

Healthy Northern Communities 2013

Terrace

Revised
September 24, 2013



northern health
the northern way of caring

What Determines Health?

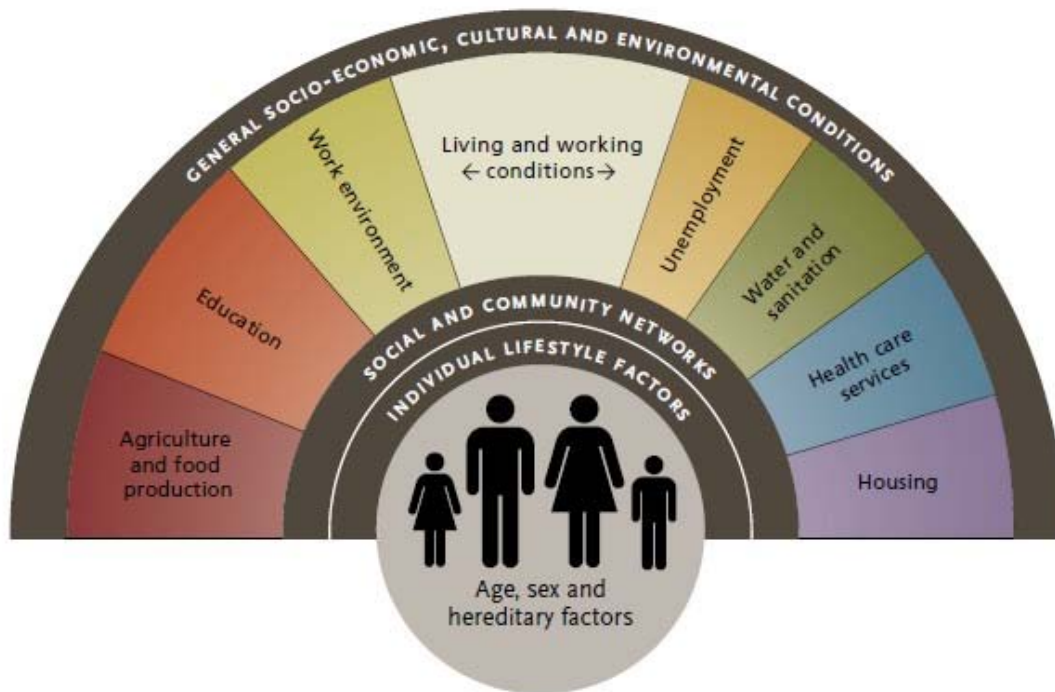


Figure: Health Council of Canada, 2010.

Broadly speaking: a good strong start in life; early and enriching experiences; educational opportunities; a sufficient and equitable distribution of employment, income, housing and food; water and sanitation; our interactions with the environment; our choices towards certain lifestyles and risks; our age and sex; genetics; as well as access to appropriate high quality health care are some of the many factors that are known to influence our health.

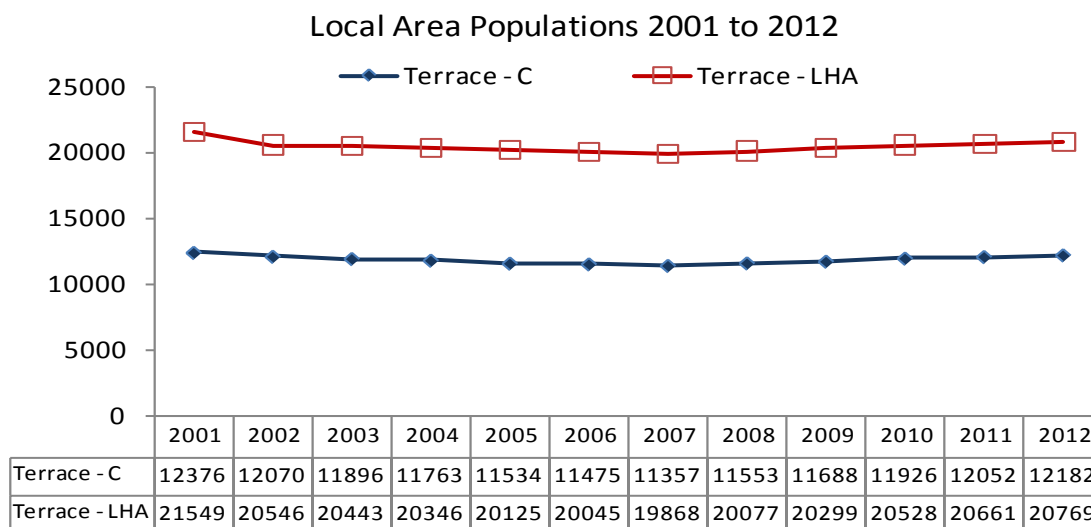
Additional Information (text below is hyperlinked)

- [World Health Organization: Social Determinants of Health](#)
- [Public Health Agency of Canada: Best Practices Portal](#)
- [Canadian Institute for Health Information: Factors Affecting Health](#)
- [Canadian Institute for Health Information: Health System Performance](#)
- [Health Council of Canada: Stepping it Up to a Healthier Canada.](#)
- [National Collaborating Centre for Aboriginal Health: Social Determinants of Health](#)
- [Northern Health: Community Health Information Portal](#)

The City of Terrace was incorporated in 1927 and is located approximately 64 km north of Kitimat, 140 km east of Prince Rupert and 210 km west of Smithers.¹

The City of Terrace is situated within the Kitimat-Stikine Regional District, within the Terrace Local Health Area (LHA 088) and also within the Northwest Health Service Delivery Area of Northern Health. Terrace is served by Coast Mountains School District No. 82.

