

Emergency visits for hyperglycemia or hypoglycemia adults

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

Indicator description

RIS indicator name

Emergency visits for hyperglycemia or hypoglycemia adults

Other names for this indicator

Emergency visits for hyperglycemia or hypoglycemia among adults (age ≥ 18) with diabetes)

Indicator description

The rate of unscheduled emergency visits [i.e. to emergency rooms (ER) or urgent care centres (UCC)] for hyperglycemia or hypoglycemia per 100,000 Ontario population (age 18+) with diabetes.

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

- The Quarterly

Numerator

Data source

National Ambulatory Care Reporting System (NACRS), Canadian Institute for Health Information (CIHI); Diabetes patient list (as identified using NACRS, DAD and OHIP claims), Ontario Ministry of Health and Long-Term Care.

Inclusion/exclusion criteria

Includes:

1. Unscheduled emergency visits made by Ontario residents with diabetes:
 - a. For hyperglycemia: ICD10 code of main problem diagnosis = E10.1, E11.0, E11.1, E13.0, E13.1, E14.0, E14.1, or R73.9;

- b. For hypoglycemia: ICD10 code of main problem diagnosis = E15, E16.0, E16.1, E16.2, E10.63, E11.63, or E14.63.

Excludes:

1. Visits with both a hyperglycemia and hypoglycemia diagnosis.

Calculation

Steps:

1. From NACRS, identify unscheduled ER visits, which occurred during the period of interest, with main problem being either hyperglycemia or hypoglycemia;
2. Exclude visits with both hyperglycemia and hypoglycemia recorded during visit;
3. Link identified NACRS visits with diabetes patient list as of April 1st of the fiscal year of interest, by Health Card Number, to identify hyperglycemia or hypoglycemia ER visits made by diabetes patients.

Denominator

Data source

Diabetes patient list (as identified using NACRS, DAD and OHIP claims), Registered Persons Database (RPDB), Ontario Ministry of Health and Long-Term Care.

Inclusion/exclusion criteria

Includes:

1. Diabetes patients on April 1st of the fiscal year of interest.

Excludes:

1. Patients who were diagnosed on or after April 1st of the fiscal year of interest;
2. Patients who were dead or became ineligible before April 1st of the fiscal year of interest;
3. Patients who were less than 18 years of age on April 1st of the fiscal year of interest;
4. Patients who had gestational diabetes.

Calculation

Steps:

1. Distinct diabetes patient list as of April 1st of fiscal year of interest is prepared using the most recent available CIHI hospital data, OHIP claims data, and RPDB death/eligibility/geography data.

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)

For DAD and NACRS, the fiscal year data are available annually (usually by September); for OHIP claims, data is mostly complete seven months after the service date of the claim.

Trending

Years available for trending

Trending is possible from 2009/10.

Levels of comparability

Levels of geography for comparison

Data are available at the provincial and LHIN levels.

Additional information

Limitations

Specific limitations

There is no differentiation between Type I & II cases. Some individuals will be missed including the small percent of the aboriginal population who decline provincial health insurance, Royal Canadian Mounted Police (RCMP), military personnel, veterans, and prison inmates.

Comments

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

The diabetes patient file was created using an algorithm to identify Ontario residents with diabetes, age 18+, as of start of a given fiscal year. The algorithm uses physician claims and hospital inpatient data (OHIP and DAD) starting from 2000 to currently available and ambulatory/emergency department data (NACRS) starting from 2002 to identify potential diabetes patients. Individuals are identified as having diabetes if they have had at least one hospitalization or two physician service claims over a two year period with a diabetes related diagnostic code. Women with gestational diabetes are not included.

References

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

1. Booth GL, Rothwell DM, Fung K, Tu JV. Diabetes and Cardiac Disease: In Hux JE, Booth GL, Slaughter PM, Laupacis A (eds). Diabetes in Ontario: An ICES Practice Atlas: Institute for Clinical Evaluative Sciences. 2003: 5.95-5.125.
2. Hux JE and Tang M. Patterns of Prevalence and Incidence of Diabetes: In Hux JE, Booth GL, Slaughter PM, Laupacis A (eds). Diabetes in Ontario: An ICES Practice Atlas: Institute for Clinical Evaluative Sciences. 2003:1.1-1.18.

Contact information

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

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