

Northern Health: Health Status at a Glance (March 2012)

1. Northern Health at a Glance

'Health' is a very broad term. It means much more than the absence of physical disease and is more than the sum of all the facilities, doctors, nurses and others engaged in providing health services. Similarly, factors that influence health are much broader than those we commonly associate with health care. Social well-being, economic prosperity, educational achievement, environmental sustainability, individual capacity and personal choices among others influence how each of our lives will unfold and whether we will be 'healthy'.

Through collaborative partnerships between staff, physicians, and the communities and organizations we serve, we continue to improve the Health of Northerners. Our NH Strategic Plan provides direction through four goals:

- Integrated and accessible health services
- A focus on our people
- A population health approach
- High quality services

2. Health Status at a Glance

This report summarizes demographics, health outcome indicators, chronic conditions, deaths (mortality), hospitalization rates, and risk factors in NH. It is not comprehensive; it is a quick snapshot to help identify issues and to help design health programs and services tailored to meet unique Northern challenges.

Residents of Northern BC are not as healthy as those from the south. The largest contributor to the burden of disease is chronic disease, followed by injuries and mental health disorders. The 5 leading causes of disease burden in the NH are similar to elsewhere in BC: cancer (18%), cardiovascular disease (17%), unintentional injuries (9%), mental disorders (7%) and chronic respiratory diseases (7%). We see significantly higher rates of death and disability from Motor Vehicle Crashes, Alcohol Related Diseases, Respiratory Diseases, and Cardiovascular Diseases.

3. Demography of NH^a

Demographic Indicator	NH	BC
Population Size	289,974	4,584,102
Population Density persons/km ²	0.4	4.4
Seniors > 65y (%)	11.1	15.0
Aboriginal Population (%)	17.5	4.8

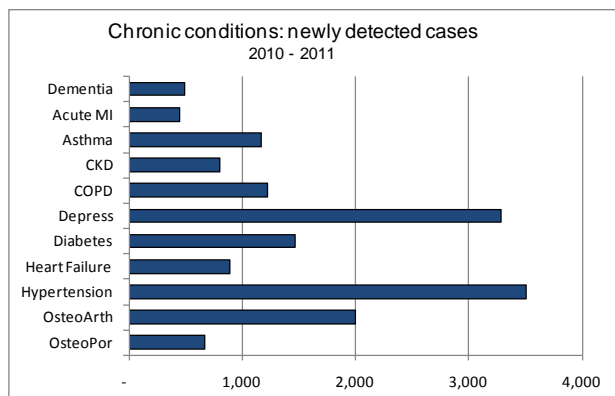
The area served by Northern Health covers 617, 271 square kilometers. This region accounts for nearly two-thirds of the land area of British Columbia: an area the size of France. Across this vast landscape resides less than 7% of the BC population (less than 300,000 people).

4. General Health Outcome Indicators^b

Health Indicators 2009/ 2010	NW	NI	NE	BC overall
% Influenza Immunization	29.9	29.2	18.7	30.8
% Overall Health Good - Excellent	53.1	53.3	61.1	59.6
% Mental Health Good - Excellent	63.4	67.1	73.2	71
% Functional Health (good to full)	74.5	79.5	76.4	81.5
Years - Life Expectancy at Birth	78.6	78.3	78.0	81.2
Infant Mortality (per 1000 births)	4.9	4.9	4.7	4.2

5. How Healthy Are We – Chronic Conditions

The graph below indicates the number of chronic conditions that were diagnosed in the North between 2010 and 2011. Increasing age and lifestyle factors are major contributors to the development of chronic disease. Some of these risk factors include tobacco use, sedentary behavior/physical inactivity, eating choices, risk-taking behaviours (injuries), problematic substance use, and levels of being overweight or obese.^{c,d,e,f,g}



Data Source: BC Ministry of Health, Medical Services Economic Analysis Branch. Chronic Conditions by incidence, prevalence, mortality and cost: 2001/02 - 2010/11: February 2012.

Acronyms: MI- Myocardial infarct, CKD – Chronic Kidney Disease, COPD – Chronic Obstructive Pulmonary Disease, Depress Depression, OsteoArth – Osteoarthritis, OsteoPor – Osteoporosis.