The Tsimshian communities of Kitsumkalum and Kitselas / Gitselasu are located within a few minutes of the City of Terrace. Within the larger Terrace Local Health Area and to the northeast are the Gitksan communities of Gitwangak / Kitwanga and Gitanyow / Kitwancool.^{2, 3}



The estimated 12,182 people living within the City of Terrace account for approximately 59 % of the Terrace LHA population (12,182 /20,769 persons) and for 31 % of the Kitimat Stikine Regional District population (12,192 /39,722 persons).^{4, 5, 6}

During the 2011 calendar year, there were 240 births, 144 deaths and 93 marriages attributed to Terrace LHA residents. Of these, 136 live births, 84 deaths and 52 marriages could be attributed to City of Terrace residents. The average life expectancy for both populations was 77.1 years: less than the British Columbia (BC) average of 82 years.⁷

Additional Community Information

City of Terrace: <http://www.terrace.ca/>

Terrace and District Chamber of Commerce: <http://www.terracechamber.com/>

Kitselas First Nation: <http://www.kitselas.com/>

Kitsumkalum First Nation: <http://www.kitsumkalum.bc.ca/>

Gitksan Chiefs Office: <http://www.gitksan.com/>

Kitimat Stikine Regional District: <http://www.rdks.bc.ca/>

Northern Health: Community Health Information Portal: <http://chip.northernhealth.ca>

Selected Community Indicators

Demographics	Terrace	LHA	BC
Percent of population 0 – 19 yrs old (Census 2011 / PEOPLE 2013)	28	27	21
Percent of population ages 65+ (Census 2011 / PEOPLE 2013)	13	12	15
Percent of population Visible Minorities	8.0	5.1	24.5
Percent of population Aboriginal Identity	21.0	23.6	4.8
Income			
Percent of families earning < \$20,000 per year	8.4	9.4	8.0
Percent of families earning from \$20,000 - \$80,000 per year	56.4	57.6	53.8
Percent of families earning > \$80,000 per year	35.2	32.8	38.1
* Percent of population receiving Income Assistance > 1 yr.	nca	2.3	1.0
Early Development and Educational Achievement			
Percent of kindergarten children vulnerable: 1 or more EDI scales	23 – 44.9	28.1	28.6
† Percent of Grade 4 & 7 students below standard on FSA - Reading	nca	25.9	20.7
† Percent of Grade 4 & 7 students below standard on FSA - Writing	nca	28.6	17.9
† Percent of Grade 4 & 7 students below standard on FSA - Math	nca	40.3	23.4
† Percent of 18 yr olds who did not graduate	nca	44.7	29.0
Percent of persons ages 25 to 54: without high school completion	nca	17.2	11.1
Percent of persons ages 25 to 64: with university degree or above	15.7	12.2	24.1
Housing			
Percent of households that are renting	28	25.0	30.4
Percent of tenants paying 30 % or more of income towards housing	41	40.4	43.4
Percent of owners paying 30 % or more of income towards housing	13	13.5	22.7
Children and Youth at Risk			
* Children (ages <15) receiving Income Assistance > 1 year	nca	4.2	1.7
* Youth (ages 15 - 24) receiving Income Assistance > 1 yr	nca	2.4	0.9
Children in care rate per 1,000 population, ages 0 – 18	nca	17.5	9.2
Teen pregnancies per 1,000 women ages 15 – 19 (2007-2009)	nca	60.9	26.3
Other Indicators			
Alcohol sales per capita in 2010 (Dollars Spent)	nca	959	790
Alcohol sales per capita in 2010 (Litres Consumed)	nca	150	107
nca = means this level of data detail or data aggregation is “not currently available.”			
* Income Assistance figures may be understated as they do not include Aboriginal people who are living on reserve.			

Sources of the above information:

BC Stats Socio-economic Profiles

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

Census 2011: Statistics Canada

<http://www12.statcan.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E>

BC Ministry of Education K -12 Reporting

<http://www.bced.gov.bc.ca/reporting/province.php>

Human Early Learning Partnership: Early Development Instrument

<http://earlylearning.ubc.ca/edi/>

Population Forecasts (with a focus on seniors)

Although the percentage of seniors in northern BC is the smallest of all the health regions, this group is expected to grow quickly over the next 15 years. From 2015 to 2030, the 65+, 75+ and 85+ populations in northern BC are expected to grow by 78 %, 111 % and 106 % respectively: the highest overall seniors' growth rates in BC's health authorities. ⁸

Below is a forecast of what we might expect at the local health service delivery levels.

