people, compared to 379 for Ontario. Potential years of life lost due to suicide among women, while lower than that of men, are also more than three times that of Ontario at 459 potential years of life lost per 100,000 people, compared to 138 for Ontario.

In the North East LHIN region the potential years of life lost due to suicide among both men and women are also much higher than that of Ontario at 577 potential years of life lost per 100,000 men, compared to 379 for Ontario, and 252 potential years of life lost per 100,000 women, compared to 138 for Ontario.

The same pattern repeats itself for potential years of life lost from circulatory disease, such as coronary artery disease (heart attacks) and strokes, and respiratory disease (such as chronic obstructive pulmonary disease, known as COPD, and lung cancer). Rates in the North East and North West LHIN regions are substantially higher than the Ontario rates among both men and women.

FIGURE 4
 Potential years of life lost, by selected causes of death, per 100,000 people, by LHIN region, by sex, 2010-2012



Data Source: Statistics Canada, Canadian Vital Statistics, Death Database and Demography Division. Results are age-standardized.
 * Significantly different from the Ontario value for that sex

First Nations Perspective: Hope, meaning, belonging and purpose

Mae Katt, a member of the Temagami First Nation and a primary health care nurse practitioner based in Thunder Bay, talks about her work in remote First Nations communities throughout northern Ontario and with First Nations high school students in Thunder Bay

“If you look at the number of people who are grieving the loss of their children, their siblings, their parents from suicide, how do you capture that in a statistic?”

Geography and access

“In northern Ontario one of the biggest issues is access to care – and it’s all levels of care. When you look at the absence of services across the north, people have to go long distances, so certainly geography is a real challenge for people.”

Poverty

“At the community level, I see a lot of poverty. I’ve travelled in the northern regions for 40 years working with the communities and the poverty picture has never really changed, always seeing people struggle with the high cost of foods, always trying to provide some kind of quality of life for their children and for themselves. And it’s not just commercial items, but also transportation.”

Trauma

“One of my biggest heartbreaks is that we don’t do enough for our young people. I work at a high school where I see the trauma that they bring with them at 14, 15 or 16 years old because of the things that are happening in their communities. What I see is 25 years of a suicide crisis that never really got addressed by any public policy, or by any funding or investments. We’ve had people dealing with a lot of grief, a lot of loss and a lot of trauma.”

“When we saw the rates of suicide start in the early 1990s, I was the health director for the Nishnawbe Aski Nation, and we did everything to advise both levels of government to deal with the crisis. The suicides have now reached over 500 young people. If you look at the numbers, statistics don’t capture that. If you look at the number of people who are grieving the loss of their children, their siblings, their parents from suicide, how do you capture that in a statistic?”

Communities, then and now

"In the communities where I travel, 40 years ago they were certainly much healthier. They had a lot more land activity, people were going trapping, they were going fishing – there was a lot more community spirit. So when I compare my experiences as a young person in those communities, it's very different when I go up there now, after 25 years of a suicide crisis. You can see the trauma. You can see the grief and the loss of people. The laughter, the cultural events and the ceremonies – there's such an absence of that in these communities."

'You can't get tired'

"Frustration is something we as health providers learn to turn into a different kind of emotion. Although it might to you seem like a frustration, to me it just kind of makes me drive a little bit harder to do the policy work, to do the clinical work to try to make things better for people who live in the north. I've been doing this for many, many years, and you can't get frustrated and you can't get tired."

Recovery

"I travel up north to remote and rural communities quite often and work with a mobile team to deliver Suboxone treatment [for opioid addiction]. We actually watch communities recover from widespread opioid addiction. We've gone into communities where there was desperation, we provided treatment in the community so they haven't had to go anywhere. But when you see the recovery, it's so positive. You see the children who are becoming part of the family again, and children riding bikes down the road. There's such evidence of achieving community wellness if you can take away the detriments. In this case, the detriment was oxycodone. And I think people were using that drug because they were grieving the loss of all those kids who died by suicide."

"*The Journey Together*, Ontario's commitment to reconciliation with Indigenous peoples in response to the Truth and Reconciliation Commission, looks to fill the gaps with more health services and more programming. But I think we also need the philosophy of hope, meaning, belonging and purpose, which we have to bring to our communities."

Indigenous-led solutions

"I think from my years of working in these Indigenous communities, they have a wonderful capacity to do things for themselves. They don't always have the monetary resources to be able to achieve all the things they want to achieve, but when you sit down to talk about the best intervention, they can design a program that's going to work for them. They're going to show you that there is a different way to do things, and a better way for them to do things."

“In northern Ontario one of the biggest issues is access to care – and it’s all levels of care. When you look at the absence of services across the north, people have to go long distances, so certainly geography is a real challenge for people.”



Photo of Mae Katt by Jason Spun.

Metis Perspective

“We’re Métis and we’ve already been identified as higher risk in certain cancers and other things. Why is the medical community not aware of that? And why are we not recognized, why is this not recognized?”

