

# Healthy Northern Communities 2011

*Village of Burns Lake*

Revised  
August 6, 2011



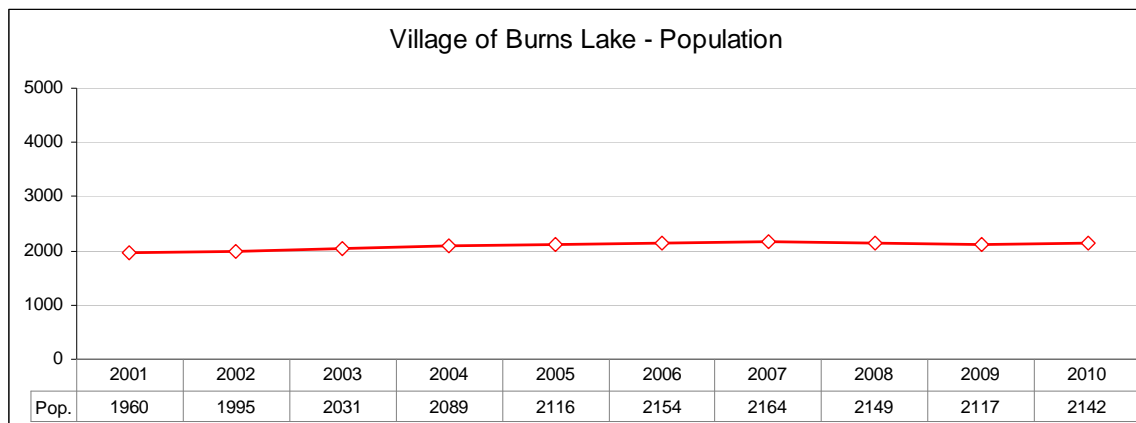
**northern health**  
*the northern way of caring*

## Village of Burns Lake

The Village of Burns Lake was incorporated in 1923. Burns Lake Village is located approximately 226 km west of Prince George and 81 km east of Houston.<sup>1</sup>

Burns Lake is situated within the Bulkley Nechako Regional District, within the Burns Lake Local Health Area (LHA 055) and the Northern Interior Health Service Delivery Area of Northern Health. The Village of Burns Lake is served by School District No. 91.

This area is the traditional territories of the Dakelh (Carrier) and Wet'suwet'en peoples. People from the Skin-Tyee, Nee Tahi Buhn, Cheslatta Carrier, T'sil Kaz Koh, Lake Babine and Wet'suwet'en nations, consider the surrounding areas to be home.<sup>2, 3</sup>



The estimated 2,142 people within the Village of Burns Lake account for approximately 27 % of the Burns Lake LHA population (2,142 / 7,888 persons) and for 5.5 % of the Bulkley Nechako Regional District population (2,142 / 39,183 persons).<sup>4, 5, 6</sup>

During the 2009 calendar year, there were 87 births, 47 deaths and 32 marriages to the residents of Burns Lake. The average life expectancy for Burns Lake residents was 77.9 years. This was less than the BC average life expectancy of 81.4 years.<sup>7</sup>

### Community Information

Village of Burns Lake: <http://www.burnslake.ca>

Bulkey Nechako Regional District <http://www.rdbn.bc.ca/>

Cheslatta Carrier Nation: <http://www.cheslatta.com/>

T'sil Kaz Koh: <http://www.cstc.bc.ca/cstc/37/tsil+kaz+koh+first+nation>

Lake Babine Nation: <http://www.lakebabine.com/>

Wet'suwet'en Nations: <http://www.wetsuweten.com/>

BC Community Facts: <http://www.bcstats.gov.bc.ca/data/dd/facsheet/facsheet.asp>

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

## What Determines Health?

A good strong start in life, early and enriching experiences, educational opportunities and achievement, a sufficient and equitable distribution of employment and income, housing, food, interactions with the natural and human built environments, our choices towards certain risk factors and lifestyles, as well as access to high quality health services, are just a few of the many determinants of health and wellbeing.<sup>8, 9</sup>

