

May 29, 2017

Mayor Haime and Council District of Lantzville 7192 Lantzville Road Lantzville, BC VOR 2H0

Dear Mayor Haime and Council:

Re: Local Health Area Profiles

Each year Island Health synthesizes available information released provincially and supplements by some information from Island Health. The Local Health Area (LHA) Profiles have been central to the Medical Health Officer report to your community in the past few years. This year, I have visited numerous local governments and reported specifically on the substance use issues and overdose crisis.

Please find with this communication, the 2015 LHA profiles. Notable is while released in 2017, the profiles do not include the 2016 census information. While the data elements are similar, the format for the profiles has changed considerably. The profiles can also be found at: http://www.viha.ca/mho/stats/lha profiles.htm.

Should you have any questions, or identify any material that appears incorrect, please feel free to contact my office or Melanie Rush at melanie.rush@viha.ca.

If invited by the Council, I would be available to present the updated information and contextualize results over time and across geographies.

Please feel free to contact my office at any time on matters of mutual interest.

Yours in Health,

Paul Hasselback, MD, MSc, FRCPC

Medical Health Officer

c.c.: Ronald Campbell, CAO, District of Lantzville

PH/cl

viha.ca

NANAIMO Local Health Area Profile 2015



Nanaimo LHA is one of 14 LHAs in Island Health and is located in Island Health's Central Health Service Delivery Area (HSDA). Nanaimo is in the centre of the Central HSDA on the east coast of Vancouver Island. It is 1,308 square kilometres and encompasses the communities of Nanaimo, Lantzville and Gabriola Island. It borders on four other LHAs: Courtenay, Alberni, Ladysmith and Lake Cowichan. Nanaimo is situated alongside Highway 1 and Highway 19. It is approximately one and a half hours from Victoria.

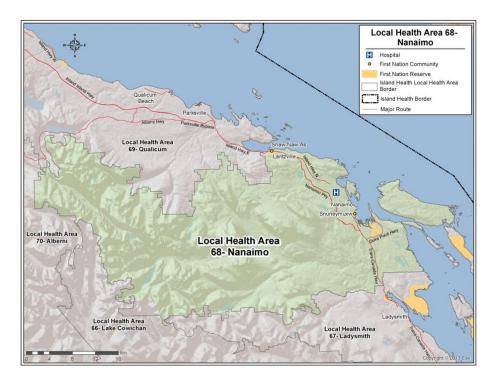


An accompanying Interpretation Guide has been created to assist with the interpretation of indicators.

The Interpretation Guide should be read with the profiles.

These profiles are not intended to be used for detailed planning or analysis. As they are updated on an annual basis, there may be more current data available. If you are intending to use these profiles for health planning purposes, or if you have questions or notice a discrepancy, please contact: Melanie Rusch (Melanie.Rusch@viha.ca)

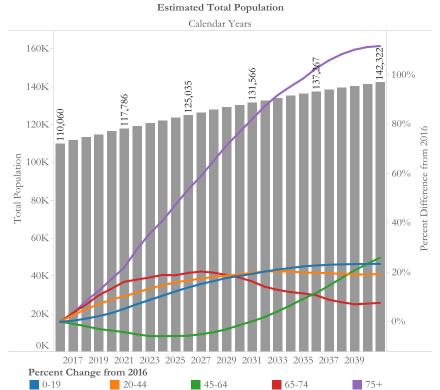
Population and Demographics



As of 2016 Nanaimo represented 14.2% (110,060 people) of Island Health's total population of 775,500. According to 2011 Census, 6.6% of people living on Nanaimo identified themselves as Aboriginal compared to 6.6% in Island Health and 5.4% in BC.

On average, the population of Nanaimo is slightly younger than that of Island Health, with an average age of 44.2 years. The 65+population makes up around 22% of the population which is similar to Island Health (23%) and higher than BC (17%).

Nanaimo's population is expected to increase by 13.6% over the next 10 years; this is higher than the growth expected for Island Health (10.6%) and BC (12.6%). Over the next 10 years, growth is expected in most age groups with the exception of the 45-64 age group which is expected to decline. Over the next 20 years, the 75+ population of Nanaimo is expected to double. See Population and Demographics summary on page 10 for more information.



Percent of LHA population by Age Groups							
Age Groups	2016	2026	2036	2041			
0-19	18.6%	18.7%	18.4%	17.8%			
20-44	30.6%	31.4%	29.4%	28.2%			
45-64	28.8%	23.9%	25.7%	28.0%			
65-74	12.5%	13.2%	11.1%	10.4%			
75+	9.5%	12.8%	15.4%	15.6%			
Avera	ge Age ((PEOPL	E - 2010	6)			
ВС	Islan	d Healtl	n Nan	aimo			
42.0		44.9	44	4.2			

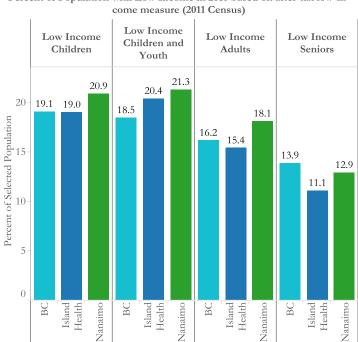


Social Determinants of Health

Access to adequate income, affordable housing, healthy food, education, early childhood development, healthy work environments and recreational opportunities influence our health and wellbeing. Health inequities – or avoidable inequalities - are directly linked to these social determinants of health. People who are less well-off have poorer health and shorter life expectancies than those who are well-off. By working upstream to improve the conditions in which all people live, work and play, we can decrease these gaps and improve the health and wellbeing of our population.

Income and Employment

The median household income and lone-parent household income in the Nanaimo LHA are similar to but slightly lower than Island Health and BC; however, the proportion of low income persons is higher across all age groups (children, youth and adults). Compared to Island Health and BC, the unemployment rate in Nanaimo is higher, and a higher percentage of the population is receiving income assistance or employment insurance.



Percent of Population with Low Income in 2010 based on after-tax low-in-

Education

Compared to Island Health and BC, a similar proportion of the Nanaimo LHA adult population have completed postsecondary education. High school graduation rates are not available at the LHA level; schools in Ladysmith are included in School District (SD) 68. High school graduation rates for SD 68 (73%) are similar to but slightly lower than Island Health (77%); both have been increasing over the past five years.

Social Support

Social support networks and connected communities contribute to individual and population health. While specific measures of social supports are not available, measures such as lone parent families and seniors living alone may highlight regions where the available community supports and connectedness of particular populations should be considered. In the Nanaimo LHA, there is a similar percentage of lone parent families and of seniors living alone compared to Island Health and BC.

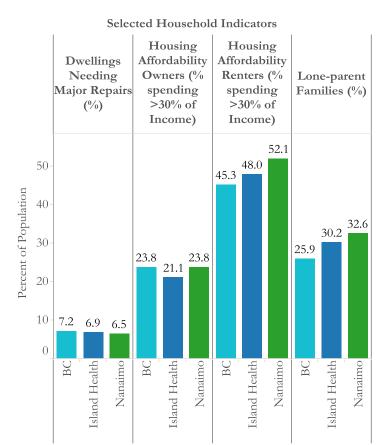
See Social Determinants of Health summary on page 11 for more information on the above topics.



