Restraint Use in Long-Term Care

Name	Restraint Use in Long-Term Care
Short/Other Names	Percentage of Residents in Daily Physical Restraints
Description	This indicator looks at how many long-term care residents are in daily physical restraints. Restraints are sometimes used to manage behaviours or to prevent falls. There are many potential physical and psychological risks associated with applying physical restraints to older adults, and such use raises concerns about safety and quality of care.
Interpretation	Lower is better. It means that a lower percentage of long-term care residents were in daily physical restraints.
HSP Framework Dimension	Health System Outputs: Appropriate and effective
Areas of Need	Living With Illness, Disability or Reduced Function
Geographic Coverage	Newfoundland and Labrador, New Brunswick, Nova Scotia, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia, Yukon
Reporting Level /Disaggregation	Province/Territory, Region, Facility, Corporation, Sector (residential and hospital-based continuing care)
Indicator Results	Accessing Indicator Results on Your Health System: In Depth

Identifying Information

Name	Restraint Use in Long-Term Care
Short/Other Names	Percentage of Residents in Daily Physical Restraints

Indicator Description and Calculation

Description	This indicator looks at how many long-term care residents are in daily physical restraints. Restraints are sometimes used to manage behaviours or to prevent falls. There are many potential physical and psychological risks associated with applying physical restraints to older adults, and such use raises concerns about safety and quality of care.
Calculation: Description	This indicator examines the percentage of residents in daily physical restraints. It is calculated by dividing the number of residents who were in daily physical restraints by the number of all residents (excluding comatose residents and those who are quadriplegic) with valid assessments within the applicable time period.

Unit of Analysis: Resident |
| Calculation: Geographic Assignment | Place of service |
| Calculation: Type of Measurement | Percentage or proportion |
| Calculation: Adjustment Applied | The following covariates are used in risk adjustment:
Individual Covariates: None

Facility-Level Stratification: Activities of Daily Living (ADLs) Long Form Scale |
| Calculation: Method of Adjustment | Stratification, Direct Standardization, Indirect Standardization
Standard Population:
3,000 facilities in 6 U.S. states and 92 residential care facilities and continuing care hospitals in Ontario and Nova Scotia |
| Denominator | **Description:**
Residents with valid assessments
Inclusions:
1. Residents with valid assessments. To be considered valid, the target assessment must

a. Be the latest assessment in the quarter

b. Be carried out more than 92 days after the Admission Date

c. Not be an Admission Full Assessment
Exclusions:
1. Residents who are comatose (B1 = 1) or quadriplegic (I1bb = 1) |

Numerator	**Description:** Residents who were physically restrained daily on their target assessment. For this indicator, restraints included – Trunk Restraint (P4c = 2) – Limb Restraint (P4d = 2) – Chair Prevents Rising (P4e = 2) **Inclusions:** 1. Residents with valid assessments. To be considered valid, the target assessment must a. Be the latest assessment in the quarter b. Be carried out more than 92 days after the Admission Date c. Not be an Admission Full Assessment **Exclusions:** 1. Residents who are comatose (B1 = 1) or quadriplegic (I1bb = 1)

Background, Interpretation and Benchmarks

Rationale	CCRS quality indicators were developed by interRAI (www.interrai.org), an international research network, to provide organizations with measures of quality across key domains, including physical and cognitive function, safety and quality of life. Each indicator is adjusted for resident characteristics that are related to the outcome and independent of quality of care. The indicators can be used by quality leaders to drive continuous improvement efforts. They are also used to communicate with key stakeholders through report cards and accountability agreements.
Interpretation	Lower is better. It means that a lower percentage of long-term care residents were in daily physical restraints.
HSP Framework Dimension	Health System Outputs: Appropriate and effective
Areas of Need	Living With Illness, Disability or Reduced Function
Targets /Benchmarks	CIHI: None Health Quality Ontario (external): 3% for long-term care
References	Canadian Institute for Health Information. *When a Nursing Home Is Home: How Do Canadian Nursing Homes Measure Up on Quality?* 2013. Health Quality Ontario. *Long-Term Care Benchmarking Resource Guide*. 2013. Health Quality Ontario. *Results From Health Quality Ontario's Benchmark Setting for Long-Term Care Indicators*. 2017. Health Quality Ontario. Health Quality Ontario Indicator Library. Accessed October 4, 2017. Hirdes JP, Mitchell L, Maxwell CJ, White N. Beyond the "iron lungs of gerontology": Using evidence to shape the future of nursing homes in Canada. *Canadian Journal on Aging*. 2011. Hirdes JP, Poss JW, Caldarelli H, et al. An evaluation of data quality in Canada's Continuing Care Reporting System (CCRS): Secondary analyses of Ontario data submitted between 1996 and 2011. *BMC Medical Informatics and Decision Making*. 2013. Jones RN, Hirdes JP, Poss JW, et al. Adjustment of nursing home quality indicators. *BMC Health Services Research*. 2010.

Availability of Data Sources and Results

Data Sources	CCRS
Available Data Years	**Type of Year:** Fiscal **First Available Year:** 2010 **Last Available Year:** 2018
Geographic Coverage	Newfoundland and Labrador, New Brunswick, Nova Scotia, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia, Yukon
Reporting Level /Disaggregation	Province/Territory, Region, Facility, Corporation, Sector (residential and hospital-based continuing care)

Result Updates

Update Frequency	Every year
Indicator Results	**Web Tool:** Your Health System: In Depth **URL:** Accessing Indicator Results on Your Health System: In Depth
Updates	Not applicable

Quality Statement

Users should be cautious when interpreting results from the Continuing Care Reporting System (CCRS) because the CCRS frame does not currently contain all facilities in all provinces and territories that make up the CCRS population of interest; thus the population covered by CCRS may not be representative of all continuing care facilities across Canada.

Caveats and Limitations

Coverage is incomplete in the following jurisdictions:

– Manitoba (includes all facilities in Winnipeg Regional Health Authority only)
– New Brunswick
– Nova Scotia

Trending Issues

Indicators are risk-adjusted to control for potential confounding factors.

Since 2003, the number of facilities and jurisdictions submitting to CCRS has been increasing. With the addition of new jurisdictions, it is possible that differences in care practices may impact indicator rates; however, changes to the underlying population would be controlled for using risk-adjustment. There is also evidence to suggest that trending and use of data from the entire time series is not an issue and that data quality is consistent over time (Hirdes et al., 2013).

Comments

The CCRS quality indicators use 4 rolling quarters of data for calculations in order to have a sufficient number of assessments for risk adjustment. Since residents are assessed on a quarterly basis, each resident can contribute to the indicator up to 4 times.

Data for this indicator is also available in the Quick Stats tool, which includes results for both the residential and hospital-based continuing care sectors: https://www.cihi.ca/en/quick-stats.