Health Quality Ontario

The provincial advisor on the quality of health care in Ontario

Indicator Technical Specifications for the Quality Standard *Major Depression: Care for Adults and Adolescents*

Technical Appendix

October 14, 2016

Ontario
Health Quality Ontario

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Technical Appendix Overview

This technical appendix accompanies Health Quality Ontario's Quality Standard *Major Depression: Care for Adults and Adolescents*. The appendix provides additional information on the outcome indicators that were identified as important and that would provide comprehensive measurements of the overall quality of care associated with this quality standard. It also includes information on the definitions and technical details of the indicators, including data sources for indicators that can be consistently measured at the provincial level.

Indicators are categorized as follows:
- Currently measured in Ontario or similar health systems (i.e., the indicator is well defined and validated)
- Measurable with available provincial data (i.e., data are available to measure the indicator, but the indicator requires definition and validation)
- Developmental (i.e., the indicator is not well defined, and data sources do not currently exist to measure it consistently across providers and at the system level)

Outcome Measures

Table 1: Number of inpatient deaths by suicide among people with a primary diagnosis of major depression

GENERAL DESCRIPTION	Indicator description	The number of inpatient deaths by suicide among people with a primary diagnosis of major depression Directionality: A lower number is better.
	Indicator status	**Measurable**
	Dimensions of quality	Effectiveness, safety

DEFINTION AND SOURCE INFORMATION	Calculation	Number of inpatient suicides
		• DAD
		   o Group 15: Mental Health Indicators Field 06 Suicide = 1 (successful suicide), **AND**
		   o ICD-10-CA code X60-X84 Intentional Self-Harm as diagnosis type 9 (External Cause of Injury code) **AND** U98.20 Place of Occurrence, Hospital, as diagnosis type 9 (External Cause of Injury code)
		• OMHRS
		   o Discharge Reason (Data Element X90) = 2 (died as a result of suicide)
		
		Note: OMHRS methodology requires further development and validation.
		
		Inclusions
		Among acute care discharge from episode of care in which major depression was coded as most responsible diagnosis
		• Age ≥ 13 years and ≤ 80 years
		• Diagnosis codes
		   o ICD-10-CA: F32, F33, F34
		   o DSM-IV: 296.2x, 296.3x, 300.4
		• Diagnosis type
		   o DAD: Most Responsible Diagnosis (diagnosis type = M) or a Type 1 diagnosis
		   o OMHRS: DSM-IV in Q2A/Q2D

	Data sources	DAD, OMHRS
	Risk adjustment, age/sex standardization	Reported as crude numbers
GEOGRAPHY AND TIMING	Timing and frequency of data release	Yearly
	Levels of comparability	Province, LHIN, hospital, income quintile, urban/rural location, immigrant status, and age group Some stratifications listed would require the use of additional databases such as RPDB and CIC.

ADDITIONAL INFORMATION	Limitations	The methodology for patients in designated mental health beds who die by suicide during admission is currently under review. This pertains to cases in the OMHRS database.
	Comments	
	Alignment	

Abbreviations: CIC, Citizenship and Immigration Canada; DAD, Discharge Abstract Database; DSM-IV, *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition; ICD-10-CA, *International Statistical Classification of Diseases and Related Health Problems*, 10th revision, Canada; LHIN, local health integration network; OMHRS, Ontario Mental Health Reporting System; RPDB, Registered Persons Database.

Table 2: Percentage of people with major depression discharged from a hospital inpatient stay who die by suicide within 30 days, 3 months, 6 months, and 1 year of discharge

GENERAL DESCRIPTION	Indicator description	The rate per 1,000 people with a primary diagnosis of major depression who die by suicide within 30 days, 3 months, 6 months and 1 year of inpatient discharge Directionality: A lower percentage is better.
	Indicator status	**Measurable**
	Dimensions of quality	Effectiveness, safety
DEFINTION AND SOURCE INFORMATION	Calculation	**Denominator** Acute care discharge in which major depression is coded as most responsible diagnosis. The index cases are identified from both DAD and OMHRS databases. *Inclusions* • Age ≥ 13 years and ≤ 80 years • Diagnosis codes o ICD-10-CA: F32, F33, F34 o DSM-IV: 296.2x, 296.3x, 300.4 • Diagnosis type o DAD: Most Responsible Diagnosis (diagnosis type = M) or a Type 1 diagnosis o OMHRS: DSM-IV in Q2A/Q2D *Exclusions* • Records without a valid health insurance number • Records without an Ontario residence • Gender not recorded as male or female • Invalid date of birth, admission date/time, discharge date/time • Discharges where patients signed themselves out or patients died *Note:* Admission to another institution within 24 hours of discharge from an institution should be considered part of the same episode of care. **Numerator** Death within 30 days, 3 months, 6 months and 1 year of discharge due to intentional self-harm (suicide); ICD-10-CA codes: X60–X84 **Method** Numerator ÷ Denominator × 100
	Data sources	DAD, OMHRS, Vital Statistics (Statistics Canada)
	Risk adjustment, age/sex standardization	Reported as crude rates