Terrace Local Health Area: Population Projection						Population Change 2015 - 2030	
Broad Age Groups	2010	2015	2020	2025	2030	number	%
<20	5,525	5,112	4,949	4,862	4,782	-330	-6.5
20-44	6,556	6,462	6,356	6,390	6,468	6	0.1
45-64	5,955	6,004	5,720	5,252	4,976	-1,028	-17.1
65+	2,489	3,100	3,761	4,436	4,939	1,839	59.3
Total Population	20,525	20,678	20,786	20,940	21,165	487	2.4
Focus on Seniors	2010	2015	2020	2025	2030	number	%
65+	2489	3100	3761	4436	4939	1,839	59.3
75+	983	1146	1416	1843	2246	1,100	96.0
85+	223	284	368	425	540	256	90.1
90+	68	104	144	183	204	100	96.2

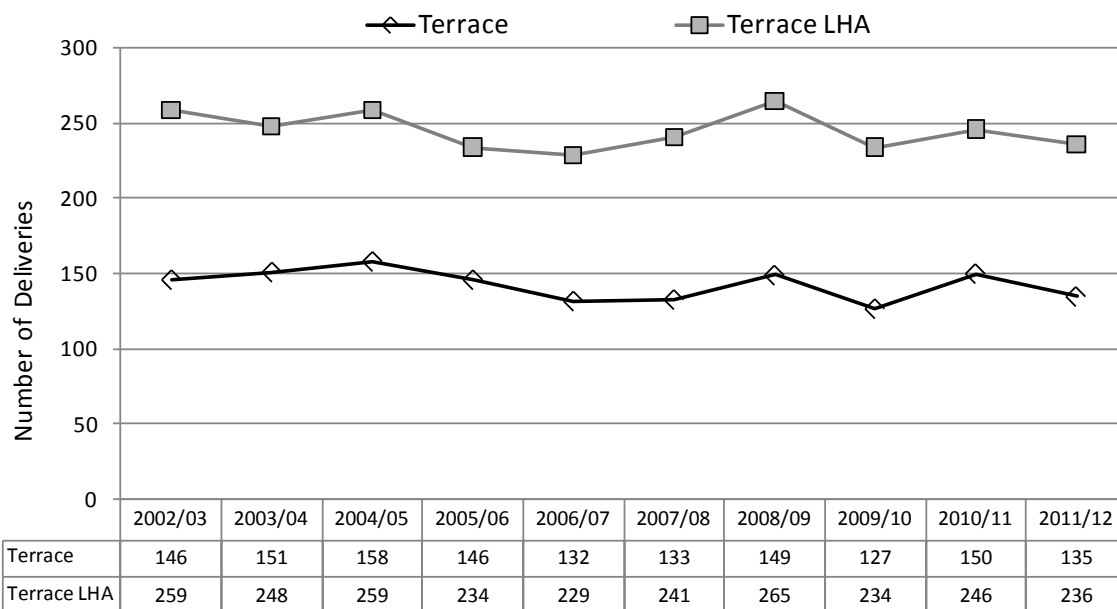
Northwest Health Service Delivery Area: Population Projection						Population Change 2015 - 2030	
Broad Age Groups	2010	2015	2020	2025	2030	number	%
<20	20,042	18,491	17,763	17,227	16,745	-1,746	-9.4
20-44	23,639	23,426	23,271	23,475	23,786	360	1.5
45-64	23,018	23,064	22,078	20,082	18,432	-4,632	-20.1
65+	8,798	11,205	14,285	17,477	19,898	8,693	77.6
Total Population	75,497	76,186	77,397	78,261	78,861	2,675	3.5
Focus on Seniors	2010	2015	2020	2025	2030	number	%
65+	8,798	11,205	14,285	17,477	19,898	8,693	77.6
75+	3,405	4,110	5,397	7,068	8,940	4,830	117.5
85+	837	1,207	1,548	1,821	2,384	1,177	97.5
90+	307	435	706	820	939	504	115.9

About these Population Forecasts: These projections incorporate the known trends in terms of births, deaths, migration, fertility, age-group (cohort) survival etc. The extra populations that "might" result from the many anticipated projects in the north are not yet explicitly considered. At best, these projections reflect a base-case of what our future population might look like if currently known trends continue into the future. For methodological reasons, these forecasts are not produced at the community level.

A Good Strong Start in Life is more likely if infants, children and all family members are as healthy as possible. In thinking about this we consider many factors including trends in the number of mothers delivering babies and the locations where the infants are delivered.

This type of information informs services such as prenatal education, parenting skills programs, post delivery follow-ups for moms, immunizations, and the many childhood screening services that are intended to detect and address vision, hearing and dental health concerns.

Deliveries per year by Terrace City and Terrace LHA mother: ⁹



Delivery locations for Terrace mothers (five year summary).