–Larry, North East Ontario

Métis voices

Over the past five years, the Métis Nation of Ontario has gathered the stories and perspectives for Métis people living across the province, to document and address issues of access, unmet health care needs and equity, and to improve overall health. These quotes from Métis community members living in the north highlight some of their experiences in navigating the provincial health system in those regions.

(These stories were compiled in partnership with Cancer Care Ontario and the Canadian Partnership Against Cancer.)

Transportation troubles

“We live far from services, and transportation is a huge issue for us. We don’t have the support for medical transportation that is available for First Nations through the federal programming. We have to rely on family and friends, and on volunteer drivers from our Métis community. I’ve known Métis community members miss treatments and forgo getting the care they need because they just can’t get there. They do without.”

–Marlene, North West Ontario

Lack of doctors and service providers

“In our area..... it’s notorious for [having] a shortage of doctors. That has taught, at least myself, that I won’t go and see my doctor unless I am really, really sick because I don’t want to take away from someone else’s appointment. So, I stay away.”

–Suzanne, North West Ontario

“If you’re sitting in emergency you want to be damn sick because usually I’ve never been in there when that place is not just jammed full of people waiting to see a doctor. So, you’re going to be there for a long time. So, you’re not going. If you cut your finger I think maybe learn to sew, do it yourself.”

–Ray, North East Ontario

Métis health needs

“We’re Métis and we’ve already been identified as higher risk in certain cancers and other things. Why is the medical community not aware of that? And why are we not recognized, why is this not recognized?”

–Larry, North East Ontario

“One of the barriers I found in the Sudbury hospital when I was up there was when I went to the – I don’t remember what it was called but it was the Aboriginal Spiritual Centre – there was nothing specific to Métis. It’s considered an Aboriginal unit and yet it’s always, or it appears to be, more First Nations people who staff them, generally.”

–Darlene, North East Ontario

Food security and quality

“Barriers? Like, if you live an hour plus from the nearest grocery store. So, if you come into town once a week, once every two weeks, once a month, some people, you can’t obviously keep enough fresh stuff on hand at home. Or, it’s too expensive. So their diets suffer just for either lack of funds or lack of a way to get to a grocery store for things. So they end up having to live out of, you know, cans or boxes.”

–Métis Nation of Ontario Healing and Wellness front-line worker, North West Ontario



Métis beading photograph provided courtesy of Métis Nation of Ontario.

4. People in the north are more likely to smoke, which has been linked to illnesses and early death.

We have seen that people in the two northern LHIN regions are more likely to die prematurely than people in Ontario overall. One of the reasons for these higher rates of premature deaths is likely the higher rates of smoking, which is associated with developing serious illnesses and dying prematurely.[35] We do not have data on the effects of second-hand smoke.

The smoking rate in both the North East and North West LHIN regions is higher than Ontario overall. In 2014, the self-reported smoking rate was 26.0% in the North East LHIN region and 22.9% in the North West LHIN region, compared to 17.3% in Ontario.

A report on risk factors among Métis in Ontario indicates that smoking rates are higher overall in the Métis population compared to non-Indigenous Ontarians – 40% of Ontario Métis men and 34% of Métis women reported smoking cigarettes daily or occasionally – and even higher among Métis living in the north, where the combined men’s and women’s smoking rate is at 43%.[36]

For other health risk factors results are mixed, when comparing the North East and North West LHIN regions to Ontario. For example, in the North East LHIN region inadequate fruit and vegetable intake is significantly worse than Ontario, whereas physical inactivity is slightly better. Obesity is significantly worse in the North West LHIN (but not in the North East LHIN region) than Ontario overall.[37]

Note that the Canadian Community Health Survey (the source for this data) does not include on-reserve populations, and would not capture the rates of smoking, fruit and vegetable intake or obesity among First Nations populations living on reserves.

