



Northwestern Health Unit

Encouraging healthy behaviours by promoting and protecting conditions in which all people can achieve an optimal level of health

Self-Reported Health and Lifestyle Behaviours for Residents Living in the Region Served by the Northwestern Health Unit

2007

**Self-Reported Health and
Lifestyle Behaviours
for Residents
Living in the Region
Served by the
Northwestern Health Unit**

Produced by:
Lee-Ann Nalezty, MHSc
Val Mann, PhD,
Cheryl Dyck, Administrative Assistant
Planning & Evaluation
Email: lnalezty@nwhu.on.ca or vmann@nwhu.on.ca
Telephone: 807-468-3147

A summary report based on selected characteristics from the Canadian Community Health Survey (CCHS) cycle 2.1, 2003, and cycle 3.1, 2005, (Statistics Canada).

Table of Contents

Foreword.....	1	Personal Resources.....	10
Background.....	1	Life Stress.....	10
Objectives.....	1	Sense of Belonging to Local Community.....	10
Methodology.....	1	Environmental Factors.....	10
Source of Data.....	1	Complete Restriction of Smoking at Home.....	10
Limitations.....	1	Complete Restriction of Smoking at Work.....	11
Confidence Intervals.....	2	Exposure to Second-hand Smoke in the Home.....	11
Significance.....	2	Exposure to Second-hand Smoke in Vehicles.....	11
Process for This Report.....	2	Exposure to Second-hand Smoke in Public Places.....	11
About the Region Served by the Northwestern Health Unit.....	3	Exposure to Second-hand Smoke in Vehicles/Public Places.....	11
About the Northwest Region.....	5	Health System Performance.....	12
Health-Related Quality of Life and Health Conditions.....	6	Influenza Immunization.....	12
Well-being.....	6	Mammogram Screening.....	12
Self-Rated Health.....	6	Pap Screen.....	12
Self-Rated Mental Health.....	6	Community and Health System Characteristics.....	13
Health Conditions.....	6	Has a Regular Doctor.....	13
Body Mass Index.....	7	Contact with a Medical Doctor.....	13
High Blood Pressure.....	7	Contact with Dental Professionals.....	13
Arthritis or Rheumatism.....	7	Contact with Alternative Health Care Providers.....	13
Asthma.....	8	Conclusions.....	14
Diabetes.....	8	Appendix A.....	15
Injuries.....	8	Health Indicator Framework.....	15
Human Function.....	8	Bibliography.....	17
One or More Two-Week Disability Days.....	8	References/Web Sites.....	17
Participation and Activity Limitation.....	8	Table of Chart Pages.....	18
Non-Medical Determinants of Health.....	9		
Health Behaviours.....	9		
Current “Daily or Occasional” Smokers.....	9		
Smoking Initiation (Age 5 to 14 years).....	9		
Drinking “Five or More Drinks” on One Occasion.....	9		
Leisure-Time Physically Active.....	10		
Fruit and Vegetable Consumption.....	10		

Abbreviations

BMI - Body Mass Index

CCHS - Canadian Community Health Survey

CIHI - Canadian Institute for Health Information

E - Symbolizes Uncertainty

F - Data is Unreliable and Not Publishable

NWHU - Northwestern Health Unit

NW LHIN - North West Local Health Integration Network

ONT - Ontario

PAP - Papanicolaou Test

% - Percent

Foreword

Background

In 1991, the National Task Force on Health Information identified a number of issues and problems with the health information system in Canada. Some problems regarding health data included: fragmentation; incompleteness; difficulties with data sharing; limited analysis; and results were not disseminated to Canadians consistently.¹

In response to these issues, the Canadian Institute for Health Information (CIHI), Statistics Canada and Health Canada together established the National Health Information Roadmap.

A major achievement resulting from the National Health Information Roadmap was the inception of the **Canadian Community Health Survey (CCHS)**. The CCHS is a cross-sectional survey that collects health-related information that is used for health surveillance and health research. Survey information is gathered on a two-year collection cycle. In the first year of the survey cycle, a large population is sampled to provide reliable estimates at the health region level. In the second year of the survey cycle, a smaller population is sampled to provide provincial level results on specific focused health topics.²

The CCHS Cycle 3.1 is the most current survey. It was conducted in 2005.

Objectives of CCHS

Primary objectives of the CCHS were to provide timely, reliable, cross-sectional estimates of health determinants; health status; and health system utilization across Canada. Data was gathered at the sub-provincial level of geography. The survey collected information to meet specific health region data gaps.

Methodology of the CCHS

Consultations with leaders in the healthcare system were carried out to identify the leading health concerns. The same content was asked every two years; however, in addition to this, a set of questions designed to capture other focused health information was also asked.

The CCHS targeted persons aged 12 years and older who were living in private dwellings in the ten provinces and the three territories. In 2005, the CCHS covered approximately 98% of the Canadian population aged 12 and older. In the Northwestern Health Unit (NWHU) area, data was collected from January 2005 to December 2005. Both personal and

telephone interviews were conducted. A total of 624 surveys were completed resulting in a response rate of 77.9%.

Source of Data

Statistics Canada is the owner of the CCHS data. All data tables used in this report were retrieved from the Statistics Canada web site.³ Only those variables that provided data for NWHU were analyzed. A total of 31 variables from the Statistics Canada web site were used in this report.

Limitations

Data from the CCHS was self-reported; that is, how we perceived our health. Individual perceptions vary widely from person to person; therefore, bias from the truth may occur when persons respond to questions based upon, for example, attitude, recall and social desirability. For instance, a positive attitude towards one's health contributes to feeling healthy; recall depends upon one's memory of past events; and social desirability has us report what we think you want to hear/know. In a few cases, people may overestimate or underestimate the truth such as evidenced, for example, in questions about height and weight. In addition, parents respond as proxy for their children and they make the assumption that they know everything about their children. As surveys develop over time, we have also identified that changes in questions prevent comparability between surveys.

In the NWHU region, results from surveys were based on a small number of respondents. From these small numbers, estimates were calculated to represent the population of NWHU. A reasonable sample size was required to provide a reliable, reportable estimate. In some cases where the sample size of the population was small or separated out by gender, analyses of data became difficult. This difficulty resulted in estimates that required 'a caution' in interpretation or estimates that were not suitable for publication.

Not every group in Canada was surveyed. The estimate does not include populations who lived in institutions or who were members of the Armed Forces. **In particular, Aboriginal people living in First Nation communities were not surveyed.** This population represents approximately just over one-quarter of the total Northwestern Health Unit region's population.

Confidence Intervals (CI)

Confidence intervals provide a range of possible values around a central value. The width of the confidence interval gives us some idea about how uncertain we are about the true value of an estimate. A very wide interval may indicate that more data should be collected before anything very definitive can be said about it or that the population counts are too small.

Significance

For the purposes of this report, the term significance is used when differences in proportions in the NWHU region and between the NWHU region and Ontario have been found to be statistically significant, (higher or lower), at a probability value less than five percent ($P < 0.05$). In addition, the lack of significance in the NWHU region and between the NWHU region and Ontario is also reported.

Process for This Report

This report is intended to provide current self-reported behavioural and lifestyle information from the Canadian Community Health Survey cycles 2.1 (2003) and 3.1 (2005). Information is based upon residents who volunteered to participate in the survey and live in the administrative area of the Northwestern Health Unit (NWHU).

Data is organized using Statistics Canada *Health Indicator Framework*. Results from the survey are presented under the headings of health-related quality of life and health conditions, non-medical determinants of health, health system performance, community and health system characteristics.

Data for the 2003 and 2005 CCHS cycles are presented for the residents in the NWHU catchment area, the North West Local Health Integration Network (NW LHIN) and Ontario. Estimates calculated for the NWHU catchment area are compared to results for Ontario. Data for the NW LHIN (2005) is provided for information only. The data reported as NW LHIN (2003) is actually by the former Northwestern Ontario District Health Council, and is used here as proxy for the NW LHIN since boundaries are similar.

Generally, all data is reported for the population 12 years and older. Exceptions are for Body Mass Index and Life Stress, where the population is 18 years and older; mammogram screening is for females aged 50-69 years; pap screening is for females aged 18 to 69 years; and exposure to second-hand smoke at work is for the population 15 to 75 years of age.

