

# Non-Medical Determinants of Health and Health Outcomes in Newfoundland and Labrador Compared to Canada

## Objective

To compare non-medical determinants of health, chronic disease, and mortality rates in Newfoundland and Labrador (NL) to those in the rest of Canada (CA).

## Practice Points

Prevalence of chronic disease, incidence of cancer, and life expectancy and mortality in NL are the worst in CA, and are strongly influenced by non-medical and social determinants of health (SDH), which are poor in NL.

## Methods

1. Data on non-medical determinants of health, prevalence of chronic disease, and mortality were obtained from Statistics Canada and the Canadian Institute for Health Information (CIHI). Data on cancer-specific incidence, survival and mortality were obtained from the Canadian Cancer Statistics 2021 report from the Canadian Cancer Society, which uses data provided by provincial cancer registries.
2. For each metric, NL was ranked in comparison to the other provinces with 1 as the best performance/outcome and 10 as the worst. In the tables, rank 1–3 is coloured green, rank 4–7 is yellow, and 8–10 is red, except where otherwise indicated due to missing data for some provinces. For measures with data missing for one province, yellow is rank 4–6 and red is 7–9. For the measure with data missing for two provinces, yellow is rank 4–5 and red is 6–8.

## Results

### Legend For Tables 1–5

NL Rank	1–3	4–7	8–10
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Table 1. Non-Medical and SDH, 2020

	CA (%)	NL (%)	NL Rank
<b>Healthy Eating</b>			
Fruit or vegetable consumption 5+ times per day	25.4	17.5	10
<b>Physical Activity</b>			
Adults (age 18+): 150 minutes per week	53.8	50.4	7
Youth (age 12–17): 60 minutes per week	42.9	46.9	4
<b>Alcohol Use</b>			
Heavy drinker	16.6	21.0	10
<b>Current Smoker</b>			
Daily or occasional	12.9	19.0	10
Daily	9.1	13.1	10
<b>Breastfeeding*</b>			
Initiation	91.9	64.3	10
Exclusive, at least 6 months	36.8	15.4	9**
<b>Employment</b>			
Unemployment rate <sup>#</sup>	7.5	12.9	10
<b>Income</b>			
Living on low income	6.4	7.0	6
<b>Education<sup>#</sup></b>			
Tertiary education	62	54	9
Bachelor's level or above	35	21	10
<b>Child Development<sup>##</sup></b>			
Children Vulnerable in Areas of Early Development	27.6	21.2	1
<b>Stress</b>			
Most days quite a bit or extremely stressful	20.4	13.0	1
<b>Belonging</b>			
Somewhat or very strong sense of belonging to local community	70.2	80.0	1
<b>Life Satisfaction</b>			
Satisfied or very satisfied	93.2	94.4	4

\* 2018 data

<sup>#</sup> 2021 data

\*\* Excludes PEI (9 = worst province)

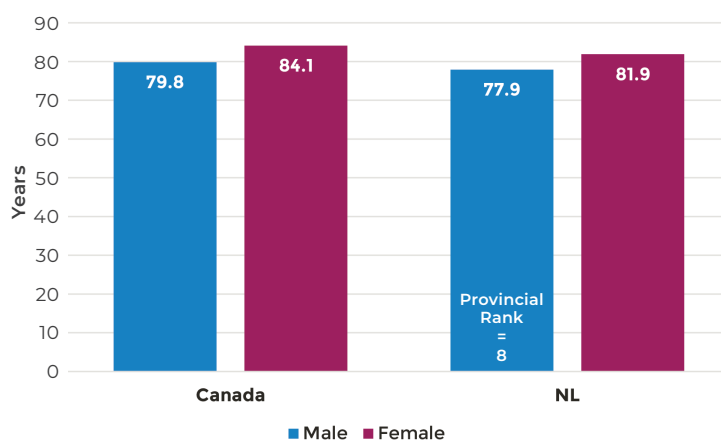
<sup>##</sup> NL data 2018–19 (school year); Canada based on the most recent available data from each province

**Table 2. Chronic Disease in CA and NL, 2020**

		CA	NL	NL Rank
<b>Arthritis</b>				
Prevalence (age 15+)		19.1%	27.7%	10
<b>Chronic lower respiratory diseases</b>				
Age standardized mortality rate per 100,000		25.8	35.3	9
<b>Asthma</b>	Prevalence (age 12+)	8.7%	9.1%	8
	Age standardized mortality rate per 100,000	0.7	0.8	3
<b>COPD</b>	Prevalence (age 35+)	3.9%	5.5%	7
<b>Diabetes</b>				
Prevalence (age 12+)		7.1%	11.4%	10
Age standardized mortality rate per 100,000		17.1	42.3	10
<b>End-stage kidney disease</b>				
Incidence per 100,000		20.8	17.8	4*
Prevalence per 100,000		141.6	166.4	7*
Age standardized mortality rate per 100,000		8.6	18.1	10
Hemodialysis rate per 100,000		49.5	108.7	8*
<b>Chronic liver disease and cirrhosis (excluding alcoholic liver disease)</b>				
Age standardized mortality rate per 100,000		4.4	9.1	10
Age standardized mortality rate per 100,000		191.3	225.4	10
<b>Major cardiovascular disease</b>				
<b>High blood pressure</b>	Prevalence (age 12+)	17.0%	23.9%	10
	Age standardized mortality rate per 100,000	4.2	11.3	10
<b>Heart failure</b>	Age standardized mortality rate per 100,000	12.6	14.6	6
<b>Heart attack</b>	Age standardized mortality rate per 100,000	27.4	27.3	6
	Hospitalizations per 100,000	219	289	9
<b>Stroke</b>	Hospitalizations per 100,000	136	163	9
<b>Cerebrovascular diseases</b>	Age standardized mortality rate per 100,000	30.2	42.7	10
<b>Obesity</b>				
Adult (18+), self-reported obese		28.2%	41.9%	10
Youth (12–17), self-reported overweight or obese		23.2%	26.3%	6

\* Excludes Quebec (9 = worst province)

- The prevalence and severity of chronic disease in NL generally ranks the worst in CA.



