

Population Health Profile: North West LHIN

Executive Summary: This report provides an overview of the North West LHIN using the most recently available data on social and demographic characteristics, health status, health practices and outcomes of the population. Rates or proportions for Ontario are provided as a comparator.

Relative to the province, North West has a higher

- Percentage with Aboriginal identity
- Unemployment rate
- Proportion who smoke daily
- Proportion of heavy drinkers
- Percentage who are overweight/obese
- Prevalence of activity limitations
- Rate of most chronic diseases

and a lower

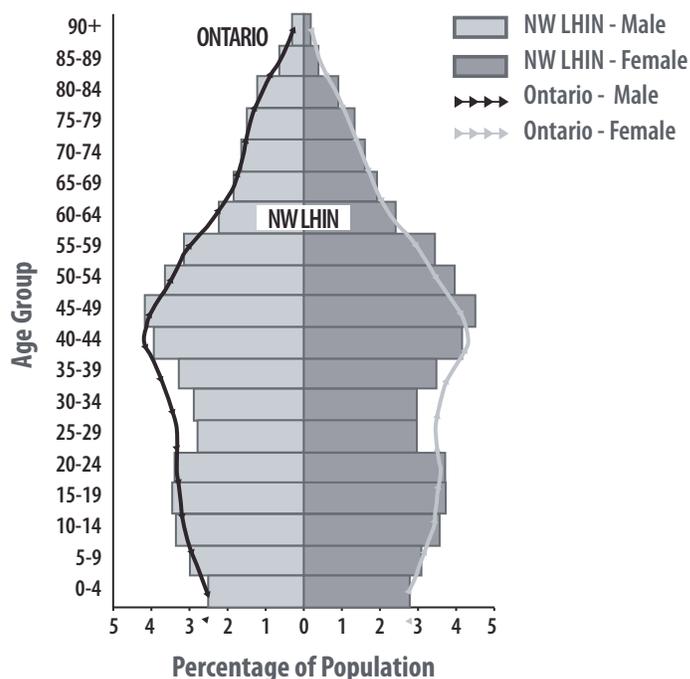
- Rate of population growth
- Percentage with post-secondary education
- Percentage of immigrants and visible minorities
- Proportion of middle-age adults
- Life expectancy for males and females
- Proportion reporting self-rated health as “excellent” or “very good”
- Rate of contact with a medical doctor in the past year
- Rate of low birth weight

The North West LHIN covers the largest geographic area of all Ontario LHINs, and has a highly concentrated population which includes a large proportion of Aboriginals. The population has the lowest life expectancies at birth in Ontario and a higher prevalence of many poor health practices.

The Population: The North West LHIN is home to 234,599 people, or 1.9% of the population of Ontario, according to the 2006 census. During the 2001-2006 time period, the North West is estimated to have increased in population by 1%. However, this is likely due to undercounting in the 2001 census. Over the same time frame, the population of Ontario has increased by 6.7%. Table 1 provides an overview of the social and demographic characteristics of this population. Compared to the provincial population, the North West has a higher proportion age 65 or older. The proportion of residents who

are Francophone (i.e., who claim French as their mother tongue) is lower than the province (3.5% versus 4.4%). The percentage of the population of Aboriginal identity is substantially greater in the North West (19.8% versus 2.0%). At the same time, the percentage of immigrants and visible minorities is far smaller in the North West compared to the province. The unemployment rate in the North West is higher than the provincial rate, while participation and low-income rates are lower than those for the province. Education levels are lower than those for the province. Just over 50% of adults (age 20+) have attained post-secondary education credentials compared to almost 49% for the province. As well, over 25% of North West residents have not attained a certificate, degree or diploma, whereas only 18.7% of Ontario adults have not attained one of these.

