North West LHIN

Population Health Profile

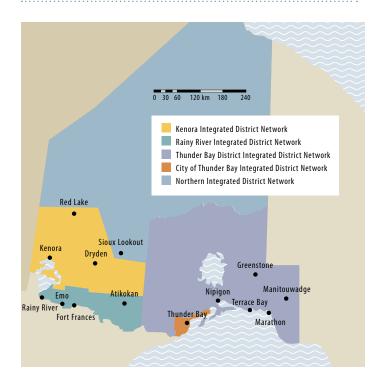
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Key characteristics of the North West LHIN geography and population:

- Largest proportion of Aboriginal people of all Ontario LHINs approximately 20% of North West LHIN population;
- Largest geographic area of all Ontario LHINs approximately 47% of Ontario;
- Smallest population (2011 Census) of all Ontario LHINs – less than 2% of the Ontario population at approximately 231,000.

The map below illustrates the size of the North West LHIN, the boundaries of the new Integrated District Network (IDN) areas, as well as the location of Local Health Hubs within each IDN.

Figure 1: Map of the North West LHIN

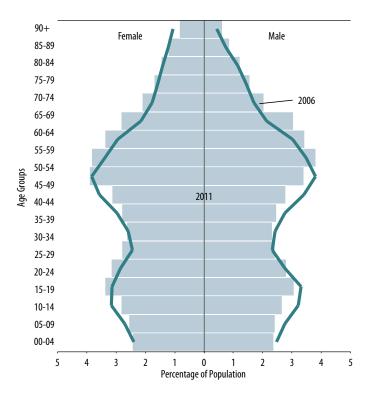


The 2011 Census population numbers show an overall decrease in the North West LHIN population of 1.7%.

Population Pyramid

A population pyramid is a graphical presentation of the age and sex distribution of a population. The population pyramid in Figure 2 shows the 2011 population structure for the North West LHIN with the 2006 male and female populations represented by the lines.

Figure 2: Population Pyramid for the North West LHIN



The population pyramid illustrates the decrease in the population age five to 14 and the increase in the population age 50 and above.



Population Characteristics by Integrated District Network Area

Population and socio-economic indicators captured in Statistics Canada's 2011 Census vary across the Integrated District Network (IDN) areas in the North West LHIN.

Table 1 illustrates differences in population size, age, language and Aboriginal identity across the North West LHIN.

Table 1: 2011 Census Population Characteristics

| Indicator | Total Pop. | % Change (2006 to 2011) | % Age 65+ | % Abor.* | % Franc. |
|--------------------------|---------------|----------------------------------|--------------|----------|----------|
| Northern IDN | 21,560 | 3.9 | 6.6 | 77.8 | 0.9 |
| Kenora IDN | 43,135 | -1.3 | 15.5 | 21.8 | 2.9 |
| Rainy River IDN | 20,370 | -5.5 | 17.3 | 21.7 | 1.5 |
| City of Thunder Bay IDN | 121,595 | -1.1 | 17.2 | 8.3 | 2.7 |
| Thunder Bay District IDN | 24,460 | -6.5 | 14.3 | 19.9 | 10.5 |
| North West LHIN | 231,120 | -1.7 | 16.0 | 19.2 | 3.4 |
| IDN minimum value | 20, 370 | -6.5 | 6.6 | 8.3 | 0.9 |
| IDN Maximum value | 121,595 | 3.9 | 17.3 | 77.8 | 10.5 |

Source: Statistics Canada. 2011 and 2006 Census.

Key Health Characteristics of the North West LHIN Population

Relative to the province (based on 2009-2010 Canadian Community Health Survey (CCHS) data for ages 12 and over), the North West LHIN has a higher proportion of people who:

- Smoke daily;
- Are heavy drinkers;
- Are overweight or obese; and
- Have a strong sense of community belonging,

and has a lower proportion of people who:

- Rate their health as excellent or very good;
- Have had contact with a medical doctor in the past year.

Health Practices and Health Status

Poor health practices are known to be related to increased risk of chronic disease, mortality and disability. Table 2 shows that a number of selected health status and health practices in the Northwest are different from the province as a whole.