6. How Healthy Are We – Deaths (Mortality)

The table below gives us an indication of what we dying from, the number of deaths and how we compare to the rest of BC. The SMR (Standard Mortality Ratio) refers to the observed deaths in the North divided by the expected number of deaths in BC. The expected deaths are calculated with the same age and gender mix by looking at the death rates for different ages and genders in the BC population. A number above 1.0 means if you live in the North you have a higher percentage risk of dying if you have the condition (compared to the rest of BC). For example, the SMR for diabetes is 1.65, means in the Northern we have 65% higher risk of dying if you have diabetes compared to having diabetes in BC. The PYLLI (Potential Years of Live lost Index) refers to observed deaths amongst those less than 75 years of age.

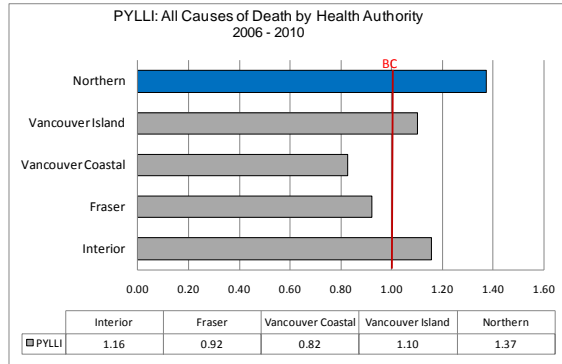
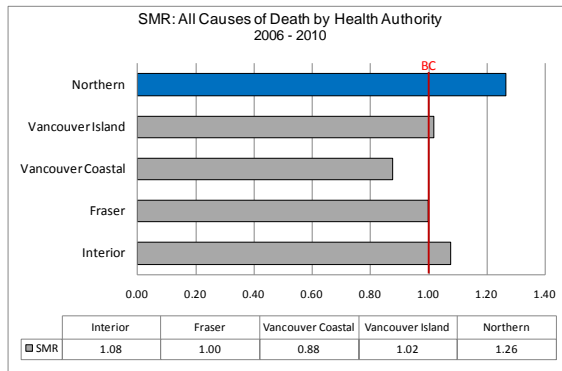
Northern BC Residents 2006 - 2010	SMR	PYLLI	# of Deaths
All Causes of Death	1.26 *	1.37 *	8711
All Cancer Sites	1.24 *	1.24 *	2634
Lung Cancer	1.46 *	1.42 *	821
End/Nut//Met. Diseases etc.	1.60 *	1.66 *	452
Diabetes	1.65 *	1.70 *	363
Circulatory System	1.21 *	1.23 *	2285
Ischaemic Heart Disease	1.17 *	1.28 *	1076
Cerebrovascular Disease/Stroke	1.19 *	1.21	515
Arteries/Arterioles/Capillaries	1.21	1.49	113
Respiratory System	1.22	1.31 *	804
Pneumonia and Influenza	0.96	1.15	227
Chronic Lung Disease	1.49 *	1.57 *	426
Digestive System	1.39 *	1.51 *	414
Motor Vehicle Accidents	2.14 *	2.24 *	234
Accidental Falls	1.41 *	1.22	113
Suicide	1.39 *	1.56 *	198
Alcohol-Related Deaths	1.77 *	1.94 *	1009
Medically Treatable Disease	1.21	1.23	63
Drug-Induced Deaths	0.85	0.92	112
Smoking-Attributable Mortality	1.34 *	1.33*	1860

Data Source: BC Vital Statistics Annual Report: 2010. February 2012. <http://www.vs.gov.bc.ca/stats/annual/2010/index.html>

* indicates that the SMR or PYLLI is statistically significant

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How We Die (Mortality) – cont'd



7. How Healthy Are We – Hospitalizations

How people use health services provides an important perspective on a population's health status, health needs, health related behaviors and whether or not health systems are functioning to meet the populations' needs in the most appropriate manner.

In 2010-2011, three of the top 15 reasons for hospital admission in Northern British Columbia were related to childbirth, a wonderful human moment. However, many of the other reasons for admission pertained to conditions that may be preventable or reduced with lifestyle changes and may be appropriately managed in the community setting.