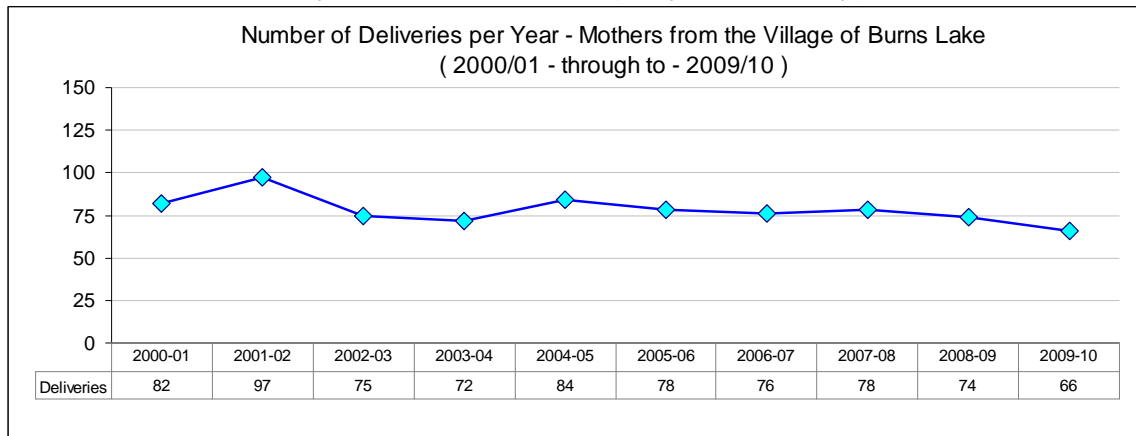
Selected Determinants of Health			
<b>Demographics</b>	Burns Lake <sup>10</sup>	LHA <sup>11</sup>	BC <sup>12</sup>
Percent of population who are 0 – 19 yrs old	31.0	26.5	23.2
Percent of population who are ages 65+	13.0	12.7	15.0
Percent of population who are Visible Minorities	1.0	0.9	24.5
Percent of population who are Aboriginal Identity	37	27.7	4.8
<b>Income</b>			
Percent of families earning < \$20,000 per year	10	9.7	8.0
Percent of families earning from \$20,000 - \$80,000 per year	52	57.5	53.8
Percent of families earning > \$80,000 per year	38	32.1	38.1
* Percent of population receiving Income Assistance > 1 yr.	nca	1.3	1.0
<b>Early Development and Educational Achievement</b>			
Percent of kindergarten children vulnerable: 1 or more EDI scales <sup>13</sup>	41.2	40.0	28.6
† Percent of Grade 4 & 7 students below standard on FSA - Reading	nca	39.7	20.7
† Percent of Grade 4 & 7 students below standard on FSA - Writing	nca	41.9	17.9
† Percent of Grade 4 & 7 students below standard on FSA - Math	nca	46.0	23.4
† Grade 10 Provincial-exam non-completion rate - English	nca	32.6	15.9
† Percent of 18 yr olds who did not graduate	nca	48.2	29.0
Percent of persons ages 25 to 54: without high school completion	nca	25.8	11.1
Percent of persons ages 25 to 64: with university degree or above	13.9	10.5	24.1
<b>Housing</b>			
Percent of households that are renting	45	26.5	30.4
Percent of tenants paying 30 % or more of income towards housing	38	34.1	43.4
Percent of owners paying 30 % or more of income towards housing	19	12.5	22.7
<b>Children and Youth at Risk</b>			
* Children (ages <15) receiving Income Assistance > 1 year	nca	3.0	1.7
* Youth (ages 15 - 24) receiving Income Assistance > 1 yr	nca	0.8	0.9
Children in care rate per 1,000 population, ages 0 – 18	nca	27.5	9.2
Teen pregnancies per 1,000 women ages 15 – 19 (2007-2009)	nca	38.5	26.3
<b>Other Indicators</b>			
Alcohol sales per capita in 2010 (Dollars Spent)	nca	631	790
Alcohol sales per capita in 2010 (Litres Consumed)	nca	100	107
nca = means this level of data detail or data aggregation is "not currently available."			
EDI = the Early Development Index is an early child development assessment tool. <a href="http://www.earlylearning.ubc.ca">http://www.earlylearning.ubc.ca</a>			
LHA = Local Health Area. In this table we are referring to the Burns Lake Local Health Area (LHA - 055).			
* Income Assistance figures may be understated as they do not include Aboriginal people who are living on reserve.			
† education measures shown are an average for the period 2007/08 - 2009 /10. The LHA and BC figures were obtained from <a href="http://www.bced.gov.bc.ca/reporting/">BC Stats Socio-economic profiles</a> . Please also see BC Ministry of Education <a href="http://www.bced.gov.bc.ca/reporting/">http://www.bced.gov.bc.ca/reporting/</a>			

## Promoting Health and Delivering High Quality Services

**A good strong start in life** is more likely if infants, children and family members are healthy. Towards this, we consider community characteristics (Determinants of Health), the number of mothers delivering infants and where these infants are being delivered.

