

# Worsened Depressive Mood in Long-Term Care

Name	Worsened Depressive Mood in Long-Term Care
Short/Other Names	Percentage of Residents Whose Mood From Symptoms of Depression Worsened
Description	This indicator looks at the number of long-term care residents whose mood from symptoms of depression worsened. Depression affects quality of life and may also contribute to deteriorations in activities of daily living (ADLs) and an increased sensitivity to pain.
Interpretation	Lower is better. It means that a lower percentage of residents had symptoms of depression that worsened.
HSP Framework Dimension	Health System Outcomes: Improve health status of Canadians
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	<a href="#">Accessing Indicator Results on Your Health System: In Depth</a>

## Identifying Information

Name	Worsened Depressive Mood in Long-Term Care
Short/Other Names	Percentage of Residents Whose Mood From Symptoms of Depression Worsened
Indicator Description and Calculation	

**Description** This indicator looks at the number of long-term care residents whose mood from symptoms of depression worsened. Depression affects quality of life and may also contribute to deteriorations in activities of daily living (ADLs) and an increased sensitivity to pain.

**Calculation: Description** This indicator examines the percentage of residents whose mood from symptoms of depression worsened. It is calculated by dividing the number of residents whose mood from symptoms of depression worsened by the number of all residents (excluding comatose residents) with valid assessments whose depression symptoms could worsen 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: Age younger than 65

Facility-level stratification: Case Mix Index (CMI)

Calculation: Stratification, direct standardization, indirect standardization

**Method of Adjustment** **Standard Population:**

3,000 facilities in 6 U.S. states and 92 residential care facilities and continuing care hospitals in Ontario and Nova Scotia

**Description:**

Residents with valid assessments

As this is an incidence indicator, the resident must also have had an assessment in the previous quarter, with 45 to 165 days between the target and prior assessments. If multiple assessments in the previous quarter meet the time period criteria, the latest assessment is selected as the prior assessment.

The DRS ranges from 0 to 14, with higher values indicating the resident has more numerous and/or frequent symptoms from the following list of data elements used to calculate it:

- Resident Makes Negative Statements (E1a)
- Persistent Anger With Self/Others (E1d)
- Expression of Unrealistic Fears (E1f)
- Repetitive Health Complaints (E1h)

**Denominator** – Repetitive Anxious Complaints/Concerns (E1i)

– Sad/Pained/Worried Facial Expressions (E1l)

– Crying/Tearfulness (E1m)

**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 whose depression symptoms could not worsen (had a maximum DRS score of 14 on prior assessment)
2. Residents who were comatose (B1 = 1)

**Description:**

Residents with a higher DRS score on their target assessment than on their prior assessment

As this is an incidence indicator, the resident must also have had an assessment in the previous quarter, with 45 to 165 days between the target and prior assessments. If multiple assessments in the previous quarter meet the time period criteria, the latest assessment is selected as the prior assessment.

**Inclusions:**

1. Residents with valid assessments. To be considered valid, the target assessment must

Numerator

- 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
2. Residents with a higher DRS score on their target assessment than on their prior assessment

**Exclusions:**

1. Residents who had a maximum DRS score (14) on their prior assessment
2. Residents who were comatose (B1 = 1)

Background, Interpretation and Benchmarks

Rationale	CCRS quality indicators were developed by interRAI ( <a href="http://www.interrai.org">www.interrai.org</a> ), 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 residents had symptoms of depression that worsened.
HSP Framework Dimension	Health System Outcomes: Improve health status of Canadians
Areas of Need	Living With Illness, Disability or Reduced Function CIHI: None
Targets/Benchmarks	Health Quality Ontario (external): 13% for long-term care Canadian Institute for Health Information. <i>CCRS Quality Indicators Risk Adjustment Methodology</i> . 2013.  Canadian Institute for Health Information. <i>When a Nursing Home Is Home: How Do Canadian Nursing Homes Measure Up on Quality?</i> 2013.  Health Quality Ontario. <i>Long-Term Care Benchmarking Resource Guide</i> . 2013.  Health Quality Ontario. <i>Results From Health Quality Ontario's Benchmark Setting for Long-Term Care Indicators</i> . 2017.
References	Health Quality Ontario. <i>Health Quality Ontario Indicator Library</i> . 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. <i>Canadian Journal on Aging</i> . 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. <i>BMC Medical Informatics and Decision Making</i> . 2013.  Jones RN, Hirdes JP, Poss JW, et al. Adjustment of nursing home quality indicators. <i>BMC Health Services Research</i> . 2010.
Availability of Data Sources and Results	
Data Sources	CCRS <b>Type of Year:</b> Fiscal
Available Data Years	<b>First Available Year:</b> 2010 <b>Last Available Year:</b> 2017
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

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

Trending Issues 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 affect 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).

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.

Comments 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/sites/default/files/document/ccrs-quick-stats-2016-2017-en.xlsx>.