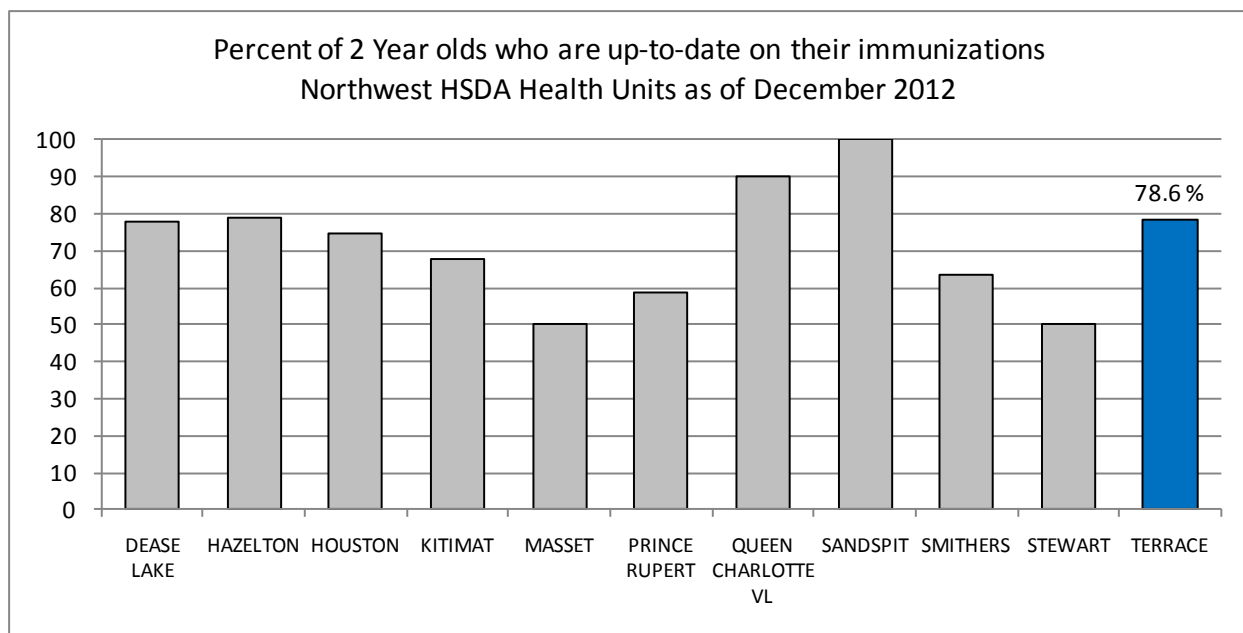
Mom's Home Community	Delivery Location: 2007/08 – 2011/12 [^]						Total Deliveries
	Mills Memorial	Wrinch Memorial	Kitimat General	Bulkley Valley	Prince Rupert	Other BC Location	
Gitwangak	75	13	0	4	3	1	96
Kitimat-Stikine (C pt.1)	174	0	0	0	1	1	176
Kitimat-Stikine (E)	230	0	4	1	0	4	239
Terrace (City)	672	0	4	0	1	17	694
Total Deliveries	1,151	13	8	5	5	23	1,205

Mothers from remote communities

Mills Memorial Hospital (Terrace) is often the destination for expectant mothers from the Nisga'a territories. In the five year period (2007/08 – 2011/12), there were 180 deliveries to mothers from Nisga'a. Of these deliveries, 167 / 180 took place at Mills Memorial Hospital.

Immunizations are some of the best health investments that we can make. Along with better sanitation and clean drinking water, immunizations have been responsible for the huge increases in life expectancy that we have seen around the world. ^{10, 11}

Because immunizations are such a good investment and the protection they provide to individuals and communities as a whole is so important, we actively monitor whether certain target populations are fully immunized. For example, we know that the percent of 2 year old children in the Terrace area, who are up-to-date with their immunizations, is 78.6%. ¹²



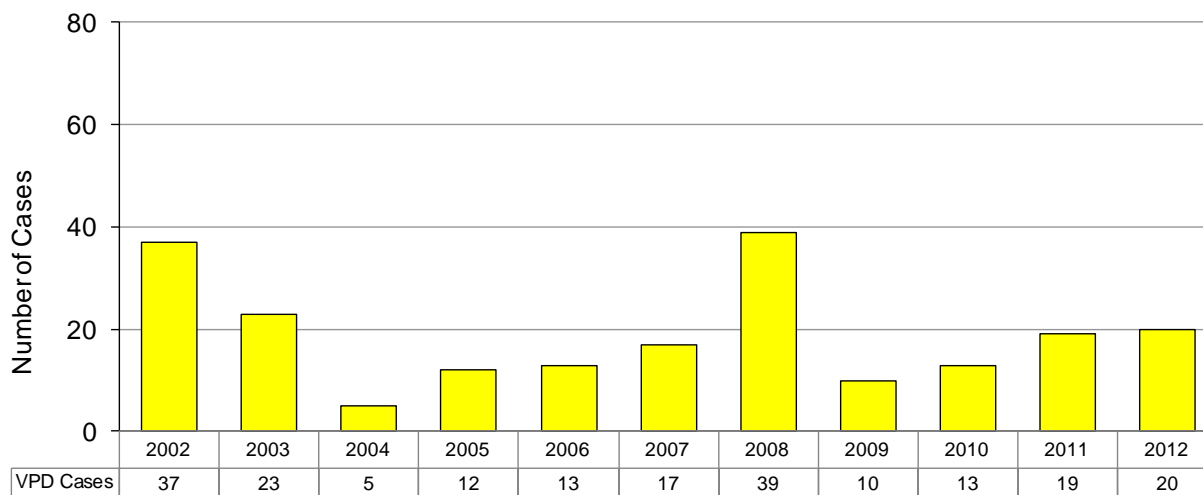
The above graph represents children who were born during the year 2010 and who were two years of age as of Dec 31st, 2012. To be considered as up-to-date for their age, two year old children must have completed the following immunizations by their second birthday:

- 4 doses of DTP vaccine
 - 3 doses of Polio vaccine
 - 3 doses of Hepatitis B vaccine
 - 1 dose each of Measles, Mumps and Rubella vaccines
 - at least 2 doses of Pneumococcal conjugate vaccine
 - at least 1 dose of Meningococcal conjugate vaccine
 - at least 1 dose of Haemophilus Influenza B vaccine after month 15
 - 1 dose of Varicella (chicken-pox) vaccine or past disease by the 2nd birthday.
- Note: DTP = Diphtheria, Tetanus and Pertussis (whooping cough).

Vaccine Preventable Diseases (VPD) are illnesses that may have been avoided if individuals and communities were sufficiently immunized. Many of these diseases have lifelong impacts.