GEOGRAPHY AND TIMING	Timing and frequency of data release	Yearly
	Levels of comparability	Province, LHIN, hospital, income quintile, urban/rural location, immigrant status, and age group Some stratifications listed would require the use to additional databases such as RPDB and CIC.
ADDITIONAL INFORMATION	Limitations	Due to the delay in accessing the Vital Statistics data, the data for this indicator will not be available in a timely manner.
	Comments	
	Alignment	

Abbreviations: CIC, Citizenship and Immigration Canada; DAD, Discharge Abstract Database; DSM-IV, *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition; ICD-10-CA, *International Statistical Classification of Diseases and Related Health Problems*, 10th revision, Canada; LHIN, local health integration network; OMHRS, Ontario Mental Health Reporting System; RPDB, Registered Persons Database.

Table 3: Percentage of emergency department visits for major depression that are a person's first contact with health care services for a diagnosis of major depression

GENERAL DESCRIPTION	Indicator description	The percentage of emergency department visits for major depression that are a person's first contact with health care services for a diagnosis of major depression Directionality: A lower percentage is better.
	Indicator status	**Measurable**
	Dimensions of quality	Effectiveness, timeliness

DEFINTION AND SOURCE INFORMATION	Calculation	**Denominator**
		All adults with an ED visit for major depression
		
		Note: If an individual has multiple MHA ED visits within a fiscal year (use regdate), use their initial claim.
		
		Inclusions
		• Age ≥ 13 years and ≤ 80 years
		• Diagnosis codes
		   ○ ICD-10-CA: F32, F33, F34
		   ○ DSM-IV: 296.2x, 296.3x, 300.4
		
		Numerator
		Number of adults with an MHA unscheduled ED visit for major depression
		
		Note: This includes only adults without MHA outpatient visits and claims, ED visits, and hospital admissions within the past 2 years.
		
		Inclusions
		
		• Diagnosis type
		   ○ DAD: Most Responsible Diagnosis (diagnosis type = M) or a Type 1 diagnosis
		   ○ OMHRS: DSM-IV in Q2A/Q2D
		
		*Exclusions **(apply to both numerator and denominator)***
		• Invalid IKN
		• Records without an Ontario residence
		• Gender not recorded as male or female
		• Age < 13 years or > 80 years
		• Planned or scheduled ED visits
		   ○ Any MHA ED (including planned) is included in the look-back for MHA care within the past 2 years to determine first-contact status
		
		Method
		Numerator ÷ Denominator × 100

	Data sources	DAD, NACRS, OHIP claims history database, OMHRS
	Risk adjustment, age/sex standardization	Age and sex standardized to the 2011 standard Canadian population

GEOGRAPHY AND TIMING	Timing and frequency of data release	Yearly
	Levels of comparability	Province, LHIN, hospital, income quintile, urban/rural location, immigrant status, and age group Some stratifications listed would require the use of additional databases such as RPDB and CIC.
ADDITIONAL INFORMATION	Limitations	
	Comments	
	Alignment	Mental Health and Addictions Leadership Advisory Council Scorecard: Performance Indicators for the Mental Health and Addictions System in Ontario

Abbreviations: CIC, Citizenship and Immigration Canada; DAD, Discharge Abstract Database; DSM-IV, *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition; ED, emergency department; ICD-10-CA, *International Statistical Classification of Diseases and Related Health Problems*, 10th revision, Canada; IKN, ICES (Institute for Clinical Evaluative Sciences) Key Number; LHIN, local health integration network; MHA, mental health and addictions; OHIP, Ontario Health Insurance Plan; OMHRS, Ontario Mental Health Reporting System; RPDB, Registered Persons Database.