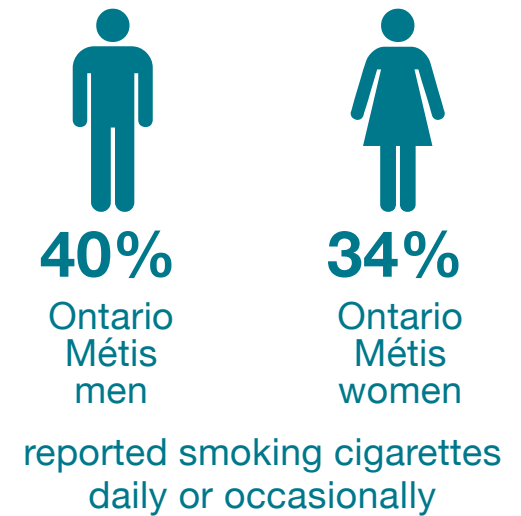
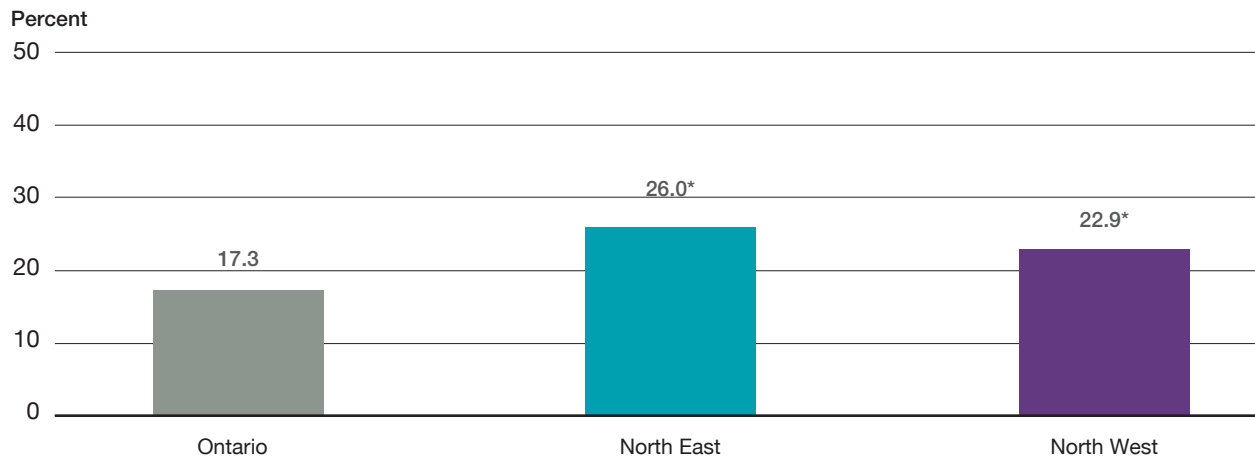


FIGURE 5
Percentage of the population, aged 12 or older, who reported smoking daily/occasionally, 2014



Data Source: Canadian Community Health Survey (CCHS), provided by the Institute for Clinical Evaluative Sciences. Results are adjusted for age and sex.
*Significantly different from the Ontario value

In 2014, the self-reported smoking rate was **26.0%** in the North East LHIN region and **22.9%** in the North West LHIN region, compared to **17.3%** in Ontario.

5. People in the north are more likely to report having multiple chronic conditions.

Having multiple chronic conditions is associated with increased disability and premature death, as well as a higher rate of doctor visits, use of prescription medications and likelihood of being hospitalized.[38]

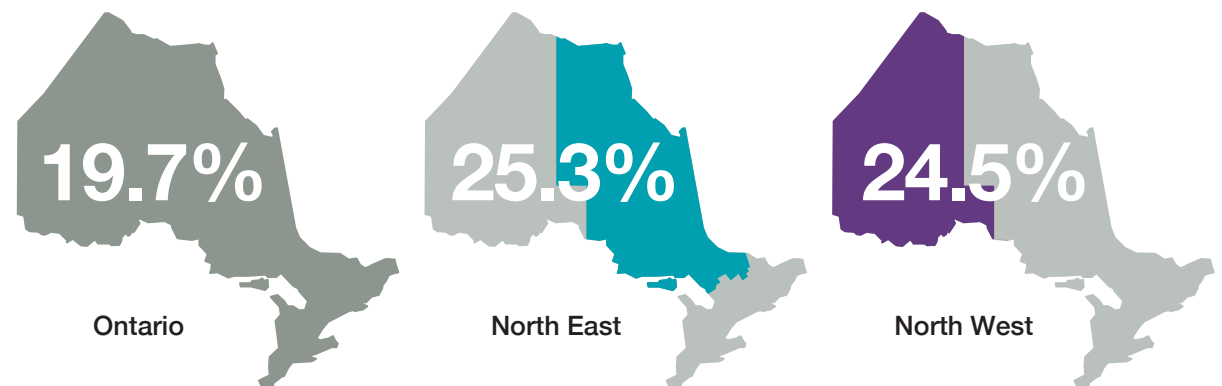
In the North East and North West LHIN regions, a higher percentage of the population than in Ontario overall report having two or more chronic conditions, such as diabetes, anxiety, depression and heart disease.

In the North East LHIN region, 25.3% of people aged 12 and older report having two or more chronic

conditions, similar to the 24.5% of people in the North West LHIN region, which is significantly higher than the Ontario rate of 19.7%.

First Nations and Métis people in Ontario are disproportionately likely to have a host of chronic diseases and conditions, and are at significantly greater risk of disease and illness.[39,40] Métis people do not have the same level of access to primary and specialist care in Ontario compared to non-Indigenous Ontarians, which affects their broader health and wellbeing, particularly those living in the north.[41]

FIGURE 6
Percentage of the population, aged 12 or older, who have two or more chronic conditions, 2014



Data Source: Canadian Community Health Survey (CCHS)*, provided by the Institute for Clinical Evaluative Sciences. Results are adjusted for age and sex.
*Chronic conditions include: anxiety, arthritis, asthma, chronic obstructive pulmonary disease, heart disease, hypertension and depression.

6. People in the north are much less likely to report being able to see a family doctor, nurse practitioner or other regular health care provider when needed.

