

Utilization of CT Scanning by Body Part and by Regional Health Authority

Choosing Wisely Canada Recommendations

To view CT scan recommendations visit https://qualityofcarenl.ca/wp-content/uploads/2019/05/CT_Scan_CWC_Recommendations.pdf.

Practice Points

1. The benefits of CT scanning to diagnose a clinically important condition must be weighed against the dose of radiation and the consequent risk of cancer. The harms to benefits ratio should be of particular consideration in children and younger adults.
2. NL has the highest number of CT units/million population in Canada (28.7). The province with the next highest rate was New Brunswick, at 21.8.
3. In NL, the use of CT scanning had increased by 37% from 2008 to 2017.

Data

This was obtained from the NL Centre for Health Information (NLCHI) and analyzed by body part scanned and by Regional Health Authority (RHA).

Expression of CT use/1,000 population facilitates comparisons across RHAs. The populations in Eastern Health (EH), Central Health (CH), Western Health (WH), and Labrador-Grenfell Health (LGH) in 2020 were estimated to be 318,453; 91,846, 76,746; and 36,441, respectively.

Results

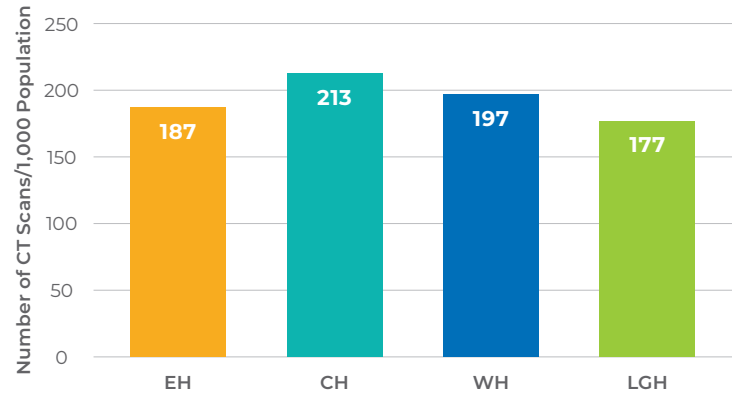


Figure 1. The Number of CT Scans/1,000 Population Analyzed by RHA in 2019

- The provincial annual rate of CT scans was 192/1,000 people in 2019 (N=100,725). This was compared to the Canadian rate of 143. Of the ten Canadian provinces, NL has the second highest rate after New Brunswick.
- The number of scans undertaken in EH was 59,562, CH 19,600, WH 15,095, and LGH 6,468.

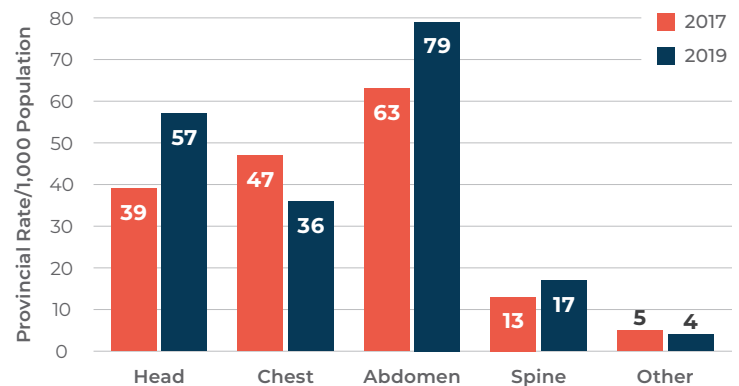


Figure 2. The Provincial Rate/1,000 Population of CT Scans Analyzed by Body Part in 2017 and in 2019

- During the past two years, the rate of head scans and of abdomen scans in particular increased.