Table 4: Overall rating of services received by people with major depression

GENERAL DESCRIPTION	Indicator description	The percentage of patients with major depression, or family members of patients with major depression, whose overall ratings of services received are good or very good Directionality: A higher percentage is better.
	Indicator status	**Developmental**
	Dimension of quality	Patient-centredness
DEFINITION AND SOURCE INFORMATION	Calculation	**Denominator** Number of patients with a diagnosis of major depression, or family members of patients with a diagnosis of major depression, who completed the OPOC-MHA survey in any setting *Inclusion* • Age ≥ 13 years and ≤ 80 years **Numerator** Number of patients, or family members of patients, whose overall ratings of services received are good or very good **Method** Numerator ÷ Denominator × 100 **Survey Question** Overall, how would you rate the services/care you are receiving? a. Poor b. Fair c. Good d. Very good
	Data source	Locally administered and collected survey data from a tool such as OPOC-MHA
	Risk adjustment, age/sex standardization	Reported as a crude number
GEOGRAPHY AND TIMING	Timing and frequency of data release	
	Levels of comparability	
ADDITIONAL INFORMATION	Limitations	
	Comments	If, in the future, OPOC-MHA data could be linked to a patient's clinical record, it would be possible to look for specific diagnoses as well as other indicators of quality.
	Alignment	

Abbreviations: OPOC-MHA, Ontario Perception of Care Questionnaire for Mental Health and Addictions.

Table 5: Percentage of people with major depression who rate the care they receive in the hospital as excellent, very good, or good

<table>
<tr><td rowspan="3">GENERAL DESCRIPTION</td><td>Indicator description</td><td>The percentage of people admitted for major depression who rate the care they receive in the hospital as excellent, very good, or good

Directionality: A higher percentage is better.</td></tr>
<tr><td>Indicator status</td><td>Developmental</td></tr>
<tr><td>Dimension of quality</td><td>Patient-centredness</td></tr>
<tr><td rowspan="3">DEFINTION AND SOURCE INFORMATION</td><td>Calculation</td><td>Denominator
Number of survey respondents with a diagnosis of major depression

Inclusions
Age ≥ 13 years and ≤ 80 years
Diagnosis codes
ICD-10-CA: F32, F33, F34
DSM-IV: 296.2x, 296.3x, 300.4
Diagnosis type
DAD: Most Responsible Diagnosis (diagnosis type = M) or a Type 1 diagnosis
OMHRS: DSM-IV in Q2A/Q2D
Numerator
Number of patients who rated the care they received in the hospital as excellent, very good, or good

Method
Numerator ÷ Denominator × 100

Survey Question
Overall, how would you rate the care you received in the hospital?
Poor
Fair
Good
Very good
Excellent</td></tr>
<tr><td>Data sources</td><td>NRCC Picker patient satisfaction survey</td></tr>
<tr><td>Risk adjustment, age/sex standardization</td><td>Reported as a crude rate</td></tr>
<tr><td rowspan="2">GEOGRAPHY AND TIMING</td><td>Timing and frequency of data release</td><td>Yearly</td></tr>
<tr><td>Levels of comparability</td><td>Province, LHIN, hospital, income quintile, urban/rural location, immigrant status, and age group
Some stratifications listed would require the use of additional databases such as RPDB and CIC.</td></tr>
</table>

ADDITIONAL INFORMATION	Limitations	As this indicator uses a survey that is conducted while patients are in the hospital, patients who are receiving care for major depression at the primary care level will not be captured.
	Comments	The data linkage required for this indicator to be calculated does not exist yet. That is, the NRCC survey cannot yet be linked to patient records in hospital.
	Alignment	

Abbreviations: CIC, Citizenship and Immigration Canada; DAD, Discharge Abstract Database; DSM-IV, *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition; ICD-10-CA, *International Statistical Classification of Diseases and Related Health Problems*, 10th revision, Canada; NRCC, National Research Corporation of Canada; OMHRS, Ontario Mental Health Reporting System; RPDB, Registered Persons Database.