People in the north are less likely than Ontarians as a whole to report having a family doctor, nurse practitioner or other regular health care provider – 89.2% of people in the North East LHIN region and 83.8% in the North West LHIN region, compared to 93.8% of people in Ontario.[42]

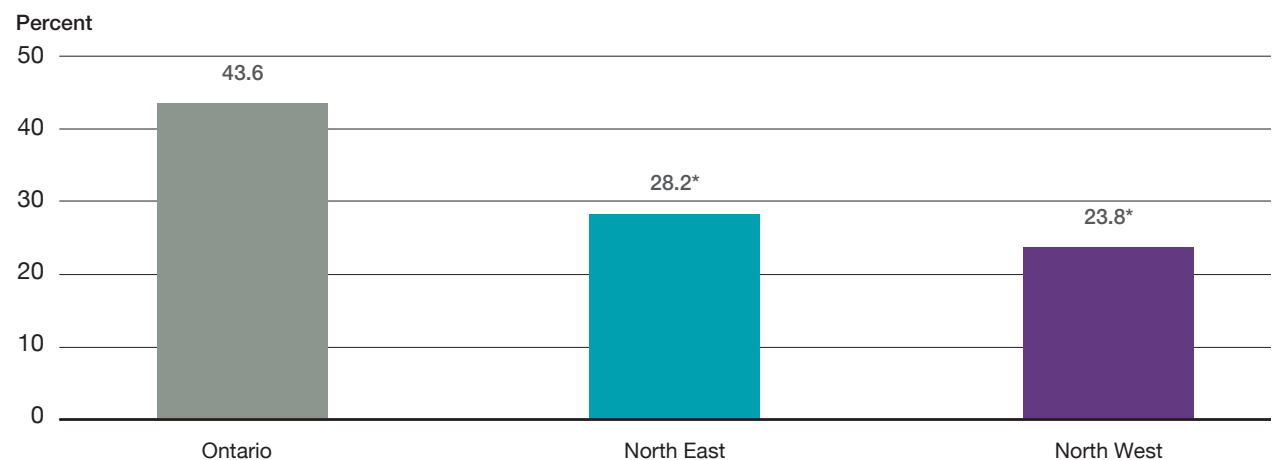
In the North West LHIN region, the percentage of people over age 16 who report being able to see their primary care provider on the same day or next day when they're sick is nearly half the Ontario rate – 23.8% compared to 43.6% in Ontario.

In the North East LHIN region, 28.2% of people over age 16 report being able to see their primary care provider on the same day or next day when they're sick.

This result may reflect a combination of geography and convenience. If someone has to travel far to see their primary care provider, they might decide to go to a walk-in clinic instead, if that option is closer. Or it might take them more than a day to get there, if the primary care provider is far away.[43]

People in the northern LHIN regions are also less likely to report being able to see a specialist within 30 days than Ontarians overall. About 30% of people in the North East and North West LHIN regions reported being able to see a specialist within 30 days, in 2014/15, compared to about 40% for Ontario.[44] Many of the specialists in the two northern regions are located in larger cities, which means people often end up waiting longer to see them.[45]

FIGURE 7
Percentage of adults (aged 16 years or older) who are able to see their primary care provider on the same day or next day when they are sick, by LHIN region, 2015



Data Source: Health Care Experience Survey, (HCES) provided by the Ministry of Health and Long-Term Care.
* Significantly different from the Ontario value

Family practice in northeastern Ontario

Dr. Peter Hutten-Czapski, a family doctor in the town of Haileybury (Temiskaming Shores) near the Quebec border, explains what it's like for patients in northern Ontario

Family practice is different in the north

“Because we work in many different settings and have different types of patients in different areas, we truly have the more traditional general practitioner type of role. It gives me a lot of professional satisfaction because I think I feel closer to my patients, I'm more able to deal with their needs personally rather than referring them to a specialist.”

A doctor can be a very long way away

“There are many challenges to access. One of the challenges, certainly for the most remote communities, is that there is no local physician, and residents have to travel somewhere to receive care. That is a burden in itself. Certainly if you are in a fly-in community, that's a very expensive burden.”

More risks and more disadvantages

“If you look at the overall Toronto population and compare it to the overall population in the north, you'll find that obesity rates are higher, smoking rates are higher, education levels are lower, socioeconomic status is lower, and in terms of the incidence of illness and injury, pretty much everything is higher. I can't really think of anything that isn't.”

Little room for rural patients at urban hospitals

“One of the greatest challenges for us in rural practice is when we have someone with needs that we can't provide for. We're second-tier when we phone the hospital in Toronto. They say, 'Our beds are full, our emergency room is full. Phone somewhere else to get the help that you need.' It is very frustrating when you sort of have to advocate for a long period of time on a recurrent basis to finally find someone who will be able to take care of the patient.”

Acute needs overwhelm preventive care

“Northern doctors’ priorities are based on the patients who are higher-acuity, and so those are the things that we are going to be doing because we have to. But it means that some of the more discretionary, more preventive measures are being neglected.”