This page presents a summary of the most frequently reported Vaccine Preventable Diseases for the Northwest Health Service Delivery Area.

Vaccine Preventable Disease Cases in Northwest BC: 2002 - 2012



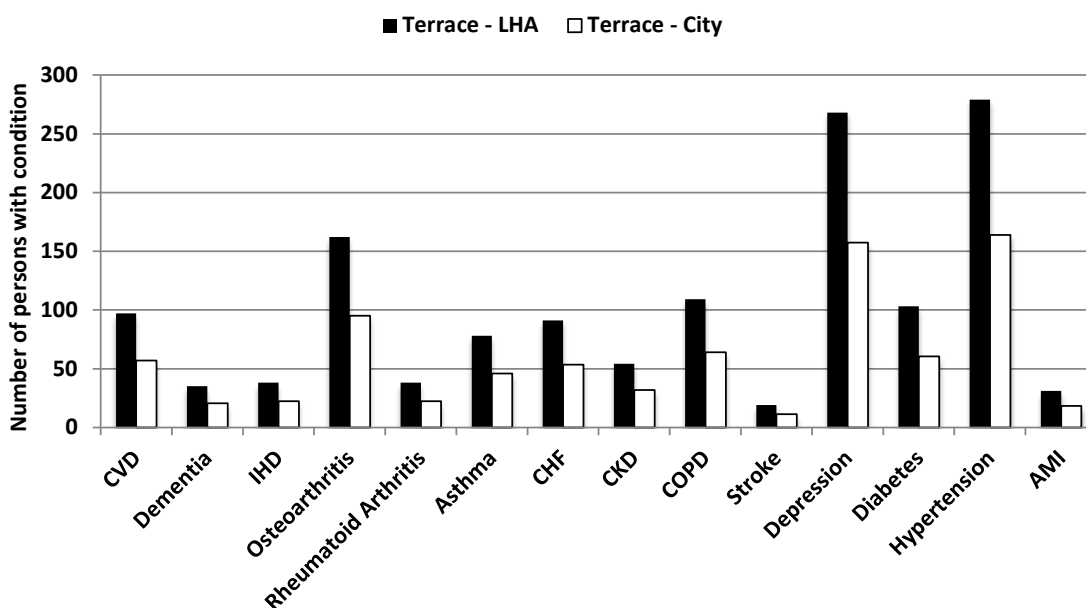
VPD in Northwest BC: Cases by Community 2002 - 2012 ¹³												
Community	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total
Dease Lake	0	1	0	0	0	1	0	0	0	0	0	2
Hazelton	1	8	0	0	1	3	2	1	2	0	0	18
Houston	14	1	2	0	0	0	2	0	0	0	0	19
Kitimat	1	2	1	0	0	0	0	2	0	2	1	9
Masset	1	1	0	0	0	1	1	0	0	2	3	9
Prince Rupert	8	4	0	7	5	4	2	2	8	9	5	54
QC Village	0	0	1	0	0	2	2	0	0	0	0	5
Smithers	9	1	1	2	4	4	25	2	1	3	4	56
Stewart	0	0	0	0	0	0	1	0	0	0	0	1
Terrace	3	5	0	3	3	2	4	3	2	3	7	35
Total	37	23	5	12	13	17	39	10	13	19	20	208

From 2002 to 2012, the most frequently reported VPDs in the Northwest HSDA were:

- Hepatitis B - 75 cases
- Pertussis (whooping cough) - 68 cases.
- Invasive Pneumococcal Disease - 47 cases
- Invasive Meningococcal disease – 8 cases
- Haemophilus Influenza B – 7 cases.

Chronic Diseases tend to accumulate with age and limit our independence. Our personal choices towards a handful of well known risk factors: tobacco use; physical inactivity; poor dietary choices; obesity; inappropriate alcohol and drug use; certain sexual activities; and, excessive sun exposure can greatly determine how we age and whether we remain free from certain types of cancers and chronic illnesses. ^{14, 15, 16, 17}

**Estimated numbers of new cases of chronic conditions
Terrace LHA and Terrace C residents: 2010-2011**



Chronic Disease Estimates for Terrace LHA and Terrace City residents: 2010 - 11					
Chronic Conditions	Existing or treated cases		New cases / yr		Cost per patient / year
	Terrace City	LHA	Terrace City	LHA	
Cardiovascular Disease (CVD)	581	989	57	97	\$8,622
Dementia	109	186	21	35	\$9,940
Ischemic Heart Diseases (IHD)	388	661	22	38	\$8,168
Osteoarthritis	1490	2539	95	162	\$3,929
Rheumatoid Arthritis	317	540	22	38	\$4,607
Asthma	844	1438	46	78	\$1,629
Congestive Heart Failure (CHF)	338	576	53	91	\$10,143
Chronic Kidney Disease (CKD)	222	379	32	54	\$10,456
COPD	313	533	64	109	\$8,719
Stroke	90	153	11	19	\$14,432
Depression	3972	6766	157	268	\$2,703
Diabetes	876	1493	60	103	\$4,974
Hypertension	2412	4109	164	279	\$3,837
AMI	207	352	18	31	\$9,480

Community level estimates are based upon each community's relative share of the total Local Health Area (LHA) population and reflect what "might be expected" at the community level.

Healthy and independent seniors are what we want to see when we look around the communities in northern BC. The population however is aging and with that often comes an accumulation of chronic health conditions that inhibit our independence.