Table 6: Percentage of people with major depression who show a decrease in their unmet needs over time

GENERAL DESCRIPTION	Indicator description	The percentage of people with major depression who show a decrease in their unmet needs over time Directionality: A higher percentage is better.
	Indicator status	**Developmental**
	Relevance	Overall assessment of the Major Depression Quality Standard
	Dimension of Quality	Patient-centredness
DEFINTION AND SOURCE INFORMATION	Calculation	**Denominator** Number of clients with a diagnosis of major depression in any setting who have had multiple (at least 2) assessments using a common tool such as OCAN *Inclusion* • Age ≥ 13 years and ≤ 80 years **Numerator** Number of clients whose number of unmet needs decreased between their most recent and previous assessments **Method** Numerator ÷ Denominator × 100
	Data source	Locally administered and collected survey data from a tool such as OCAN
	Risk adjustment, age/sex standardization	Reported as a crude rate
GEOGRAPHY AND TIMING	Timing and frequency of data release	Yearly
	Levels of comparability	
ADDITIONAL INFORMATION	Limitations	The OCAN identifies a number of needs. While some needs may be addressed, others may arise, resulting in the overall number of unmet needs not being reduced. The OCAN is currently implemented only in community mental health agencies and its implementation is not mandated; as such, its coverage is not 100%.
	Comments	If, in the future, OCAN data could be linked to patient clinical records, it would be possible to look for specific diagnoses as well as other indicators of quality.
	Alignment	Mental Health and Addictions Leadership Advisory Council Scorecard: Performance Indicators for the Mental Health and Addictions System in Ontario

Abbreviation: OCAN, Ontario Common Assessment of Need.

Table 7: Percentage of people with major depression who show an improvement in depressive symptoms during an inpatient stay

GENERAL DESCRIPTION	Indicator description	The percentage of people admitted to hospital with a diagnosis of major depression or with a DSI score greater than 3 who show an improvement in depressive symptoms during their inpatient stay

		Directionality: A higher percentage is better.
	Indicator status	**Developmental**
	Dimension of Quality	Effectiveness
DEFINTION AND SOURCE INFORMATION	Calculation	**Denominator** Number of patients admitted to a hospital with a diagnosis of major depression or with a DSI score of > 3 *Inclusions* - Age ≥ 13 years and ≤ 80 years - Diagnosis codes - ICD-10-CA: F32, F33, F34 - DSM-IV: 296.2x, 296.3x, 300.4 - Diagnosis type - DAD: Most Responsible Diagnosis (diagnosis type = M) - OMHRS: DSM-IV in Q2A/Q2D **Numerator** Number of patients in the denominator who showed an improvement in depressive symptoms during an inpatient stay *Inclusion* - DSI score lower at discharge than at initial RAI-MH assessment **Method** Numerator ÷ Denominator × 100
	Data source	OMHRS
	Risk adjustment, age/sex standardization	Risk-adjustment method in development
GEOGRAPHY AND TIMING	Timing and frequency of data release	Quarterly
	Levels of comparability	Province, LHIN, hospital, income quintile, urban/rural location, immigrant status, and age group Some stratifications listed would require the use of additional databases such as RPDB and CIC.

ADDITIONAL INFORMATION	Limitations	OMHRS does not capture 100% of psychiatric admissions.
	Comments	This indicator is based on an indicator proposed by Perlman et al.[1] As noted in the publication, further exploration of this indicator, including potential risk-adjusters, is required before implementation.
	Alignment	

Abbreviations: DAD, Discharge Abstract Database; DSI, Depression Severity Index; DSM-IV, *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition; ICD-10-CA, *International Statistical Classification of Diseases and Related Health Problems*, 10th revision, Canada; LHIN, local health integration network; OMHRS, Ontario Mental Health Reporting System; RAI-MH, Resident Assessment Instrument–Mental Health.

[1] Perlman CM, Hirdes JP, Barbaree H, Fries BE, McKillop I, Morris JN, et al. Development of mental health quality indicators (MHQIs) for inpatient psychiatry based on the interRAI mental health assessment. BMC Health Serv Res. 2013;13:15.

Table 8: Readmission to any hospital within 7 days and 30 days of discharge from an inpatient hospital stay, stratified by the reason for readmission

<table>
<tr>
<td rowspan="3">GENERAL DESCRIPTION</td>
<td>Indicator description</td>
<td>The percentage of major depression discharges that are followed within 7 and 30 days by another admission for one of the following:

a. Any reason
b. A reason related to mental health and addictions
c. Major depression

Directionality: The direction of improvement is unclear.</td>
</tr>
<tr>
<td>Indicator status</td>
<td>Currently measured</td>
</tr>
<tr>
<td>Dimension of quality</td>
<td>Effectiveness</td>
</tr>
<tr>
<td>DEFINTION AND SOURCE INFORMATION</td>
<td>Calculation</td>
<td>Denominator
Acute care discharge from episode of care in which major depression was coded as most responsible diagnosis. The index cases are identified from both DAD and OMHRS databases.