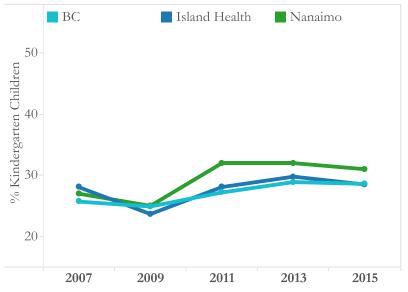
Social Determinants of Health

Housing and Transportation

One way to measure affordability of housing is to look at how much of a household's income is spent on shelter. In Nanaimo LHA, a similar percent of home owners spend more than 30% of their income on shelter compared to Island Health and BC, while a higher percent of renters spend more than 30% of their income on shelter. There is also a similar percentage of crowded and multiple family households in Nanaimo compared to Island Health and BC, while there is a lower percentage of households in need of major repairs. Among those who are employed, the average time to work is 15 minutes, compared to 16 for Island Health and 20 for BC; however, a lower percentage of the population on Nanaimo reports using active modes of transportation (walking, cycling, public transit) to get to work. See Social Determinants of Health summary on page 11 for more information.



Early Childhood Development (EDI)
Percent of preschool children vulnerable on one or more domains



Child and Youth Health

Creating supportive and healthy environments in an equitable way so that all children and youth can grow and thrive is critical to the health of the population. This includes supporting mothers during the pre- and post-natal period, supporting families during early development years and supporting children and youth to grow, learn and transition into adulthood.

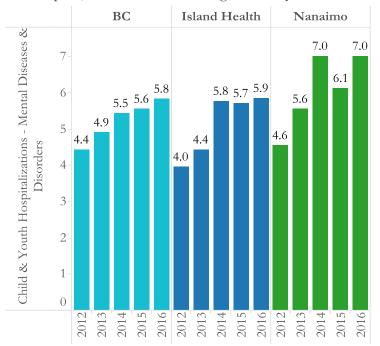
The Early Development Instrument is used to measure vulnerability in kindergarten children across five domains (social, physical, emotional, language, and communication). Nanaimo LHA had higher levels of vulnerability as compared to Island Health and BC, most notably in the physical and language domains. See Social Determinants of Health summary on page 12 for more information.

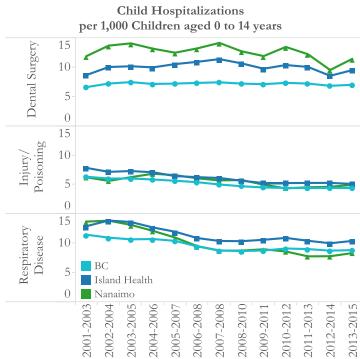


Social Determinants of Health

Child hospitalization rates for dental surgery were higher in the Nanaimo LHA, while hospitalization rates for respiratory disease and injury/poisoning were similar to Island Health and BC. Nanaimo had a higher rate for mental health related hospitalizations for children and youth (ages 0 to 24) compared to Island Health and BC.

Mental Health Disease and Disorder Hospitalizations per 1,000 Children & Youth aged 0 to 24 years



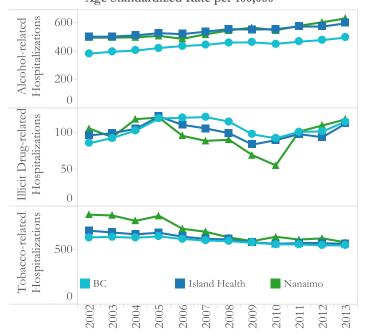


Crime and Substance Use

Island Health overall has lower crime rates (serious crime, motor vehicle theft and non-cannabis drug offences) as compared to BC. The Nanaimo LHA has higher crime rates compared to Island Health, but remains lower than BC. Alcohol consumption per capita, and tobacco-, alcohol- and illicit drug-related hospitalization rates are similar to Island Health and BC.

See Social Determinants of Health summary on page 12 for more information on the above topics.

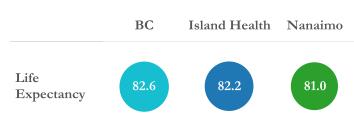
Tobacco, Alcohol and Illicit Drug Use Hospitalization Age Standardized Rate per 100,000



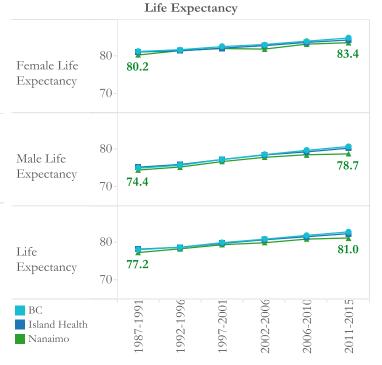


Health Status

The health status of the population includes measures such as life expectancy, infant mortality, prevalence of chronic disease, mortality and pre-mature mortality.



Over the past 30 years, life expectancy in Nanaimo LHA has increased and remained similar to Island Health. Male life expectancy did not change between 2006-2010 and 2011-2015, increasing the gap in life expectancy compared to Island Health. In 2011-2015, Nanaimo had a life expectancy of 81 years, 1.2 years lower than Island Health.



The birth rate for the Nanaimo LHA is similar to Island Health overall; however, there are proportionately more births to younger mothers (under 20 years old). While the rate of low birth weight babies and pre-term births (those born at less than 37 weeks) are similar to Island Health and BC, the infant mortality rate is higher. See Health Status summary on page 13 for more information on these topics.

Birth Statistics, 2011-2015 Per 1,000 Live Births

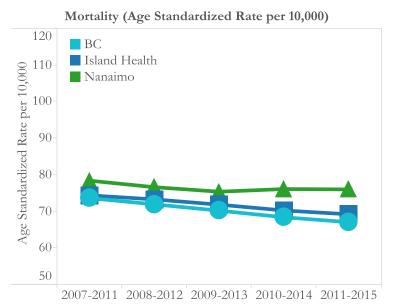
	BC		Island Health	Nanaimo
Infant Mortality	•	3.7	•	3.7 • 4.1
Mothers under 20 years	•	22.2	• 3.	2.4 • 36.6
Low Birth Weight	•	57.6	5.	2.5 52.6
Pre-term Births		75.3	• 7°	7.3
Cesarean Sections		320.6	28	0.5 250.6
Mothers 35 years and over		241.1	21	2.2



Health Status

The all-cause age-standardized mortality rate for Nanaimo is higher than Island Health and BC rates; in addition, most cause-specific mortality rates are also higher than Island Health and BC. In some cases, such as chronic lung disease, motor vehicle accidents, accidental falls and suicide, the number of deaths is small and the difference is not significant. See Health Status summary on page 14 for mortality rates; a complete list of Standardized Mortality Ratios by cause can be found on page 15.

Disorders



Most chronic disease prevalence rates for the Nanaimo LHA population are similar as compared to Island Health with the exception of ischemic heart disease which is higher in Nanaimo, although similar to BC. All rates shown below are agestandardized for comparability across regions. See Health Status summary on page 13 for more information.