Chart 1 shows the population structure of the North West LHIN. The black line provides the Ontario population distribution for comparison. The population pyramid shows that the population structure of the North West LHIN is similar to the provincial age structure at older ages. While the percentage of those in the 10 to 19 age group actually exceeds the provincial structure, the reduction of those aged 25 to 39 in the North West relative to the province suggests out-migration of males and females.



Health Status: Life expectancy at birth is the average years of life an individual could live on the assumption that current, cross-sectional age-specific mortality rates remain constant over the life span. Life expectancy among males and females in the North West is significantly lower than life expectancy for Ontario overall (Table 2). Low birthweight is an important determinant of infant morbidity and mortality. In the North West, 3.8% of infants born in 1999-2001 were of low birthweight. Infant mortality is a long-established measure, not only of child health, but also of the well-being of a society. The infant mortality rate in the North West of 4.73 per 1000 is lower than the provincial rate of 5.4. Self-reported health, an indicator of overall health status, can reflect aspects of health not captured in other measures, such as disease severity, aspects of positive health status, physiological and psychological reserves and social and mental function. Residents of the North West report their health as 'Excellent' or 'Very Good' at rates that are significantly lower (53.1%) than the province as a whole (60.0%). A significant proportion of residents (40.8%, compared to 33.1% provincially) report being limited in their activities sometimes or often.

Health Practices and Preventive Care:

Poor health practices are known to be related to increased risk of chronic disease, mortality and disability. Chart 2 shows that a number of selected health practices in the North West are different from the province as a whole. Based on Body Mass Index, 36.3% of the adult population of the North West is considered overweight, and 19.4% are obese. The combined prevalence of being overweight/obese in the North West (55.7%) is significantly greater than Ontario (49.2%). Residents of the North West are significantly less likely to be physically inactive compared to the province as a whole. Daily smoking and heavy drinking rates are significantly higher in the North West relative to the province. Residents of the North West are also significantly less likely to self-report having a lot of life stress (19.7% versus 22.1% for the province).

The use of preventive health care services can lead to early detection of disease, which ultimately results in reduced morbidity and mortality (Table 3). The percentage of North West Residents reporting having a flu shot within the past year were lower than Ontario overall. The point of access for most medical care is through a primary care physician. Medical doctors also play a key role in coordinating care and managing chronic conditions. The majority of people (74.7%) in the North West LHIN had at least one contact, either in person or by phone, with a medical doctor in the past year. This percentage is significantly lower than the Ontario rate of 80.6%.

Table 1: Socio-demographic Characters

	NORTH WEST	ONTARIO	LHIN RANGE
Total Population	234599	12160282	234,599-1,532,649
Senior Population, Age 65+	14.3%	13.6%	9.4%-17.2%
Population with English Mother Tongue	82.5%	69.8%	51.5%-91.5%
Population with French Mother Tongue	3.5%	4.4%	1.0%-23.9%
Population who are Immigrants	8.6%	28.3%	6.3%-47.9%
Population who are Recent Immigrants	0.5%	4.8%	0.3%-9.5%
Population who are Visible Minorities	1.9%	22.8%	1.4%-50.3%
Population of Aboriginal Identity	19.8%	2.0%	0.4%-19.8%
Labour Force Participation Rate (age 15+)	64.2%	67.1%	60.1%-71.5%
Unemployment Rate (age 15+)	8.1%	6.4%	5.2%-8.4%
Population in Low Income	10.4%	14.7%	9.6%-24.0%
Population (age 20+) without Certificate, Degree, Diploma	25.4%	18.7%	13.0%-25.9%
Population (age 20+) with Completed Post-Secondary Education	50.7%	56.8%	50.3%-64.7%

