

# Behavioural Determinants of Health, Ambulatory Care-Sensitive Conditions and Vascular Outcomes by Region in NL

## Objective

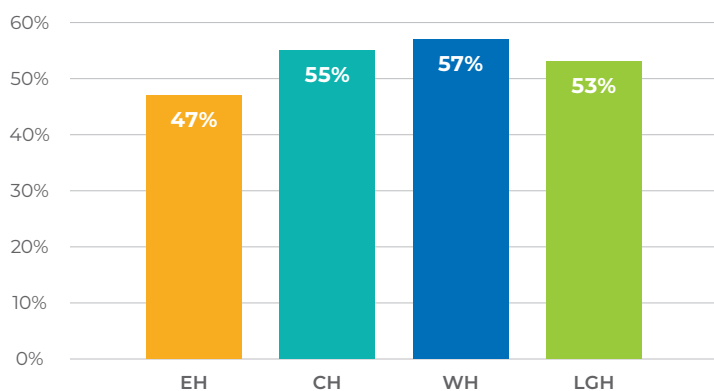
To compare personal behavioural determinants of health, ambulatory care-sensitive conditions and vascular outcomes by region in NL.

## Practice Points

- NL had the highest rate of personal behavioural determinants of health in Canada related to diet, obesity, smoking and alcohol use.
- Avoidable hospital admissions are a marker of effective primary care, and NL has among the worst rates for congestive heart failure, diabetes and asthma in Canada.
- NL has among the worst rates for heart disease and stroke mortalities in Canada, with the highest provincial in-hospital 30-day mortality rates for acute myocardial infarction and for stroke.

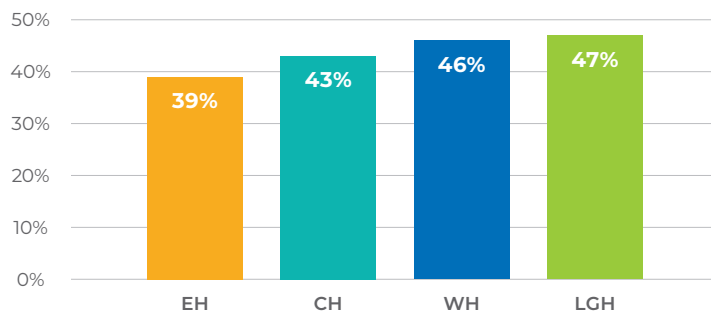
## Data

Aggregate rates of health indicators by region, collected for national registries, were obtained from Statistics Canada: Canadian Community Health Survey 2015–16 and from the Canadian Institute for Health Information (CIHI).



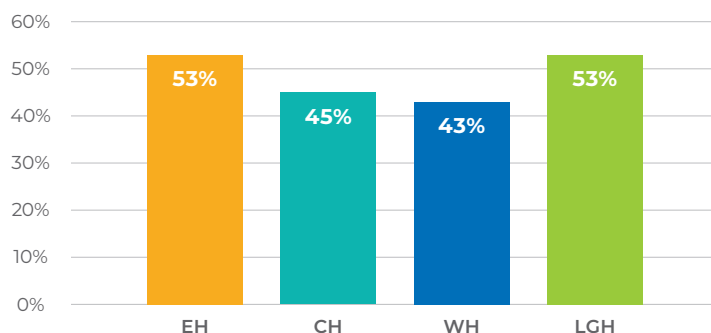
**Figure 1. Rates of Physical Activity Less Than 150 Minutes/Week by Region**

- 50% of people in NL have low levels of physical activity compared to 42% in Canada, with the highest rates being in Central Health (CH) and Western Health (WH).



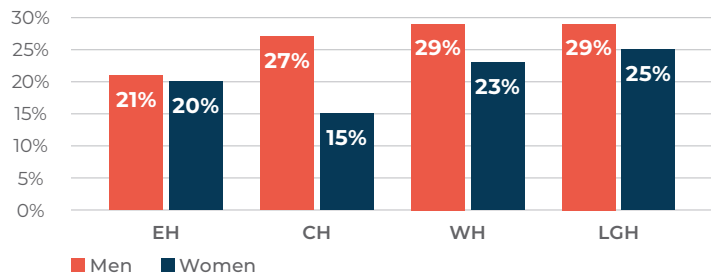
**Figure 2. Rates of Obesity by Region**

- 41% of people in NL are obese compared to 26% in Canada, with the highest rates in Labrador-Grenfell Health (LGH) and WH.