Chronic Disease Prevalence Rates (2014/15)

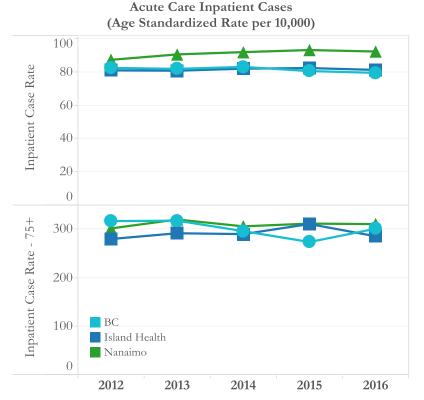
	BC		Island Healt	h	Nanain	10
Heart Failure	•	14.1	•	12.6	•	13.5
Chronic Kidney Disease	•	16.9	•	16.5	•	18.0
Alzhiemer's Disease and Other Dementia	•	18.0	•	19.1	•	20.8
Ischemic Heart Disease		53.8		47.3		55.4
Diabetes		61.5		54.1		57.3
Chronic Obstructive Pulmonary Disease		62.1		61.2		66.2
Osteoarthritis		64.0		68.6		67.5
Asthma		120.7	1	29.7		137.8
Hypertension		182.6	1	73.7		167.9
Depression		218.5	2	46.2		226.9
Mood & Anxiety		267.0	3	02.4		297.6

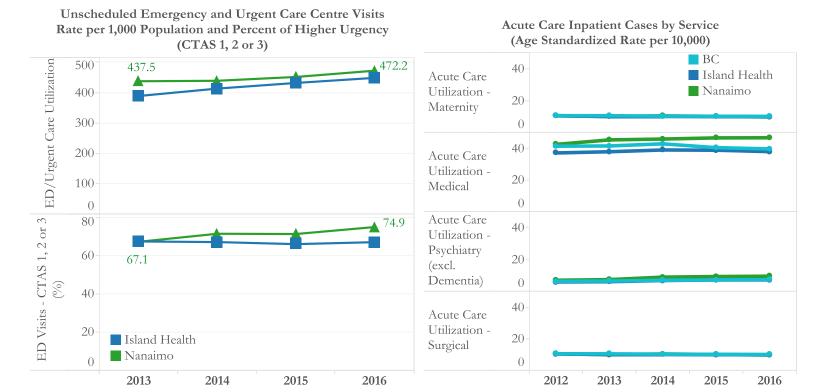
Health Service Use

The hospitalization rate (inpatient admissions) for the Nanaimo LHA population is higher than Island Health and BC, both overall and for the population aged 75 and over. By service are, Nanaimo has higher rates of acute care admissions for medical services and psychiatry.

Hospital admission rates for Ambulatory Care Sensitive Conditions (ASCS) - conditions that can be treated in the community if services are available and wouldn't necessarily require hospitalization – are similar to Island Health in Nanaimo.

While hospitalization rates are similar, emergency/urgent care visit rates, both overall and for those 75 years and over, are higher in Nanaimo as compared to Island Health. See Health Service Utilization summary on page 16 for more information on these topics.







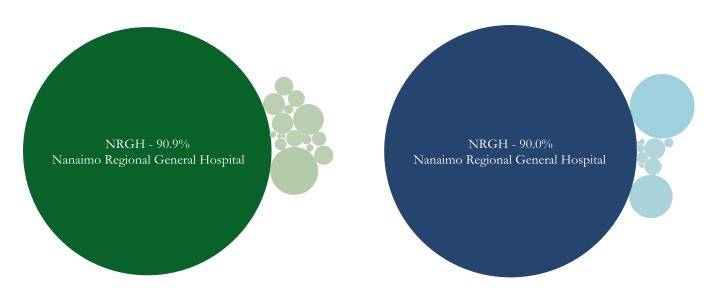
Health Service Use

The majority of hospital visits for both emergency/urgent care and acute care visits made by Nanaimo LHA population are to the Nanaimo Regional General Hospital.

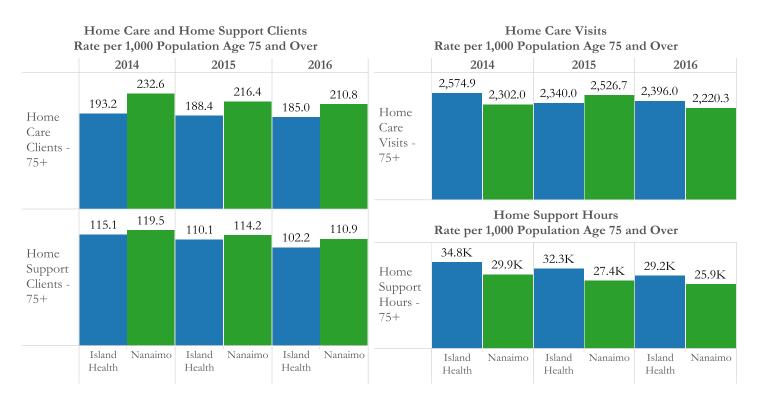
Service Use By Facility - 2015/16

Emergency and Urgent Care

Acute Inpatient Care



There is a higher number of home care and home support clients per 1,000 people aged 75 and over for the Nanaimo LHA as compared to Island Health. However, home care visits and home support hours per 1,000 population age 75+ are lower. See Health Service Utilization summary on page 16 for more information on these topics.



Population and Demographics Summary

Sub-group Description	Indicator Description	Nanaimo	Island Health	ВС	
Age and	Median Age of Population	45.8	46.4	41.9	• •
Demographics	Population where language spoken most often at home is not English or French (%)	2.9	3.3	15.4	• • • • • • • • • • •
	Visible minority population (%)	6.8	7.6	27.3	
	Population in private households with Aboriginal Identity (%)	6.6	6.6	5.4	• • • • • • • • • • • • • • • • • • • •
Marital Status	Population aged 15 and over who are married (%)	46.7	47.5	49.2	• • 🜓 • •
	Population aged 15 and over who are common-law (%)	10.8	10.6	8.6	• • • • • • • • • • • • • • • • • • • •
	Population aged 15 and over who are single, never married (%)	24.5	24.5	27.2	• •••••
	Population aged 15 and over who are widowed (%)	6.6	6.4	5.5	• • • • • • • • • • • • • • • • • • • •
	Population aged 15 and over who are separated or divorced (%)	11.4	11.1	9.4	• ·-• ·
Migration and	Immigrant population (%)	14.4	15.5	27.6	• • • • • •
Immigrants	Population migrating to area in the last 5 years (%)	19.1	20.4	21.1	• • • • • • • • • • • • • • • • • • • •
Population and	Total population growth between 2016 and 2026	13.6	10.6	12.6	•••
Population Projection	Population aged 0-19 (%)	18.6	18.2	19.9	• • • • • •
	Population aged 20-44 (%)	30.6	29.7	34.7	• • • • • • • • •
	Population aged 45-64 (%)	28.8	29.2	28.1	- ··
	Population aged 65-74(%)	12.5	13.2	9.9	••••••••••
	Population aged 75 and over (%)	9.5	9.8	7.5	
	Percent growth of the 0-19 age group population in next 10 years	13.8	8.5	7.6	
	Percent growth of the 20-44 age group population in next 10 years	16.7	8.8	9.0	
	Percent growth of the 45-64 age group population in next 10 years	-5.7	-7.4	1.8	
	Percent growth of the 65-74 age group population in next 10 years	19.7	20.4	33.7	
	Percent growth of the 75+ age group population in next 10 years	53.4	60.1	54.5	
	Average Age (People 2016)	44.2	44.9	42.0	•••