Charts are prepared with data by gender and a total for all health units in Ontario. The latter enables the NWHU catchment area to identify its rank among the other 35 health units in Ontario.

Bar charts are used in this report to illustrate the data. The bars are colour coded. Solid colours stand for the 2003 CCHS cycle. The pattern colours stand for the 2005 CCHS cycle. To display data by geographic area, dark blue represents the NWHU catchment area, light green represents the NW LHIN and orange represents Ontario. Confidence intervals are shown on the chart bars. When sample sizes are small and estimates unpredictable, or need to be interpreted with caution, a character 'E' is used to symbolized this uncertainty. The character 'F' is used when the data is totally unreliable and not publishable.

About the Region Served by the Northwestern Health Unit

The Northwestern Health Unit is the most westerly of Ontario's 36 public health units, serving the Kenora (part) and Rainy River districts (Figure 1). The catchment area for the Northwestern Health Unit comprises 166,514 square kilometres or approximately one-fifth of Ontario.

The service area contains 19 municipalities, 39 First Nation communities and 2 unincorporated or "unorganized" territories, Kenora Unorganized and Rainy River Unorganized (Figure 1). The land mass encompassed by these boundaries is a significant factor in service delivery. The Northwestern Health Unit delivers service through 14 offices located in Atikokan, Dryden, Ear Falls, Emo, Fort Frances, Ignace, Kenora (two sites), Machin, Pickle Lake, Rainy River, Red Lake, Sioux Lookout, and Sioux Narrows-Nestor Falls. The wide dispersion of municipalities throughout the Northwestern Health Unit catchment area further complicates service delivery. For example, the distance from Pickle Lake to Rainy River is 800 kilometres. Distance in the NWHU area is often

measured in time - the number of hours it takes to drive from one location to another. For example it takes at least five hours to drive from Kenora to Atikokan. In winter, using winter ice roads can take 14 hours to travel from Bearskin Lake to Sioux Lookout.

The region has a population density of approximately 0.5 people per square kilometre compared to 12.6 people per square kilometre for the province. According to the 2001 Census, the NWHU region has a population of 77,825 people. The population figures for almost all the census divisions in northern Ontario are incomplete (NTAB, 2002); therefore, population counts are subject to change because of under/over-counting. As some First Nations did not participate or were incompletely enumerated in the 2001 Census, obtaining actual population numbers is not possible. As a result, the NWHU population is estimated to be approximately 85,000 residents in which approximately 17,500 reside in First Nation communities (Statistics Canada, 2001, INAC, 2002).

Figure 1: The catchment area for the Northwestern Health Unit

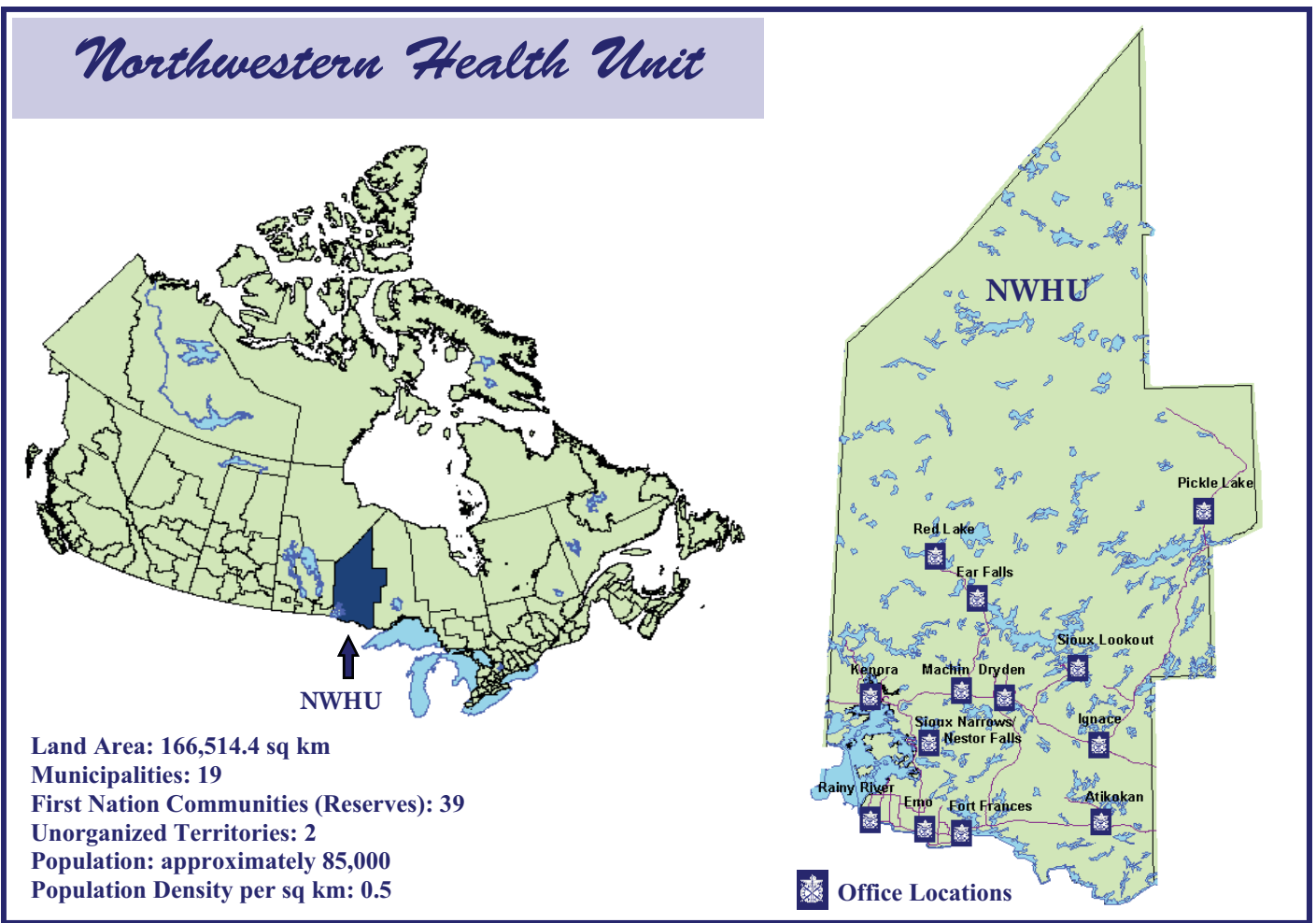
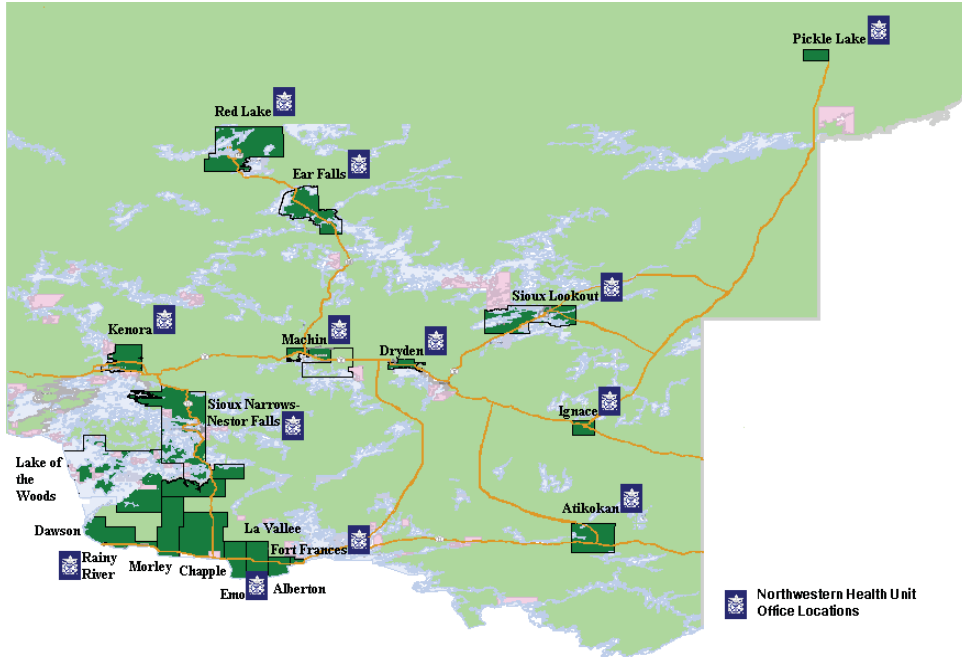


Figure 2: The municipalities (shaded dark green) within the Northwestern Health Unit catchment area



It should be noted that the population numbers available for Kenora Unorganized represent the unincorporated territory within the boundary of the Kenora District boundary, not the service area specific to the Northwestern Health Unit. As this area is very sparsely inhabited and the population numbers for First Nations are incompletely enumerated, the counts should not be significantly affected.