**Figure 1. Life Expectancy at Birth for Males and Females in CA and NL, 2018–2020**

**Table 3. Life Expectancy (in Years), Mortality (Rates per 100,000 Population), and Infant Mortality (Rate per 1,000 Live Births) in CA and NL, and Provincial Rank of NL**

		CA	NL	NL Rank
<b>Life expectancy (2018–2020)</b>	At birth (years)	81.2	79.9	9
	At age 65 (years)	20.9	19.16	10
<b>All causes mortality (2020)</b>	Crude rate	808.5	1,043.0	10
	Age-standardized rate	690.4	834.2	10
<b>Avoidable deaths (2016–2018)</b>	Overall	190	230	9
	From preventable causes	125	143	7
	From treatable causes	65	87	10
<b>Infant mortality</b>	Per 1,000 live births	4.5	5.0	7

- Life expectancy at age 65, overall mortality, and avoidable deaths from treatable causes in NL are the worst in CA.
- Infant mortality is higher in NL compared to CA. This reflects that the mortality rate specifically for infants aged under 1 day at time of death in NL is the highest among all provinces, while mortality rates for other ages of infants are on par with the rest of CA.

**Table 4. Age-Standardized Mortality Rates per 100,000 Population for CA and NL and Provincial Rank for NL for the Most Common Natural Causes of Death in CA, 2020**

	CA	NL	NL Rank
<b>Malignant neoplasms</b>	182.6	225.1	10
<b>Diseases of the heart</b>	118.3	158.1	10
<b>Dementia</b>	50.0	62.8	9
<b>COVID-19</b>	35.2	0.6	2
<b>Cerebrovascular diseases</b>	30.2	42.7	10
<b>Chronic lower respiratory diseases</b>	25.8	35.3	9
<b>Influenza and pneumonia</b>	12.9	13.3	9
<b>Diabetes mellitus</b>	17.1	42.3	10
<b>Alzheimer's disease</b>	12.3	6.7	4
<b>Nephritis, nephrotic syndrome, and nephrosis</b>	8.9	18.3	10

- Mortality rates in NL are among the highest in the country for the most common causes of death.
- The low mortality rate from COVID-19 reflects the success of public health measures implemented in NL in 2020.

**Table 5. Age Standardized Rates and Survival for the Six Most Common Cancers in CA, 2021**

	CA	NL	NL Rank	
<b>Lung and bronchus</b>				
Incidence rate/100,000*	Male	62.0	77.9	7
	Female	57.9	68.3	7
5-year survival (%)**		22	23	2
Mortality rate/100,000	Male	50.9	65.7	10
	Female	41.4	44.4	6
<b>Colorectal</b>				
Incidence rate/100,000*	Male	64.1	105.0	9
	Female	46.6	80.3	9
5-year survival (%)*		67	68	1
Mortality rate/100,000	Male	25.9	42.8	10
	Female	17.2	27.9	10

**Table 5 continued**

<b>Breast</b>				
Incidence rate/100,000*	Female	126.8	136.6	9
5-year survival (%)*	Female	89	89	2
Mortality rate/100,000	Female	23.1	25.3	9
<b>Prostate</b>				
Incidence rate/100,000*	Male	117.9	105.2	2
5-year survival (%)*	Male	91	91	2
Mortality rate/100,000	Male	22.7	27.8	6
<b>Non-Hodgkin lymphoma</b>				
Incidence rate/100,000*	Male	30.3	31.1	8
	Female	21.8	22.8	8
5-year survival (%)*		69	69	5
Mortality rate/100,000	Male	8.2	8.9	7
	Female	5.0	6.5	10
<b>Bladder</b>				
Incidence rate/100,000*	Male	41.4	39.4	3
	Female	11.3	13.8	9
5-year survival (%)*		77	82	1
Mortality rate/100,000	Male	9.6	10.2	6
	Female	2.8	2.8	8

\* Excludes Quebec (9 = worst province)

\*\* Excludes Quebec and PEI (8 = worst province)

- NL has among the highest age-standardized incidence and mortality rates for common cancers in comparison to other Canadian provinces.
- 5-year survival rates for common cancers in NL are among the best in the country, so the highest overall mortalities are driven by the higher incidence rates.

## Conclusions

1. NL ranks poorly in many non-medical and SDH, including health behaviours and economic conditions. Given the impact of these factors on health and chronic disease, there is potential for greater improvements in health outcomes and life expectancy in NL by addressing social services and health promotion rather than focusing solely on the health care system.
2. The cause of the high mortality rate for infants under 1 day old in NL should be investigated and potential improvements implemented.