Social Determinants of Health Summary

Sub-group Description	Indicator Description	Nanaimo	Island Health	ВС	
Education	Population aged 25 to 64 with post secondary certificate, diploma or degree (%)	64.0	64.8	64.8	• • • •
	Grade 12 completion among students entering Grade 12 for the first time (%) (2yr Agg)	72.5	76.0	80.5	
	Students completing high school within six years of enrollment in Grade 8 (%) (2yr Agg)	73.2	76.6	83.3	• • • • •
Employment	Population aged 15 and over who are unemployed (%)	9.2	7.4	7.8	• • • • • • • • • •
Health Behaviours	Alcohol consumption (litres of absolute alcohol sold per person, 1L=58 standard drinks)	10.8	10.9	9.0	• ••••
Household	Persons aged 65 years and over who are living alone (%)	26.9	27.6	25.7	• • • •
	Lone-parent family households (% of census families with children)	32.6	30.2	25.9	000
	Private households with multiple families (%)	1.5	1.5	2.9	
	Private households with 6 or more persons (%)	1.7	1.7	3.3	• • ••••
	Dwellings rated as needing major repairs by renter or owner (%)	6.5	6.9	7.2	
	Private households that are owner-occupied (%)	74.3	71.6	70.0	• • • •
Income	Median lone-parent family income (\$)	38,946.0	40,914.0	42,610.0	
	Median household total income (\$)	53,840.0	57,420.0	60,333.0	• •• • •
Income Inequality	Difference in median income comparing males and females aged 15 and over	11,148.0	12,177.0	12,003.0	
	Low income in 2010 based on after-tax low income measure (%)	17.6	15.2	16.4	
	Low income in 2010 based on after-tax low-income measure, ages less than 18 years (%)	21.3	20.4	18.5	
	Low income in 2010 based on after-tax low-income measure, ages less than 6 years (%)	20.9	19.0	19.1	
	Low income in 2010 based on after-tax low-income measure, ages 18 to 64 years (%)	18.1	15.4	16.2	
	Low income in 2010 based on after-tax low-income measure, ages 65 years and over (%)	12.9	11.1	13.9	• • • • • • • • • • • •
	Households (owned) spending more than 30% of income on housing (%)	23.8	21.1	23.8	
	Households (rented) spending more than 30% of income on housing (%)	52.1	48.0	45.3	• • • •
Income Supports	Population on Income Assistance (%)	3.1	1.8	1.9	• • • • • • • •
	Population aged 15 and over on Employment Insurance (%)	1.6	1.4	1.5	
Morbidity	Alcohol-related hospitalizations (age-standardized rate per 100,000)	631.5	596.6	496.3	• • • • •
	Illicit drug-related hospitalizations (age-standardized rate per 100,000)	118.0	112.3	115.0	
	Tobacco-related hospitalizations (age-standardized rate per 100,000)	567.1	554.0	538.8	• • • • • • • • • • • • • • • • • • • •
Transportation	Median duration of commute to work among employed population aged 15 and over	15.2	15.7	20.4	
	Employed population aged 15 and over walking, biking or busing to work (%)	14.6	22.0	23.1	
					0.0 0.5 1.0 1.5 2 Indexed to Island Health

Island Health Value with ±10%

Sub-group Description	Indicator Description	Nanaimo	Island Health	ВС	
Child Health	Child Mental Diseases & Disorders Hospitalizations (rate per 1,000 aged 0-14)	2.0	2.0	1.5	• • • • • • • • • • • • • • • • • • • •
	Youth Mental Diseases & Disorders Hospitalizations (rate per 1,000 aged 15-24)	12.7	10.3	10.8	• • • • • • •
	Child/Youth Mental Diseases & Disorders Hospitalizations (rate per 1,000 aged 0 to 24)	7.0	5.9	5.8	
	Child Hospitalizations - Injury/Poisoning (rate per 1,000 aged 0 to 14) - (2yr Agg)	4.9	5.1	4.4	• • • • • • • • • • • • • • • • • • • •
	Child hospitalizations - Respiratory Dis. (rate per 1,000 aged 0 to 14) - (2yr Agg)	8.3	10.4	8.8	• • • • • • • • • • • • • • • • • • • •
	Child hospitalizations - Dental Surgery (rate per 1,000 aged 0 to 14) -(2yr Agg)	11.4	9.5	7.0	• • • • • • • •
	Pregnant women who reported smoking at any time during current pregnancy (%) (5yr Agg)	10.9	10.8	7.7	••••••••
Crime	Serious Violent Crime (rate per 1,000 population)	2.8	2.2	3.1	• • • • • • • • • • • • • • • • • • • •
	Serious Crime (rate per 1,000 population)	9.9	7.7	10.1	• • • • • • • • •
	Number of Serious Crimes per Police Officer	7.3	5.7	7.0	• • • • • • • •
	Motor Vehicle Theft (rate per 1,000 population)	3.2	2.1	3.6	• • • • • • • • •
	Non-Cannabis Drug Offences (rate per 1,000 population)	225.3	154.8	170.3	
Early Development	EDI: Kindergarten children rated as vulnerable for physical development (%)	18.0	16.2	14.8	• • • • •
	EDI: Kindergarten children rated as vulernable for social development (%)	16.0	14.7	15.7	••• •••
	EDI: Kindergarten children rated as vulnerable for emotional development (%)	18.0	16.6	16.1	• •• • • •
	EDI: Kindergarten children rated as vulnerable for language development (%)	10.0	9.0	9.4	••• • 🍅 ••• •
	EDI: Kindergarten children rated as vulnerable for communication development (%)	13.0	11.9	14.2	• • • • • • • • •
	EDI: Kindergarten children rated as vulnerable on one or more domains (%)	34.0	31.1	32.2	🕽
	$EDI: Kindergarten\ children\ rated\ as\ vulnerable\ on\ one\ or\ more\ domains,\ excluding\ commun.$	31.0	28.5	28.6	
Protecting children and youth	Children and Youth in Care (rate per 1,000 children aged 0 to 18)	14.8	13.0	8.0	••••••••
una youtu	Children and Youth in Need of Protection (rate per 1,000 children aged 0 to 18)	35.5	29.6	20.4	. •
					0.0 0.5 1.0 1.5 Indexed to Island Health