In addition, the NWHU catchment area has a large cottage and tourist population. During the summer season there is a huge population increase estimated to be one-fifth to one-quarter of the resident population (Municipal Assessment Office, Thunder Bay, 2002).

The population is widely scattered across the Northwestern Health Unit catchment area. Kenora is the largest city with a population of 15,838 people or just under 20 percent of the total population. Fort Frances and Dryden individually comprise approximately 10 percent, and Sioux Lookout includes about 7 percent.

Kenora, with the largest percentage of the total population, is located close to the most westerly boundary of the catchment area and is approximately 210 km from Winnipeg, Manitoba. Kenora’s westerly location, several small community populations, and the distances between communities have emphasized the necessity of decentralizing NWHU services.

Given the distances between some municipalities, road conditions and weather, numerous challenges exist for the planning, delivery and provision of public health services for the population of the Northwestern Health Unit region, including First Nation communities (Reserves).

Percentage of population for the NWHU catchment area. (Note that the category “First Nation Communities” represents an aggregation of all Reserves in the NWHU catchment area)

City/Town/Township	Percent
Kenora	18.9
Fort Frances	9.9
Dryden	9.8
Sioux Lookout	6.4
Red Lake	5.1
Atikokan	4.3
Ignace	2.0
Emo	1.6
Ear Falls	1.4
Machin	1.4
La Vallee	1.3
Rainy River	1.2
Alberton	1.1
Chapple	1.1
Dawson	0.7
Sioux Narrows/Nestor Falls	0.7
Morley	0.5
Pickle Lake	0.5
Lake of the Woods	0.4
Kenora (Unorganized)	9.1
Rainy River (Unorganized)	1.9
First Nation Communities (39)	20.7

About the Northwest Region

In 2004, the Ontario government introduced a new health system. This new system, called Local Health Integration Networks (LHINs), officially assumed responsibility for planning, coordinating and integrating of most health services on April 1, 2005. LHINs are non-profit organizations and are funded by the government of Ontario. A total of 14 LHINs have been established in Ontario. In 2006 the Local Health System Integration Act was passed, and as of April 1, 2007, LHINs assumed power to oversee the budget for public and private hospitals; Long-term Care Homes; Community Health Centres; mental health and addictions; community support service agencies; and Community Care Access Centres⁴ (Public Health is not included).

In northwestern Ontario, the North West LHIN (NW LHIN) includes the geographic areas of the Northwestern Health Unit and the Thunder Bay District Health Unit (Figure 3). The NW LHIN has the largest geographic area of all LHINs in the province. The estimated 2004 population (242,450) represents only 2% of the population of Ontario. The NW LHIN is made up of many small communities spread out over a large land area. In addition to this, almost 20% of the regional population is Aboriginal. It is

well documented that the health of Aboriginal people is poorer than non-Aboriginal people (Health Canada, 2005). This population is not only younger than the non-Aboriginal population but also the only population experiencing growth in northwestern Ontario. Lack of accurate population counts of Aboriginal people makes it difficult to project health care needs and provide culturally sensitive programs and services.

The Trans Canada highway is the major highway in northwestern Ontario. Often in winter this two-lane highway is closed because of dangerous road conditions or accidents. Almost two-thirds of the landmass has no year-round road access. Many First Nation communities without road access depend upon winter roads, which are open about three to six weeks a year. Travel by air to access hospital and health specialist services is expensive and dependent upon climate and weather conditions.

Providing health services to the population in this geographic area is challenging because of the low population density, long distances between communities and health services, and the extreme differences in climate throughout the year.

Figure 3: Public Health Unit Boundaries (adapted from Health Indicators; 2005, Statistics Canada)



Health-Related Quality of Life and Health Conditions

Health is multi-faceted. Many factors occur to determine how susceptible we are to disease or how healthy we are on a daily basis. Five groupings of factors that have strong implications for our health are genetics, social and physical environments, life-style behaviours, and health care services. The impact of healthy lifestyle behaviours is strongly influenced by these factors (Wilson). These five factors are part of the "Determinants of Health."

The simple story below, written in **Toward a Healthy Future: Second Report on the Health of Canadians**, speaks to the complex set of factors or conditions that determines the level of health.

*"Why is Jason in the hospital?
Because he has a bad infection in his leg.
But why does he have an infection?
Because he has a cut on his leg and it got infected.
But why does he have a cut on his leg?
Because he was playing in the junk yard next to his apartment building and there was some sharp, jagged steel there that he fell on.
But why was he playing in a junk yard?
Because his neighbourhood is kind of run down. A lot of kids play there, and there is no one to supervise them.
But why does he live in that neighbourhood?
Because his parents can't afford a nicer place to live.
But why can't his parents afford a nicer place to live?
Because his Dad is unemployed and his Mom is sick.
But why is his Dad unemployed?
Because he doesn't have much education and he can't find a job.
But why ...?"*

Since the 1980's, individuals are expected to participate in achieving their own health and to work towards the adoption of life-styles that are conducive to good health. There is evidence indicating that practicing healthy habits can significantly decrease our chances of developing disease. Therefore, regarding health determinants, life-style factors are among the controllable factors influencing our health (Wilson).

Well-being

Well-being refers to how people evaluate or perceive their lives in terms of what is happening to them. They are able to assess how they feel about their general well-being, physical and/or mental health.

Self-rated health is a global self-assessment of an individual's current health status. It is predictive of future mortality and also appears predictive of chronic conditions. In 2005, more than half (56.3%) of the residents in the NWHU region reported having

"very good"/"excellent" health compared to 49.7% in the previous survey conducted in 2003. This percentage is lower than that found for the province (60.8%) and the difference is not statistically significant. The NWHU region ranked eighth for having "very good"/"excellent" self-reported health compared to other 35 Ontario health units.

Table 1: "Very good" or "excellent" self-rated health by sex for the Northwestern Health Unit catchment area population, 12 years and older

Very Good/ Excellent Health	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003	49.7%	57.2%	48.5%	56.2%	51%	58.3%
2005	56.3%	60.8%	54.3%	60%	58.3%	61.6%

Self-rated mental health is the level of perceived self-worth. In 2005, more than two-thirds (68.6%) of the residents in the NWHU region reported "very good"/"excellent" mental health. This is a decline from the 2003 survey and is significantly lower than that found for the province (72.8%). The NWHU region ranked 34th for having "very good"/"excellent" self-reported mental health compared to the other 35 Ontario health units.

Table 2: "Very good" or "excellent" self-rated mental health for the Northwestern Health Unit catchment area population, 12 years and older

Excellent/Very Good Mental Health	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003	72.5%	70.7%	77.5%	70.6%	67.6%	70.8%
2005	68.6%	72.8%	68.9%	72.3%	68.3%	73.4%

Health Conditions

Prevention of disease has the potential to reduce its overall burden. Public health utilizes multiple strategies aimed at increasing awareness and knowledge of the prevention of health problems. Knowledge of the rates of diseases in a population is useful in planning prevention strategies and health promotion initiatives.

Obesity, high blood pressure and injuries are factors that are known to contribute to major health problems and disease. The self-reported prevalence of asthma, arthritis and rheumatism, and diabetes are chronic diseases measured in the CCHS survey.

In Canada obesity is a widespread problem and has a major impact on the burden of disease (CIHI 2004). One's weight has important implications to health, both physical and psychosocial. The behavioural determinants of overweight and obesity are overeating and inactivity. The Body Mass Index (BMI) is commonly used to classify body weight according to health risk. Health risk classifications are as follows: BMI 18.5-24.9 (normal weight) = less health risk, less than 18.5 (underweight) or 25.0-29.9 (overweight) = increased health risk, obese class I (30.0-34.9) = high health risk, obese class II (35.0-39.9) = very high health risk, and obese class III (40.0 or +) = extremely high health risk.

