

# Healthy Northern Communities 2011

*District Municipality of  
Houston*

Revised  
October, 2011



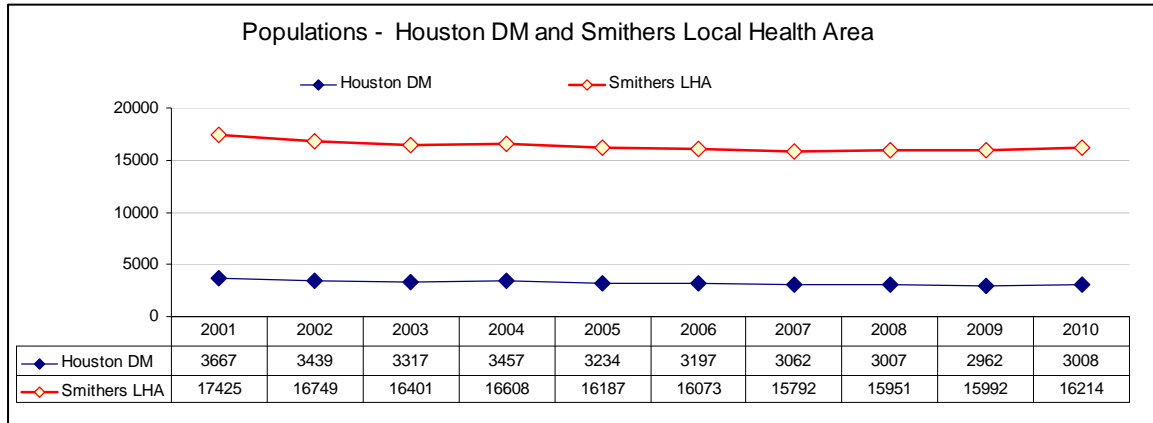
**northern health**  
*the northern way of caring*

## District Municipality of Houston

The District Municipality of Houston was incorporated in 1957. Houston is located approximately 81 km west of Burns Lake and 364 km southeast of Smithers.<sup>1</sup>

Houston is also situated within the Bulkley Nechako Regional District, within the larger Smithers Local Health Area (LHA 054) and within the Northwest Health Service Delivery Area of Northern Health. Houston is served by School District No.54.

The broad area surrounding the District of Municipality Houston is the traditional territories of the Wet'suwet'en and Dakelh (Carrier) peoples.<sup>2, 3</sup>



The estimated 3,008 people within the District of Houston account for approximately 18.7 % of the Smithers LHA population (3,008 / 16,074 persons) and for 7.7 % of the Bulkley-Nechako Regional District population (3,008 / 39,183 persons).<sup>4, 5, 6</sup>

During the 2009 calendar year, there were 46 births, 14 deaths and 11 marriages to the residents of Houston. The average life expectancy for Houston residents was 79.3 years. This was slightly less than the BC average life expectancy of 81.4 years.<sup>7</sup>

### Community Information

District Municipality of Houston <http://www.houston.ca/>

District Municipality of Houston Official Community Plan (see Bylaws) <http://houston.ihostez.com/Documents/DocumentList.aspx?ID=0>