Health Status Summary Information

Sub-group Description	Indicator Description	Nanaimo	Island Health	ВС	
Births	Live Birth Rate (rate per 1,000 population)	8.8	8.4	9.6	• • • • • •
	Stillbirths (rate per 1,000 births)	8.1	8.5	10.7	• • • • • • • •
	Infant Mortality - deaths of infants under 1 year of age (rate per 1,000 live births)	4.1	3.7	3.7	
	Low Weight Births - less than 2,500 grams (rate per 1,000 live births)	52.6	52.5	57.6	
	Cesarean Sections (rate per 1,000 live births)	250.6	280.5	320.6	oo 🐞 a a
	Pre-term Births - gestational age less than 37 weeks (rate per 1,000 live births)	76.7	77.3	75.3	• • • • • •
	Mothers under 20 - live births to mothers under 20 years of age (rate per 1,000 live births)	36.6	32.4	22.2	• • • • • • • • • • • • • • • • • • • •
	Mothers 35 and over - live births to mothers aged 35 and over (rate per 1,000 live births)	180.1	212.2	241.1	• • • • • • •
Life Expectancy	Female Life Expectancy	83.4	84.1	84.6	
	Male Life Expectancy	78.7	80.2	80.6	
	Life Expectancy	81.0	82.2	82.6	
Morbidity	Alzhiemer's Disease and Other Dementia - Prevalence (age-standardized rate per 1,000)	20.8	19.1	18.0	• • • • • • •
	Asthma - Prevalence (age standardized rate per 1,000)	137.8	129.7	120.7	••••
	Chronic Kidney Disease - Prevalence (age standardized rate per 1,000)	18.0	16.5	16.9	• ••• •
	Chronic Obstructive Pulmonary Disease - Prevalence (age standardized rate per 1,000)	66.2	61.2	62.1	
	Mood and Anxiety Disorders - Prevalence (age standardized rate per 1,000)	297.6	302.4	267.0	•
	Depression - Prevalence (age standardized rate per 1,000)	226.9	246.2	218.5	• •
	Diabetes - Prevalence (age standardized rate per 1,000)	57.3	54.1	61.5	• •••
	Heart Failure - Prevalence (age standardized rate per 1,000)	13.5	12.6	14.1	•• •• •• ••
	Hypertension - Prevalence (age standardized rate per 1,000)	167.9	173.7	182.6	
	Ischemic Heart Disease - Prevalence (age standardized rate per 1,000)	55.4	47.3	53.8	000 000 000
	Osteoarthritis - Prevalence (age standardized rate per 1,000)	67.5	68.6	64.0	• • • •

The chart below shows how various indicators for this LHA compare with the rest of Island Health. This LHA's result for each indicator is show with a large circle. Green identifies results better than Island Health; red identifies results worse than Island Health. Island Health's value is shown by the black dotted line, which is always at the centre of the chart. Light gray shading encompassing small grey circles indicates the range of other LHA values and the dark gray shading shows s ±10% from the Island Health value.

ub-group Description	Indicator Description	Nanaimo	Island Health	ВС	
Deaths	Alcohol-related deaths (age-standardized rate per 100,000)	50.5	37.3	24.6	
	Illicit drug-related deaths (age-standardized rate per 100,000)	19.3	9.4	7.2	
	Tobacco-related deaths (age-standardized rate per 100,000)	118.7	112.1	85.1	• • • • • • • • • • • • • • • • • • • •
	Mortality due to unintentional injuries (age standardized rate per 10,000)		2.1	1.6	• • •
	Mortality (age standardized rate per 10,000)	76.0	69.1	67.0	••
ealth Matrix*	Health Matrix: Healthy Population/Minor Episodic Health Needs (%)	34.8	34.4	37.0	•• •
	Health Matrix: Major or Significant Time-limited Health Needs (Adults, %)	3.4	3.4	3.1	•••••
	Health Matrix: Major or Significant Time-limited Health Needs (Child & Youth, %)	0.6	0.7	0.6	• • • • • • • • • • • • • • • • • • • •
	Health Matrix: Low Complex Chronic Conditions (%)	26.1	27.0	25.2	> ~
	Health Matrix: Medium Complex Chronic Conditions (%)	9.6	9.9	8.2	•••••
	Health Matrix: Severe Mental Health & Substance Use (%)	2.3	1.9	1.7	• • • • • •
	Health Matrix: Maternity & Healthy Newborns (%)	2.0	2.0	2.2	• • • • • • • • •
	Health Matrix: Frail, Living in Community (%)	0.6	0.5	0.4	• ••••
	Health Matrix: High Complex Chronic Conditions (%)	4.5	4.4	3.9	• ••••••
	Health Matrix: Frail, Living in Community with High Complex Chronic Conditions (%)	0.7	0.7	0.6	• • • • • • • • • • • • • • • • • • • •
	Health Matrix: Cancer (%)	1.5	1.5	1.3	•• •• • • • • •
	Health Matrix: Frail, Living in Residential Care (%)	1.0	1.0	0.8	
	Health Matrix: Living in Community with Palliative Care Needs (%)	0.5	0.6	0.4	. • • • • • • • •
	Health Matrix: Non-Users (%)	12.4	12.0	14.5	••••

^{*}The Health Matrix is a way of categorizing the population into different groups based on their health service utilization patterns. These categories are mutually exclusive and add up to 100% - in other words, everyone is placed into one of the categories, going from low or no utilization to high utilization at end of life; people who may meet the criteria for more than one category would be placed into the higher utilization category – for example, someone with medium complex chronic conditions who was also living in residential care would be counted in the Frail, Living in Residential Care category

LHA	LHA Better than BC - significant	LHA Worse than BC - significant	Island Health	Range	Other LHAs	BC Value with ±10%
	LHA Better than BC – not significant	LHA Worse than BC - not significant				÷

Standardized Mortality Ratios

Ratio of observed deaths over expected deaths based on provincial age-specific mortality rates.

Sub-group Description	Indicator Description	Nanaimo	Island Health	ВС	
Deaths compared	All Causes of Death (Standardized Mortality Ratio)	1.12	1.03	1.00	• • • • •
to BC	Cancer (Standardized Mortality Ratio)	1.14	1.05	1.00	• ••• •
	Endocrine, Nutritional & Metabolic diseases (Standardized Mortality Ratio)	1.21	1.01	1.00	• • • • • • •
	Diabetes (Standardized Mortality Ratio)	1.25	1.02	1.00	
	Circulatory System (Standardized Mortality Ratio)	1.17	1.07	1.00	• • • • • • • • • • • • • • • • • • • •
	Ischaemic Heart Disease (Standardized Mortality Ratio)	1.15	1.05	1.00	• • • • • • •
	Cerebrovascular Disease (Standardized Mortality Ratio)	1.17	1.02	1.00	• • • • • • • • • • • • • • • • • • • •
	Arteries, Arterioles & Capillaries (Standardized Mortality Ratio)	0.99	1.00	1.00	
	Respiratory System (Standardized Mortality Ratio)	1.09	0.94	1.00	• • • • • • •
	Pneumonia & Influenza (Standardized Mortality Ratio)	1.19	0.85	1.00	• • • • • •
	Chronic Lung Disease (Standardized Mortality Ratio)	1.12	1.01	1.00	• • • • • •
	Digestive System (Standardized Mortality Ratio)	0.98	1.07	1.00	• • • • • • • • • • • • • • • • • • • •
	Motor Vehicle Accidents (Standardized Mortality Ratio)	1.33	0.90	1.00	
	Accidental Falls (Standardized Mortality Ratio)	1.28	1.12	1.00	
	Suicide (Standardized Mortality Ratio)	1.10	1.21	1.00	• • • • • • • •
	Potential Years of Life Lost (Standardized Mortality Ratio)	1.29	1.10	1.00	
					0.0 0.5 1.0 1.5 2.0
					Indexed to BC

