

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 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
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

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

Description Note
For further details, please see the [General Methodology Notes](#).
Risk-adjusted rate for each region = Observed number of readmissions in each region ÷ Expected number of readmissions in the region × Canadian average readmission rate

Unit of Analysis: Episode of care

Calculation: Description
An episode of care refers to all contiguous inpatient hospitalizations in general and psychiatric hospitals 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/psychiatric hospital or day surgery facility occurs on the same day as discharge from another general/psychiatric hospital or day surgery facility

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 a mental illness discharged between April 1 and March 1 of the fiscal year

Inclusions:

1. A mental illness is identified by DSM-IV/DSM-5 diagnostic category in Ontario Mental Health Reporting System (OMHRS) data or by the most responsible diagnosis (MRDx) ICD-10-CA codes in Discharge Abstract Database (DAD)/Hospital Morbidity Database (HMDB) data

2. Diagnosis codes for mental illness:

i. Substance-related and addictive disorders: ICD-10-CA: F10–F19, F55, F63.0; DSM-IV diagnostic category: (d) substance-related disorders; DSM-5 diagnostic category: (p) substance-related and addictive disorders

ii. Schizophrenia and other psychotic disorders: ICD-10-CA: F20, F21, F22, F23, F24, F25, F28, F29; DSM-IV diagnostic category: (e) schizophrenia and other psychotic disorders; DSM-5 diagnostic category: (b) schizophrenia spectrum and other psychotic disorders

iii. Mood disorders: ICD-10-CA: F30, F31, F32, F33, F34, F38, F39, F53.0, F53.1; DSM-IV diagnostic category: (f) mood disorders; DSM-5 diagnostic category: (c) bipolar and related disorders or (d) depressive disorders

iv. Anxiety disorders: ICD-10-CA: F40, F41, F93.0, F93.1, F93.2, F94.0; DSM-IV diagnostic category: (g) anxiety disorders; DSM-5 diagnostic category: (e) anxiety disorders

v. Selected disorders of personality and behaviour: ICD-10-CA: F60, F61, F62, F68 (excluding F68.1), F69; DSM-IV diagnostic category: (p) personality disorders; DSM-5 diagnostic category: (r) personality disorders

vi. Other disorders

ICD-10-CA

F42, F43, F44, F45, F48.0, F48.1, F48.8, F48.9, F50, F51, F52, F53.8, F53.9, F54, F59, F63 (excluding F63.0), F64, F65, F66, F68.1, F70–F73, F78, F79, F80–F84, F88, F89, F90, F91, F92, F93.3, F93.8, F93.9, F94.1, F94.2, F94.8, F94.9, F95, F98.0, F98.1, F98.2, F98.3, F98.4, F98.5, F98.8, F98.9, F99, O99.3

DSM-IV diagnostic category

- (a) Disorders of childhood/adolescence
- (c) Mental disorder due to medical conditions
- (h) Somatoform disorders
- (i) Factitious disorders
- (j) Dissociative disorders
- (k) Sexual and gender identity disorders
- (l) Eating disorder
- (m) Sleep disorder
- (n) Impulse-control disorders
- (o) Adjustment disorders

Denominator

DSM-5 diagnostic category

- (a) Neurodevelopmental disorders
- (f) Obsessive-compulsive and related disorders
- (g) Trauma- and stressor-related disorders
- (h) Dissociative disorders
- (i) Somatic symptom and related disorders
- (j) Feeding and eating disorders
- (k) Elimination disorders
- (l) Sleep-wake disorders
- (m) Sexual dysfunctions
- (n) Gender dysphoria
- (o) Disruptive, impulse-control and conduct disorders
- (s) Paraphilic disorders
- (t) Other mental 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. Sex recorded as male or female

5. Admission to a general or psychiatric hospital (Facility Type Code = 1, 5)

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 OMHS)
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 a 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 mental illness was identified the same way as for the denominator (see Denominator for criteria to select diagnosis).

Numerator

Background, Interpretation and Benchmarks

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

Rationale	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 Dimension	Health System Outputs: Person-centred
Areas of Need	Living With Illness, Disability or Reduced Function
Targets/Benchmarks	Not applicable Canadian Institute for Health Information. <i>Hospital Mental Health Services in Canada 2005-2006</i> . 2008. Hermann R, Mattke S. <i>Selecting Indicators for the Quality of Mental Health Care at the Health System Level in OECD Countries</i> . 2004.
References	Leslie DL, Rosenheck RA. <i>Comparing Quality of Mental Health Care for Public-Sector and Privately Insured Populations. Psychiatric Services</i> . 2000. Lin E, Durbin J, Zaslavska M, et al. <i>Hospital Report 2007: Mental Health</i> . 2008.
Availability of Data Sources and Results	
Data Sources	DAD, HMDB, NACRS, OMHRS Type of Year: Fiscal
Available Data Years	First Available Year: 2014 Last Available Year: 2017
Geographic Coverage	All provinces/territories
Reporting Level/Disaggregation	National, Province/Territory, Region
Result Updates	
Update Frequency	Every year
Indicator Results	Web Tool: Health Indicators e-Publication URL: http://yourhealthsystem.cih.ca/epub/?language=en
Updates	Not applicable
Quality Statement	
Caveats	
and	Not applicable
Limitations	
Trending Issues	The <i>Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition</i> (DSM-5) was implemented in the Ontario Mental Health Reporting System as of 2016-2017. Prior to 2016-2017, the fourth edition (DSM-IV-TR) was used. Due to the fact that the DSM-IV-TR and DSM-5 diagnostic categories are not fully comparable, there may be some shift in the distribution of cases across categories. Therefore, trending of 2015-2016 and 2016-2017 rates for Ontario may potentially be affected.
Comments	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.