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

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

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

Official Rural Plan: (see Regional Services / Planning) <http://www.rdbn.bc.ca/>

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>

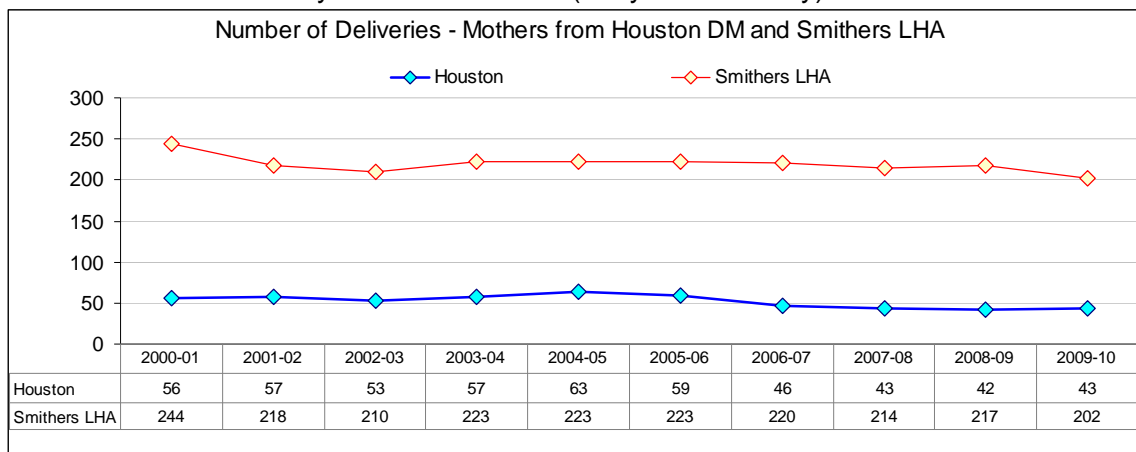
Selected Determinants of Health			
Demographics	Houston <sup>10</sup>	LHA <sup>11</sup>	BC <sup>12</sup>
Percent of population who are 0 – 19 yrs old	28.4	27.8	23.2
Percent of population who are ages 65+	8.7	11.5	15.0
Percent of population who are Visible Minorities	6.0	3.6	24.5
Percent of population who are Aboriginal Identity	12.0	11.5	4.8
<b>Income</b>			
Percent of families earning < \$20,000 per year	5.4	6.2	8.0
Percent of families earning from \$20,000 - \$80,000 per year	52.5	53.5	53.8
Percent of families earning > \$80,000 per year	42.2	40.3	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>	34.0	28.8	28.6
† Percent of Grade 4 & 7 students below standard on FSA - Reading	nca	21.7	20.7
† Percent of Grade 4 & 7 students below standard on FSA - Writing	nca	13.3	17.9
† Percent of Grade 4 & 7 students below standard on FSA - Math	nca	22.9	23.4
† Grade 10 Provincial-exam non-completion rate - English	nca	19.6	15.9
† Percent of 18 yr olds who did not graduate	nca	14.5	29.0
Percent of persons ages 25 to 54: without high school completion	nca	13.9	11.1
Percent of persons ages 25 to 64: with university degree or above	7.7	14.3	24.1
<b>Housing</b>			
Percent of households that are renting	21.3	21.7	30.4
Percent of tenants paying 30 % or more of income towards housing	23	29.4	43.4
Percent of owners paying 30 % or more of income towards housing	8.0	9.9	22.7
<b>Children and Youth at Risk</b>			
* Children (ages <15) receiving Income Assistance > 1 year	nca	2.2	1.7
* Youth (ages 15 - 24) receiving Income Assistance > 1 yr	nca	1.4	0.9
Children in care rate per 1,000 population, ages 0 – 18	nca	10.2	9.2
Teen pregnancies per 1,000 women ages 15 – 19 (2007-2009)	nca	32.1	26.3
<b>Other Indicators</b>			
Alcohol sales per capita in 2010 (Dollars Spent)	nca	991	790
Alcohol sales per capita in 2010 (Litres Consumed)	nca	153	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 Smithers Local Health Area (LHA - 054).			
* 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 Houston mothers (ten year summary).<sup>14</sup>



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

Mother's community or Regional District area	Delivery Location: 2005/06 – 2009/10			
	Smithers	Burns Lake	Other BC Location	Total Deliveries
Bulk-Nechako RD (A)	225	0	20	245
Bulk-Nechako RD (G)	3	1	4	8
Houston (DM)	214	2	17	233
Smithers (Town)	428	0	38	466
Telkwa (VL)	116	0	8	124
Total Deliveries	986	3	87	1,076