The proportion of the population of the NWHU region that reported weights in the overweight and obese categories remains high. Comparing 2003 and 2005 surveys, residents in the NWHU region reported a decline in the overweight (25.00-29.99) BMI category from 41.5% to 39.1%. This percentage, never the less, is significantly higher than that found for the province (33.4%). The NWHU region ranked second for being self-reported as overweight (BMI 25.00-29.99) compared to the other 35 Ontario health units.

Table 3: Body Mass Index (BMI) "Overweight - 25.00-29.99" by sex for the Northwestern Health Unit catchment area population, 18 years and older

BMI 25.00 - 29.99	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003	41.5%	33.3%	36.1%	26.0%	46.9%	40.9%
2005	39.1%	33.4%	29.0%	25.9%	49.1%	41.1%

Comparing 2003 and 2005 surveys, residents in the NWHU region reported an increase in the obese (30+) BMI category from 17.0% to 23.4%. This percentage is significantly higher than that found for the province (15.1%). The NWHU region ranked first for being self-reported as obese (BMI 30+) compared to the other 35 Ontario health units.

Table 4: Body Mass Index (BMI) "Obese - 30+" by sex for the Northwestern Health Unit catchment area population, 18 years and older

BMI 30+	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003	17.0%	14.8%	14.4% E	13.7%	19.5%	16.0%
2005	23.4%	15.1%	21.9%	13.9%	24.9%	16.3%

Circulatory disease in northwestern Ontario is a leading cause of death. Having high blood pressure is associated with circulatory disease. High blood pressure is often called the "silent killer." Generally having high blood pressure shows few symptoms; therefore, people usually do not know they have high blood pressure. Uncontrolled high blood pressure can lead to stroke, heart attack, heart failure, or kidney failure. Comparing 2003 and 2005 surveys, residents in the NWHU region reported an increase of being diagnosed by a health professional for having high blood pressure from 15.7% to 20.9%. This percentage is significantly higher than that found for the province (15.2%). The NWHU region ranked second for having self-reported high blood pressure compared with the other 35 Ontario health units.

Table 5: High Blood Pressure by sex for the Northwestern Health Unit catchment area population, 12 years and older

With High Blood Pressure	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003	15.7%	14.7%	13.6%	15.0%	17.9%	14.4%
2005	20.9%	15.2%	21.4%	15.7%	20.4%	14.7%

Arthritis and rheumatism cause aches, pains and stiffness in the bones, muscles and joints. Rates of arthritis are rising. In 2005, 21.8% of the residents in the NWHU region reported being diagnosed by a health professional as having arthritis and rheumatism. This percentage is significantly higher than that found for the province (17.1%). The NWHU region ranked 15th for having arthritis and rheumatism compared to the other 35 Ontario health units.

Table 6: Arthritis or Rheumatism by sex for the Northwestern Health Unit catchment area population, 12 years and older

With Arthritis	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003	19.8%	17.5%	22.5%	21.8%	17.2%	13.1%
2005	21.8%	17.1%	24.3%	21.1%	19.3% E	13.1%

Respiratory disease is identified as one of the leading causes of hospitalization and death in northwestern Ontario. Asthma is a type of chronic respiratory disease that cannot be cured, but most people can control it. Obesity and exposure to second-hand smoke are thought to contribute to asthma. In 2005, 9.3% of residents in the NWHU region reported being diagnosed by a health professional as having asthma. The NWHU region ranked 12th for having asthma compared to the other 35 Ontario health units.

Table 7: Asthma by sex for the Northwestern Health Unit catchment area population, 12 years and older

With Asthma	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003	6.8% E	8.3%	7.4% E	9.8%	6.2% E	6.8%
2005	9.3%	8.0%	12.3% E	9.3%	6.3% E	6.6%

Anecdotally, health professionals in the NWHU region believe that rates of diabetes are increasing steadily in the population. Yet, the CCHS does not confirm this belief; however, the estimate from the CCHS survey must be interpreted with caution because of small numbers. Comparing 2003 and 2005 surveys, residents in the NWHU region reported a slight increase in having been diagnosed by a health professional as having diabetes from 5.5% to 7.0%. Although the result is higher than that found for the province (4.8%) and ranked fifth among the other 35 Ontario health units, it is reported with caution. (It must be again noted that these figures do not include Reserve residents).

Table 8: Diabetes by sex for the Northwestern Health Unit catchment area population, 12 years and older

With Diabetes	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003	5.5% E	4.6%	F	4.4%	6.3% E	4.8%
2005	7.0% E	4.8%	5.5% E	4.1%	8.5% E	5.6%

Unintentional injuries in northwestern Ontario are a leading cause of premature death. Injuries, in most cases, are preventable. Usually actions could be taken in advance to prevent or minimize the extent of injuries. Public health promotes strategies to reduce disability, morbidity and mortality from injuries. Comparing 2003 and 2005 surveys, residents in the NWHU region reported a decrease in sustaining injuries serious enough to limit their normal activities from 16.0% to 12.9%. Even though this percentage is lower than that found for the province (13.5%), it is not statistically significant. The NWHU region ranked 25th for having injuries compared to the other 35 Ontario health units.

Table 9: Injuries by sex for the Northwestern Health Unit catchment area population, 12 years and older

With Injuries	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003	16.0%	12.8%	11.6% E	10.9%	20.4%	14.8%
2005	12.9%	13.5%	10.6% E	11.2%	15.1%	15.8%

Human Function

One or more two-week disability days provides an indication of disability and activity restriction. It measures the population who spent time in bed or curtailed activities for one or two days in a two-week period because of an illness or injury. Comparing 2003 and 2005 surveys, residents in the NWHU region reported an increase in disability days from 15.7% to 17.8%. This percentage is similar to that found for the province (17.1%). The NWHU region ranked 21st for reporting one or more two-week disability days compared to the other 35 Ontario health units.

Table 10: One or more two week disability days by sex for the Northwestern Health Unit catchment area population, 12 years and older

One or More Two Week Disability Days	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003	15.7%	17.4%	18.3%	20.3%	13.3% E	14.4%
2005	17.8%	17.1%	21.6%	19.7%	14.0% E	14.5%

Participation and activity limitation refers to the population who reported limitations in activities that lasted or were going to last longer than six months. Residents in the NWHU region reported an increase in participation and activity limitation (34.9% to 36.0%). This percentage is significantly higher than that found for the province. The NWHU region ranked ninth for participation and activity limitation compared to the other 35 Ontario health units.

Table 11: Participation and activity limitation by sex for the Northwestern Health Unit catchment area population, 12 years and older

Participation and Activity Limitation	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003	34.9%	31.7%	33.6%	33.8%	36.1%	29.5%
2005	36.0%	29.4%	36.2%	30.3%	35.8%	28.4%

Non-Medical Determinants of Health

The non-medical determinants of health refer to those factors that an individual has in his/her own control (more or less) and include factors such as our physical, psycho-social, and socio-economic environments, and our individual behaviours. Our physical environment refers to the home and/or workplace and exposure to contaminants in air, water or soil. Our psycho-social environment also includes the home and/or workplace but, in addition, can also include friends and neighbours, school(s) and the community. Our socio-economic environment refers to our educational attainment, employment or unemployment, income, and ethnicity. Own unique individual behaviours refer to behaviours that we choose to do; for instance, smoking cigarettes, using alcohol and illicit drugs, the type and amount of food we eat, our level of exercise or physical activity, and sexual practices. The non-medical determinants of health do not interact separately but are a complex interplay of many factors that impact on overall health (Fuchs).

Health Behaviours

The detrimental effects of smoking are well known. Smoking is linked to increased risk of poor health and frequent hospitalization. It is also related to cardiovascular and respiratory diseases and lung cancer. Smoking during pregnancy is associated with having low birth weight babies. Passive (second-hand) exposure to tobacco smoke is a significant health risk.

Comparing 2003 and 2005 surveys, residents in the NWHU region reported a decline in current (daily or occasionally) smoking status from 27.2% to 22.5%. This percentage is not significantly different from that found for the province (20.7%). The NWHU region ranked 24th for current smoking status compared to the other 35 Ontario health units.