Home support and other services provided by Northern Health intend to keep people healthy and independent. As of March 2013, there were 449 northwest BC residents receiving long-term home-support services. Here is an abbreviated profile of these residents.¹⁸

Male	36 %	Married	23 %	Aged 75+	67 %
Female	64 %	Widowed	46 %	Aboriginal	23 %
Frequently Noted Health Conditions					
Hypertension	61 %	Diabetes	26 %	Any Psychiatric Diagnosis	24%
Arthritis	51 %	Chronic Arterial	24 %	Osteoporosis / Cataract	22%
Clients with Multiple Health Conditions					
≤ 3 Conditions	25 %	3 - 5 Conditions	35 %	≥5 Conditions	40 %
Clients with Cognitive Impairment (Cognitive Performance Score)					
No impairment	48 %	Borderline /mild	42 %	Moderate	6 %
Clients with independence difficulty in 1- 3 daily activities (IADL Difficulty Scale)					
No difficulty	33 %	Some difficulty	50 %	Great difficulty	17 %

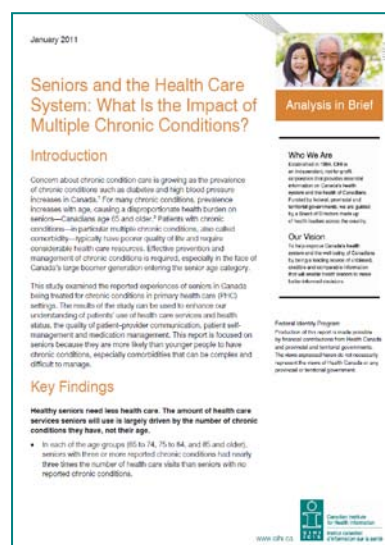
How do we compare to the rest of Canada?

The most frequently reported chronic conditions affecting Canadian seniors overall are:

- Hypertension (47%)
- Arthritis (27%)
- Hypertension and arthritis (14%)
- Hypertension and heart disease (12%)
- Hypertension and diabetes (11%)

The amount of health care that Canadian seniors need as they age is largely driven by the number of chronic conditions that they have, not their age.¹⁹

These are just a few of the many findings contained in the report: *Seniors and the Health Care System: What is the Impact of Multiple Chronic Conditions?*



This publication is available from the Canadian Institute for Health Information: https://secure.cihi.ca/free_products/air-chronic_disease_aib_en.pdf

Acute care (hospital) services are an important part of the health care services continuum. This page provides a 5 year snap-shot of where residents received acute care services and a glimpse into the activities occurring at local facilities.

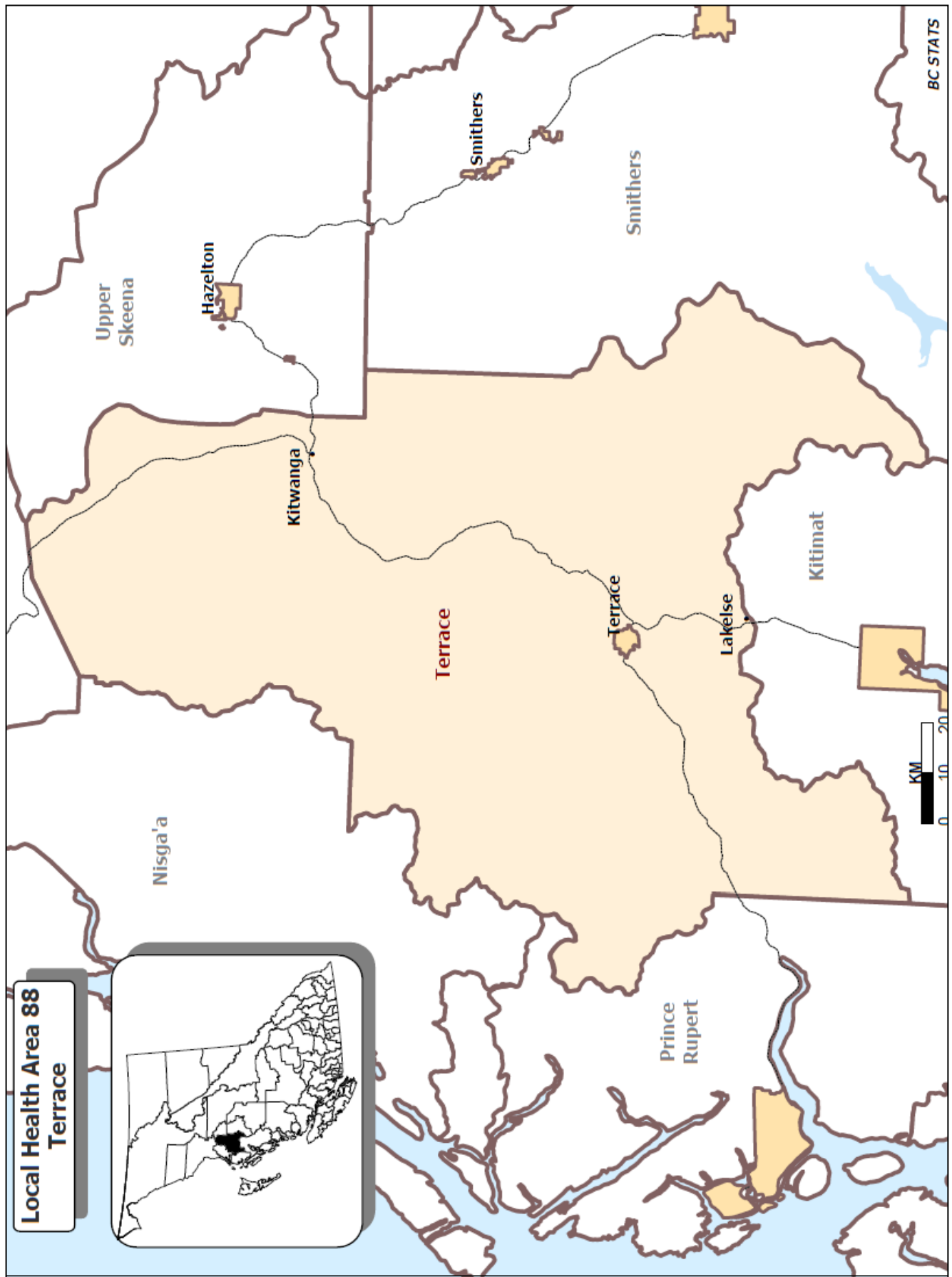
Location where inpatient hospital services were received: ²⁰