Health Service Use Summary Information

Sub-group Description	Indicator Description	Nanaimo	Island Health	ВС	
Complex	Home Care Visits (rate per 1,000 population)	400.6	409.9		• • • • • • • • • • • • • • • • • • • •
Continuing Care	Home Care Visits (rate per 1,000 population aged 75 and over)	2,220.3	2,396.0		• ••• • • •
	Residential Care Beds (rate per 1,000 population aged 75 and over)	68.1	72.7		• • • • • •
	Home Care Clients (rate per 1,000 population)	35.9	30.0		•• • •• • •
	Home Care Clients (rate per 1,000 population aged 75 and over)	210.8	185.0		• • • • •
	Home Support Clients (rate per 1,000 population)	14.5	13.4		• • • • • •
	Home Support Clients (rate per 1,000 population aged 75 and over)	110.9	102.2		• •••
	Home Support Hours (rate per 1,000 population)	3,776.7	4,165.8		• • • • • • • •
	Home Support Hours (rate per 1,000 population aged 75 and over)	25,922.8	29,243.1		• • • • • • • •
Emergency	Unscheduled Emergency Department or Urgent Care Centre visits (rate per 1,000 population)	472.2	448.6		• • • • • • • • •
	Emergency Visits with CTAS of 1, 2 or 3 (%)	74.9	67.0		• • • • • • • •
	Unscheduled Emergency Department or Urgent Care Centre visits for 75+ (rate per 1,000 75+	792.4	778.2		• ••• • • • • •
	Emergency Visits with CTAS of 1, 2 or 3 (%) for 75+ population	86.8	77.4		• • • • • • • • • • • •
Iospital Day Care	Acute Care Day Cases (age-standardized rate per 1,000 population)	80.4	86.4	89.1	• • •
	Acute Care Day Cases (age-standardized rate per 1,000 population aged 75 and over)	170.8	199.4	226.9	•
	Acute Care Inpatient Cases (age-standardized rate per 1,000 population)	92.3	81.2	79.5	•••••
are	Acute Care Inpatient Cases (age-standardized rate per 1,000 population aged 75 and over)	310.5	285.4	300.9	
	Alternative Level of Care Cases (age-standardized rate per 1,000 population)	2.3	2.0	3.5	
	Alternative Level of Care Cases (age-standardized rate per 1,000 population aged 75 and over)	24.3	20.2	32.7	• • • • • • •
	Alternative Level of Care Days (age-standardized rate per 1,000 population)	63.9	79.3	78.6	
	Alternative Level of Care Days (age-standardized rate per 1,000 population aged 75 and over)	702.9	836.6	777.4	
	Ambulatory Care Sensitive conditions (%)	5.3	5.0		
	Ambulatory Care Sensitive conditions among population aged 75 and over (%)	9.2	9.1		
	Medical Acute Care Utilization (case rate per 1,000 population)	47.1	38.3	40.0	
	Surgical Acute Care Utilization (case rate per 1,000 population)	9.7	9.9	10.1	• • • • • • • • • • • • • • • • • • • •
	Maternity Acute Care Utilization (case rate per 1,000 population)	9.7	9.9	10.1	
	Psychiatry (Dementia excluded) Acute Care Utilization (case rate per 1,000 population)	9.5	7.1	7.3	• • • • • • • •
	MRI Utilization - Island Health facilities only (rate per 1,000 population)	30.8	32.1		• • • • •
rimary Care	Population attached to physician at the practice level (%)	82.3	78.9	76.8	



Population and Demographics

Age and Demographics

Median Age of Population: Census, Calendar year 2011 | Population in private households with Aboriginal Identity (%): National Household Survey, Calendar year 2011 | Population where language spoken most often at home is not English or French (%): Census, Calendar year 2011 | Visible minority population (%): National Household Survey, Calendar year 2011

Marital Status

Population aged 15 and over who are common-law (%): Census, Calendar year 2011 | Population aged 15 and over who are married (%): Census, Calendar year 2011 | Population aged 15 and over who are separated or divorced (%): Census, Calendar year 2011 | Population aged 15 and over who are single, never married (%): Census, Calendar year 2011 | Population aged 15 and over who are widowed (%): Census, Calendar year 2011

Migration and Immigrants

Immigrant population (%): National Household Survey, Calendar year 2011 | Population migrating to area in the last 5 years (%): National Household Survey, Calendar year 2011

Population and Population Projection

Average Age (People 2016): BC Statistics - People 2016, Calendar year ending 2016 | Percent growth of the 0-19 age group population in next 10 years: BC Statistics - People 2015, Version 2015 | Percent growth of the 20-44 age group population in next 10 years: BC Statistics - People 2015, Version 2015 | Percent growth of the 45-64 age group population in next 10 years: BC Statistics - People 2015, Version 2015 | Percent growth of the 65-74 age group population in next 10 years: BC Statistics - People 2015, Version 2015 | Percent growth of the 75+ age group population in next 10 years: BC Statistics - People 2015, Version 2015 | Population aged 0-19 (%): BC Statistics - People 2015, Version 2015 | Population aged 20-44 (%): BC Statistics - People 2015, Version 2015 | Population aged 65-74(%): BC Statistics - People 2015, Version 2015 | Population aged 75 and over (%): BC Statistics - People 2015, Version 2015 | Total population growth between 2016 and 2026: BC Statistics - People 2015, Version 2015

Social Determinants of Health

Child Health

Child hospitalizations - Dental Surgery (rate per 1,000 aged 0 to 14) -(2yr Agg): Ministry of Health Health Ideas, Period ending 2013-2015 | Child Hospitalizations - Injury/Poisoning (rate per 1,000 aged 0 to 14) - (2yr Agg): Ministry of Health Health Ideas, Period ending 2013-2015 | Child hospitalizations - Respiratory Dis. (rate per 1,000 aged 0 to 14) - (2yr Agg): Ministry of Health Health Ideas, Period ending 2013-2015 | Child Mental Diseases & Disorders Hospitalizations (rate per 1,000 aged 0-14): Ministry of Health Health Ideas, Fiscal year ending 2016 | Child/Youth Mental Diseases & Disorders Hospitalizations (rate per 1,000 aged 0 to 24): Ministry of Health Health Ideas, Fiscal year ending 2016 | Pregnant women who reported smoking at any time during current pregnancy (%) (5yr Agg): Perinatal Registry, Period ending 2010-2015



Youth Mental Diseases & Disorders Hospitalizations (rate per 1,000 aged 15-24): Ministry of Health Health Ideas, Fiscal year ending 2016

Crime

Motor Vehicle Theft (rate per 1,000 population): BC Statistics, Avg 2009-2011 2012 | Non-Cannabis Drug Offences (rate per 1,000 population): BC Statistics, Avg 2009-2011 2012 | Number of Serious Crimes per Police Officer: BC Statistics, Avg 2009-2011 2012 | Serious Crime (rate per 1,000 population): BC Statistics, Avg 2009-2011 2012 | Serious Violent Crime (rate per 1,000 population): BC Statistics, Avg 2009-2011 2012

Early Development

EDI: Kindergarten children rated as vulernable for social development (%): Early Development Instrument, Wave ending 2015 | EDI: Kindergarten children rated as vulnerable for communication development (%): Early Development Instrument, Wave ending 2015 | EDI: Kindergarten children rated as vulnerable for emotional development (%): Early Development Instrument, Wave ending 2015 | EDI: Kindergarten children rated as vulnerable for language development (%): Early Development Instrument, Wave ending 2015 | EDI: Kindergarten children rated as vulnerable for physical development (%): Early Development Instrument, Wave ending 2015 | EDI: Kindergarten children rated as vulnerable on one or more domains (%): Early Development Instrument, Wave ending 2015 | EDI: Kindergarten children rated as vulnerable on one or more domains, excluding communication (%): Early Development Instrument, Wave ending 2015