Table 12: Current “daily or occasional” smokers by sex for the Northwestern Health Unit catchment area population, 12 years and older

Current “Daily or Occasional” Smokers	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003	27.2%	22.1%	27.8%	19.4%	26.2%	24.9%
2005	22.5%	20.7%	22.7%	18.2%	22.2%	23.3%

Smoking is a highly addictive behaviour. Studies have shown that people generally begin smoking in early to middle adolescence, and adult smoking patterns are usually established between the ages of 15 to 18 years. Research findings indicate that if people have not started smoking during their adolescent years, they probably will never smoke. In

2005, 4 in 10 residents (40.0%) in the NWHU region who smoke reported that they smoked their first cigarette between the ages of 5 and 14 years. This is significantly higher than that found for the province (32.7%). The NWHU region ranked seventh for smoking initiation at a young age compared to other Ontario health units.

Table 13: Smoking initiation age by sex for the Northwestern Health Unit catchment area population, 12 years and older

Smoking Initiation (5-14 years)	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003	42.0%	32.9%	35.6%	29.1%	47.9%	36.2%
2005	40.3%	32.7%	38.9%	29.4%	41.5%	35.5%

Alcohol is an important factor in health problems such as cirrhosis, motor vehicle accidents and violence. It also contributes to risk-taking behaviours. The health and social effects of drinking large amounts of alcohol on one occasion (binge drinking) are well known. Comparing 2003 and 2005 surveys, slightly more residents (28.6% versus 27.4%) in the NWHU region reported drinking five or more drinks on one occasion, 12 or more times in a year. This is significantly higher than that found for the province (21.5%). The NWHU region ranked second for binge drinking compared to the other 35 Ontario health units.

Table 14: Drinking “five or more drinks on one occasion, 12 or more times in a year” by sex for the Northwestern Health Unit catchment area population, 12 years and older

Five+ Drinks on One Occasion	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003	27.4%	20.5%	18.4%	11.4%	35.8%	29.0%
2005	28.6%	21.5%	17.8%	12.1%	37.9%	30.2%

The frequency of exercise or being physically active during leisure-time is important for physical and mental health and is a behaviour that is generally accepted to reduce the risk of premature morbidity and mortality. In 2005, residents in the NWHU region continue to report significantly higher rates of leisure-time physical activity compared to that found for the province (58.5% versus 51.3%). The NWHU region ranked first for leisure-time physical activity compared to the other 35 Ontario health units.

Table 15: Leisure-time physically active by sex for the Northwestern Health Unit catchment area population, 12 years and older

Leisure-Time Physically Active	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003	60.3%	50.0%	56.3%	46.8%	64.2%	53.2%
2005	58.5%	51.3%	54.3%	48.2%	62.6%	54.5%

Good nutrition is important for maintaining health and preventing disease. The feeling of well-being can be improved through eating a balanced diet. The consumption of fruits and vegetables provides health benefits. Weight can be managed through proper dietary intake. In 2005, less than one-third (32.7%) of residents in the NWHU region reported consuming 5 or more fruits and vegetables a day. This is significantly lower than that found for the province (41.0%). The NWHU region ranked last for consuming 5 or more fruits and vegetables a day compared to the other 35 Ontario health units.

Table 16: Fruit and vegetable consumption “five or more times a day” by sex for the Northwestern Health Unit catchment area population, 12 years and older

5+ Fruits and Vegetables	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003	39.2%	39.8%	45.5%	45.5%	33.1%	33.9%
2005	32.7%	41.0%	40.8%	47.1%	24.8%	34.6%

Personal Resources

A person's reaction to stress may influence his/her overall health and feeling of well-being. Stress creates ill health and contributes to injuries and accidental deaths. Continued stress has been associated with physical weakness, fatigue and lack of concentration. Comparing 2003 and 2005 surveys, residents in the NWHU region reported an increase in “quite a lot of life stress” from 14.2% to 18.3%. This percentage, however, is significantly lower than that found for the province (23.1%). The NWHU region ranked last for reporting “quite a lot of life stress” compared to the other 35 Ontario health units.

Table 17: Life stress, “quite a lot” by sex for the Northwestern Health Unit catchment area population, 18 years and older

Life Stress	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003	14.2%	24.6%	10.5% E	25.1%	17.8%	24.2%
2005	18.3%	23.1%	21.3%	24.1%	15.3% E	22.1%

Research has shown a positive relationship between belonging to local community and health. In 2005, residents in the NWHU region continue to report significantly higher rates (72.4%) of describing their sense of belonging to local community as “very strong” or “somewhat strong” compared to that found for the province (63.4%). The NWHU region ranked sixth for having a “very strong” or “somewhat strong” sense of belonging to local community compared to the other 35 Ontario health units.

Table 18: Sense of belonging to local community by sex for the Northwestern Health Unit catchment area population, 12 years and older

Sense of Belonging to Community	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003	75.4%	62.3%	74.7%	63.0%	76.1%	61.6%
2005	72.4%	63.4%	70.6%	64.6%	74.3%	62.1%

Environmental Factors

Exposure to second-hand smoke has been documented to be a factor in many respiratory and cancer-causing diseases. In Ontario, in 2005, the Tobacco Control Act was expanded to include protecting the population from exposure to second-hand smoke and is now called the Smoke-Free Ontario Act, which became effective in 2006. The Act stated that smoking is prohibited in enclosed public places and enclosed work settings.

Improvements in the restriction of smoking at home have been made in the NWHU region. Comparing 2003 and 2005 surveys, residents in the NWHU region reported an increase in asking smokers to refrain from smoking in the home from 55.9% to 64.4%. In 2005, the difference between the NWHU region (64.4%) and that found for the province (69.6%) is not statistically significant. The NWHU region ranked 25th for asking smokers to not smoke in the home compared to the other 35 Ontario health units.

Table 19: Complete restriction of smoking at home by sex for the Northwestern Health Unit catchment area population, 12 years and older

Complete Restriction of Smoking at Home	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003	55.9%	62.6%	55.6%	63.3%	56.3%	61.8%
2005	64.4%	69.6%	62.1%	70.5%	66.7%	68.7%

In 2005, only 60.4% of the residents in the NWHU region reported a restriction of smoking at work. This is significantly lower than that found for the province (67.5%). The NWHU region ranked 22nd for restricting smoking at work compared to the other 35 Ontario health units.

Table 20: Complete restriction of smoking at work by sex for the Northwestern Health Unit catchment area population, 15 to 75 years

Complete Restriction of Smoking at Work	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
	2003	64.8%	65.2%	77.9%	73.7%	53.7%
2005	60.4%	67.5%	78.4%	74.6%	45.5%	61.3%

In 2005, although data is interpreted with caution, 12.0% of residents in the NWHU region reported being exposed to second-hand smoke in the home compared to 7.8% found for the province. The NWHU region ranked seventh for exposure to second-hand smoke in the home compared to the other 35 Ontario health units.

Table 21: Exposure of non-smoking population to second-hand smoke in the home by sex for the Northwestern Health Unit catchment area population, 12 years and older

Exposure to 2 nd Hand Smoke in the Home	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
	2003	10.8% E	9.1	9.3 E	8.7	12.3 E
2005	12.0 E	7.3	10.8 E	6.9	13.3 E	7.8

In 2005, although data is interpreted with caution, 10.1% of residents in the NWHU region reported being exposed to second-hand smoke in vehicles compared to 8.4% found for the province. The NWHU region ranked 11th for exposure to second-hand smoke in vehicles compared to the other 35 Ontario health units.

Table 22: Exposure of non-smoking population to second-hand smoke in vehicles by sex for the Northwestern Health Unit catchment area population, 12 years and older

Exposure to 2 nd Hand Smoke in Vehicles	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
	2003	12.4% E	9.6%	10.9% E	8.5%	13.9% E
2005	10.1% E	7.8%	6.8% E	7.3%	13.2% E	8.4%

In 2005, 16.4% of residents in the NWHU region reported being exposed to second-hand smoke in public places compared to 13% found for the province. This difference is not statistically significant. The NWHU region ranked fifth for exposure to second-hand smoke in public places compared to the other 35 Ontario health units.