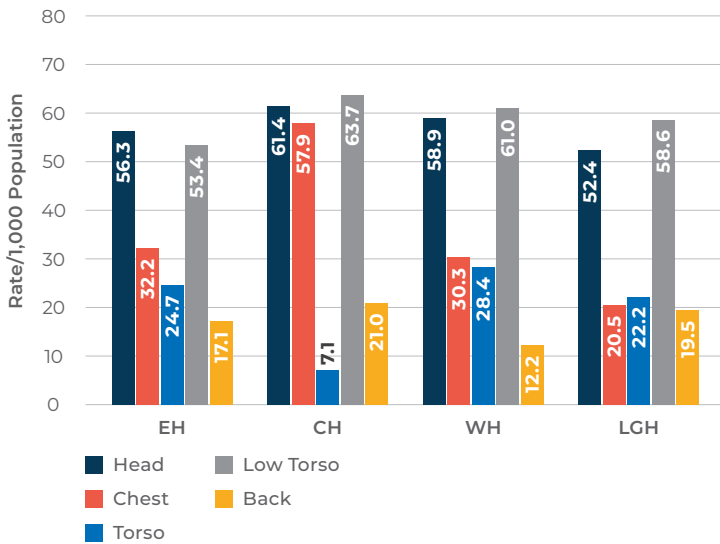


Figure 3. Comparison of Rates/1,000 Population of CT Scans by Body Part in Each RHA

- CH has the highest rates for CT head, chest, low torso, and back.

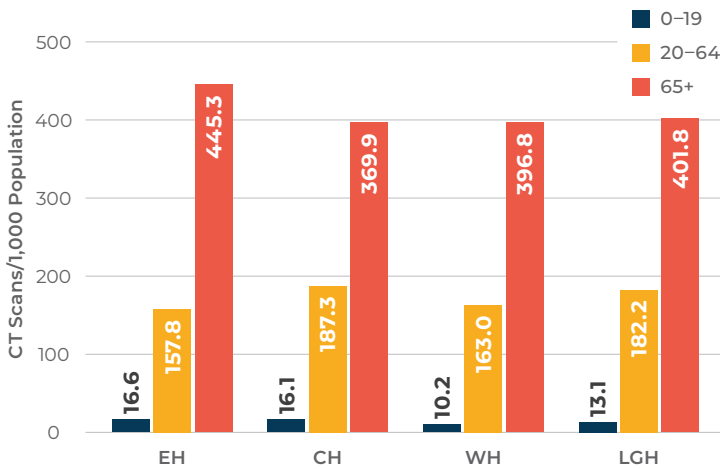


Figure 4. Rates of CT Scans/1,000 Population for Groups Aged 0-19 Years, 20-64 and 65 Years or Older Analyzed by RHA in 2019

- EH has the highest rate for those aged 0-19 and 65+, while CH has the highest for those aged 20-64.

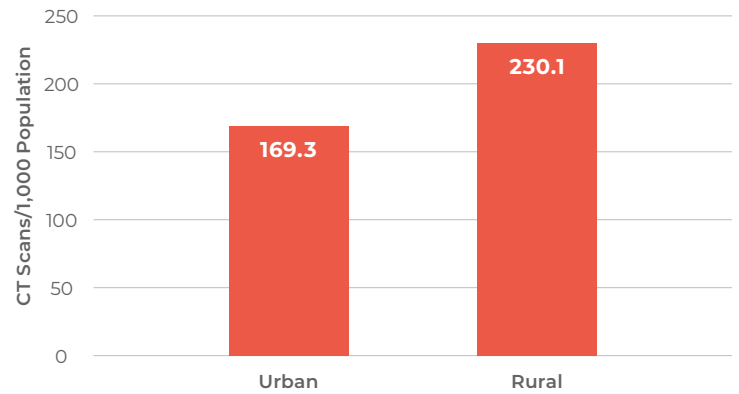


Figure 5. Rates of CT Scans/1,000 Population for Urban vs. Rural Groups in 2019

- The rate of CT scans in rural NL is 36% higher than in urban areas.

Conclusions

1. NL's rate of CT scans/1,000 population is 34% higher than the rate for Canada. The highest regional rate in the province is in CH.
2. The rate of CT scanning/1,000 population is highest in seniors and in rural NL.
3. Adherence to Choosing Wisely Canada recommendations should reduce the rates of CT scanning.