The northern advantage

“My patients, when they get admitted to hospital, the vast majority I’m looking after myself, so I know exactly what’s going on with them. And while we may have fewer services available, we also have very good relationships with the people who provide those services and I think the patient benefits from that sort of personal care.”

Striving for equity

“Because of the remoteness and population density issues, we will never really be able to have the same access to care – particularly for specialist services – and the system will be different as a result. It just can’t be done. But we can get closer than we are right now, and that’s what matters.”



Photo of Dr. Hutten-Czapski
by Kate Hood.

Where do we go from here?

The data in this report reveal several key areas in which people in the two northern LHIN regions of Ontario have poorer health and worse access to care. Geography, language and other systemic factors mean that we need to look at the data differently to get a more complete picture of health in the north. Rural in the north can often mean little to no direct road access, long, snow-bound winters, and health and other services located hundreds of kilometres away.

Additionally, the social determinants of health – factors that reach beyond health care into our broader social and education systems – play an important role in understanding the root causes of poorer health. While difficult to measure, these must be taken into account in any efforts to improve access to services and health outcomes in the north.

So what is being done to address these issues? Some region- and population-specific approaches appear to be making a difference in improving access to care for those in the more remote areas. Below are just some examples of many efforts that are underway to improve the health of people in the two northern LHIN regions. The list is by no means exhaustive, but offers an initial look into a selection of approaches to reduce inequities in Ontario's northern regions. Many of the efforts that follow are examples of partners working together to improve access and outcomes in the north.

However, given the stark differences in health access and health outcomes that this report highlights, it is clear that much more remains to be done if we are to achieve health equity in the province's north.



Some of the efforts underway to improve health equity for people in the north

1. Health centres and interprofessional care teams prioritize health equity by adapting services and programs to meet the diverse needs of the communities they serve.

Primary care is different in the north. Most providers are involved in the delivery of medical services outside of office-based clinical care. Given the limited specialty supports in northern communities, primary care providers offer more holistic care, ranging from pediatrics to geriatrics, and including women's health, minor procedures, long-term care, hospital care and mental health care.

Patients in northern Ontario are also distinct in language, culture, and social practices, and often have a higher health-risk profile. Primary care providers in the north often practice without the support of teams that can help address the complex needs of patients. There is, however, a movement to address this gap, which builds on interprofessional collaboration to offer care in a model that respects the social and cultural determinants that drive health in the north.

In the North East and North West LHIN regions, community-governed primary care organizations prioritize serving the needs of populations that have traditionally faced barriers accessing the services they need. For example, six of Ontario's 10 Aboriginal Health Access Centres are in the north. These community-led organizations provide a range of health services for First Nations communities in the north, both on- and off-reserve. The centres offer traditional healing, chronic disease prevention and management, maternal and child health care, addictions counselling, mental health care and other programs to improve the

health of First Nations communities.[46] They reflect cultural and traditional practices as the core of health and health care for First Nations peoples. Additionally, the Misiway Community Health Centre in Timmins focuses on serving First Nations peoples, and some other Community Health Centres in the northern regions prioritize their needs.

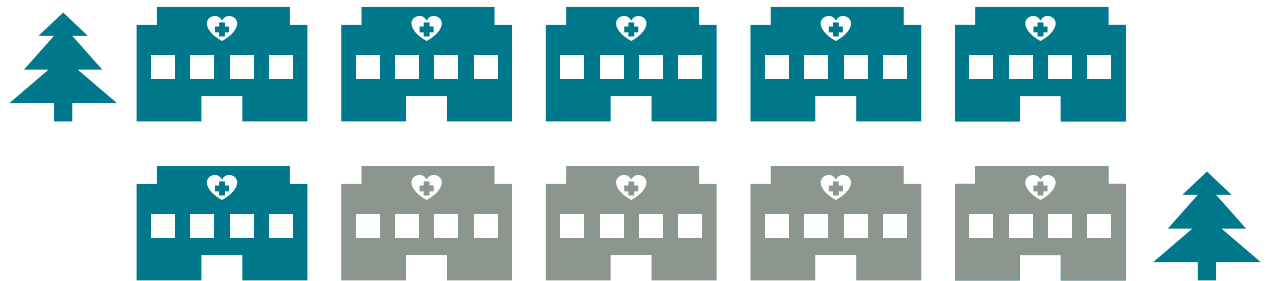
The Métis Nation of Ontario provides a range of culturally based programming, health services and supports for Métis and other Indigenous people in the north, through service centres in Kenora, Fort Frances, Dryden, Atikokan, Geraldton, Thunder Bay, Timmins, Cochrane, Sudbury, and North Bay. Programs focus on prevention, health promotion, addressing the determinants of health, health and social system

navigation, supporting Métis family well-being, providing assistance with housing, medical transportation, home-based supports and community wellness.

There are also seven Community Health Centres in the two northern LHIN regions, five of which deliver services in French. These centres provide primary care services, health promotion, social supports and non-clinical interventions that address the determinants of health.