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

### Number of deliveries by Burns Lake mothers (ten year summary).<sup>14</sup>



### Delivery locations for Burns Lake mothers (five year summary).<sup>15</sup>

Mother's community or Regional District area	Delivery Location: 2005/06 – 2009/10						Total Deliveries
	Burns Lake	Vanderhoof	Prince George	Smithers	Other Location	Home Births	
Bulk-Nechako R/D (E)	10	0	10	2	2	0	24
Burns Lake (VL)	174	59	95	25	8	11	372
Granisle (VL)	2	0	5	6	2	0	15
<b>Total Deliveries</b>	<b>186</b>	<b>59</b>	<b>110</b>	<b>33</b>	<b>12</b>	<b>11</b>	<b>411</b>

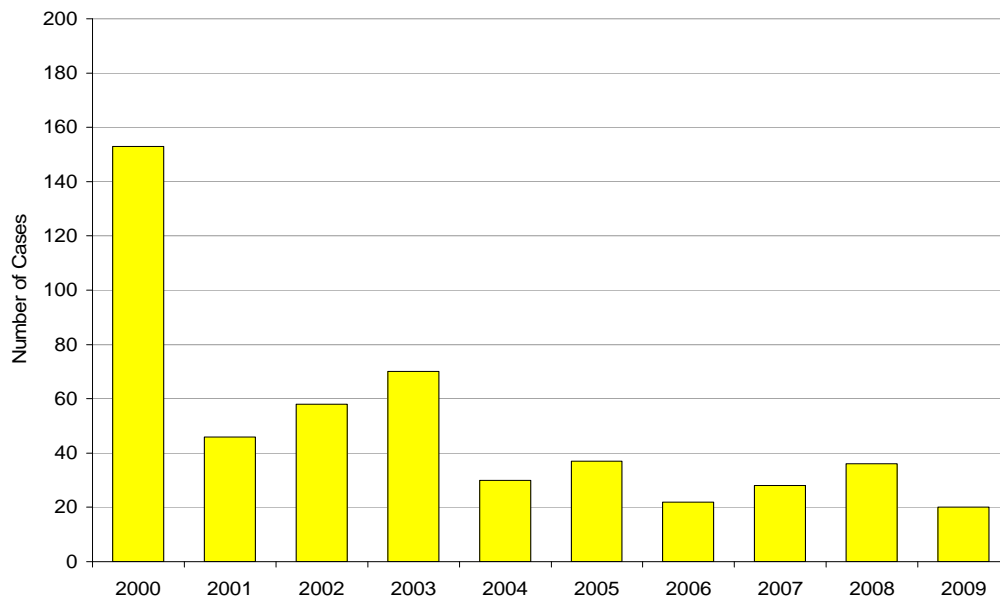
## Promoting Health and Delivering High Quality Services

**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.<sup>16, 17</sup>

Because they 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 Burns Lake area, who are fully immunized, is 55.4%.<sup>18</sup>

**Vaccine Preventable Diseases** are illnesses that may have been avoided if individuals and communities were sufficiently immunized. These are summarized below.