Data Source: 2006 Census

Table 2: Health Status

	NORTH WEST	ONTARIO	LHIN RANGE
Female Life Expectancy at birth (years), 2005	80.5	82.7	80.2-84.8
Male Life Expectancy at birth (years), 2005	76.8	78.6	75.6-81.5
Low Birth Weight Babies (per 100), 2006	3.8	6.1	3.8-7.39
Infant Mortality Rate (per 1000 live births), 2003-2005	4.73	5.4	3.78-7.30
Population who say their health is Excellent or Very Good (12+), 2007	53.1%	60.0%	53.1%-65.3%
Population with an Activity Limitation (12+), 2007	40.8%	33.1%	27.3%-43.4%

Source: Vital Stats, CCHS

Table 3: Use of Preventative Care

	NORTH WEST	ONTARIO	LHIN RANGE
Had flu shot in the past year	31.5%	35.7%	29.1%-46.3%
Contact with medical doctor in past year	74.7%	80.6%	74.7%-85.8%
Had a mammography in the past 2 years (females, aged 50-69)	77.4%	73.2%	57.8%-81.4%
Had a pap smear in the past 3 years (females, aged 18-69)	74.5%	72.9%	66.9%-79.7%

Source: CCHS 2007

Chart 2: Health Practices, Population Age 12+

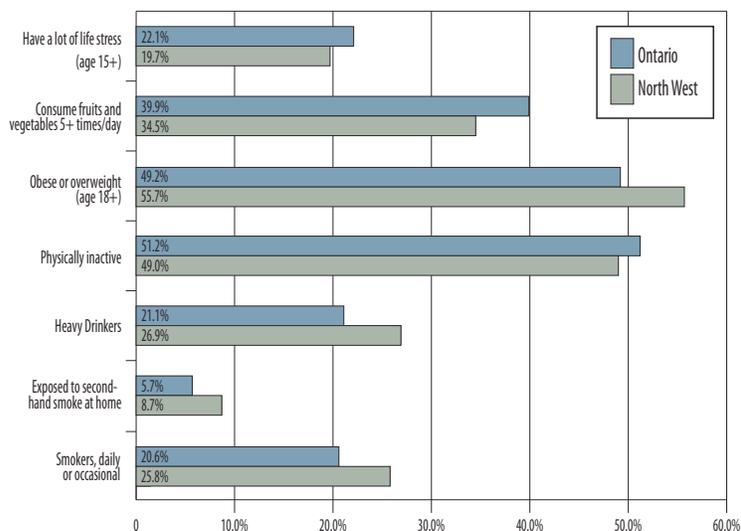
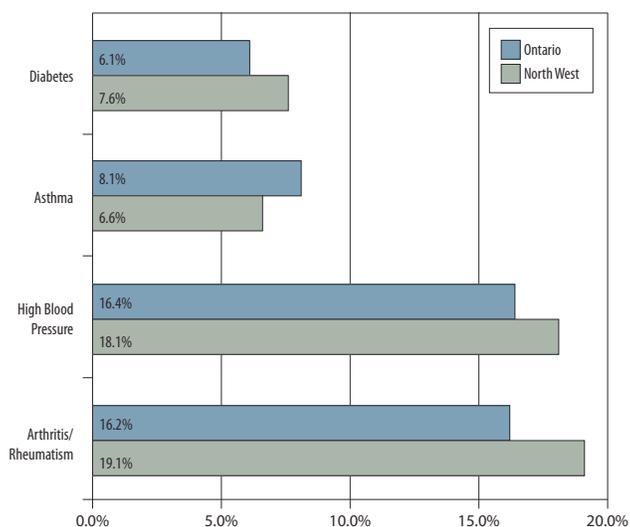


Chart 3: Prevalence of Selected Chronic Conditions, Population Age 12+



Morbidity and Mortality:

Chronic conditions place a high burden on the health care system and reduce the quality of life of those who suffer from the condition.

Chart 3 shows that North West’s rates of selected chronic conditions are slightly higher than the provincial rates with the exception of asthma. Prevalence rates presented in Chart 3 are not age-standardized, and therefore areas with a high proportion of seniors will tend to have higher rates of chronic disease.