Interprofessional care teams – in which professionals from two or more professions collaborate to provide care – in the North East and North West LHIN regions improve access for people in remote, rural and northern communities. These include nurse practitioner-led clinics and Family Health Teams.

Six of Ontario's 10 Aboriginal Health Access Centres are in the north.



2. Telemedicine and virtual critical care help people manage disease.

The Ontario Telemedicine Network offers patients in Ontario's north a way to avoid travelling long distances to reach specialists and other providers, many of whom are based in larger urban centres such as Thunder Bay, or even elsewhere in Ontario outside the northern LHIN regions.

Launched in 2014, the North East LHIN's Virtual Critical Care program leverages Ontario Telemedicine Network software to manage care for critically ill patients at local hospitals. Using two-way videoconferencing technology and electronic medical records, the program can prevent patients from having to transfer out of their local hospital, allowing them to stay close to family and friends.[47]

The North West LHIN launched a similar program in 2015 called the Regional Critical Care Response, connecting 11 community emergency departments and intensive care units to critical-care trained doctors, nurses and respiratory therapists at the Thunder Bay Regional Health Sciences Centre.[48]

Ontario Telemedicine Network works with First Nations communities in the north to provide services for mental health and addictions, diabetes, primary care, oral surgery and oncology. The culturally competent services are managed and governed by First Nations in remote and fly-in communities.

The Métis Nation of Ontario offers limited access to tele-mental health services for Métis and other Indigenous clients in the north (and also elsewhere in Ontario), who are experiencing difficulty in accessing required psychiatric services and other supports. A partnership with Queen's University and Providence, this program is available in more than 30 communities across the province via the Ontario Telemedicine Network.

L'Accueil francophone de Thunder Bay, through project funding with Health Canada, developed a program of interpretation services through the Ontario Telemedicine Network. This service allows francophone patients in the North West LHIN region to receive professional service from an interpreter, through the Ontario Telemedicine Network during medical appointments. The goal is to improve access to health care services in French for francophones living in rural and isolated communities in the North West LHIN region. L'Accueil francophone recently received core funding from the Ontario Ministry of Health and Long-Term Care to continue offering this service on a wider scale.

3. Mobile services deliver care to patients where they are.

There are several mobile health units travelling throughout the northern areas of Ontario. A mammography van, an eye exam van and other mobile units for diabetes check-ups and chronic obstructive pulmonary disease all seek to reach people in rural areas who do not have easy access to specialized health services. This type of service could be one of the reasons why the two northern LHIN regions have better rates of diabetes eye exams than the Ontario average.[49] An interprofessional primary care team with the Community Health Centers have developed mobile services to provide better access to primary care.[50]

The two northern LHIN regions have better rates of diabetes eye exams than the Ontario average.

4. A travel grant program helps patients get to the care they need.

The Northern Health Travel Grant program was implemented in recognition of the challenges of accessing health care services in northern Ontario. The program helps people living in the north cover travel-related expenses when they access medical specialist or health care facility-based procedures unavailable in their local communities within a radius of 100 kilometres.

The program helps cover travel-related expenses for one travel companion per patient. In addition, under the program, there is a provision that ensures financial travel assistance is provided for French-speaking patients to travel to French-speaking medical specialists in the event that they cannot express themselves in English.

5. Language services enable doctors, nurse practitioners and other health providers to effectively communicate with patients who speak other languages.

For many in Ontario's north, English is not their first language. In the North East LHIN region, more than one in five people identify as being francophone and may hesitate to get the care they need if they don't think they'll be able to access health services in French. The population of francophones in the North West LHIN region is smaller, but there is also much less access to services in French, so the situation holds true in the North West LHIN region as well. Although no substitute for linguistically appropriate services, technology can sometimes diminish the language barrier. A community organization that offers interpretation services for clients in the North West LHIN region, l'Accueil francophone de Thunder Bay, created a short-term

solution to address the needs of the francophone population in their region. The Interpretation Guide for Health Care Professionals provides French equivalents for medical terms and phrases commonly used in various medical contexts. Recently, a dynamic mobile application called MED INTERPRET was created to access the contents of the interpretation guide.

Other apps or services also offer language services for Indigenous peoples and recent immigrants. In the North West LHIN region, the Sioux Lookout Meno Ya Win Health Centre offers an interpreter program for the three main Anishinaabe languages.

In the North East LHIN region, more than one in five people identify as being francophone. The population of francophones in the North West LHIN region is smaller.

6. A program for older Ontarians in the north provides the personal support they need when they move back home after a hospital visit.

The Priority Assistance to Transition Home (PATH) program in several communities, such as in the Temiskaming area (north of Sudbury and North Bay), is a good example of a program that helps patients over age 55 transition home smoothly after a hospital stay. The partnership between the Canadian Red Cross and the Temiskaming Home Support group arranges for a personal support worker to travel home with the patient after they are discharged. They settle them in by doing everyday tasks such as laundry and picking up medications and groceries.