Vaccine Preventable Diseases: Northern Interior Total; 2000 – 2009



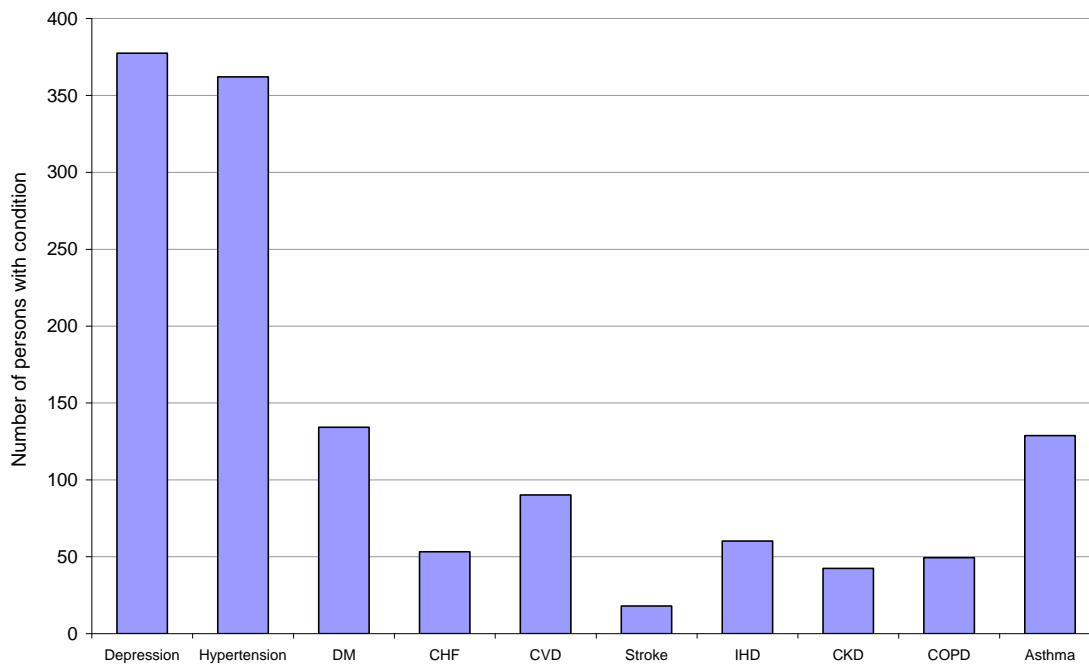
Community	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total
Burns Lake	0	1	26	1	0	4	0	0	1	2	35
Ft. St. James	3	2	2	0	0	1	3	2	2	0	15
Fraser Lake	0	0	0	5	0	1	0	0	1	0	7
Mackenzie	1	0	0	1	0	0	1	0	0	1	4
McBride	0	1	0	0	0	0	0	0	0	0	1
Prince George	129	35	26	52	26	22	17	19	31	13	370
Quesnel	18	6	1	5	4	9	1	4	1	4	53
Valemount	0	0	0	4	0	0	0	0	0	0	4
Vanderhoof	2	1	3	2	0	0	0	3	0	0	11
<b>Total</b>	<b>153</b>	<b>46</b>	<b>58</b>	<b>70</b>	<b>30</b>	<b>37</b>	<b>22</b>	<b>28</b>	<b>36</b>	<b>20</b>	<b>500</b>

## Promoting Health and Delivering High Quality Services

We know that many factors influence our health. Our choices in lifestyle and 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 whether we remain healthy and free from certain types of cancers and other chronic illnesses.<sup>20, 21, 22, 23</sup>

### Chronic Disease Estimates

Estimated prevalence (number of existing cases) of selected chronic conditions  
Village of Burns Lake residents: 2009 - 2010



Selected Chronic Conditions	Existing cases	New cases / yr	Cost / patient / yr
Depression	377	12	\$3,349
Hypertension	362	23	\$4,097
Diabetes	134	9	\$5,438
Congestive Heart Failure (CHF)	53	7	\$9,865
Cardiovascular Disease (CVD)	90	9	\$8,318
Stroke	18	4	\$10,386
Ischemic Heart Disease (IHD)	60	5	\$8,021
Chronic Kidney Disease (CKD)	42	6	\$11,676
COPD	49	6	\$7,122
Asthma	129	10	\$1,784

These 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, given the known experience of the larger LHA.

## Promoting Health and Delivering High Quality Services

**Healthy and independent** northerners is what we want to see when we look around northern BC communities. Indeed, that is a large part of what we do see. However, we know that our population is aging very quickly and that with increasing age there often comes an accumulation of chronic health conditions that inhibit independence.