Inclusions
• Age ≥ 13 and ≤ 80 years
• Diagnosis codes
    ○ ICD-10-CA: F32, F33, F34
    ○ DSM-IV: 296.2x, 296.3x, 300.4
• Diagnosis type
    ○ DAD: Most Responsible Diagnosis (diagnosis type = M) or a Type 1 diagnosis
    ○ OMHRS: DSM-IV in Q2A/Q2D

Exclusions
• Records without a valid health insurance number
• Records without an Ontario residence
• Gender not recorded as male or female
• Invalid date of birth, admission date/time, discharge date/time
• Discharges where patients signed themselves out or patients died

Note: Admission to another institution within 24 hours of discharge from an institution should be considered part of the same episode of care.

Numerator
a. Any reason
The subsequent readmission to an acute care hospital within 7 and 30 days of discharge following index hospitalization discharge

Exclusion: Elective readmission in DAD (admit category = L)

b. Mental health and addictions–related condition
Subsequent readmission to an acute care hospital within 7 and 30 days of index hospitalization discharge for a most responsible diagnosis (i.e., diagnosis type = M in DAD or DSM-IV in Q2A/Q2D, or provisional diagnosis Q1D/Q1E/Q1F/Q1G/ Q1O/Q1P = 1 in OMHRS) of a mental health and addictions–related condition, including:

• 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,</td>
</tr>
</table>

<table>
<tr><td></td><td></td><td>

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, excluding 80); provisional diagnosis**: (d) substance-related disorders; or

- *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, 90), 297.1, 297.3, 298.8, 298.9; provisional diagnosis**: (e) schizophrenia disorder; or
- *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
- *Anxiety disorders*—ICD-10-CA: F40, F41, F42, F43, F48.8, F48.9; 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 (o) adjustment disorders; or
- *Selected disorders of adult personality and behaviour*—ICD-10-CA: F60, F61, F62, F69, F21; DSM-IV: 301.0, 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

Exclusion: Elective readmission in DAD (admit category = L)

c. *Major depression*
Subsequent readmission to an acute care hospital within 7 and 30 days of index hospitalization discharge for a most responsible diagnose (i.e., diagnosis type = M in DAD or DSM-IV in Q2A/Q2D) of major depression
- ICD-10-CA: F32, F33, F34
- DSM-IV: 296.2x, 296.3x, 300.4

Exclusion: Elective readmission in DAD (admit category = L)

Method
Numerator ÷Denominator × 100

</td></tr>
<tr><td></td><td>Data sources</td><td>DAD, OMHRS</td></tr>
<tr><td></td><td>Risk adjustment, age/sex standardization</td><td>Age and sex standardized</td></tr>
<tr><td rowspan="2">GEOGRAPHY AND TIMING</td><td>Timing and frequency of data release</td><td>Yearly</td></tr>
<tr><td>Levels of comparability</td><td>

Province, LHIN, income quintile, urban/rural location, immigrant status, and age group

Some stratifications listed would require the use to additional databases such as RPDB and CIC.

</td></tr>
</table>

ADDITIONAL INFORMATION	Limitations	It is not possible to differentiate between elective and non-elective admissions in the OMHRS database. Both planned and unplanned readmissions are counted in OMHRS.
	Comments	This indicator excludes patients in the denominator who signed themselves out of hospital, as these patients could have left hospital before they were treated adequately or before a follow-up appointment post-discharge could be arranged. As such, a subsequent readmission in these cases is potentially outside the hospital's locus of control.
	Alignment	HQO yearly report, Ontario Mental Health Scorecard.

Abbreviations: CIC, Citizenship and Immigration Canada; DAD, Discharge Abstract Database; DSM-IV, *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition; HQO, Health Quality Ontario; ICD-10-CA, *International Statistical Classification of Diseases and Related Health Problems*, 10th revision, Canada; LHIN, local health integration network; NRCC, National Research Corporation of Canada; OMHRS, Ontario Mental Health Reporting System; RPDB, Registered Persons Database.

Table 9: Unscheduled emergency department visits within 7 days and 30 days after hospital inpatient discharge, stratified by the reason for the visit

<table>
<tr><td rowspan="3">GENERAL DESCRIPTION</td><td>Indicator description</td><td>The percentage of major depression discharges that are followed within 7 and 30 days by an unscheduled ED visit for one of the following:
a. Any reason
b. A reason related to mental health and addictions
c. Major depression
d. Self-harm

Directionality: The direction of improvement is unclear.</td></tr>
<tr><td>Indicator status</td><td>Measurable</td></tr>
<tr><td>Dimension of quality</td><td>Effectiveness</td></tr>
<tr><td>DEFINTION AND SOURCE INFORMATION</td><td>Calculation</td><td>Denominator
Acute care discharges from episode of care in which major depression was coded as most responsible diagnosis. The index cases are identified from both the DAD and OMHRS databases.