Table 2: Self-Reported Health Status & Health Practices

| Indicator | North West LHIN | ON | | |
|--|--|-------|--|--|
| Self-Reported Health Status CCHS, 2009/10, age 12+ | Self-Reported Health Status CCHS, 2009/10, age 12+ | | | |
| Perceived health as excellent or very good | 57.4% | 61.0% | | |
| Perceived mental health as excellent or very good | 68.2% | 74.3% | | |
| Perceived life stress, quite a lot (age 15+) | 21.8% | 24.0% | | |
| Sense of community belonging, somewhat strong or very strong | 76.2% | 67.4% | | |
| Life satisfaction, satisfied or very satisfied | 90.7% | 91.5% | | |
| Self-Reported Health Practices, CCHS, 2009/10, age 12+ | | | | |
| Smoking, daily or occasional | 23.9% | 18.9% | | |
| Heavy drinking (five or more drinks on one occasion, at least once a month within the last year of those who had a drink in past year) | 20.9% | 15.9% | | |
| Fruit and vegetable consumption, five or more times per day | 37.9% | 43.2% | | |
| Leisure-time physical activity, active or moderately active | 58.0% | 50.5% | | |
| Overweight or obese (adults age 18+) | 61.7% | 52.0% | | |
| Has a regular medical doctor | 83.5% | 91.1% | | |
| Contact with medical doctor in the past 12 months | 79.3% | 82.2% | | |

Health Outcomes

Birth-related outcomes are useful indicators of the health of a population anywhere in the world. Table 3 below shows a number of infant and maternal indicators for the North West LHIN and Ontario.

Table 3: Birth-related indicators, 2009/10 Hospital Births

| Indicator | North West LHIN | ON |
|--|--------------------|-------|
| Infant mortality (per 1000 births) | 6.0 | 5.1 |
| Pre-term (< 37 weeks) - % of live births | 6.3% | 8.2% |
| Small for gestational age | 5.9% | 9.0% |
| Large for gestational age | 17.0% | 10.4% |
| % mothers age <20 years | 12.8% | 3.6% |
| % mothers age >= 35 years | 11.4% | 21.4% |

Women living in Northwestern Ontario and giving birth during 2009/10 are younger than all mothers giving birth in Ontario.

Newborns of mothers living in the North West LHIN area are larger for gestational age compared to all Ontario newborns.

^{*} Based on 2006 Census; questions on Aboriginal identity not included in 2011 Census.

Chronic Conditions

Chronic conditions place a high burden on the health care system. As the population ages, this burden will increase. Table 4 below shows the self-reported prevalence of certain chronic conditions and the rates of hospitalization for select chronic conditions.

Table 4: Prevalence of Chronic Conditions

| Indicator | | North West LHIN | ON |
|--|--------------------------------------|--------------------|----------------|
| Canadian Community Health Survey, 2009/10: % report being diagnosed by health professional | | | |
| Arthritis | -age 14+ -age 65+ | 22.4% 51.6% | 17.3% 46.7% |
| Diabetes | -age 12+ -age 65+ | 6.9% 21.1% | 6.8% 19.6% |
| High blood press | ure -age 12+ -age 65+ | 19.9% 56.7% | 17.4% 49.7% |
| Chronic obstructi | ve pulmonary disease (COPD), age 65+ | 11.5% | 7.2% |
| Hospitalization rates, fiscal year 2010/11; rate/100,000 population | | | |
| Diabetes hospitalization rate (crude rate) | | 208.2 | 93.1 |
| Chronic obstructive pulmonary disease (COPD), hospitalization rate (crude rate) | | 400.0 | 183.2 |
| Ischaemic heart disease (IHD) hospitalization rate (crude rate) | | 572.9 | 379.4 |
| Mental health hospitalization rate (age-standardized rate) | | 865.0 | 409.0 |

North West LHIN area residents have high rates of hospitalizations and emergency department visits for many chronic conditions including mental health and substance use conditions, diabetes, chronic obstructive pulmonary disease and ischaemic heart disease.

Although use of hospital services does not provide an exact measure of the number of people with a particular condition, it does provide a picture of the burden of disease in the community. Part of the higher rates of hospital use for chronic conditions may be due to lack of alternative community-based services: primary care through a family physician, nurse practitioner clinics or walk-in clinics, or other community-based programs.

Cancer Incidence and Screening

Cancer remains one of the leading causes of illness and death in the North West LHIN and Ontario. Cancer is one of the few diseases that is tracked through a disease registry, ensuring an accurate picture of the incidence (number of new cases) and prevalence (existing cases) of different types of cancer.

Table 5 below gives the age-standardized incidence rate for some of the most common cancers, as well as screening rates for female breast cancer and cervical cancer.