Long-term home support and other services provided by northern health intend to keep people healthy and independent. During 2011, there were 856 residents of the northern interior receiving home-support services. Here is a clinical profile of these residents.<sup>25</sup>

<b>Male</b>	36 %	<b>Married</b>	28 %	<b>Aged 75+</b>	72 %
<b>Female</b>	64 %	<b>Widowed</b>	44 %	<b>Aboriginal</b>	6 %
<b>Frequently Noted Health Conditions</b>					
Hypertension	56 %	Depression	27 %	Osteoporosis	22%
Arthritis	46 %	Diabetes	24 %	Chronic Arterial	20 %
<b>Clients with Multiple Health Conditions</b>					
≤ 3 Conditions	28 %	3 - 5 Conditions	37 %	≥5 Conditions	34 %
<b>Clients with Cognitive Impairment (Cognitive Performance Score)</b>					
No impairment	39 %	Borderline /mild	49 %	Mod - Very Severe	12 %
<b>Clients with independence difficulty in 1- 3 daily activities (IADL Difficulty Scale)</b>					
No difficulty	28 %	Some difficulty	22 %	Great difficulty	50 %

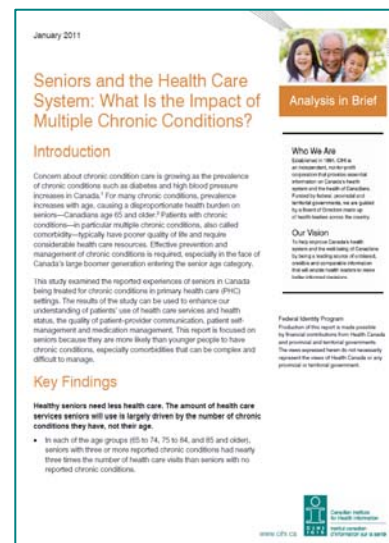