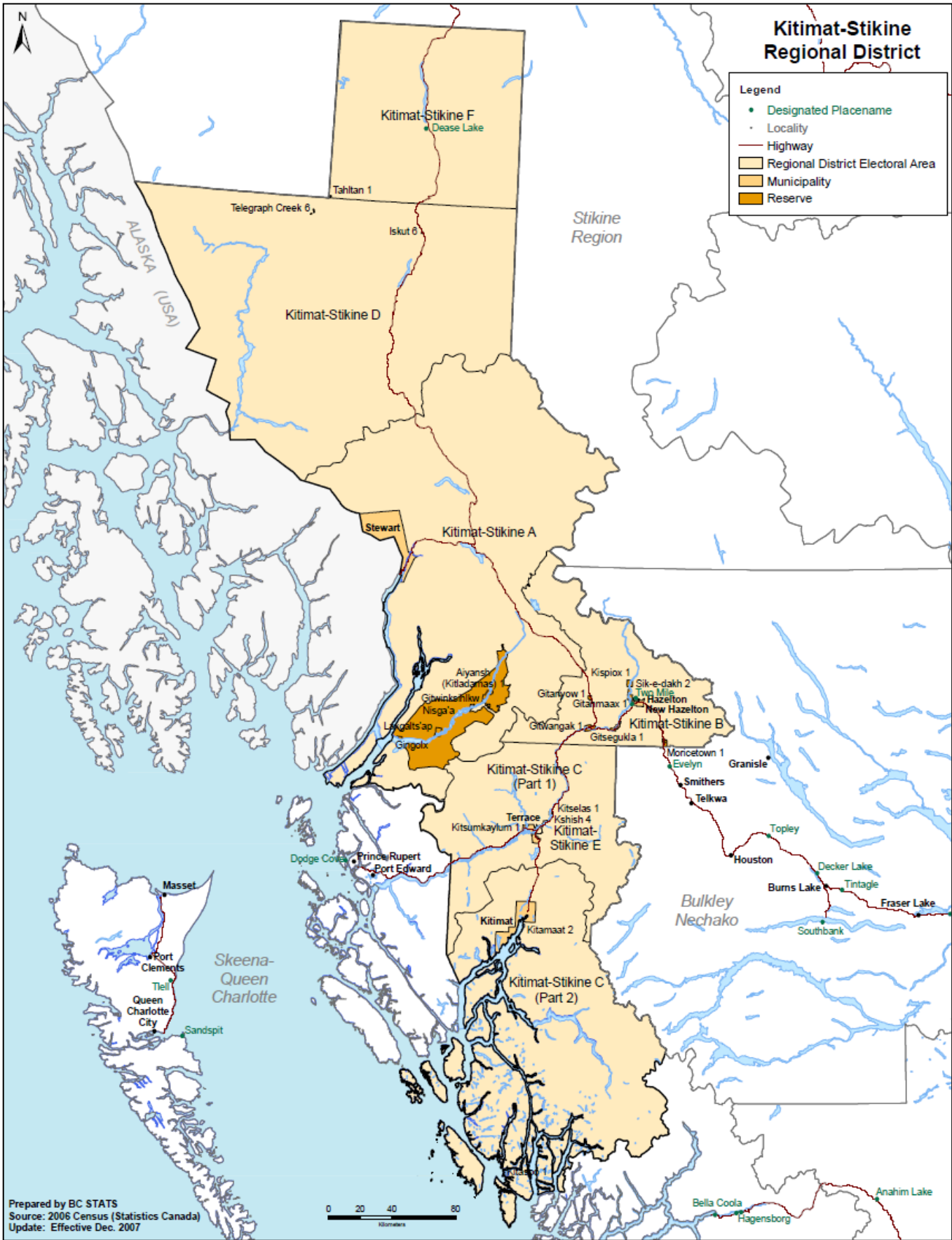
For Terrace LHA residents during the five year period: 2008/09 - 2012/13.							
Number of Cases and Days	Location of Hospital Care						Total
	Terrace	Kitimat	Prince Rupert	Other NH	Other BC	OOP	
Cases	8,423	389	355	957	1,825	55	12,004
Days	46,573	1,319	830	5,730	17,468	313	72,233

- ALC Alternate Level of Care. Clients who no longer need acute services and who are waiting to be discharged to a setting more appropriate to their needs.²¹
- Cases These are inpatient cases - client was admitted to the facility.
- Days These are inpatient days - does not include days attributable to ALC.
- Other NH Care was received at a Northern Health facility other than those shown.
- Other BC Care was received at a non Northern Health facility in BC.
- OOP Care was received Out of Province – in most cases this means Alberta.

