

Percentage of long-term care home residents who developed a stage 2 to 4 pressure ulcer or had a pressure ulcer that worsened to a stage 2, 3 or 4

Alternate Name*

Percentage of long-term care home residents with new or worsening pressure ulcers

INDICATOR DESCRIPTION

Description*

This indicator measures the percentage of long-term care home residents who developed a stage 2 to 4 pressure ulcer or had a pressure ulcer that worsened to a stage 2, 3 or 4 since their previous resident assessment. The indicator is calculated as a rolling 4 quarter average. This indicator was jointly developed by interRAI and the Canadian Institute for Health Information (CIHI). A lower percentage is better.

Indicator Status*

Active

HQO Reporting tool/product

Public reporting

Quality Improvement Plans (QIPs)

Dimension*

Safe

Type*

Outcome

DEFINITION AND SOURCE INFORMATION

Unit of Measurement*

Percentage

Calculation Methods*

The indicator is calculated using 4 rolling quarters of data by summing the number of residents that meet the inclusion criteria for the target quarter and each of the previous 3 fiscal quarters. This is done for both the numerator and denominator. The unadjusted value is the quotient of the summed numerator divided by the summed denominator, multiplied by 100 to get the percentage.

Numerator including inclusion/exclusion*

Percentage of long-term care home residents who developed a stage 2 to 4 pressure ulcer or had a pressure ulcer that

<http://indicatorlibrary.hqontario.ca/Indicator/Detailed/Pressure-Ulcers-Among-Residents/EN>

Number of LTC home residents in a fiscal quarter who had a pressure ulcer at stage 2 to 4 on their target Resident Assessment Instrument - Minimum Data Set 2.0 (RAI-MDS) assessment and either they did not have a pressure ulcer on their previous assessment or the stage of pressure ulcer is greater on their target compared with their previous assessment

Inclusions:

$M2a > 1$ AND $(M2a - Prev_M2a) > 0$ AND $Prev_M2a < 4$

Where,

$M2a$ = Stage of pressure ulcer at target assessment [0-4]

$Prev_M2a$ = Stage of pressure ulcer at prior assessment [0-4]

Denominator including inclusion/exclusion*

Number of LTC residents in a fiscal quarter with 2 valid RAI-MDS assessments, excluding those who had a stage 4 pressure ulcer on their prior assessment (i.e., residents are only included if they did not have a pressure ulcer at the maximum stage on their previous assessment)

Inclusions:

LTC home residents with 2 valid resident assessments within consecutive quarters. The assessment selected as the "target" assessment in the current quarter must:

- Be the latest assessment in the quarter
- Be carried out more than 92 days after the admission date
- Not be an admission full assessment
- Be from a resident that had an assessment in the previous quarter
- Have 45 to 165 days between the target assessment and assessment in the previous quarter (note: If there are multiple assessments from the previous quarter that meet the time period criteria, the latest assessment is selected as the "prior" assessment)

Exclusions:

1. $Prev_M2a = 4$

Where,

$Prev_M2a$ = Stage of pressure ulcer at prior assessment [0-4]

Adjustment (risk, age/sex standardization)- detailed

This indicator can be risk adjusted at the individual covariate level and through direct standardization

Individual covariates:

- Age younger than 65 years
- Resource Utilization Group (RUG)
- Late Loss Activities of Daily Living (ADL)

Direct standardization:

- Case Mix Index (CMI)*

*The relative resource use compared to the overall average resource use for all Ontario LTC home residents

Data Source

Continuing Care Reporting System (CCRS)

Data provided to HQO by

Canadian Institute for Health Information (CIHI)

Reported Levels of comparability /stratifications (defined)

Province

Time

Institution

Rurality

Region

RESULT UPDATES

Indicator Results

[Click here to view Health Quality Ontario results for this indicator](#)

OTHER RELEVANT INFORMATION

Caveats and Limitations

Some anecdotal evidence that assessors may not remove bandages to assess ulcers or re-stage pressure ulcers as instructed in RAI-MDS manual. The indicator calculation is based on the stage of pressure ulcer for the pressure ulcer at the highest stage, so if a long-term care home resident develops a new pressure ulcer at a lower stage than a pressure ulcer that did not change stage since the last assessment, the new pressure ulcer would not be captured in the numerator for the calculation of this indicator. Includes only residents in long-stay beds. The indicator uses 4 rolling quarters of data to have a sufficient number of assessments for risk-adjustment and to stabilize the indicator results from quarter-to-quarter variations, especially for smaller facilities, but this methodology makes it more difficult to detect quarterly changes. Risk-adjusted values are censored if the denominator is less than 30. There are also general limitations when using RAI-MDS data, including random error, coding errors, and missing values. Results for fiscal year 2020/21 should be interpreted with caution as the COVID-19 pandemic may have affected data collection. In Ontario, some LTC facilities were unable to complete and/or submit assessments. As a result, CIHI received fewer assessments during the pandemic than in previous years. Additionally, some facilities experienced a decline in admissions. The impact of COVID-19 on the data received by CIHI varies by jurisdiction. Readers are encouraged to interpret results, including comparisons and trends over time, with caution.

Comments Detailed

This indicator includes residents who developed a new pressure ulcer (stage 2 to 4) and residents whose pressure ulcer worsened from their prior assessment. Pressure ulcers are coded for the highest stage in the last 7 days from 0 (no ulcer) to 4 (ulcer reaches muscle and bone). The unadjusted indicator result is an additional indicator in Quality Improvement Plans (QIPs). The reporting period for current performance in QIPs is Q2 (July - September), which represents the data in Q2 as well as the previous 3 quarters. This was a Quality Improvement Plan (QIP) additional indicator for 2018/19, however retired from 2019/20. Data are based on information from mandatory Resident Assessment Instrument - Minimum Data Set 2.0 (RAI-MDS) assessments. The RAI-MDS is a standardized assessment that is completed for each resident upon admission to LTC and quarterly thereafter by the resident's care team by reviewing the resident's medical records and speaking to the resident and their family. Health Quality Ontario used an evidence-informed process and expert panel, composed of Ontario-based long-term care home operators, clinicians and researchers, to produce Ontario benchmarks that represent good resident outcomes and high-quality care. The benchmark for this indicator was set at 1% by an expert panel through a modified Delphi process (2012 & 2015). Alongside public reporting performance indicators, benchmarks are an important tool for supporting long-term care homes and sector stakeholders in tracking progress, setting priorities or targets, and learning from homes that are excelling.

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TAGS

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Long Term Care
Outcome
Patient Safety and Never Events
Aging
Safe
Continuing Care Reporting System (CCRS)

PUBLISH

PUBLISH DATETIME*

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