Table 5: Select Cancer Incidence Rates and Screening Rates

| Indicator | North West LHIN | ON | |
|---|--------------------|-------|--|
| Estimated age-standardized cancer incidence rates per 100,000 population, 2012 | | | |
| Breast cancer | 100.9 | 101.2 | |
| Prostate cancer | 160.3 | 154.4 | |
| Colorectal cancer | 55.1 | 47.8 | |
| Lung cancer | 56.1 | 46.8 | |
| Cervical cancer | 8.4 | 7.2 | |
| Cancer Screening, 2008-2010 | | | |
| Age-adjusted percentage of females 50-69 years old with a mammogram within a two-year time interval, 2009-10 | 70.8% | 66.8% | |
| Age-adjusted percentage of females 20-69 years old with a Pap test within a three-year time interval, 2008-2010 | 73.9% | 72.4% | |

Mortality

Table 6 below shows the differences in age-standardized mortality rates between North West LHIN residents and all Ontarians for select mortality indicators.

Table 6: Mortality Rates for Select Causes

| Age-standardized mortality rate/ 100,000 pop., 2006-2008 | North West LHIN | ON |
|--|--------------------|-------|
| Premature Mortality (death before age 75) | 761.6 | 518.4 |
| Potentially Avoidable Mortality (death before age 75 that could have been prevented through all levels of prevention) | 58.2 | 41.0 |
| Age-standardized mortality rate/ 100,000 pop., 2005-2007 | North West LHIN | ON |
| All Causes (all ages) | 629.1 | 521.8 |
| All Cancers | 171.7 | 159.1 |
| Circulatory Diseases | 182.4 | 155.6 |
| Respiratory Diseases | 41.8 | 41.3 |
| Unintentional Injuries | 39.4 | 23.4 |
| Suicides and self-inflicted injuries | 20.6 | 7.7 |

The North West LHIN has a higher rate of mortality in people less than 75 years old (premature mortality) compared to Ontario and all other LHINs except the North East LHIN.

Avoidable mortality represents deaths that could have been potentially avoided through prevention practices, public health policies, and the provision of timely and effective health care. The North West LHIN's rate of potentially avoidable mortality is also higher than the rate for Ontario and for all LHINs except for the North East LHIN.

Leading Causes of Death

Table 7 below shows the leading causes of death to North West LHIN residents (based on number of deaths) over the three year period 2007 – 2009.

Table 7: Leading Causes of Death*, 2007-2009

| Cause | Average Annual # of Deaths | % North West LHIN deaths |
|-----------------------------------|----------------------------------|--------------------------------|
| Ischaemic Heart Disease | 337 | 17.7% |
| Cancer of lung and bronchus | 158 | 8.2% |
| Dementia and Alzheimer Disease | 140 | 7.3% |
| Cerebrovascular Disease | 119 | 5.5% |
| Diabetes | 78 | 3.8% |
| Chronic Lower Respiratory Disease | 78 | 3.7% |

^{*} Leading cause groups for the primary cause of mortality were developed for the World Health Organization by Becker, Silvi, Fat, L'Hours, and Valentia in 2005. These groups were modified slightly by the Association of Public Health Epidemiologists for Ontario.

Life Expectancy

Life expectancy at birth is the average number of years a newborn baby can be expected to live if current mortality trends continue. It is an indicator of current health and mortality conditions.

People living in Northwestern Ontario continue to have lower life expectancy than Ontarians overall. Males continue to have lower life expectancy than females, but the gap is decreasing.

Table 8 shows the life expectancy for males and females in the North West LHIN and Ontario for the most recent time period for which mortality rates are available (2007 to 2009). The North West LHIN area is further divided into the Thunder Bay District Health Unit (City of Thunder Bay

and District of Thunder Bay IDNs) and Northwestern Health Unit areas (Northern, Kenora and Rainy River IDNs).

Table 8: Life Expectancy

| Indicator | Females | Males |
|--|---------|-------|
| Life Expectancy (at birth), in years 2007-2009 | | |
| North West LHIN | 81.1 | 76.2 |
| Thunder Bay District Health Unit | 82.2 | 76.5 |
| Northwestern Health Unit | 79.1 | 75.8 |
| Ontario | 83.6 | 79.2 |

Within the North West LHIN, the eastern part of the LHIN area has a higher life expectancy than the western part of the LHIN area, particularly for females.

Glossary

Age-standardized rates: Age-standardized rates are used to adjust for variations in the population age and sex structure; this allows comparisons between geographic areas (Northwestern Ontario and Ontario) and over time for the North West LHIN area.

Crude rate: Number of events (hospitalizations, deaths, new cancer cases, etc.)/total population of interest. Crude rates should be used with caution for comparing geographic areas since there is no adjustment for differences in age-sex distribution of areas being compared.

Feedback

We welcome your feedback. Please send your comments to northwestlhin@lhins.on.ca or call 807-684-9425 or 866-907-5446.

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