7. Education and training programs for health care professionals keep local talent in the northern regions.

Founded in 2005, the Northern Ontario School of Medicine (NOSM), recruits applicants from northern Ontario, who go on to practice in their home communities. About 150 NOSM-educated family doctors practice in the northern regions, caring for nearly 180,000 people. Read our story on NOSM on the next page.

About **150** NOSM-educated family doctors practice in the northern regions, caring for nearly **180,000** people.

Health care for people in the north, by people in the north

How the Northern Ontario School of Medicine changed
the face of health care education in the province

“ You can say the curriculum walks through the door. The first patient might be a child – that’s pediatrics. The next patient might be pregnant – that’s obstetrics.”

– *Dr. Roger Strasser, dean of the Northern Ontario School of Medicine*

Why open a medical school in northern Ontario, far from the abundance of top teaching hospitals, top doctors and advanced health technologies that medical students have access to in the southern part of the province?

For the Northern Ontario School of Medicine (NOSM), it’s all about where the students go when they’ve finished their education. As of 2016, 61% of Canadian medical graduate family physicians who completed some of their training at NOSM were practising in northern Ontario, and 94% of those who completed both their undergraduate and postgraduate training at NOSM were practicing there.

From the day it opened in 2005, says NOSM dean Dr. Roger Strasser, the school’s goal was to

produce doctors trained to practice in the north who would stay in the north – where there has been a chronic shortage of doctors for many years.

“The school has what we describe as a social accountability mandate,” explains Dr. Strasser. “That’s a commitment to be responsive to the health needs of the communities of northern Ontario with a focus on improving the health of people in northern Ontario.”

The school’s admissions process openly favours applicants from northern Ontario and rural and remote areas elsewhere in Canada, as well as francophones and Indigenous peoples, in order to truly reflect the communities it serves. Doctors from those communities are also more likely to stay to practice in them. Among first-year

students admitted in 2016, 92% grew up in northern Ontario and 8% were from remote or rural parts of the rest of Canada. Overall, 40% were from rural or remote areas, 22% were francophone and 13% were Indigenous.

While the school is based at two main universities, Lakehead in Thunder Bay and Laurentian in Sudbury, NOSM's curriculum model is focused on including all of northern Ontario as its campus. Students go to live on reserves and in rural and small urban communities for cultural immersion and medical training, and complete medical placements and rotations in family practice settings. "You can say the curriculum walks through the door," says Strasser. "The first patient might be a child – that's pediatrics. The next patient might be pregnant – that's obstetrics. And the next patient might have a surgical problem."

The school relies heavily on electronic communications to connect its students and staff across the north, and has an extensive digital library service that provides access to the same educational resources and information available at a big-city teaching hospital.

The communities where the students train each have a NOSM group made up of local representatives. "It's like a steering committee for the school in the community," says Dr. Strasser. "It's the mechanism by which the community is a part of the school and the school is a part of the community."

NOSM also works in partnership with other schools to provide training for health professionals such as physiotherapists, physician assistants, dietitians and speech language pathologists, who often work alongside NOSM's medical students and residents. This helps further the interdisciplinary practices and different models of care that are well-established in serving the needs of the northern communities. "Learning in teams to then provide health care as team players is very important," notes Strasser. "So we see the role of the whole health team as critically important."

With about 150 NOSM-educated family doctors now practising in the province's northern regions, the school appears to be achieving its main goal. But for Dr. Strasser, that doesn't mean the job is done. "There are many health issues and challenges and opportunities for improvement in the health of people in northern Ontario, and so we're looking to address those."

“The school has what we describe as a social accountability mandate,” explains Dr. Strasser. “That’s a commitment to be responsive to the health needs of the communities of northern Ontario with a focus on improving the health of people in northern Ontario.”



Photo of Dr. Strasser
courtesy of NOSM.

The bigger picture

The Ministry of Health and Long-Term Care recently developed a rural and northern health care framework, which led to a panel making a series of recommendations to improve health care for people in the province's northern regions.[51] Health Quality Ontario prepared a health equity plan outlining our organization's role in bringing health equity to the forefront and to help inspire action.

In addition, a new collaboration between the province's Local Health Integration Networks and Health Quality Ontario, called Regional Quality Tables, brings together health system leaders in each region of the province. The group of representatives from each LHIN region meet to discuss local health quality issues, sharing the results of innovations to speed up the roll-out of new best practices.

It's critical that all partners involved in this effort to bring greater equity and access to health services and supports in the north consult with those who are at greatest risk of being affected by inequities within LHINs and in the province overall. This is especially true for First Nations and the Métis Nation.

To properly address health equity in the two northern Local Health Integration Network regions, the province will need to tackle the root causes of poor health: housing; food and income insecurity; lack of employment opportunities, and other known social and cultural barriers that make it even worse

for people who face inequity issues due to physical geography and distance from services. This will require commitment and close collaboration between all sectors – including First Nations, Métis and Inuit partners – that play a role in the social determinants of health, such as public health, justice, and education.