Facility Activities (selected measures).²²

No. 912 - Mills Memorial Hospital (Terrace)					
Selected Measures	2008/09	2009/10	2010/11	2011/12	2012/13
Acute discharges/deaths total	2,490	2,507	2,580	2,463	2,522
Acute in-patient admissions total	2,459	2,465	2,540	2,452	2,507
Acute in-patient days (excl. ALC)	13,413	13,239	13,995	14,128	13,368
ALC days total	2,455	2,016	1,626	2,023	3,306
Psychiatry/addiction admissions	160	133	103	92	99
Ambulatory visits (excl. E/R).	9,651	9,711	10,398	12,232	11,180
Emergency visits (excl. Ambul)	23,613	24,573	24,704	25,063	25,767
In-patient surgical cases total	498	507	548	486	558
Surgical day care cases total	3,002	2,894	2,821	2,899	3,987
Lab Tests (excludes respiratory)	334,605	350,138	404,039	484,360	468,289
Medical Imaging Tests	25,232	27,511	28,611	25,467	26,920





References

- ¹ BC Stats, Community Fact Sheets: <http://www.bcstats.gov.bc.ca/StatisticsBySubject/SocialStatistics/CommunityFacts.aspx>
- ² BC Treaty Commission Statement of Intent Maps: GEO BC. <http://archive.ilmb.gov.bc.ca/cis/initiatives/treaty/index.html>
- ³ BC Ministry of Aboriginal Relations & Reconciliation: First Nations by Region. <http://www.gov.bc.ca/arr/treaty/regional.html>
- ⁴ BC Stats: Population Estimates for Local Health Areas: PEOPLE 2013. <http://www.bcstats.gov.bc.ca/StatisticsBySubject/Demography/PopulationEstimates.aspx>
- ⁵ Population Estimates for Municipalities: BC Stats; 1996-2006, 2006-2012. <http://www.bcstats.gov.bc.ca/StatisticsBySubject/Demography/PopulationEstimates.aspx>
- ⁶ BC Stats: Population Estimates for Regional Districts: PEOPLE 2013. <http://www.bcstats.gov.bc.ca/StatisticsBySubject/Demography/PopulationEstimates.aspx>
- ⁷ BC Vital Statistics Annual Report: 2011. <http://www.vs.gov.bc.ca/stats/annual/index.html>
This is calendar year data (Jan - Dec). There will be a small mismatch with fiscal year data of Perinatal-Services-BC.
- ⁸ BC Stats: Population Projections: PEOPLE 2013:Published August 2013.
- ⁹ Northern Health Resident Mothers that Delivered a Baby in British Columbia, by Resident Municipality. Prepared for Northern Health by Perinatal Services BC. Request 211051: April 24, 2013..
- ¹⁰ Immunization: A Report on the Health and Wellbeing of British Columbian. BC Provincial Health Officer, 1998. <http://www.health.gov.bc.ca/pho/pdf/phoannual1998.pdf>
- ¹¹ Small Area Populations Projections (P.E.O.P.L.E.): Technical Paper. BC Stats, July 2009.(mortality: page 10) <http://www.bcstats.gov.bc.ca/StatisticsBySubject/Demography/TechnicalPapers.aspx>
- ¹² 2010 Cohort (2 year olds) Date of Birth Jan 01, 2010 to Dec 30, 2010. Up-to-date for age: (2010 definition). Data extracted Jan 15, 2013: Prepared by CM for JMH / MMP: Northern Health Public Health: August 2013.
- ¹³ Vaccine Preventable Disease: Northern Health-Public Health Internal Files: August 2013..
- ¹⁴ Population Patterns of Chronic Health Conditions in Canada: Health Council of Canada. <http://healthcouncilcanada.ca>
- ¹⁵ The Cost of Chronic Disease in Canada: GPI Atlantic. 2004. <http://gpiatlantic.org/pdf/health/chroniccanada.pdf>
- ¹⁶ Prevention: British Columbia Cancer Agency. 2009. <http://www.bccancer.bc.ca/PPI/Prevention/default.htm>
- ¹⁷ Hospitalizations: 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>
- ¹⁸ Inter-RAI Client Assessment Summary: Northern Health. Summary as of March 31, 2013. Data extracted July, 2013. Northern Health: Home and Community Care Services.
- ¹⁹ Seniors and the Health Care System: What is the Impact of Multiple Chronic Conditions? CIHI, January 2011. <https://secure.cihi.ca/estore/productFamily.htm?locale=en&pf=PFC1575>
- ²⁰ Northern Health Resident Referral Pattern, 1991/92 – 2012/13: Special Analysis undertaken by the BC Ministry of Health for Northern Health. Project No. 2013_00828: Updated: August 2013.
- ²¹ Alternate Level of Care in Canada: CIHI. <https://secure.cihi.ca/estore/productSeries.htm?pc=PCC456>
- ²² Northern Facility Activity Summaries from Northern Health Finance: Executive Summary Reports (ESR). Figures are P13 for previous year. Lab and Medical Imaging prepared separately: Updated September 4, 2013.