Top 10 Reasons for Hospitalization in northern BC 2010 - 2011		
# of Cases	Days in Hospital	Description
2,106	3,716	Vaginal Delivery, No Other Intervention
672	4,451	Chronic Obstructive Pulmonary Disease
652	3,337	Viral/Unspecified Pneumonia
536	1,686	Symptom/Sign of Digestive System
529	1,773	Primary Caesarean Section
511	2,383	Unilateral Knee Replacement
487	1,576	Non-severe Enteritis
467	3,355	Heart Failure without Cardiac Catheter
447	3,145	Convalescence
440	634	Ante-partum Disorder treated Medically
440	1,796	Myocardial Infarction/Cardiac Catheter
399	1,348	Arrhythmia without Cardiac Catheter
384	2,497	Depressive Episode without ECT
370	995	Caesarean Section Previous Uterine Scar
336	1,541	Diabetes

Source: BC Ministry of Health, Health Ideas Summary Reports: Workloads for Hospitals <http://healthideas.hnet.bc.ca/portal/page/portal/HealthIdeas>

8. Upstream Health Determinants and Risk Factors

Many 'upstream determinants of health' influence health and well being. These can include modifiable and non-modifiable factors. Some non-modifiable factors are age, sex, and ethnicity. Some modifiable factors are socio-economic status and working conditions. First Nation's communities are further influenced by unique factors such as cultural continuity, control, viable councils, and having women as part of governance. These factors influence overall risk factors in our region.

The main behavioural risk factors associated with chronic disease, some mental health disorders, and injury in Northern BC includes:

- Poor diet / eating habits
- Physical inactivity / sedentary behaviour
- Tobacco use
- Problematic substance use
- Risk-taking behaviours (young males)
- Being overweight / obese

Health Indicators ^b 2009/ 2010	NW	NI	NE	BC overall
% Current Smoker	20.9	23.4	27.7	16.7
% Heavy Drinking	19.5	19.8	18	15.8
% Overweight or Obese	62.1	54.9	58.2	44.7
% Leisure-time physical activity (moderately active or active)	59.4	60.3	53.8	59.3
% Fruit & Vegetable consumption (5 times or more per day)	38.5	38.6	37.5	43.8
Injury Hospitalization (per 100,000 population)	1078	793	761	567
% High School Grads (age 25-29)	73.5	78.8	77.5	88.1
% Unemployment	10.3	8.4	6.7	7.6
% Lone-parent families	18.4	16.3	13.6	15.1

9. Improving Health Outcomes

Behaviors such as poor diet / eating habits, physical inactivity / sedentary behavior, tobacco use, problematic substance use, risk-taking behaviours, and being overweight / obese contribute to the burden of disease experienced by Northerners and treated by acute care services. Many of these conditions are preventable and can be managed in communities.

^aBC Stats, Socio-Economic Profiles. Retrieved January 19th, 2012. Retrieved on March 9th, 2012.

from: <http://www.bcstats.gov.bc.ca/StatisticsBySubject/SocialStatistics/SocioEconomicProfilesIndices/Profiles.aspx>

^bStatistics Canada. 2011. Health Profile. Statistics Canada Catalogue No. 82-228-XWE. Ottawa. Released June 28, 2011. <http://codwebdeva.statcan.ca/health-sante/82-228/index.cfm?Lang=E>

^cPopulation Patterns of Chronic Health Conditions in Canada: Health Council of Canada. <http://healthcouncilcanada.ca>

^dThe Cost of Chronic Disease in Canada: GPI Atlantic. 2004. <http://gpiatlantic.org/pdf/health/chroniccanada.pdf>

^ePrevention: British Columbia Cancer Agency. 2009. <http://www.bccancer.bc.ca/PPI/Prevention/default.htm>

^fHospitalizations: Counts and Rates Attributable to Alcohol, Tobacco, and Illicit Drugs for BC Health Authorities. BC Centre for Addictions Research: AOD project. March 2010. <http://carbc.ca/AODMonitoring/tabid/541/Default.aspx>

^gBC Ministry of Health, Medical Services Economic Analysis Branch. Chronic Conditions by incidence, prevalence, mortality and cost: 2001/02 - 2010/11: February 2012.