The common goal for all of these initiatives leads back to the reasoning behind the data we present in this report: the highest level of health and high-quality health care that is fair and appropriate, for everyone in Ontario, no matter where they live, who they are, or what they have.



Photo provided courtesy of NOSM.

Methods Notes

The Methods Notes provide a brief description of the methods used in this report. For more details, please see the Measuring Up 2016 Technical Appendix on HQO's website.

Indicator selection

This report includes indicators primarily from the Common Quality Agenda which serve to highlight inequities in health outcomes and access to health care services between residents of the North West and North East LHIN regions compared to Ontario overall.

Data sources

The data presented in this report were supplied by a variety of data providers, including the Institute for Clinical and Evaluative Sciences (ICES), Statistics Canada and the Ontario Ministry of Health and Long-Term Care (MOHLTC).

Survey and administrative data were used for the analysis from the following databases:

- 2015 sample of the Health Care Experience Survey (HCES)
- Ontario sample of the 2014 Canadian Community Health Survey (CCHS)
- Canadian Vital Statistics – Death Database
- Ontario Registrar General's Death (ORG-D) File

Analysis

To enable appropriate and fair comparisons of performance, some indicators were age or age-and-sex adjusted to the 2011 Canadian census population. The 1991 Canadian census population was used to calculate rates for the age-standardized mortality rate.

Survey data were weighted to reflect the design characteristics of the survey and the population of Ontario. For further details on which indicators were adjusted, which were weighted, and the methodology used, please see the individual indicator templates in the Measuring Up 2016 Technical Appendix.

Significance testing

Statistical significance was determined by comparing the 95% confidence intervals for the values for the North East or the North West LHIN against the Ontario value. A value is said to be significantly different from another if the confidence intervals for the two values do not overlap. The report states an increase/decrease or higher/lower result only when the results are significantly different from the Ontario rate based on this method of testing. For indicators using population level data, no significance testing was completed as this does not apply.

Limitations

There are certain limitations of the analysis that should be considered when interpreting the results. Some of the limitations are specific to the data source, the indicator and the methodology used to calculate it. The main limitations for this report include:

- Findings in this report are associative. Causal links cannot be drawn based on the analyses used in this report.
- While many of the results presented in this report are adjusted for age and sex, other factors which may confound results are not accounted for.
- The Canadian Community Health Survey excludes specific sub-populations including individuals living on-reserve. Therefore, indicators based on data from this survey do not represent the experience of on-reserve indigenous peoples.
- The indicator results for Ontario do not exclude the North East and North West LHINs. Therefore, an analysis of the indicator results that compares the North East and North West LHINs to the rest of Ontario may show even greater variation than what is presented in this report.

For more details on indicator-specific limitations, please see the individual indicator templates in the online Measuring Up 2016 Technical Appendix.

Acknowledgments

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Report development

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Health Quality Ontario is the provincial advisor on the quality of health care. We are motivated by this single-minded purpose: better health for all Ontarians.

Who We Are

We are a scientifically rigorous group with diverse areas of expertise. We strive for complete objectivity, and look at things from a vantage point that allows us to see the forest and the trees. We work in partnership with health care providers and organizations across the system, and engage with patients themselves, to help initiate substantial and sustainable change to the province's complex health system.

What We Do

We define the meaning of quality as it pertains to health care, and provide strategic advice so all the parts of the system can improve. We also analyze virtually all aspects of Ontario's health care. This includes looking at the overall health of Ontarians, how well different areas of the system are working together, and most importantly, patient experience. We then produce comprehensive, objective reports based on data, facts and the voices of patients, caregivers and those who work each day in the health system. As well, we make recommendations on how to improve care using the best evidence. Finally, we support large scale quality improvements by working with our partners to facilitate ways for health care providers to learn from each other and share innovative approaches.

Why It Matters

We recognize that, as a system, there is much to be proud of, but also that it often falls short of being the best it can be. Plus, certain vulnerable segments of the population are not receiving

acceptable levels of attention. Our intent at Health Quality Ontario is to continuously improve the quality of health care in this province regardless of who you are or where you live. We are driven by the desire to make the system better, and by the inarguable fact that better has no limit.

System Performance Reporting

Since 2006, Health Quality Ontario has been creating a better health system by reporting on its performance. Our public reporting not only gives Ontarians the information they need to understand about their health system, it can also lead to direct improvements. Our public reporting products include: Measuring Up, our yearly report on the health system's performance, specialized reports that delve into focused topics and online reporting of health system indicators.

The Common Quality Agenda

The Common Quality Agenda is the name for a set of measures or indicators selected by Health Quality Ontario in collaboration with health system partners to focus performance reporting. Health Quality Ontario uses the Common Quality Agenda to focus improvement efforts and to track long-term progress in meeting health system goals to make the health system more transparent and accountable. The indicators promote integrated, patient-centred care and form the foundation of our yearly report, Measuring Up. As we grow our public reporting on health system performance, the Common Quality Agenda will evolve and serve as a cornerstone for all of our public reporting products.

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