## How do we compare to the rest of Canada?

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.<sup>26</sup>

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?*



## Promoting Health and Delivering High Quality Services

We employ the best available information related to community characteristics and the determinants of health, population trends, disease occurrences, health needs and health services utilization when assessing services and when planning for the future.

These tables provide a glimpse into some of the inpatient and facility activity.

### Location: where inpatient hospital services were received.<sup>27</sup>

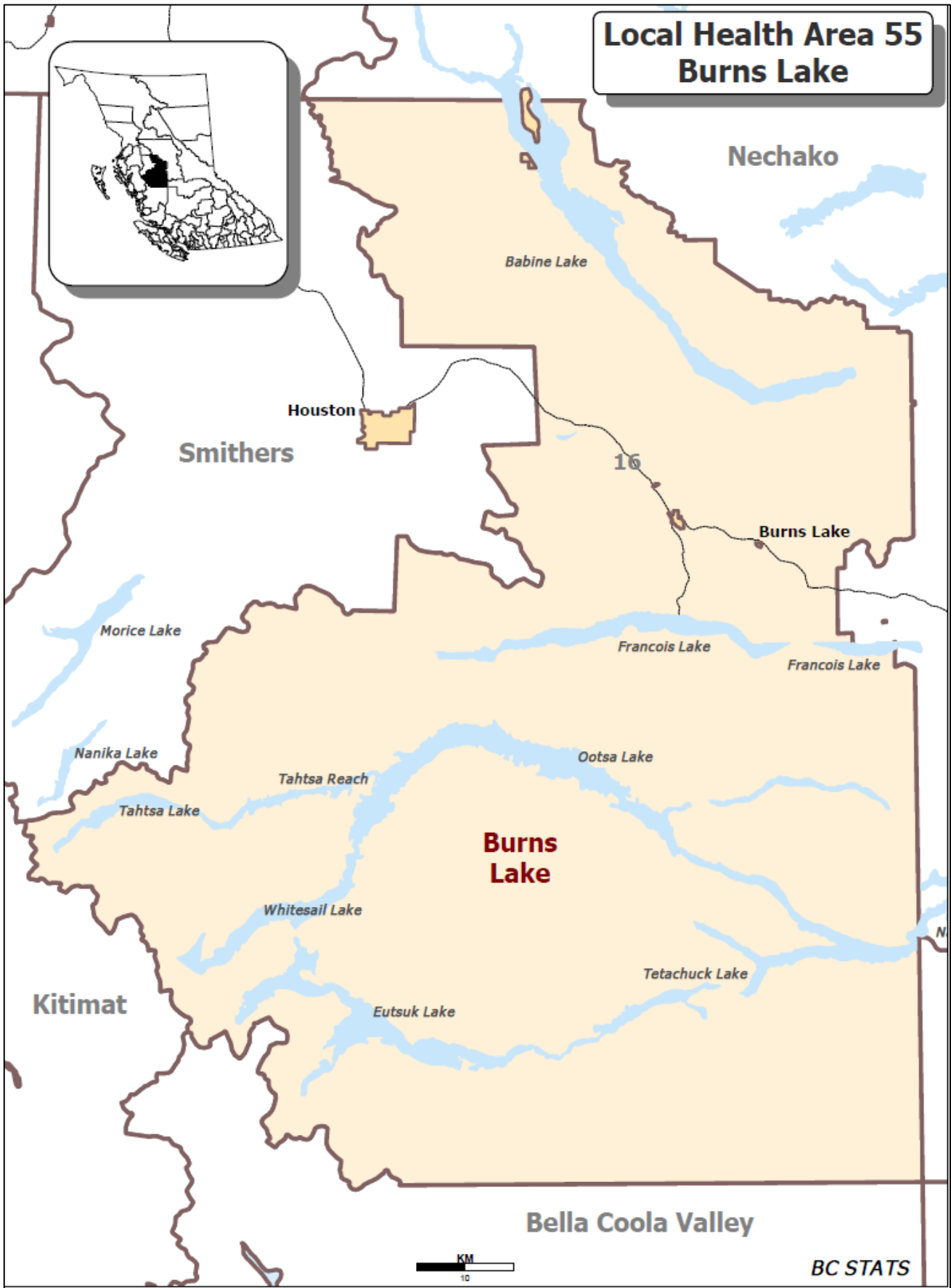
For Burns Lake residents during the five year period: 2005/06 - 2009/10.							
Number of Cases and Days	Location of Hospital Care						
	Burns Lake	Vanderhoof	Smithers	Other NH	Other BC	OOP	Total
Cases	3,155	144	95	1,249	366	23	5,032
Days	15,599	276	168	7,695	2,771	106	26,615