Table 4: Mortality, PYLL and hospitalization rates by ICD-10 chapter

Age Standardized Mortality Rate per 100,000 (2004)

	NORTH WEST	ONTARIO
ALL CAUSES	675.6	559
I. Infectious Diseases	†	9.3
II. Neoplasms	187.1	173.1
III. Diseases of Blood	†	1.8
IV. Endocrine/Nutritional Disorders	38.7	26.5
V. Mental and Behavioural Disorders		14.5
VI. Nervous System Diseases	36.3	23.6
VII. Eye Diseases	†	†
VIII. Ear Diseases	0.0	†
IX. Circulatory System Diseases	213.5	178.7
X. Respiratory System Diseases	42.2	43.2
XI. Digestive System Diseases	†	22.0
XII. Skin Diseases	†	1.0
XIII. Musculoskeletal Diseases	†	3.4
XIV. Genitourinary Diseases	†	11.9
XV. Maternal Conditions	†	†
XVI. Perinatal Conditions	†	4.8
XVII. Congenital Conditions	†	3.3
XVIII. Symptoms Not Classified Elsewhere	†	8.1
XIX. Injury and Poisoning	N/A	N/A
XX. External Causes of Mortality	59.5	33.7
XXI. Factors Influencing Use of Services	N/A	N/A

Potential Years of Life Lost Rate per 100,000 (2004)

	NORTH WEST	ONTARIO
ALL CAUSES	6509	4681.6
I. Infectious Diseases	99.1	105.5
II. Neoplasms	1,534.8	1,546.7
111. Diseases of Blood	†	15.4
IV. Endocrine/Nutritional Disorders	452.5	184.8
V. Mental and Behavioural Disorders	128.2	63.6
VI. Nervous System Diseases	175.4	143.9
VII. Eye Diseases	†	†
VIII. Ear Diseases	†	†
IX. Circulatory System Diseases	1,197.7	803.4
X. Respiratory System Diseases	162.2	138.9
XI. Digestive System Diseases	372.8	188.0
XII. Skin Diseases	†	3.1
XIII. Musculoskeletal Diseases	37.0	21.9
XIV. Genitourinary Diseases	87.2	35.1
XV. Maternal Conditions	†	4.7
XVI. Perinatal Conditions	†	285.5
XVII. Congenital Conditions	175.0	155.5
XVIII. Symptoms Not Classified Elsewhere	149.1	161.7
XIX. Injury and Poisoning	N/A	N/A
XX. External Causes of Mortality	1,748.0	823.9
XXI. Factors Influencing Use of Services	N/A	N/A

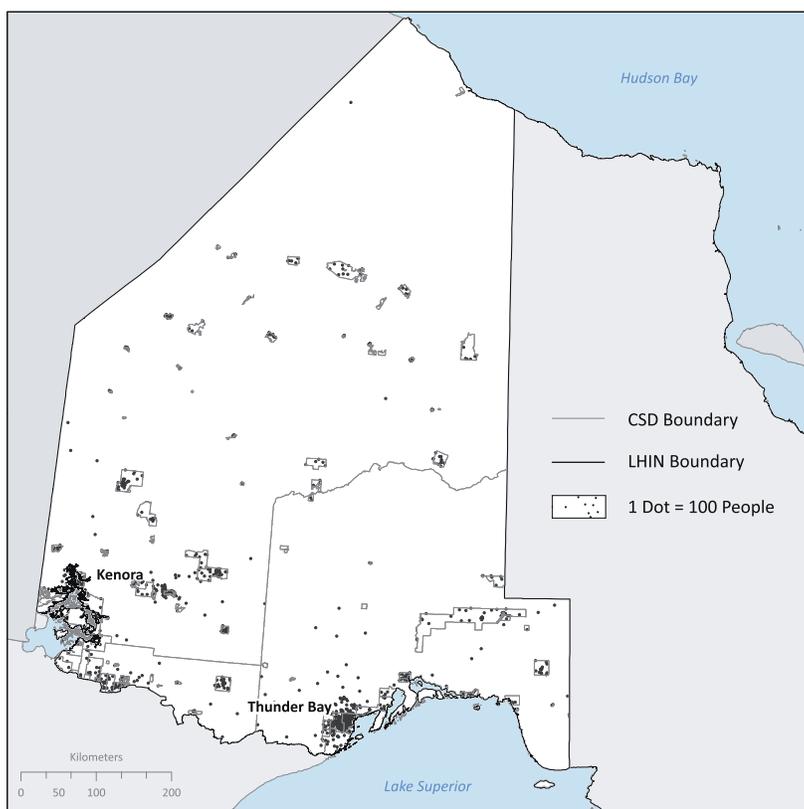
† - Data suppressed due to small numbers
Source: Vital Statistics