<i>Inclusions</i>
• Age ≥ 13 and ≤ 80 years
• Diagnosis codes
  o ICD-10-CA: F32, F33, F34
  o DSM-IV: 296.2x, 296.3x, 300.4
• Diagnosis type
  o DAD: Most Responsible Diagnosis (diagnosis type = M) or a Type 1 diagnosis
  o OMHRS: DSM-IV in Q2A/Q2D

<i>Exclusions</i>
• Records without a valid health insurance number
• Records without an Ontario residence
• Gender not recorded as male or female
• Invalid date of birth, admission date/time, discharge date/time
• Discharges where patients signed themselves out or patients died

<i>Note:</i> Admission to another institution within 24 hours of discharge from an institution should be considered part of the same episode of care.

Numerator
a. <i>Any reason</i>
Subsequent unscheduled ED visit within 7 and 30 days of index hospitalization discharge for any reason

Exclusion: ED visits that results in admission (i.e., visit disposition = 06 or 07) will be excluded from the calculation of this indicator as this subset is captured in the readmission indicator.

b. <i>Mental health and addictions–related condition</i>
Subsequent unscheduled ED visit within 7 and 30 days of index hospitalization discharge for a main problem of a mental health and addictions–related condition:
• <i>Substance-related disorders</i>—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,</td></tr>
</table>

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, excluding 80); provisional diagnosis**: (d) substance-related disorders; or

- *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, 90), 297.1, 297.3, 298.8, 298.9; provisional diagnosis**: (e) schizophrenia disorder; or
- *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
- *Anxiety disorders*—ICD-10-CA: F40, F41, F42, F43, F48.8, F48.9; 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 (o) adjustment disorders; or
- *Selected disorders of adult personality and behaviour*—ICD-10-CA: F60, F61, F62, F69, F21; DSM-IV: 301.0, 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

Exclusion: ED visits that result in admission (i.e., visit disposition = 06 or 07) will be excluded from the calculation of this indicator as this subset is captured in the readmission indicator.

c. *Major depression*
Subsequent unscheduled ED visit within 7 and 30 days of index hospitalization discharge for a main problem of major depression:
- ICD-10-CA: F32, F33, F34
- DSM-IV: 296.2x, 296.3x, 300.4

Exclusion: ED visits that result in admissions (i.e., visit disposition = 06 or 07) will be excluded from the calculation of this indicator as this subset is captured in the readmission indicator.

d. *Self-harm*

Subsequent unscheduled ED visit within 7 and 30 days of index hospitalization discharge for a main problem or other problem of self-harm:

ICD-10-CA: X60 to X84 (Intentional Self-Harm)

Exclusion: ED visits that result in admission (i.e., visit disposition = 06 or 07) are excluded from the calculation of this indicator as this subset is captured in the readmission indicator.

Method*:*
Numerator ÷ Denominator × 100

Data sources	DAD, NACRS, OMHRS
Risk adjustment, age/sex standardization	Reported as crude rates. Risk adjustment needs further investigation.

GEOGRAPHY AND TIMING	Timing and frequency of data release	Yearly
	Levels of comparability	Province, LHIN, income quintile, urban/rural location, immigrant status, and age group Some stratifications listed would require the use to additional databases such as RPDB and CIC.
ADDITIONAL INFORMATION	Limitations	Capturing intention of self-harm with available data sources is difficult. Unintentional or undetermined injuries are excluded from this indicator, despite the fact that, in some cases, the injuries may have been intentional.
	Comments	Further investigation into how to define self-harm using ICD-10-CA codes is required.
	Alignment	

Abbreviations: CIC, Citizenship and Immigration Canada; DAD, Discharge Abstract Database (Canadian Institute for Health Information); DSM-IV, *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition; ED, emergency department; ICD-10-CA, *International Statistical Classification of Diseases and Related Health Problems*, 10th revision, Canada; LHIN, local health integration network; NACRS, National Ambulatory Care Reporting System; OMHRS, Ontario Mental Health Reporting System; RPDB, Registered Persons Database.