

Hospitalizations for Ambulatory Care Sensitive Conditions (ACSC)

Resource for Indicator Standards (RIS)
Health Analytics Branch, Ministry of Health and Long-Term Care

Indicator description

RIS indicator name

Hospitalizations for Ambulatory Care Sensitive Conditions (ACSC)

Other names for this indicator

Hospitalization rate for ambulatory care sensitive conditions

Indicator description

Rate of hospitalization for ambulatory care sensitive conditions per 100,000 population age less than 75.

Accountability agreement(s) or ministry initiative(s) the indicator supports

- Ministry LHIN Accountability Agreement (MLAA), 2015-2018
- The Quarterly

Numerator

Data source

Population Estimates and Projections, Statistics Canada & Ontario Ministry of Finance;
Discharge Abstract Database (DAD), Canadian Institute for Health Information (CIHI)

Inclusion/exclusion criteria

Includes:

1. Ontario residents;
2. Less than 75 years of age;
3. Hospitalized in an acute care hospital (hospital type = AT or AP);
4. Select disease diagnosis (ICD-10) codes for most responsible diagnosis (MRDx):

Group A

- Grand mal status and other epileptic convulsions: ICD-10 codes that begin with G40 or G41;
- Chronic obstructive pulmonary disease (COPD): ICD-10 codes that begin with J41, J42, J43, J44, or J47;
- Asthma: ICD-10 codes beginning with J45;
- Congestive heart failure and pulmonary edema (CHF): ICD-10 codes beginning with I50 or J81 excluding cases with cardiac procedures (see Group C) that are not coded as abandoned after onset;
- Hypertension: ICD-10 codes beginning with I10.0, I10.1, or I11 excluding cases with cardiac procedures (see Group C) that are not coded as abandoned after onset;
- Angina: ICD-10 codes beginning with I20, I23.82, I24.0, I24.8, or I24.9 excluding cases with cardiac procedures (see Group C) that are not coded as abandoned after onset;
- Diabetes: ICD-10 codes beginning with E10.0, E10.1, E10.63, E10.9, E11.0, E11.1, E11.63, E11.9, E13.0, E13.1, E13.63, E13.9, E14.0, E14.1, E14.63, E14.9, E10.64, E11.64, E13.64, E14.64 (last four codes were added to the ICD10-CA in 2009 fiscal year)].

Group B

- Lower respiratory: ICD-10 codes that begin with J10.0, J11.0, J12-J16, J18, or J20-J22 ONLY when a secondary diagnosis (defined as any diagnosis other than a most responsible diagnosis) of COPD (J44) is also present.

Note: According to the Canadian Coding Standards, if COPD patients present with acute respiratory infections, only J44.0 should be used. However, to ensure that all COPD patients with acute respiratory infections are captured and to correct erroneous application of the combination code, all J44 codes are included.

Excludes:

Group C

1. From hospitalizations with a MRDx of CHF, hypertension, or angina (see Group A) exclude any hospitalizations where any cardiac procedures (CCI code) for the discharge that meet the following criteria:

Exclude CCI codes beginning with 1HA58, 1HA80, 1HA87, 1HB53, 1HB54, 1HB55, 1HB87, 1HD53, 1HD54, 1HD55, 1HH59, 1HH71, 1HJ76, 1HJ82, 1HM57, 1HM78, 1HM80, 1HN71, 1HN80, 1HN87, 1HP76, 1HP78, 1HP80, 1HP82, 1HP83, 1HP87, 1HR71, 1HR80, 1HR84, 1HR87, 1HS80, 1HS90, 1HT80, 1HT89, 1HT90, 1HU80, 1HU90, 1HV80, 1HV90, 1HW78, 1HW79, 1HX71, 1HX78, 1HX79, 1HX80, 1HX83, 1HX86, 1HX87, 1HY85, 1HZ53, 1HZ54, 1HZ55, 1HZ56, 1HZ57, 1HZ59, 1HZ80, 1HZ85, 1HZ87, 1IF83, 1IJ50, 1IJ55, 1IJ57, 1IJ76, 1IJ80, 1IK57, 1IK80, 1IK87, 1IN84, 1LA84, 1LC84, 1LD84, 1IJ86

AND not equal to (1HZ53LAKP, 1HZ55LAKP)

AND not equal to abandoned at onset

2. Hospitalizations for newborns or stillborns;
3. Patients discharged as deceased.

Calculation

Steps:

1. Extract MRDx by age group according to filter criteria listed above in Group A.
2. Add acute lower respiratory hospitalizations with the filter criteria in Group B to the appropriate age group totals from Group A.
3. Subtract the cardiac procedures with the filter criteria in Group C from the appropriate age group totals from Group A.
4. Multiply by 100,000.

Denominator

Data source

Ontario population estimates and projections, Statistics Canada and Ontario Ministry of Finance

Inclusion/exclusion criteria

Includes:

1. Year-specific LHIN and Ontario population less than 75 years of age;
2. Age group breakdown of interest, e.g.: < 1 year, 1-4 years, then 5-year age groups to 70-74 years.

Excludes:

1. Persons age 75 and older.

Calculation

Steps:

1. Extract and sum the population estimates for the population(s) of interest.
2. Divide by the year-specific population age 0-74 to obtain the rate.

Timing and geography

Timing/frequency of release

How often and when data are being released (e.g., be as specific as possible...data are released annually in mid-May)

Numerator data (DAD) are available quarterly and annually.
Population estimates are provided annually.

Trending

Years available for trending

Since the indicator uses ICD-10 and CCI codes, rates can be calculated from hospitalization data beginning with the 2002/03 fiscal year.

Levels of comparability

Levels of geography for comparison

Several levels of geography are available. Analysis is typically done for the province and by LHIN of patient residence.

Additional information

Limitations

Specific limitations

N/A

Comments

Additional information regarding the calculation, interpretation, data source, etc.

A variation of this indicator is calculated for enrolled patients and reported at the primary care practice level as a Primary Care Quality Improvement Plan indicator. Patients are included in the numerator and denominator if CAPE (Client Agency Program Enrolment) records show they were enrolled during the relevant time period. The group billing number from CAPE identifies the group the patient is enrolled with for practice level results.

This indicator may also be calculated as an age-standardized rate.

References

Provide URLs of any key references (e.g., Diabetes in Canada, [http:// ...](#))

1. [Health Indicators 2011: Definitions, Data Sources and Rationale, June 2011](#) - p. 16. The ACSC methodology was developed by CIHI using a pan-Canadian expert panel and updated in 2009 to include newly added CCI and ICD-10 codes.

Contact information

For more information about this indicator, please contact RIS@ontario.ca.

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2013-06-24

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