Table 23: Exposure of non-smoking population to second-hand smoke in public places by sex for the Northwestern Health Unit catchment area population, 12 years and older

Exposure to 2 nd Hand Smoke in Public Places	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
	2003	24.5%	17.7%	18.0% E	15.4%	30.8%
2005	16.4%	13.0%	13.8% E	11.4%	18.9% E	14.8%

In 2005, residents in the NWHU region reported a decline in exposure to second-hand smoke in vehicles and/or public places from 30.2% to 21.4%. This decline is not statistically significant. The NWHU region ranked seventh for exposure to second-hand smoke in vehicles and/or public places compared to the other 35 Ontario health units.

Table 24: Exposure of non-smoking population to second-hand smoke in vehicles and/or public places by sex for the Northwestern Health Unit catchment area population, 12 years and older

Exposure to 2 nd Hand Smoke in Vehicles and/or Public Places	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
	2003	30.2%	22.4%	25.4%	20.0%	34.9%
2005	21.4%	17.3%	18.4% E	15.5%	24.4% E	19.3%

Health System Performance

Immunization remains the most important factor in the prevention of infectious disease. Through immunization, disease has been eradicated in some cases, and controlled in many, thereby preventing long-term illness and death. Annual immunization for influenza is promoted and provided throughout Ontario.

Comparing 2003 and 2005 surveys, residents in the NWHU region reported an increase in obtaining influenza immunization from 36.4% to 44.9%. This percentage is higher than that found for the province (41.1%) but is not statistically significant. The NWHU region ranked ninth for receiving immunization in less than a year compared to the other 35 Ontario health units.

Table 25: Influenza immunization (“less than one year ago”) by sex for the Northwestern Health Unit catchment area population, 12 years and older

Influenza Immunization	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003	36.4%	34.0%	36.3%	37.6%	36.6%	30.3%
2005	44.9%	41.1%	52.3%	44.1%	37.6%	37.9%

Screening programs are aimed towards identifying disease early and offering appropriate treatment once identified. Two screening programs directed towards women to detect cancer are mammography and pap screening.

In 2005, one-half of females in the NWHU region reported having a mammogram within the last two years (50.7%) compared to that found for the province (53.0%). The difference is not statistically significant. The NWHU region ranked 25th for females having a mammogram within the last two years compared to the other 35 Ontario health units.

Table 26: Mammogram screening (“within last two years”) by female population for the Northwestern Health Unit catchment area, 50 to 69 years

Mammogram Screening	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003			44.3 %	49.8%		
2005			50.7%	53.0%		

Comparing 2003 and 2005 surveys, females in the NWHU region reported a decline in having a pap screen within the last three years from 76.4% to 69.1%. This decline is lower than that found for the province (72.9%) and is not statistically significant. The NWHU region ranked 33rd for reporting pap screening compared to the other 35 Ontario health units.

Table 27: Pap screen (“within three years”) by female population for the Northwestern Health Unit catchment area, 18 to 69 years

Pap Screening	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003			76.4%	73.9%		
2005			69.1%	72.9%		

Community and Health System Characteristics

Health System

Access to and use of medical professionals contributes to the differences in health status. In 2005, three-quarters (76.1%) of residents in the NWHU region reported having a regular medical doctor compared to 91.1% found for the province. This rate continues to be significantly lower than that found for the province. The NWHU region ranked 35th for having a regular medical doctor compared to the other 35 Ontario health units.

Table 28: Has a regular medical doctor by sex for the Northwestern Health Unit catchment area population, 12 years and older

Has a Regular Doctor	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003	76.6%	91.8%	84.5%	94.1%	68.8%	89.3%
2005	76.1%	91.1%	80.0%	93.1%	72.2%	89.1%

In 2005, three-quarters (75.1%) of residents in the NWHU region reported having a consultation with a medical doctor compared to 81.5% found for the province. This rate continues to be significantly lower than that found for the province. The NWHU ranks last for having consultations with a medical doctor compared to the other 35 health units.

Table 29: Contact with a medical doctor by sex for the Northwestern Health Unit catchment area population, 12 years and older

Contact with a Medical Doctor	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003	74.5%	81.1%	80.9%	86.1%	68.1%	75.9%
2005	75.1%	81.5%	80.2%	86.3%	70.1%	76.5%

Regular visits to dental professionals are important to maintain good oral health. In 2005, almost two-thirds (65.6%) of the residents in the NWHU region reported having a consultation with dental professionals compared to 69.7% found for the province. The difference is not statistically significant. The NWHU region ranked 25th for having consulted with dental professionals compared to the other 35 Ontario health units.

Table 30: Contact with dental professionals by sex for the Northwestern Health Unit catchment area population, 12 years and older

Contact with Dental Professionals	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003	60.4%	69.3%	64.8%	71.8%	56.1%	66.6%
2005	65.6%	69.7%	66.0%	71.7%	65.3%	67.6%

In addition to seeing medical doctors and dental professionals, the CCHS reported that the population also saw alternative health care providers. In 2005, while data is interpreted with caution, residents in the NWHU region reported a decline in consulting with alternative health care providers. The NWHU region ranked 31st for consulting with alternative health care providers compared to the other 35 Ontario health units.

Table 31: Contact with alternative health care providers by sex for the Northwestern Health Unit catchment area population, 12 years and older

Contact with Alternative Health Care Providers	Total		Female		Male	
	NWHU	ONT	NWHU	ONT	NWHU	ONT
2003	10.5% E	11.4%	13.6% E	14.7%	7.4% E	8.1%
2005	9.6% E	12.0%	11.8% E	15.3%	7.4% E	8.7%

Conclusions

The body of evidence about what makes people healthy is growing. The key factors that appear to determine health status are: lifestyle, environment, human biology and health services. In particular, there is mounting evidence that the contribution of medicine and health care is limited and that spending more on health care will not result in significant further improvements in population health. On the other hand, there are strong and growing indications that other factors, such as living and working conditions, are crucially important for a healthy population.⁵

The evidence indicates that the key factors that influence population health are: income and social status; social support networks; education; employment/working conditions; social environments; physical environments; personal health practices; coping skills; and health services.⁶

According to the 2005 CCHS, critical health indicators that require intervention to improve and promote a healthier population in the NWHU region are:

- **Mental health**
- **BMI 25.00-29.99 and BMI 30+**
- **High blood pressure**
- **Smoking initiation**
- **Drinking 5 or more drinks on one occasion**
- **Consumption of 5 or more fruits and vegetables**
- **Exposure to second-hand smoke**
- **Pap screen**
- **Access to a regular medical doctor**
- **Access to a medical doctor and alternative health professionals**

Appendix A

Health Indicator Framework

Health Status			
Well-Being	Health Conditions	Human Function	Deaths
<ul style="list-style-type: none"> • Self-rated health • Self-rated health as ‘very good’ or ‘excellent’ for two or more consecutive survey cycles • Self-esteem 	<ul style="list-style-type: none"> • Body Mass Index (BMI), Canadian standard • Body Mass Index (BMI), International standard • Arthritis/rheumatism • Diabetes • Asthma • High blood pressure • Chronic pain – affects activities • Chronic pain – severity • Depression • Low birth weight <p>Cancer Incidence, age standardized rates:</p> <ul style="list-style-type: none"> • All cancer incidence • Lung cancer incidence • Colorectal cancer incidence • Breast-female cancer incidence • Injury hospitalizations • Food and waterborne diseases* • Injuries 	<ul style="list-style-type: none"> • Functional health • Two-week disability days • Activity limitation • Disability-free life expectancy • Disability-adjusted life expectancy • Disability-adjusted life years • Health expectancy 	<ul style="list-style-type: none"> • Infant mortality • Perinatal mortality • Life expectancy <p>Mortality crude counts/rates, age-standardized rates:</p> <ul style="list-style-type: none"> • Total mortality • All circulatory disease deaths • Ischemic heart disease deaths • Cerebrovascular disease deaths • All other circulatory disease deaths • All cancer deaths • Lung cancer deaths • Colorectal cancer deaths • Breast-female cancer deaths • Prostate cancer deaths • All respiratory disease deaths • Pneumonia and influenza deaths • Bronchitis, emphysema and asthma deaths • All other respiratory disease deaths • Suicide • Unintentional injury deaths • AIDS deaths <p>Potential years of life lost (PYLL) rate:</p> <ul style="list-style-type: none"> • Total PYLL • All cancer PYLL • All circulatory PYLL • All respiratory PYLL • Unintentional injury PYLL • Suicide PYLL
Non-Medical Determinants of Health			
Health Behaviours	Living and Working Conditions	Personal Resources	Environmental Factors
<ul style="list-style-type: none"> • Smoking status • Smoking initiation • Quitting smoking • Frequency of heavy drinking • Leisure-time physical activity • Breastfeeding practices • Dietary practices 	<ul style="list-style-type: none"> • High school graduates • Post-secondary graduates • Average number of years of schooling • Unemployment rate • Long-term unemployment rate • Low income rate • Children in low income families • Average personal income • Housing affordability • Decision latitude at work • Income inequality • Government transfer income • Owner-occupied dwellings • Crime rate and youth crime rate** 	<ul style="list-style-type: none"> • School readiness • Social support • Life stress 	<ul style="list-style-type: none"> • Exposure to second-hand smoke