Table 4 provides age-standardized mortality rates as well as potential years of life lost (PYLL) by ICD-10 chapter. In the North West, 25.0% of deaths occur before the age of 65, and 41.8% occur before the age of 75 (the Ontario percentages are 21.4% and 38.8% respectively). All-cause mortality and PYLL rates are higher than provincial rates. Most diagnostic chapters also display higher rates of mortality among North West residents. PYLL rates are useful for quantifying the number of years of life “lost” from deaths that occur “prematurely” (i.e., before age 75). Table 4 shows that in the North West external causes (i.e. injuries) contribute to more years of potential life lost than any other cause, followed by neoplasms and circulatory system diseases.

Map 1 shows the 2006 population distribution (mapped by dissemination areas) within the North West LHIN area. Census subdivision (CSD) boundaries (analogous to municipal boundaries in selected areas) and the names of selected communities are shown for reference. More than 52% of the North West population is concentrated in the Thunder Bay census metropolitan area (population is approximately 122,900). Kenora (15,223) and Dryden (8,085) are the next most populous areas (6.4% and 3.4% respectively). The remainder of the North West is made up of CSDs ranging in population size from 40 people to approximately 8,080 (Fort Frances).

Data contributed by Health Analytics, Ministry of Health and Long-Term Care

Map 1: Population Distribution in North West



Glossary:

Age-standardization: adjustment for variations in population age distributions over time and place. Mortality and hospitalization rates are adjusted using the Direct Method and the 1991 Canadian population.

Body Mass Index (BMI): a measure of body weight adjusted for height which is correlated with body fat. A BMI of 30 or more is classified as obese.

Census subdivisions: area that is a municipality or an area that is deemed to be equivalent to a municipality for statistical reporting purposes (e.g., as an Indian reserve or an unorganized territory). Municipal status is defined by laws in effect in each province and territory in Canada.

Confidence intervals: indicate the degree of variability associated with an estimate. A 95% confidence interval indicates that estimates are accurate within the upper and lower confidence interval 19 times out of 20. Upper and lower bounds are shown as \pm values in tables and error bars in charts.

Dissemination areas (DAs): the smallest standard geographic area for which census data are disseminated. DAs are composed of one or more neighbouring blocks, with a population of 400 to 700 persons.

Hospitalization rate: refers to the hospital separation rate for all hospital inpatients excluding newborns and stillbirths. A separation may be due to death, discharge home, or transfer to another facility.

ICD-10: refers to the International Classification of Diseases, 10th revision. The ICD is used to classify diseases and other health problems recorded on many types of health and vital records including death certificates and hospital records. ICD chapters are broad classifications which are subdivided into more specific conditions.

Potential Years of Life Lost: represents the number of years not lived by an individual from birth to age 75 due to premature death. The PYLL rate provides the total years of life lost before age 75 to the total population under 75.

Sampling variability: estimates derived from survey data, rather than full counts of a population, have a degree of uncertainty that increases as the size of group surveyed decreases.

Statistical significance: an inference that a result is unlikely to have occurred due to chance alone.