30-Day Readmission for Mental Illness

Name: 30-Day Readmission for Mental Illness
Short/Other Names: Not applicable

Description:
The indicator measures the risk-adjusted rate of readmission following discharge for a mental illness.*

Note:
*The mental illnesses selected for this indicator are substance-related disorders; schizophrenia, delusional and non-organic psychotic disorders; mood/affective disorders; anxiety disorders; and selected disorders of adult personality and behaviour.

For further details, please see the General Methodology Notes.

Interpretation:
Lower rates are desirable.

HSP Framework Dimension:
Health System Outputs: Person-centred

Areas of Need:
Living With Illness, Disability or Reduced Function

Geographic Coverage:
All provinces/territories

Reporting Level/Disaggregation:
National, Province/Territory, Region, Neighbourhood Income Quintile

Indicator Results:
http://yourhealthsystem.cihi.ca/epub/?language=en

Identifying Information
Name: 30-Day Readmission for Mental Illness
Short/Other Names: Not applicable
Indicator Description and Calculation

Description:
The indicator measures the risk-adjusted rate of readmission following discharge for a mental illness.*

Note:
*The mental illnesses selected for this indicator are substance-related disorders; schizophrenia, delusional and non-organic psychotic disorders; mood/affective disorders; anxiety disorders; and selected disorders of adult personality and behaviour.

For further details, please see the General Methodology Notes.

Calculation: Description
An episode of care refers to all contiguous inpatient hospitalizations in general hospitals (excluding free-standing psychiatric facilities) and all day surgery visits regardless of diagnoses. To construct an episode of care, a transfer is assumed to have occurred if the following condition is met:

– Admission to a general hospital/day surgery facility occurs on the same day as discharge from another general hospital

Calculation: Geographic Assignment
Place of residence

Calculation: Type of Measurement
Rate - per 100

Calculation: Adjustment Applied
The following covariates are used in risk adjustment:
For a detailed list of covariates used in the model, please refer to the Model Specification document.

Calculation: Method of Adjustment
Logistic regression

Description:
Number of episodes of care for selected mental illness discharged between April 1 and March 1 of the fiscal year

Inclusions:
1. A selected mental illness is coded as the most responsible diagnosis (MRDx)

2. Diagnosis codes for selected mental illness:
   a. Substance-related disorders: ICD-10-CA: F55, F10 to F19; DSM-IV: 291.x (0, 1, 2, 3, 5, 81, 89, 9), 292.0, 292.11, 292.12, 292.81, 292.82, 292.83, 292.84, 292.89, 292.9, 303.xx (00, 90), 304.xx (00, 10, 20, 30, 40, 50, 60, 80, 90), 305.xx (00, 10 to 90
exceeding 80); Provisional diagnosis: (d) substance-related disorder; or

b. Schizophrenia, delusional and non-organic psychotic disorders: ICD-10-CA: F20 (excluding F20.4), F22, F23, F24, F25, F28, F29, F53.1; DSM-IV: 295.xx (10, 20, 30, 40, 60, 70, 80, 90), 297.1, 297.3, 298.8, 298.9; Provisional diagnosis: (e) schizophrenia disorder; or

c. Mood/affective disorders: ICD-10-CA: F30, F31, F32, F33, F34, F38, F39, F53.0; DSM-IV: 296.0x, 296.2x, 296.3x, 296.4x, 296.5x, 296.6x, 296.7, 296.80, 296.89, 296.90, 300.4, 301.13; Provisional diagnosis: (f) mood disorders; or

d. Anxiety disorders: ICD-10-CA: F40, F41, F42, F43, F48.8, F48.9, F93.8; DSM-IV: 300.xx (00, 01, 02, 21, 22, 23, 29), 300.3, 308.3, 309.x (0, 3, 4, 9), 309.24, 309.28, 309.81; Provisional diagnosis: (g) anxiety disorders or (os) adjustment disorders; or

e. Selected disorders of adult personality and behaviour: ICD-10-CA: F60, F61, F62, F68, F69, F21; DSM-IV: 301.0, 300.16, 300.19, 301.20, 301.22, 301.4, 301.50, 301.6, 301.7, 301.81, 301.82, 301.83, 301.9; Provisional diagnosis: (p) personality disorders.

3. Discharges between April 1 and March 1 of the following year (period of case selection ends on March 1 to allow for 30 days of follow-up)

4. Age at admission is 15 years or older

5. Sex recorded as male or female

6. Admission to a general hospital (Facility Type Code = 1)

**Exclusions:**

1. Records with an invalid health card number

2. Records with an invalid code for province issuing health card number

3. Records with an invalid admission date

4. Records with an invalid discharge date

5. Discharges as deaths (Discharge Disposition Code = 07 for DAD/NACRS records; Discharge Reason Code = 2 or 3 for OMHRS)

6. Cadaveric donor or stillbirth records (Admission Category Code = R or S)

7. Records that are dead on arrival (Discharge Disposition = 11 for NACRS)

**Description:**

Cases within the denominator with a readmission for specific mental illness within 30 days of discharge after the index episode of care

**Inclusions:**

1. An episode of care is considered a readmission if the two following conditions are met:

   a. It has occurred within 30 days of discharge of an index episode; and

   b. A diagnosis of mental illness was recorded as the most responsible diagnosis (see Denominator for criteria to select diagnosis).

**Background, Interpretation and Benchmarks**

**Rationale**

Readmission to inpatient care may be an indicator of relapse or complications after an inpatient stay. Inpatient care for a person living with a mental illness aims to stabilize acute symptoms. Once stabilized, the individual is discharged, and subsequent care and support are ideally provided through outpatient and community programs in order to prevent relapse or complications. High rates of 30-day readmission could be interpreted as a direct outcome of poor coordination of services and/or an indirect outcome of poor continuity of services after discharge.

**Interpretation**

Lower rates are desirable.

**HSP Framework**

Health System Outputs: Person-centred

**Areas of Need**

Living With Illness, Disability or Reduced Function

**Targets/Benchmarks**

Not applicable


**Availability of Data Sources and Results**

**Data Sources**

DAD, HMDB, NACRS, OMHRS

**Type of Year:**

Fiscal
Available Data Years

First Available Year: 2009
Last Available Year: 2015

Geographic Coverage
All provinces/territories

Reporting Level/Disaggregation
National, Province/Territory, Region, Neighbourhood Income Quintile

Result Updates
Update Frequency Every year

Indicator Results
Web Tool: Health Indicators E-publication
URL: http://yourhealthsystem.cihi.ca/epub/?language=en
Updates Not applicable

Quality Statement

Caveats When building episodes of care, the exclusion of psychiatric hospitals might introduce a bias. It is possible that the wrong discharge date might be used to track readmissions, or that two hospitalizations that belong to the same episode might be erroneously attributed to two different episodes. Further analyses demonstrated that this bias is minimal and does not affect the indicator results.

Trending Issues Not applicable

A 30-day readmission can occur in the same facility as the index episode or in a different facility. A readmission can be a planned or unplanned admission. Planned versus unplanned admissions cannot be distinguished in all available data sources. For jurisdictions where comprehensive information was available, rates including both planned and unplanned readmissions and only unplanned readmissions were compared, and they were not statistically significantly different. Published work has shown that few planned readmissions for mental illness within 30 days are scheduled by practitioners.