Health Indicator Framework (continued)

Health System Performance			
Acceptability	Accessibility	Appropriateness	Competence
	<ul style="list-style-type: none"> • Influenza immunization, 65 years and over • Screening mammography, women aged 50-69 years • Pap smear, women aged 18-69 years • Childhood immunization* 	<ul style="list-style-type: none"> • Vaginal birth after caesarean • Caesarean sections 	
Continuity	Effectiveness	Efficiency	Safety
	<ul style="list-style-type: none"> • Pertussis • Measles • Tuberculosis • HIV • Chlamydia • Pneumonia and influenza hospitalizations <p>Deaths because of medically treatable diseases, age standardized rates:</p> <ul style="list-style-type: none"> • Bacterial infections • Cervical cancer • Hypertensive disease • Pneumonia and unspecified bronchitis <ul style="list-style-type: none"> • Ambulatory care sensitive conditions • 30-day AMI in-hospital mortality • 30-day stroke in-hospital mortality <p>Re-admissions:</p> <ul style="list-style-type: none"> • Ami • Asthma • Prostatectomy • Hysterectomy 	<ul style="list-style-type: none"> • May not require hospitalization • Expected compared to actual stay 	<ul style="list-style-type: none"> • Hip fracture hospitalization
Community and Health System Characteristics			
Community	Health System	Resources	
<ul style="list-style-type: none"> • Population • Population density • Dependency ratio • Urban population • Aboriginal population • Immigrant population • 1- and 5-years mobility • Population within strong Census Metropolitan Area and Census Agglomeration Influenced Zones (MIZ) • Lone-parent families • Visible minorities • Teen pregnancy** 	<ul style="list-style-type: none"> • Inflow/outflow ratio • Coronary artery bypass graft (CABG) • Hip replacement • Knee replacement • Hysterectomy • Contact with alternative health care providers • Contact with health professionals • Contact with health professionals about mental health • Contact with dental professionals 	<ul style="list-style-type: none"> • Health expenditures • Doctors • Nurses • Other health professionals 	

* Data quality or data availability are uncertain at this point in time

** Province-level data only for the next few years

Published by the authority of the Minister responsible for Statistics Canada

© Ministry of Industry 2002

© Canadian Institute for Health Information

Contents of this publication may be reproduced in whole or in part provided the intended use is for non-commercial purposes and the sources are clearly identified.

Bibliography

Statistics Canada, Canadian Community Health Survey (CCHS 2.1 and 3.1) 2003 and 2005. CANSIM table 105-0400 is an update of the CANSIM table 105-0200. <http://cansim2.statcan.ca/cgi-win/CNSMCGI.EXE>, accessed November and December 2006.

<http://www.statcan.ca/english/freepub/82-221-XIE/2006001/tables.htm>.

Last, John M., A Dictionary of Epidemiology, Fourth Edition. Oxford University Press, 2001.

Wilson, D B. and M. S. McLellan, Health Determinants and Health Promotion, <http://www.pitt.edu/~super1/lecture/lec4221/007.htm>, accessed Dec. 29, 2007.

Association of Public Health Epidemiologists in Ontario, <http://www.apheo.ca/indicators/index.html>.

Northwestern Health Unit, Health Status of Residents Living in the Region Served by the Northwestern Health Unit, Chronic Diseases 2004.

Dever, Alan, Community Health Analysis: Global Awareness at the Local Level, Second Edition, Aspen publication, 1991.

Mandatory Health Programs and Services Guidelines, Ministry of Health, Public Health Branch, December 1997.

Shah, C., Public Health and Preventive Medicine in Canada, 4th Edition, University of Toronto Press, 1998.

Toward a Healthy Future: Second Report on the Health of Canadians. Prepared by the Federal, Provincial and Territorial Advisory Committee on Population Health for the Meeting of Ministers of Health, Charlottetown, P.E.I., September 1999, <http://www.phac-aspc.gc.ca/ph-sp/phdd/report/toward/index.html>, accessed March 20, 2007.

Fuchs, Victor R., Non-Medical Determinants of Health, Stanford University and National Bureau of Economic Research, 2002, <http://www.pitt.edu/~super1/lecture/lec14251/001.htm>, accessed March 21, 2007.

References/Web Sites

¹ <http://www.statcan.ca/cgi-bin/imdb/p2SV.pl?Function=getSurvey&SDDS=3226&lang=en&db=IMDB&dbg=f&adm=8&dis=>

² <http://www.statcan.ca/cgi-bin/imdb/p2SV.pl?Function=getSurvey&SDDS=3226&lang=en&db=IMDB&dbg=f&adm=8&dis=>

³ http://cansim2.statcan.ca/cgi-win/CNSMCGI.EXE?Lang=E&ArrayId=01050400&Array_Pick=1&Detail=1&ResultTemplate=CII/CII_&RootDir=CII/&TblDetail=1&C2SUB=HEALTH and <http://www.statcan.ca/english/freepub/82-221-XIE/2006001/tables.htm>

⁴ http://www.health.gov.on.ca/english/providers/transition/transition_mn.html

⁵ <http://www.phac-aspc.gc.ca/ph-sp/phdd/determinants/determinants2.html#forum>, accessed April 2, 2007

⁶ <http://www.phac-aspc.gc.ca/ph-sp/phdd/determinants/determinants2.html#forum>, accessed April 2, 2007