- 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.
- 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.<sup>28</sup>

### Facility and Patient Activity (selected measures).<sup>29</sup>

No. 707 - Lakes District Hospital & Health Centre					
Selected Measures	2006/07	2007/08	2008/09	2009/10	2010/11
Acute discharges/deaths total	883	609	700	707	509
Acute in-patient admissions total	879	614	693	712	544
Acute in-patient days (excl. ALC)	4,568	3,999	3,513	3,542	3,341
ALC days total	1,968	1,106	1,018	908	1,285
Ambulatory visits (excl. E/R).	7	0	419	309	458
Emergency visits (excl. Ambul)	11,664	11,063	11,395	11,880	9,895
In-patient surgical cases total	12	42	13	3	0
Surgical day care cases total	37	4	13	0	0
Psychiatry/addiction admissions	n/a	n/a	n/a	n/a	n/a
Psychiatry/addiction I/P days	n/a	n/a	n/a	n/a	n/a
Medical Imaging Tests	4,335	3,687	4,206	3,954	3,902
Lab Tests (excludes respiratory)	152,373	144,233	146,693	147,664	135,297





# Bulkley-Nechako Regional District



## References

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- <sup>1</sup> BC Stats, Community Fact Sheets: <http://www.bcstats.gov.bc.ca/data/dd/facsheet/facsheet.asp>
- <sup>2</sup> BC Treaty Commission Statement of Intent Maps: GEO BC. <http://ilmbwww.gov.bc.ca/cis/initiatives/treaty/>
- <sup>3</sup> BC Ministry of Aboriginal Relations & Reconciliation: First Nations by Region. <http://www.gov.bc.ca/arr/treaty/regional.html>
- <sup>4</sup> BC Stats: Population Estimates for Local Health Areas: PEOPLE 35. <http://www.bcstats.gov.bc.ca/data/pop/popstart.asp>
- <sup>5</sup> Population Estimates for Municipalities: BC Stats; 1996-2006, 2006-2010. <http://www.bcstats.gov.bc.ca/data/pop/pop/estpop.asp#totpop>
- <sup>6</sup> BC Stats: Population Estimates for Regional Districts: PEOPLE 35. <http://www.bcstats.gov.bc.ca/data/pop/popstart.asp>
- <sup>7</sup> BC Vital Statistics Annual Report: 2009. <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.
- <sup>8</sup> What Determines Health: Public Health Agency of Canada <http://www.phac-aspc.gc.ca/ph-sp/determinants/index-eng.php>
- <sup>9</sup> Healthy and Productive Canada: Determinants of Health Approach. Senate Committee on Health. <http://www.parl.gc.ca/40/2/parlbus/commbus/senate/Com-e/popu-e/rep-e/rephealthjun09-e.pdf>
- <sup>10</sup> Census 2006 Profiles: BC Stats. [http://www.bcstats.gov.bc.ca/data/cen06/profiles/detailed/ch\\_alpha.asp](http://www.bcstats.gov.bc.ca/data/cen06/profiles/detailed/ch_alpha.asp)
- <sup>11</sup> BC Socio-economic profiles; BC Stats: June 2011. <http://www.bcstats.gov.bc.ca/data/sep/index.asp>
- <sup>12</sup> BC figures from BC Stats: [BC Socio-economic profiles](#), [Census 2006 Profiles](#) and / or [PEOPLE 35](#).
- <sup>13</sup> Human Early Learning Partnership; the Early Development Index: Wave 3. <http://www.earlylearning.ubc.ca/research/initiatives/early-development-instrument/>
- <sup>14</sup> Northern Health Resident Mothers that Delivered a Baby in British Columbia, by Resident Municipality. Prepared for Northern Health by Perinatal Services BC. Request 211011: June 16, 2011.
- <sup>15</sup> Northern Health Resident Mothers that Delivered a Baby in British Columbia, by Resident Municipality. Prepared for Northern Health by Perinatal Services BC. Request 211011: June 16, 2011.
- <sup>16</sup> 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>
- <sup>17</sup> Technical Assumptions for Population Forecasting in BC: Page 7. BC Stats, July 2009. <http://www.bcstats.gov.bc.ca/data/pop/pop/popproj.asp>
- <sup>18</sup> 2008 Cohort (2 year olds) Date of Birth Jan 01, 2008 to Dec 30, 2008. Up-to-date for all vaccines: (new definitions). Data extracted Jan 17, 2011: MMP for JMH: Northern Health-Public and Preventive Health: June 2011.
- <sup>19</sup> Vaccine Preventable Disease: Northern Health-Public Health / Preventive Public Health: May 2010.
- <sup>20</sup> Population Patterns of Chronic Health Conditions in Canada: Health Council of Canada. <http://healthcouncilcanada.ca>
- <sup>21</sup> The Cost of Chronic Disease in Canada: GPI Atlantic. 2004. <http://gpiatlantic.org/pdf/health/chroniccanada.pdf>
- <sup>22</sup> Prevention: British Columbia Cancer Agency. 2009. <http://www.bccancer.bc.ca/PPI/Prevention/default.htm>
- <sup>23</sup> 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>
- <sup>24</sup> BC Ministry of Health Services: Chronic Conditions according to LHA. Project 2011\_005\_PHC
- <sup>25</sup> InterRAI Client Assessment Summary: Northern Health. Summary for March 31, 2011. Data extracted May 28, 2011. Northern Health: Home and Community Care Services.
- <sup>26</sup> Seniors and the Health Care System: What is the Impact of Multiple Chronic Conditions? CIHI, January 2011. [http://secure.cihi.ca/cihiweb/products/air-chronic\\_disease\\_aib\\_en.pdf](http://secure.cihi.ca/cihiweb/products/air-chronic_disease_aib_en.pdf)
- <sup>27</sup> Hospitalizations by patient's home community 2003/ 04 to 2009/ 10: Special Analysis by the BC Ministry of Health for Northern Health. Project No. 2010\_0289. Revised and Updated: July, 2011.
- <sup>28</sup> Alternate Level of Care in Canada: CIH. <https://secure.cihi.ca/estore/productSeries.htm?pc=PCC456>
- <sup>29</sup> Northern Facility Activity Summaries from Northern Health Finance: Executive Summary Reports (ESR). Figures are P13 for previous year. Lab and Medical Imaging prepared separately: July 2011.