# Repeat Hospital Stays for Mental Illness

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| Name | Repeat Hospital Stays for Mental Illness |
| Short/Other Names | Patients With Repeat Hospitalizations for Mental Illness |
| Description | Risk-adjusted percentage of individuals who had three or more episodes of care for a mental illness among all those who had at least one episode of care for a mental illness in general or psychiatric hospitals within a given year.<br><br>Note<br>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 | Accessing Indicator Results on Your Health System: In Depth |

Identifying Information

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| Name | Repeat Hospital Stays for Mental Illness |
| Short/Other Names | Patients With Repeat Hospitalizations for Mental Illness |

Indicator Description and Calculation

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| Description | Risk-adjusted percentage of individuals who had three or more episodes of care for a mental illness among all those who had at least one episode of care for a mental illness in general or psychiatric hospitals within a given year.<br><br>Note<br>For further details, please see the General Methodology Notes. |
| Calculation: Description | (Total number of individuals who had at least three episodes of care for a mental illness in a one-year period ÷ Total number of individuals who had at least one episode of care for a mental illness in a one-year period) × 100<br><br>The risk-adjusted percentage for each region was calculated by dividing the observed number of repeat hospitalizations in each region by the expected number of repeat hospitalizations in the region and multiplying by the Canadian average repeat hospitalizations percentage.<br><br>Unit of Analysis : Episode of care<br><br>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:<br><br>• 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 | Percentage or proportion |
| Calculation: Adjustment Applied | The following covariates are used in risk adjustment:<br>For a detailed list of covariates used in the model, please refer to the Model Specification document. |
| Calculation: Method of Adjustment | Logistic regression |

**Description:**
Total number of individuals who had at least one episode of care for a mental illness in a one-year period. The most recent episode of care in a fiscal year is the index episode of care.
**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

**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. Sex recorded as male or female

4. 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

Denominator

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)

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| Numerator | **Description:**<br>Total number of individuals in the denominator who had at least three episodes of care for a mental illness in a one-year period. Each individual has a 12-month look-back period prior to his or her most recent episode of care in a given year. Therefore, data for two fiscal years is necessary to obtain the data for the numerator.<br><br>An episode of care for a mental illness is identified using the same inclusion and exclusion criteria as for the denominator. |
| Background, Interpretation and Benchmarks | |
| | This indicator is considered an indirect measure of appropriateness of care, since the need for repeat admissions to hospital depends on the person and the type of illness.<br><br>Challenges in getting appropriate care/support in the community and /or the appropriate medication often lead to repeat hospitalizations. |
| Rationale | Variations in this indicator across jurisdictions may reflect differences in the services that help individuals with mental illness remain in the community for a longer period of time without the need for hospitalization.<br><br>Understanding this population can aid in developing/enhancing programs that may prevent the need for repeat hospitalizations. |
| 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 |
| References | Lin E, Durbin J, Zaslavska N, et al. *Hospital Report 2007: Mental Health*. 2008. |
| Availability of Data Sources and Results | |
| Data Sources | DAD, HMDB, NACRS, OMHRS |
| Available Data Years | **Type of Year:**<br>Fiscal<br>**First Available Year:**<br>2014<br>**Last Available Year:**<br>2017 |
| 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:**<br>Your Health System: In Depth<br>**URL:**<br>Accessing Indicator Results on Your Health System: In Depth |
| Updates | Not applicable |
| Quality Statement | |
| Caveats and Limitations | Not applicable |
| Trending Issues | The *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (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. |

Indicator results are also available in

Comments

- The Health Indicators e-Publication (http://yourhealthsystem.cihi.ca/epub/?language=en); updated annually starting from 2008–2009

- Your Health System: In Brief (http://yourhealthsystem.cihi.ca/inbrief/?lang=en#!/indicators/007/repeat-hospital-stays-for-mental-illness)