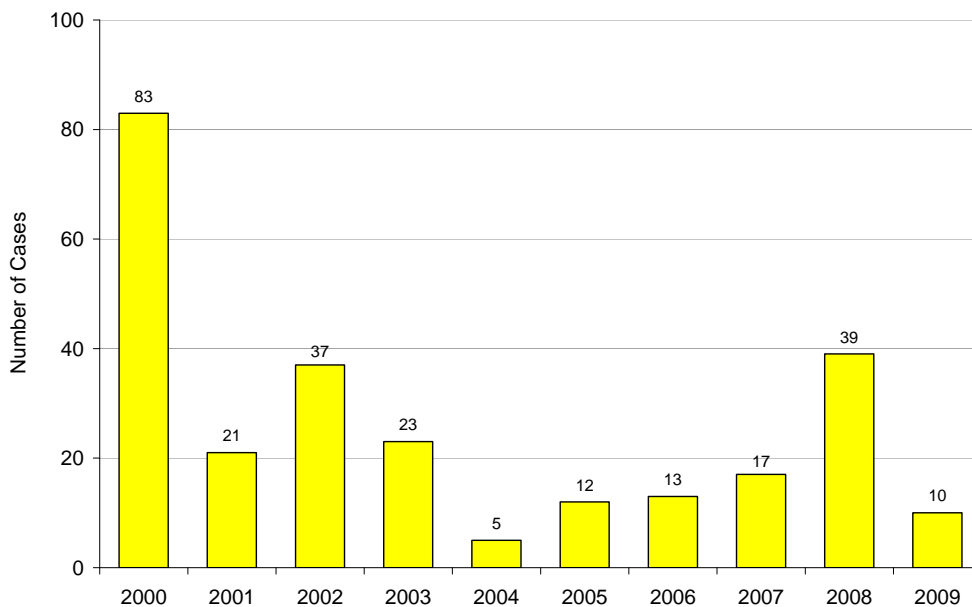
## Promoting Health and Delivering High Quality Services

**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 Houston area, who are fully immunized, is 61.5%.<sup>18</sup>

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

Vaccine Preventable Diseases (cases) in Northwest BC: 2000 - 2009



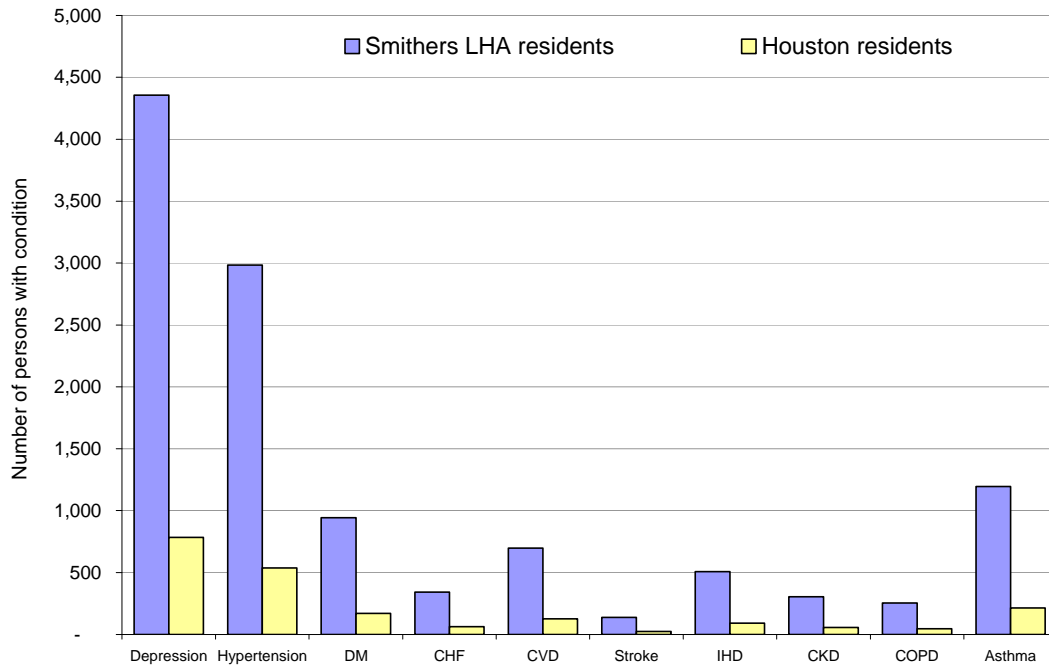
Vaccine Preventable Diseases (cases) in Northwest BC: 2000 - 2009 <sup>19</sup>											
Community	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total
Dease Lake	1	0	0	1	0	0	0	1	0	0	3
Hazelton	1	0	1	8	0	0	1	3	2	1	17
Houston	3	4	14	1	2	0	0	0	2	0	26
Kitimat	4	2	1	2	1	0	0	0	0	2	12
Masset	5	3	1	1	0	0	0	1	1	0	12
Prince Rupert	17	9	8	4	0	7	5	4	2	2	58
Q. C. City	12	1	0	0	1	0	0	2	2	0	18
Smithers	4	0	9	1	1	2	4	4	25	2	52
Stewart	17	0	0	0	0	0	0	0	1	0	18
Terrace	19	2	3	5	0	3	3	2	4	3	44
<b>Total</b>	<b>83</b>	<b>21</b>	<b>37</b>	<b>23</b>	<b>5</b>	<b>12</b>	<b>13</b>	<b>17</b>	<b>39</b>	<b>10</b>	<b>260</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  
Smithers LHA and Houston area residents: 2009 - 2010