Education

Grade 12 completion among students entering Grade 12 for the first time (%) (2yr Agg): Ministry of Education, Period ending 2013-2015 | Population aged 25 to 64 with post secondary certificate, diploma or degree (%): National Household Survey, Calendar year 2011 | Students completing high school within six years of enrollment in Grade 8 (%) (2yr Agg): Ministry of Education, Fiscal year ending 2013-2015

Employment

Population aged 15 and over who are unemployed (%): National Household Survey, Calendar year 2011

Health Behaviours

Alcohol consumption (litres of absolute alcohol sold per person, 1L=58 standard drinks): AOD, Calendar Year 2014

Household

Dwellings rated as needing major repairs by renter or owner (%): National Household Survey, Calendar year 2011

Lone-parent family households (% of census families with children): Census, Calendar year 2011 | Persons aged 65 years and over who are living alone (%): Census, Calendar year 2011 | Private households that are owner-occupied (%): National Household Survey, Calendar year 2011 | Private households with 6 or more persons (%): Census, Calendar year 2011 | Private households with multiple families (%): Census, Calendar year 2011

Income

Median household total income (\$): National Household Survey, Calendar year 2011 | Median lone-parent family income (\$): National Household Survey, Calendar year 2011

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Data Sources

Income Inequality

Difference in median income comparing males and females aged 15 and over: National Household Survey, Calendar year 2011 | Households (owned) spending more than 30% of income on housing (%): National Household Survey, Fiscal year ending 2011 | Households (rented) spending more than 30% of income on housing (%): National Household Survey, Fiscal year ending 2011 | Low income in 2010 based on after-tax low income measure (%): National Household Survey, Calendar year 2011 | Low income in 2010 based on after-tax low-income measure, ages 18 to 64 years (%): National Household Survey, Calendar year 2011 | Low income in 2010 based on after-tax low-income measure, ages 65 years and over (%): National Household Survey, Calendar year 2011 | Low income in 2010 based on after-tax low-income measure, ages less than 6 years (%): National Household Survey, Calendar year 2011 | Low income in 2010 based on after-tax low-income measure, ages less than 18 years (%): National Household Survey, Calendar year 2011

Income Supports

Population aged 15 and over on Employment Insurance (%): BC Statistics, 4 quarter average as of Sept 2012 2012 | Population on Income Assistance (%): BC Statistics, September 2012

Morbidity

Alcohol-related hospitalizations (age-standardized rate per 100,000): CARBC, Fiscal year ending 2013 | Illicit drug-related hospitalizations (age-standardized rate per 100,000): CARBC, Fiscal year ending 2013 | Tobacco-related hospitalizations (age-standardized rate per 100,000): CARBC, Fiscal year ending 2013

Protecting children and youth

Children and Youth in Care (rate per 1,000 children aged 0 to 18): Ministry of Children and Family Development, Fiscal year ending 2014 | Children and Youth in Care (rate per 1,000 children aged 0 to 18): Ministry of Children and Family Development, Fiscal year ending 2015 | Children and Youth in Care (rate per 1,000 children aged 0 to 18): Ministry of Children and Family Development, Fiscal year ending 2016 | Children and Youth in Need of Protection (rate per 1,000 children aged 0 to 18): Ministry of Children and Family Development, End of August 2014

Transportation

Employed population aged 15 and over walking, biking or busing to work (%): National Household Survey, Calendar year 2011 | Median duration of commute to work among employed population aged 15 and over: National Household Survey, Calendar year 2011

Health Status

Births

Cesarean Sections (rate per 1,000 live births): Vital Statistics, Calendar year ending 2011-2015 | Infant Mortality - deaths of infants under 1 year of age (rate per 1,000 live births): Vital Statistics, Calendar year ending 2011-2015 | Live Birth Rate (rate per 1,000 population): Vital Statistics, Calendar year ending 2011-2015 | Low Weight Births - less than 2,500 grams (rate per 1,000 live births): Vital Statistics, Calendar year ending 2011-2015 | Mothers 35 and over - live births to mothers aged 35 and over (rate per 1,000 live births): Vital Statistics, Calendar year ending 2009-2013 | Mothers 35 and over - live births to mothers aged 35 and over (rate per 1,000 live births): Vital Statistics, Calendar year ending 2011-2015 | Mothers under 20 - live births to mothers under 20 years of age (rate per 1,000 live births): Vital Statistics, Calendar year ending



2011-2015 | Pre-term Births - gestational age less than 37 weeks (rate per 1,000 live births): Vital Statistics, Calendar year ending 2011-2015 | Stillbirths (rate per 1,000 births): Vital Statistics, Calendar year ending 2011-2015

Deaths

Alcohol-related deaths (age-standardized rate per 100,000): CARBC, Fiscal year ending 2013 | Illicit drug-related deaths (age-standardized rate per 100,000): CARBC, Fiscal year ending 2013 | Mortality (age standardized rate per 10,000): Vital Statistics, Calendar year ending 2011-2015 | Mortality due to unintentional injuries (age standardized rate per 10,000): Vital Statistics, Calendar year ending 2013 | Tobacco-related deaths (age-standardized rate per 100,000): CARBC, Fiscal year ending 2013

Deaths compared to BC

Accidental Falls (Standardized Mortality Ratio): Vital Statistics, Calendar year ending 2011-2015 | All Causes of Death (Standardized Mortality Ratio, Island Health: BC): Vital Statistics, Calendar year ending 2011-2015 | Cerebrovascular Disease (Standardized Mortality Ratio): Vital Statistics, Calendar year ending 2011-2015 | Chronic Lung Disease (Standardized Mortality Ratio): Vital Statistics, Calendar year ending 2011-2015 | Circulatory System (Standardized Mortality Ratio): Vital Statistics, Calendar year ending 2011-2015 | Diabetes (Standardized Mortality Ratio): Vital Statistics, Calendar year ending 2011-2015 | Lung Cancer (Standardized Mortality Ratio): Vital Statistics, Calendar year ending 2011 | Motor Vehicle Accidents (Standardized Mortality Ratio): Vital Statistics, Calendar year ending 2011-2015 | Pneumonia & Influenza (Standardized Mortality Ratio): Vital Statistics, Calendar year ending 2011-2015 | Potential Years of Life Lost (Standardized Mortality Ratio, Island Health: BC): Vital Statistics, Calendar year ending 2011-2015 | Respiratory System (Standardized Mortality Ratio): Vital Statistics, Calendar year ending 2011-2015 | Suicide (Standardized Mortality Ratio): Vital Statistics, Calendar year ending 2011-2015 | Suicide (Standardized Mortality Ratio): Vital Statistics, Calendar year ending 2011-2015 | Suicide (Standardized Mortality Ratio): Vital Statistics, Calendar year ending 2011-2015 | Suicide (Standardized Mortality Ratio): Vital Statistics, Calendar year ending 2011-2015 | Suicide (Standardized Mortality Ratio): Vital Statistics, Calendar year ending 2011-2015 | Suicide (Standardized Mortality Ratio): Vital Statistics, Calendar year ending 2011-2015

Health Matrix

Health Matrix: Non-Users (%): Blue Matrix and People, Fiscal year ending 2015 | Health Matrix: Cancer (%): Blue Matrix and People, Fiscal year ending 2015 | Health Matrix: Frail, Living in Community (%): Blue Matrix and People, Fiscal year ending 2015 |