Table of Chart Pages

Self-Related Health	Chart 36 By Sex	54
Chart 1 Total Population and Ontario Health Units	19	
Chart 2 By Sex	20	
Self-Rated Mental Health		
Chart 3 Total Population and Ontario Health Units	21	
Chart 4 By Sex	22	
Body Mass Index (BMI) 25.00-29.99		
Chart 5 Total Population and Ontario Health Units	23	
Chart 6 By Sex	24	
Body Mass Index (BMI) 30+		
Chart 7 Total Population and Ontario Health Units	25	
Chart 8 By Sex	26	
High Blood Pressure		
Chart 9 Total Population and Ontario Health Units	27	
Chart 10 By Sex	28	
Arthritis or Rheumatism		
Chart 11 Total Population and Ontario Health Units	29	
Chart 12 By Sex	30	
Asthma		
Chart 13 Total Population and Ontario Health Units	31	
Chart 14 By Sex	32	
Diabetes		
Chart 15 Total Population and Ontario Health Units	33	
Chart 16 By Sex	34	
Injuries		
Chart 17 Total Population and Ontario Health Units	35	
Chart 18 By Sex	36	
One or More Two-Week Disability Days		
Chart 19 Total Population and Ontario Health Units	37	
Chart 20 By Sex	38	
Participation and Activity Limitation		
Chart 21 Total Population and Ontario Health Units	39	
Chart 22 By Sex	40	
Current (“Daily or Occasional”) Smokers		
Chart 23 Total Population and Ontario Health Units	41	
Chart 24 By Sex	42	
Smoking Initiation (Age 5 to 14 Years)		
Chart 25 Total Population and Ontario Health Units	43	
Chart 26 By Sex	44	
Five or More Drinks on One Occasion		
Chart 27 Total Population and Ontario Health Units	45	
Chart 28 By Sex	46	
Leisure-Time Physically Active		
Chart 29 Total Population and Ontario Health Units	47	
Chart 30 By Sex	48	
Fruit and Vegetable Consumption		
Chart 31 Total Population and Ontario Health Units	49	
Chart 32 By Sex	50	
Life Stress		
Chart 33 Total Population and Ontario Health Units	51	
Chart 34 By Sex	52	
Sense of Belonging to Local Community		
Chart 35 Total Population and Ontario Health Units	53	
	Chart 37 Total Population and Ontario Health Units	55
	Chart 38 By Sex	56
	Complete Restriction of Smoking at Work	
	Chart 39 Total Population and Ontario Health Units	57
	Chart 40 By Sex	58
	Exposure Second-Hand Smoke in the Home	
	Chart 41 Total Population and Ontario Health Units	59
	Chart 42 By Sex	60
	Exposure Second-Hand Smoke in Vehicles	
	Chart 43 Total Population and Ontario Health Units	61
	Chart 44 By Sex	62
	Exposure Second-Hand Smoke in Public Places	
	Chart 45 Total Population and Ontario Health Units	63
	Chart 46 By Sex	64
	Exposure Second Hand-Smoke in Vehicles/Public Places	
	Chart 47 Total Population and Ontario Health Units	65
	Chart 48 By Sex	66
	Influenza Immunization	
	Chart 49 Total Population and Ontario Health Units	67
	Chart 50 By Sex	68
	Mammogram Screening	
	Chart 51 Female Population and Ontario Health Units	69
	Pap Screen	
	Chart 52 Female Population and Ontario Health Units	70
	Has a Regular Medical Doctor	
	Chart 53 Total Population and Ontario Health Units	71
	Chart 54 By Sex	72
	Contact with a Medical Doctor	
	Chart 55 Total Population and Ontario Health Units	73
	Chart 56 By Sex	74
	Contact with Dental Professionals	
	Chart 57 Total Population and Ontario Health Units	75
	Chart 58 By Sex	76
	Contact with Alternative Health Care Providers	
	Chart 59 Total Population and Ontario Health Units	77
	Chart 60 By Sex	78



Northwestern Health Unit

www.nwhu.on.ca

Hours: Monday to Friday - 8:30 a.m. to 4:30 p.m.

Office Locations:

ATIKOKAN

115 Main Street
Tel. (807) 597-6871
Fax (807) 597-5217

DRYDEN

75D Van Horne Avenue
Tel. (807) 223-3301
1-888-404-4231
Fax (807) 223-5754

EAR FALLS

25 Spruce Street
Tel. (807) 222-3098
Fax (807) 222-3324

EMO

260 Front Street
Tel. (807) 482-2211
Fax (807) 482-1678

FORT FRANCES

396 Scott Street
Tel. (807) 274-9827
1-800-461-3348
Fax (807) 274-0779

IGNACE

Hwy 599 & 17
Tel. (807) 934-2236
Fax (807) 934-2879

KENORA

21 Wolsley Street
Tel. (807) 468-3147
1-800-830-5978
Fax (807) 468-4970

KENORA

Market Square
308 Second Street
South
Tel. (807) 468-4948
Fax (807) 468-4934

PICKLE LAKE

3 Anne Street
Tel. (807) 928-2234
Fax (807) 928-2584

RAINY RIVER

210 Atwood Avenue
Tel. (807) 852-3268
Fax (807) 852-3015

RED LAKE

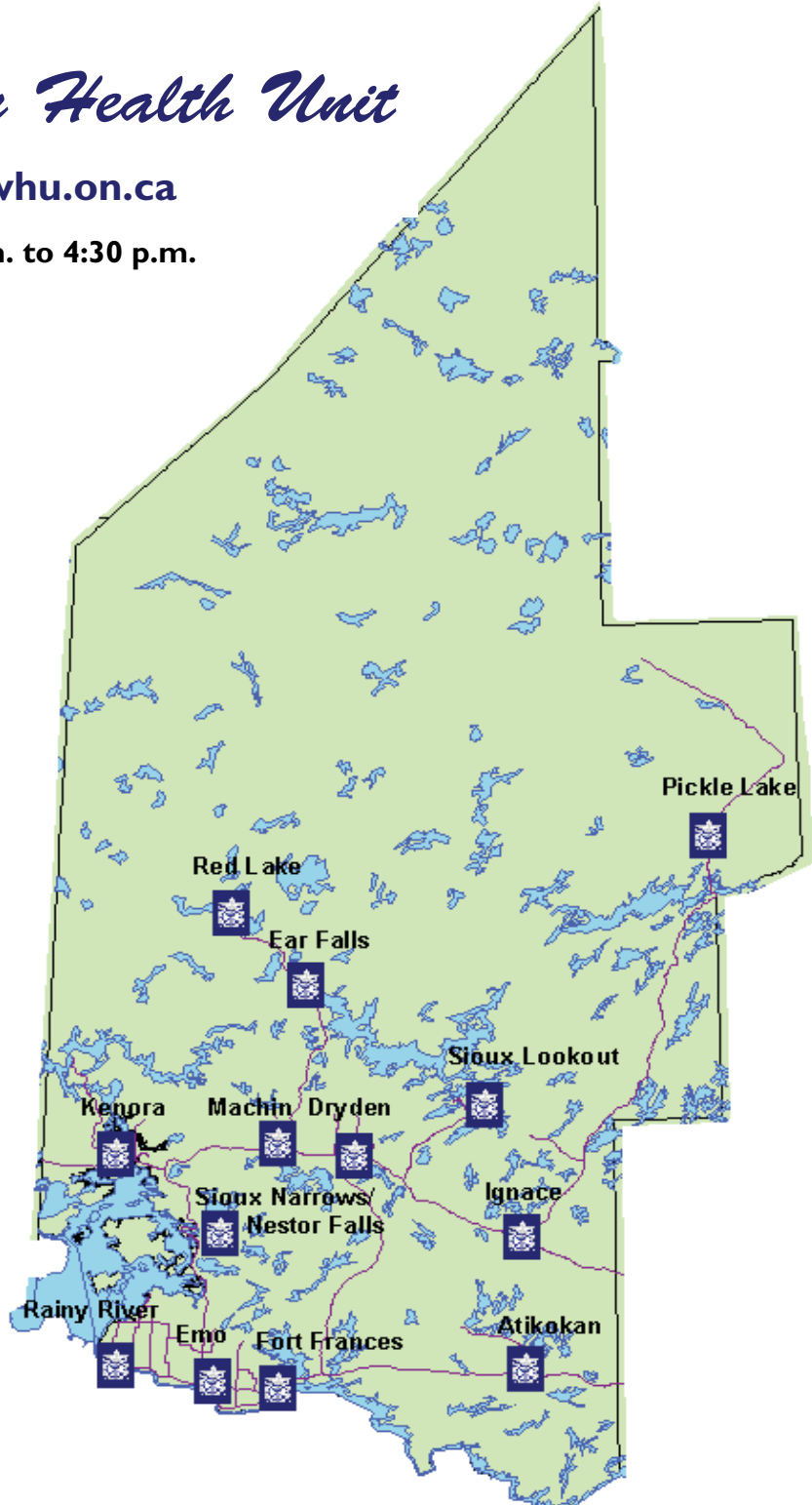
234 Howey Street
Tel. (807) 727-2626
Fax (807) 727-3001

SIOUX LOOKOUT

47B Front Street
Tel. (807) 737-2292
Fax (807) 737-3711

SIOUX NARROWS- NESTOR FALLS

Hwy 71
Tel. (807) 226-9626
Fax (807) 226-9626



Public Health Emergency On Call
After hours for all locations
Call 1 - 807- 468-7109

Sample situations for after-hours emergency calls:

- Request/need Northwestern Health Unit emergency advice/intervention
- Institutional outbreaks
- Suspected food poisoning incidents
- Information or action on urgent reportable communicable diseases
- Reporting of adverse water results that fall under the "Safe Drinking Water Act"
- Human involvement with a suspect rabid animal (all other animal bites can be considered routine and sent to the Health Unit office during working hours)
- Information regarding needle stick exposures
- Emergency calls from the Ministries of Health or Environment, Canada Food Inspection Agency, fire and police departments concerning an occurrence deemed by the caller to constitute an emergency. This may include a fire in a food premise, accidental spill of a contaminant, or an emergency food recall