

30 Day Unplanned Readmission Rate

Full data definition sign-off pending.

Name of Measure	Unplanned Acute Care Patient Readmissions Less Than or Equal To 30 Days
Name of Measure (short)	30 Day Unplanned Readmission Rate
Definition	<p>The 30 Day Unplanned All-cause Readmission Rate represents the proportion of occurrences of a non-elective (unplanned) admission to hospital for any cause within 30 days of a patient being discharged from the index hospital stay. Only initial visits where the patient is discharged are included: transfers, sign-outs, and deaths are excluded.</p> <p>Readmission percentage is calculated as the number of discharges with an unplanned readmission to any acute care hospital in Alberta within 30 days from an initial index discharge out of the total number of discharges within the report period.</p>
Domain	Health System Performance
Dimension	Effectiveness
Type of Measure	Outcome Measure
Category of Measure	Strategic
Business Context	Alberta Health Services Health Plan and Business Plan 2012-2015
Rationale	<p>Urgent or unplanned readmissions to acute care facilities following a discharge from an inpatient stay may be tracked to monitor quality of care provided as well as care coordination upon discharge. While not all readmissions will be avoidable, some reasons for readmission that may be manageable include quality of intervention and care during hospitalization, care transition to or coordination with community care, medication appropriateness upon discharge, patient compliance with post-discharge therapy or the availability of appropriate diagnostic or therapeutic technologies during the initial hospital stay. Although readmission may involve factors outside the direct control of the hospital, high rates of readmission act as a signal to hospitals to look more carefully at their practices, including discharge planning and continuity of services after discharge. This reflects the role of the hospital acute care service provider within the continuum of care for the patient. Interventions during and after hospitalization can be effective at reducing readmission rates and improving patient experience and hospitalization cost management. This measure can therefore be used to identify differences in all these aspects of quality of care and opportunities for improvement.</p>
Notes for Interpretation	<p>The measure applies only to inpatients of acute care hospitals in Alberta. Visits to facilities and programs not designated as acute inpatient care facilities are not included (e.g. Emergency Departments, Urgent Care Centres, Community Clinics).</p> <p>The unit of analysis is an inpatient encounter within a single acute inpatient facility. Discharges to transfer between acute inpatient facilities are excluded although the discharge from the final facility after transfers would be included. In this way, episodes of care are identified with the reported facility identified as the final discharging facility. See Technical Specifications.</p>
Organizational Strategy	<p>Look for opportunity to improve quality of intervention and care during hospitalization. Reducing readmission rate for stabilized conditions after hospital discharge through improved management within outpatient and community programs. Discharge planning and continuity of services after discharge.</p>

30 Day Unplanned Readmission Rate (continued)

Benchmark Comparisons	30-day all-cause readmission rates was 8.4% in Canada (CIHI, 2009/10)
Cited References:	<p>CIHI Discharge Abstract Database (DAD) manual.</p> <p>CIHI Readmission Technical Notes. http://www.cihi.ca/CIHI-ext-portal/pdf/internet/CHRP_TNCI_PDF_EN 2000 Health System Characteristics & 2010-2011 Health System Performance</p> <p>CIHI Indicators – Hospital Results http://www.cihi.ca/CIHI-ext-portal/internet/en/documentfull/health+system+performance/indicators/performance/indicator_ent</p> <p>CIHI Health Indicators (2011). Available at: https://secure.cihi.ca/free_products/health_indicators_2011_en.pdf</p>

30 Day Unplanned Readmission Rate (<i>continued</i>)	
Technical Specifications	
Metric	Percent
Preferred Display Format	99.99 %
Numerator	The number of cases within the denominator with a subsequent unplanned readmissions less than or equal to 30 days from the index discharge to the same or another acute care hospital in Alberta.
Inclusion Criteria for Numerator	<ol style="list-style-type: none"> 1. Residents of Alberta (rcpt_zone IN (1,2,3,4,5)) with valid Alberta PHN or ULI 2. Admission day of a subsequent discharge is less than or equal to 30 days of initial discharge date from an acute hospital. Includes cases such as: <ol style="list-style-type: none"> b) 29 days, 23 hours, and 59 min. is readmission within 30 days c) 30 days, 0 hours, and 0 min is readmission within 30 days d) 30 days, 0 hours, and 1 min. is NOT readmission within 30 days 3. Unplanned readmission (Admit Category = 'U' - Urgent/Emergent)
Exclusion Criteria for Numerator	<ol style="list-style-type: none"> 1. Records with an invalid or missing ULI number (e.g. a null or zero ULI, or a newborn with the same ULI as his/her mother.) 2. Non-Alberta Residents. 3. Records with invalid admission or discharge date/time (e.g. the initial admit and discharge dates overlap with another discharge's admit and discharge dates. The second discharge is excluded.) 4. Transfer from another acute hospital (level of care '0'=Acute Care or '8'=Ambulatory Care) 5. Transfers are also flagged in the table where: <ol style="list-style-type: none"> (i) Within AHS Zone: Admission to an acute care hospital occurs within 6 hours of discharge from another acute care hospital regardless of whether the transfer is coded by either institution. Admission to an acute care hospital occurs within 6-12 hours of discharge from another acute care hospital and at least one of the institutions has coded the transfer. (ii) Across AHS Zones: Admission to an acute care hospital occurs within 12 hours of discharge from another acute care hospital regardless of whether the transfer is coded by either institution. Admission to an acute care hospital occurs within 12-24 hours of discharge from another acute care hospital and at least one of the institutions has coded the transfer. 6. Index discharge disposition of sign-out (disposition = '06'), death (disposition = '07'), cadaver (disposition = '08'), stillbirth (disposition = '09') or patient did not return from pass (disposition = 12).
Data Source(s) for Numerator	Provincial Inpatient Database: AHSDRRX view ahsdata.ahs_ip_doctor_dx
Refresh Rate of Numerator	Quarterly

