

# Hospitalized Heart Attacks

Name	Hospitalized Heart Attacks
Short/Other Names	Hospitalized Acute Myocardial Infarction Event
Description	<p>This indicator measures the age-standardized rate of new acute myocardial infarction (AMI) events admitted to an acute care hospital for the population age 18 and older.</p> <p>A new event is defined as a first-ever hospitalization for an AMI or a recurrent hospitalized AMI occurring more than 28 days after the admission for the previous event in the reference period.</p> <p>For further details, please see the <a href="#">General Methodology Notes</a>.</p>
Interpretation	Lower rates are desirable.
HSP Framework Dimension	Health System Outcomes: Improve health status of Canadians
Areas of Need	Not applicable
Geographic Coverage	All provinces/territories
Reporting Level/Disaggregation	National, Province/Territory, Region
Indicator Results	<a href="#">Accessing Indicator Results on Your Health System: In Depth</a>

## Identifying Information

Name	Hospitalized Heart Attacks
Short/Other Names	Hospitalized Acute Myocardial Infarction Event
Indicator Description and Calculation	

	<p>This indicator measures the age-standardized rate of new acute myocardial infarction (AMI) events admitted to an acute care hospital for the population age 18 and older.</p>
Description	<p>A new event is defined as a first-ever hospitalization for an AMI or a recurrent hospitalized AMI occurring more than 28 days after the admission for the previous event in the reference period.</p> <p>For further details, please see the <a href="#">General Methodology Notes</a>.</p> <p>(Total number of new AMI events for persons age 18 and older ÷ Total mid-year population age 18 and older) × 100,000 (Age-adjusted)</p>
Calculation: Description	Unit of Analysis: Single admission
Calculation: Geographic Assignment	Place of residence
Calculation: Type of Measurement	Rate - per 100,000
Calculation: Adjustment Applied	Age-adjusted
Calculation: Method of Adjustment	<p>Direct Standardization</p> <p><b>Standard Population:</b> Canada 2011</p>
Denominator	<p><b>Description:</b> Total mid-year population age 18 and older</p> <p><b>Description:</b> Cases that are new AMI events admitted to an acute care hospital, age 18 and older</p> <p>A new event is defined as a first-ever hospitalization for an AMI or a recurrent hospitalized AMI occurring more than 28 days after the admission for the previous event in the reference period.</p> <p><b>Inclusions:</b></p> <ol style="list-style-type: none"> <li>1. AMI present on admission — ICD-10-CA: I21, I22 coded as diagnosis type (1) [type (C) for Quebec data only] or [type (M), (W), (X) or (Y), but not also as a diagnosis type (2)]</li> <li>2. Age at admission 18 years and older</li> <li>3. Sex recorded as male or female</li> <li>4. Admission to an acute care institution (Facility Type Code = 1)</li> </ol> <p><b>Exclusions:</b></p> <ol style="list-style-type: none"> <li>1. Records with an invalid health card number</li> </ol>
Numerator	

2. Records with an invalid code for province issuing health card number
3. Records with an invalid admission date
4. Cadaveric donor or stillbirth records (Admission Category Code = R or S)
5. AMI admissions within 28 days after the admission date of a previous AMI hospitalization

Background, Interpretation and Benchmarks

AMI is one of the leading causes of morbidity and death. Measuring its occurrence in the population is important for planning and evaluating preventive strategies, allocating health resources and estimating costs. From a disease surveillance perspective, there are three groups of AMI events: non-diagnosed events, fatal events occurring outside the hospital and events admitted to acute care hospitals. Although AMIs admitted to a hospital do not reflect all AMIs in the community, this information provides a useful and timely estimate of the disease occurrence in the population.

Rationale

Lower rates are desirable.

HSP Framework Dimension

Health System Outcomes: Improve health status of Canadians

Areas of Need

Not applicable

Targets/Benchmarks

Not applicable  
Heart and Stroke Foundation of Canada. The Growing Burden of Heart Disease and Stroke in Canada 2003. Available at <http://publications.gc.ca/collections/Collection/H1-10-2003E.pdf>. Accessed March 01, 2014.

References

Manuel DG, Lim JJY, Tanuseputro P, et al. How many people have had a myocardial infarction? Prevalence estimated using historical hospital data. *BMC Public Health*. 2007; 7:174.

Availability of Data Sources and Results

Data Sources

DAD, HMDB

**Type of Year:**

Fiscal

Available Data Years

**First Available Year:**

2010

**Last Available Year:**

2017

Geographic Coverage

All provinces/territories

Reporting Level/Disaggregation National, Province/Territory, Region

Result Updates

Update Frequency Every year

**Web Tool:**

Indicator Results

Your Health System: In Depth

**URL:**

[Accessing Indicator Results on Your Health System: In Depth](#)

Updates

Not applicable

Quality Statement

Caveats

and Not applicable

Limitations

Trending Not applicable

Issues

This indicator includes all new hospitalized AMI events in the reference period, encompassing first-ever and recurrent AMIs. A person may have more than one AMI event in the reference period. AMI events not admitted to an acute care hospital and in-hospital AMIs are not included in this indicator.

Comments

Myocardial infarction is labelled as acute with a stated duration of four weeks (28 days) or less in ICD-10-CA and eight weeks or less in ICD-9/9-CM. Therefore, a 28-day period to define a new AMI event is applicable to the records coded in ICD-10-CA only.

Indicator results are also available on

- The Health Indicators e-Publication (<http://yourhealthsystem.cihi.ca/epub/?language=en>)