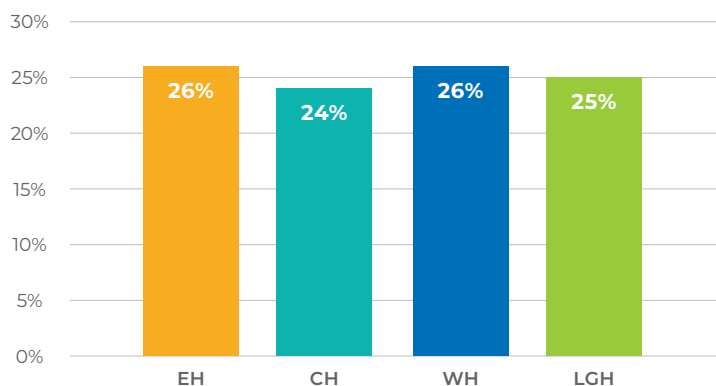
**Figure 3. Rates of Eating Fruits/Vegetables Six or More Times a Week by Region**

- 50% of people in NL eat fruits and vegetables frequently compared to 58% in Canada, with the lowest rates being in CH and WH.



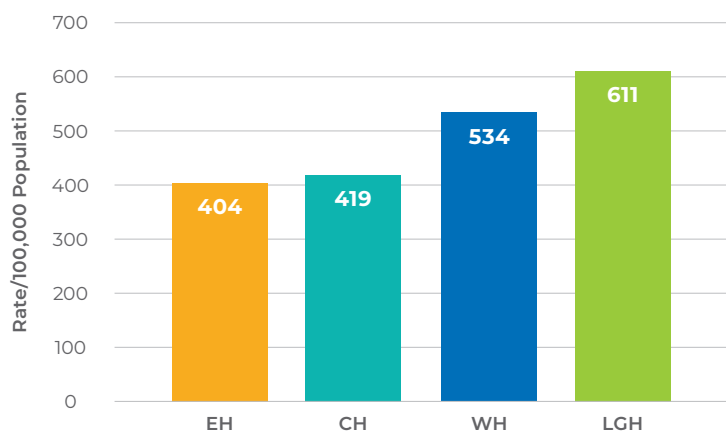
**Figure 4. Rates of Smoking in Men and Women by Region**

- In NL, smoking rates in men were 24% compared to 20% in Canada, with the highest rates being in WH and LGH.
- In women in NL, the rates (20%) were lower than in men but higher than in Canada (15%), with the highest rates being in WH and LGH.



**Figure 5. Rates of Heavy Drinking Among Adults by Region**

- In NL, the rate of heavy drinking was 26% compared to 19% in Canada, with similar rates across the four regions.

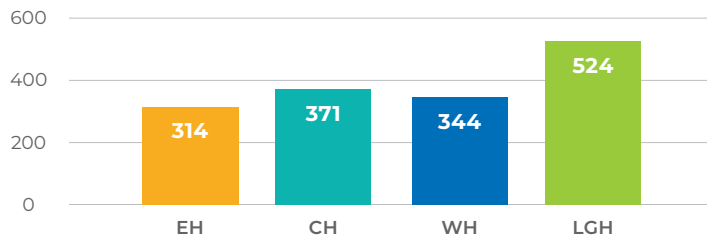


**Figure 6. Ambulatory Care-Sensitive Conditions per 100,000 Population<sup>#</sup> by Region**

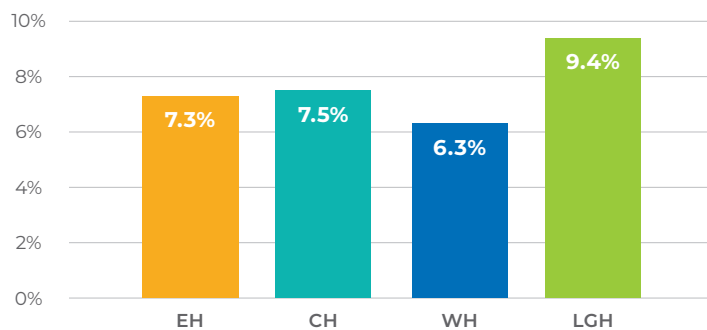
<sup>#</sup> Age-standardized acute care hospitalization rate for conditions where appropriate ambulatory care prevents or reduces the need for admission to hospital, per 100,000 population younger than age 75

- The rate for ambulatory care-sensitive conditions in NL was 35% higher than in Canada (443 vs. 327), with the highest rates in LGH and WH.