30 Day Unplanned Readmission Rate (<i>continued</i>)	
Denominator	The number of index discharges
Inclusion Criteria for Denominator	<ol style="list-style-type: none"> 1. Residents of Alberta (rcpt_zone IN (1,2,3,4,5)) 2. Discharges from acute care hospitals within the reporting period
Exclusion Criteria for Denominator	<ol style="list-style-type: none"> 1. Records with an invalid or missing ULI number (provanb). 2. Non-Alberta Residents. 3. Records with invalid admission or discharge date/time. 4. Transfer to another acute hospital (level of care '0'=Acute Care) 5. Sign Out (Discharge Disposition = '06') 6. Deaths (Discharge Disposition = '07') 7. Cadavers (Discharge Disposition = '08') 8. Stillbirths (Discharge Disposition = '09') 9. Patients who did not return from pass (Discharge Disposition = '12) <p>Transfers are defined as:</p> <p><u>Within AHS Zone:</u> Admission to an acute care hospital occurs within 6 hours of discharge from another acute care hospital regardless of whether the transfer is coded by either institution. Admission to an acute care hospital occurs within 6-12 hours of discharge from another acute care hospital and at least one of the institutions has coded the transfer.</p> <p><u>Across AHS Zones:</u> Admission to an acute care hospital occurs within 12 hours of discharge from another acute care hospital regardless of whether the transfer is coded by either institution. Admission to an acute care hospital occurs within 12-24 hours of discharge from another acute care hospital and at least one of the institutions has coded the transfer.</p>
Data Source(s) for Denominator	Provincial Inpatient (DAD) Abstract Data within AHS data repository, AHSDRR
Refresh Rate of Denominator	Quarterly
Technical Notes	<p>The methodology for the calculation of Readmissions within 30 days is based on IHI methodology with the additional exclusion of cases by discharge disposition of sign-out, death, cadaver, and stillbirth.</p> <p>http://www.ihl.org/IHI/Results/WhitePapers/WholeSystemMeasuresWhitePaper.htm</p> <p>CIHI definition and methodology for comparison can be found at: http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_age=indicators_definitions_health_system_e</p>
Calculation	Hospital Readmission Percentage = (Number of discharged patients readmitted to the hospital within 30 days of index discharge / Number of patients discharged) * 100
Relationship to Other Indicators	Length of Stay
Level of Reporting	Zone, Facility and Quarter
Frequency of Reporting	Quarterly

30 Day Unplanned Readmission Rate (*continued*)

Limitations

Data Reliability:

- 1) Since transfer is excluded from readmission and there are several non-standardized ways to determine whether a transfer has occurred, the readmission rates published elsewhere could differ.
- 2) Since there is not a standard method to identify unplanned admissions (e.g. admissions through emergency amulatory care), readmission rates published elsewhere may differ.

Usability:

This indicator is NOT to provide “absolute” readmission rate due to complications raised from previous discharges because it may be difficult to accurately link the diagnosis of a readmission to that of the index discharge. This indicator is only to provide a general trend of unplanned readmission within 30 days for all causes including related complications, non-related instances, accidents, etc.

Validity:

Possible sources of error:

- 1) Since the abstract health record data are available only after the patient is discharged, some patients readmitted within 30 days could potentially be still in acute hospitals and not counted as part of the numerator.
- 2) There is no standardized way to identify transfers between acute sites. Possible options are:
 - a. Use “transfer to” and “transfer from” fields to determine transfer. Since these fields are optional, potentially the fields might not be filled out consistently.
 - b. Use admission time of current admission comparing to discharge time of previous admission between two different acute sites. The cut-off time between readmission and transfer is based on educated estimation.
- 3) Unplanned admission is defined as admit category = 'U' which is urgent/emergent admission. The data accuracy is highly dependent on the accuracy of this field.

Timeliness:

- 1) Information is available once data from the Discharge Abstract Database (DAD) is collected by all facilities in the province and loaded into the provincial database. There could be a significant lag time (about 4-5 months in Q2 2009-10).
- 2) Readmission rates are attributed to the quarter in which a patient is originally discharged from an acute hospital. This requires that patients be tracked for 30 days after the end of the quarter to allow sufficient time from the date of initial discharge to determine whether a readmission will occur. Readmission rate reporting always lags by a quarter for this reason.

30 Day Unplanned Readmission Rate *(continued)*

Document Version History

Version	Version Date	Summary of Changes
1.3	October 28, 2009	Initial draft.
1.4	January 30, 2012	Draft received.
1.5	January 30, 2012	Transfer draft to PMD template v3.7.
1.6	June 28, 2012	Content and formatting revisions
1.7	July 4, 2012	Revise content and formatting.
1.8	October 22, 2012	Content and AHS Signoff revisions
1.9	October 31, 2012	Correction of Domain, moved Dimension into separate field, added Category of Measure field, correction/detail to third Cited Reference. Correction to Level of Reporting (removed "Quarter" as this falls under Frequency of Reporting). AH Contact and Signatories added.
2.0	November 6, 2012	Additional Cited Reference and questions/comments included re: content.
2.1	November 14, 2012	Content revisions
2.2	November 15, 2012	Content revisions mainly in Rationale, Notes for Interpretation, Organizational Strategy sections.
2.3	November 16, 2012	Content review and formatting.