Chronic Disease Estimates for District of Houston and Smithers LHA residents: 2009 - 10 <sup>24</sup>					
Selected Chronic Conditions	Existing or treated cases		New cases / yr		Cost / patient per year
	Houston	LHA	Houston	LHA	
Depression	784	4,357	35	196	\$2,627
Hypertension	537	2,984	35	192	\$3,880
Diabetes	170	944	13	71	\$5,633
Congestive Heart Failure (CHF)	62	343	9	52	\$11,425
Cardiovascular Disease (CVD)	126	698	14	76	\$8,638
Stroke	25	137	4	21	\$12,075
Ischemic Heart Disease (IHD)	91	507	8	44	\$8,010
Chronic Kidney Disease (CKD)	55	305	10	54	\$10,768
COPD	46	254	4	23	\$8,294
Asthma	215	1,196	11	59	\$1,343

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 530 residents of northwest BC receiving home-support services. Here is a clinical profile of these residents.<sup>25</sup>

<b>Male</b>	36 %	<b>Married</b>	25 %	<b>Aged 75+</b>	67 %
<b>Female</b>	64 %	<b>Widowed</b>	44 %	<b>Aboriginal</b>	22 %
<b>Frequently Noted Health Conditions</b>					
Hypertension	60 %	Depression	46 %	Chronic Arterial	25 %
Arthritis	60 %	Diabetes	28 %	Osteoporosis	24 %
<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	43 %	Borderline /mild	48 %	Mod- Very Severe	12 %
<b>Clients with independence difficulty in 1- 3 daily activities (IADL Difficulty Scale)</b>					
No difficulty	38 %	Some difficulty	24 %	Great difficulty	38 %

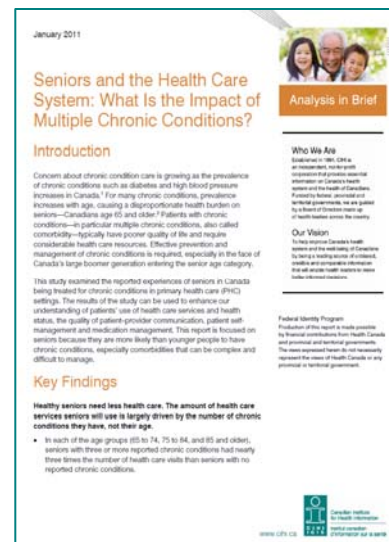
## How do we compare to the rest of Canada?

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 Houston residents during the five year period: 2005/06 - 2009/10.							
Number of Cases and Days	Location of Hospital Care						
	Smithers	Terrace	Prince Rupert	Other NH	Other BC	OOP	Total
Cases	1,307	97	62	347	242	18	2,073
Days	4,316	525	156	2,348	1,671	117	9,133

- 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. 909 - Houston Health Centre					
Selected Measures	2006/07	2007/08	2008/09	2009/10	2010/11
Ambulatory visits (excl. E/R)	n/a	n/a	n/a	n/a	n/a
Emergency visits (excl. Ambul)	4,815	4,630	4,255	4,238	4,229
Medical Imaging Tests	1,574	1,750	1,849	1,684	1,584
Lab Tests (excludes respiratory)	28,060	25,267	20,339	20,051	21,537





# Bulkley-Nechako Regional District



**Legend**

- Designated Placename
- Locality
- Highway
- Reserve
- Municipality
- Regional District Electoral Area

Prepared by BC Stats  
Source: 2006 Census  
Statistics Canada

## References

---

- <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/estspop.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/paribus/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 as of 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: CIHI. <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.