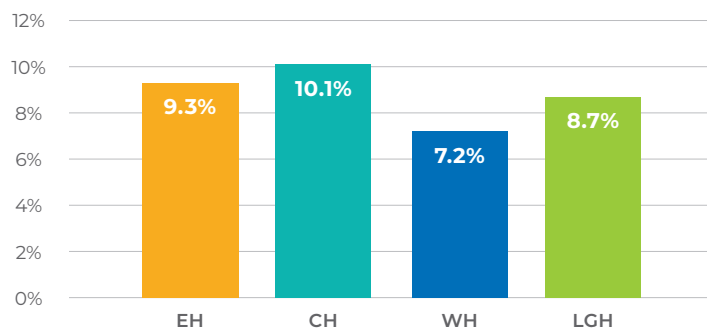
**Hospitalized AMI Rate/100,000**



**30-Day Mortality**



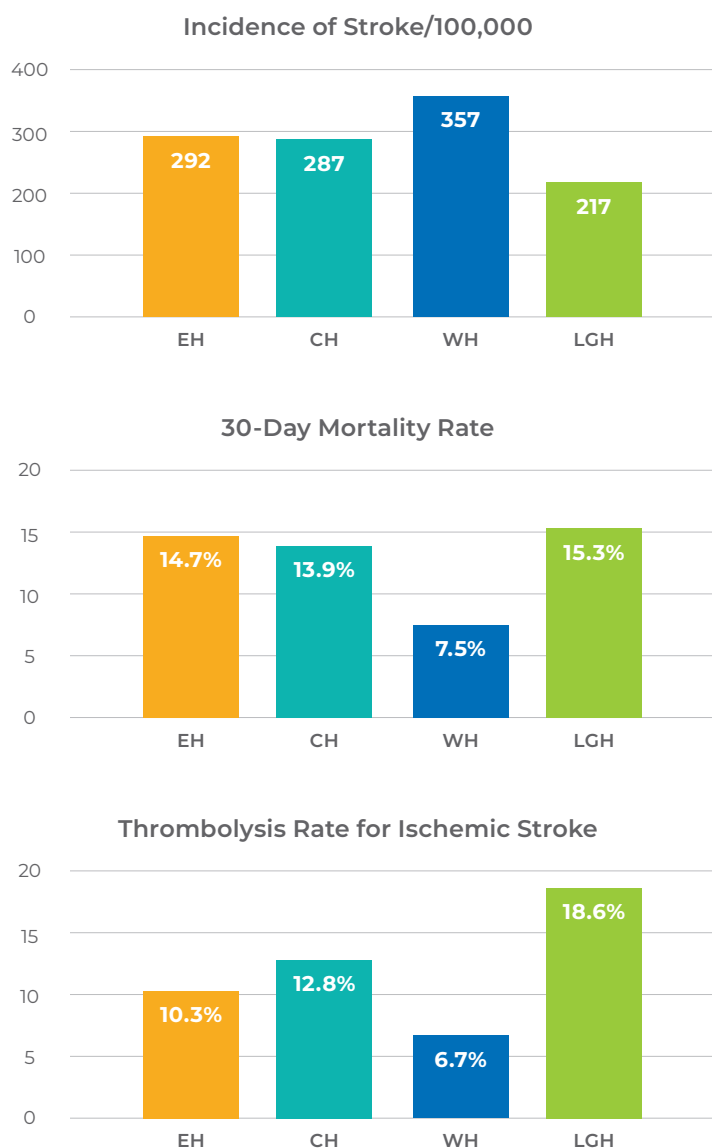
**30-Day Re-Admission**



**Figure 7. Rates of Annual Hospitalized Acute Myocardial Infarction/100,000 in Adults<sup>#</sup>, 30-Day Mortality, and 30-Day Re-Admission by Region**

<sup>#</sup> Age-standardized rate of new Acute Myocardial Infarctions (AMIs) admitted to an acute care hospital for patients aged 20 years and older per 100,000 population

- Annual hospitalization rate in NL was 41% higher than in Canada (343 vs. 243), with the highest rate in LGH.
- 30-day mortality was 22% higher in NL compared to Canada (7.3% vs. 6.0%).
- 30-day re-admission rate was lower than in Canada (9.2% vs. 10.1%).



**Figure 8. Annual Incidence of Hospitalization for Stroke<sup>#</sup>, 30-Day In-Hospital Stroke Mortality Rate, and Thrombolysis Rate for Ischemic Stroke by Region**

<sup>#</sup> The number of admissions for stroke per 100,000 population

- The provincial hospitalization rate/100,000 for stroke was 295 because 66 transfers were not included in the Regional Health Authority (RHA) rate.
- The 30-day in-hospital stroke mortality rate was 13.5% in NL compared to 12.6% in Canada, with a surprisingly low rate in WH.
- The thrombolysis rate for ischemic stroke was the worst in Canada (10.6% vs. 19%), with WH having a low rate of 6.7%.

## Conclusions

1. Personal behavioural determinants of health were high in all regions, particularly outside of EH.
2. Ambulatory care-sensitive conditions, a metric of good care in the community, was high in all regions, particularly in WH and LGH.
3. The incidence of AMIs was high in all regions, reflecting high rates of personal behavioural determinants of health, and the 30-day mortality was high in all regions, except WH, reflecting care in hospital.
4. The low thrombolysis rates for ischemic stroke in all regions except LGH, and the high 30-day in-hospital mortality rate suggest areas for improvement in quality of care.