Health Matrix: Frail, Living in Community with High Complex Chronic Conditions (%): Blue Matrix and People, Fiscal year ending 2015 | Health Matrix: Frail, Living in Residential Care (%): Blue Matrix and People, Fiscal year ending 2015 | Health Matrix: Healthy Population/Minor Episodic Health Needs (%): Blue Matrix and People, Fiscal year ending 2015 | Health Matrix: High Complex Chronic Conditions (%): Blue Matrix and People, Fiscal year ending 2015 | Health Matrix: Living in Community with Palliative Care Needs (%): Blue Matrix and People, Fiscal year ending 2015 | Health Matrix: Low Complex Chronic Conditions (%): Blue Matrix and People, Fiscal year ending 2015 | Health Matrix: Major or Significant Time-limited Health Needs (Child & Youth, %): Blue Matrix and People, Fiscal year ending 2015 | Health Matrix: Maternity & Healthy Newborns (%): Blue Matrix and People, Fiscal year ending 2015 | Health Matrix: Medium Complex Chronic Conditions (%): Blue Matrix and People, Fiscal year ending 2015 | Health Matrix: Medium Complex Chronic Conditions (%): Blue Matrix and People, Fiscal year ending 2015 | Health Matrix: Severe Mental Health & Substance Use (%): Blue Matrix and People, Fiscal year ending 2015 | Health Matrix: Severe Mental Health & Substance Use (%): Blue Matrix and People, Fiscal year ending 2015 | Health Matrix: Severe Mental Health & Substance Use (%): Blue Matrix and People, Fiscal year ending 2015



Life Expectancy

Female Life Expectancy: BC Statistics, Calendar Year Range 2011-2015 | Life Expectancy: BC Statistics, Calendar Year Range 2011-2015 | Male Life Expectancy: BC Statistics, Calendar Year Range 2011-2015

Morbidity

Alzheimer's Disease and Other Dementia - Prevalence (age-standardized rate per 1,000): MoH - Chronic Disease Registries, Fiscal year ending 2015 | Asthma - Prevalence (age standardized rate per 1,000): MoH - Chronic Disease Registries, Fiscal year ending 2015 | Chronic Kidney Disease - Prevalence (age standardized rate per 1,000): MoH - Chronic Disease Registries, Fiscal year ending 2015 | Chronic Obstructive Pulmonary Disease - Prevalence (age standardized rate per 1,000): MoH - Chronic Disease Registries, Fiscal year ending 2015 | Depression - Prevalence (age standardized rate per 1,000): MoH - Chronic Disease Registries, Fiscal year ending 2015 | Diabetes - Prevalence (age standardized rate per 1,000): MoH - Chronic Disease Registries, Fiscal year ending 2015 | Heart Failure - Prevalence (age standardized rate per 1,000): MoH - Chronic Disease Registries, Fiscal year ending 2015 | Hypertension - Prevalence (age standardized rate per 1,000): MoH - Chronic Disease Registries, Fiscal year ending 2015 | Ischemic Heart Disease - Prevalence (age standardized rate per 1,000): MoH - Chronic Disease Registries, Fiscal year ending 2015 | Mood and Anxiety Disorders - Prevalence (age standardized rate per 1,000): MoH - Chronic Disease Registries, Fiscal year ending 2015 | Osteoarthritis - Prevalence (age standardized rate per 1,000): MoH - Chronic Disease Registries, Fiscal year ending 2015 | Osteoarthritis - Prevalence (age standardized rate per 1,000): MoH - Chronic Disease Registries, Fiscal year ending 2015

Health Service Utilization

Complex Continuing Care

Home Care Clients (rate per 1,000 population aged 75 and over): Island Health - Ideas, Fiscal year ending 2016 | Home Care Clients (rate per 1,000 population): Island Health - Ideas, Fiscal year ending 2016 | Home Care Visits (rate per 1,000 population aged 75 and over): Island Health - Ideas, Fiscal year ending 2016 | Home Care Visits (rate per 1,000 population): Island Health - Ideas, Fiscal year ending 2016 | Home Support Clients (rate per 1,000 population aged 75 and over): Island Health - Ideas, Fiscal year ending 2016 | Home Support Hours (rate per 1,000 population aged 75 and over): Island Health - Ideas, Fiscal year ending 2016 | Home Support Hours (rate per 1,000 population): Island Health - Ideas, Fiscal year ending 2016 | Home Support Hours (rate per 1,000 population): Island Health - Ideas, Fiscal year ending 2016 | Residential Care Beds (rate per 1,000 population aged 75 and over): Island Health - Ideas, Fiscal year ending 2016 |

Emergency

Emergency Visits with CTAS of 1, 2 or 3 (%) for 75+ population: Island Health - Ideas, Fiscal year ending 2016 | Emergency Visits with CTAS of 1, 2 or 3 (%): Island Health - Ideas, Fiscal year ending 2016 | Unscheduled Emergency Department or Urgent Care Centre visits (rate per 1,000 population): Island Health - Ideas, Fiscal year ending 2016 | Unscheduled Emergency Department or Urgent Care Centre visits for 75+ (rate per 1,000 75+ population): Island Health - Ideas, Fiscal year ending 2016



Hospital Day Care

Acute Care Day Cases (age standardized rate per 1,000 population aged 75 and over): Ministry of Health Health Ideas, Fiscal year ending 2016 | Acute Care Day Cases (age standardized rate per 1,000 population): Ministry of Health Health Ideas, Fiscal year ending 2016

Hospital Inpatient Care

Acute Care Inpatient Cases (age standardized rate per 1,000 population aged 75 and over): Ministry of Health Health Ideas, Fiscal year ending 2016 | Acute Care Inpatient Cases (age standardized rate per 1,000 population): Ministry of Health Health Ideas, Fiscal year ending 2016 | Alternative Level of Care Cases (age standardized rate per 1,000 population aged 75 and over): Ministry of Health Health Ideas, Fiscal year ending 2016 Alternative Level of Care Cases (age standardized rate per 1,000 population): Ministry of Health Health Ideas, Fiscal year ending 2016 | Alternative Level of Care Days (age standardized rate per 1,000 population aged 75 and over): Ministry of Health Health Ideas, Fiscal year ending 2016 | Alternative Level of Care Days (age standardized rate per 1,000 population): Ministry of Health Health Ideas, Fiscal year ending 2016 | Ambulatory Care Sensitive conditions (%): Island Health - Ideas, Fiscal year ending 2017 | Ambulatory Care Sensitive conditions among population aged 75 and over (%): Island Health - Ideas, Fiscal year ending 2017 | Maternity Acute Care Utilization (case rate per 1,000 population): Ministry of Health Health Ideas, Fiscal year ending 2016 | Medical Acute Care Utilization (case rate per 1,000 population): Ministry of Health Health Ideas, Fiscal year ending 2016 | MRI Utilization - Island Health facilities only (rate per 1,000 population): Island Health, Fiscal year ending 2016 | Psychiatry (Dementia excluded) Acute Care Utilization (case rate per 1,000 population): Ministry of Health Health Ideas, Fiscal year ending 2016 Surgical Acute Care Utilization (case rate per 1,000 population): Ministry of Health Health Ideas, Fiscal year ending 2016

Primary Care

Population attached to physician at the practice level (%): Ministry of Health, Fiscal year ending 2014