

Asthma Emergency Department Visits: Volume and Median Length of Stay

Name	Asthma Emergency Department Visits: Volume and Median Length of Stay
Short/Other Names	Not applicable
Description	Number of emergency department (ED) visits and median length of stay (in minutes) for asthma
Interpretation	The length of stay is the time elapsed from the patient's registration to the time he or she physically leaves the ED.
HSP Framework Dimension	Health System Outputs: Appropriate and effective
Areas of Need	Living With Illness, Disability or Reduced Function
Geographic Coverage	Prince Edward Island, Nova Scotia, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia, Yukon
Reporting Level/Disaggregation	Triage level, visit disposition, age and sex
Indicator Results	http://apps.cihi.ca/mstrapp/asp/Main.aspx?server=apmstrextpdr_i.cihi.ca&project=Quick+Stats&uid=pce_pub_en&pwd=&

Identifying Information

Name Asthma Emergency Department Visits: Volume and Median Length of Stay

Short/Other Names Not applicable

Indicator Description and Calculation

Description Number of emergency department (ED) visits and median length of stay (in minutes) for asthma
 Length of stay = (Disposition Date/Time or Patient Left ED Date/Time) (Registration Date/Time or Triage Date/Time)

Calculation: Description Asthma records are captured using the ICD-10-CA code J45.

Unit of Analysis: ED visit

Calculation: Geographic Assignment Place of service

Calculation: Type of Measurement Number - Median length of stay (in minutes)

Calculation: Adjustment Applied None

Calculation: Method of Adjustment Not applicable

Denominator

Description:

Number of ED visits and median length of stay for asthma

Inclusions:

1. ED visit record with the following ICD-10-CA code documented as the Main Problem:

Versions 2003, 2006, 2009, 2012 and 2015: J45

2. Visits from participating facilities in Prince Edward Island, Nova Scotia, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia and Yukon

3. ED visits as defined by the MIS Functional Centre Account Code series = 7*310 or Amcare_group code = ED (as of 2010–2011)

4. Canadian and non-Canadian residents receiving care in participating Canadian EDs

Numerator 5. Records with an invalid length of stay and an unknown triage level (applicable to number of ED visits only)

6. Records where sex is categorized as "other" are included in the "all" sex counts (applicable to number of ED visits only)

7. Records where birthdate is unknown are included in the "total" age counts (applicable to number of ED visits only)

Exclusions:

1. Visits from non-participating ED facilities

2. Scheduled ED visits where Scheduled ED Visit Indicator = Y or ED Visit Indicator = 0 (as of 2011–2012)

3. Records with an invalid length of stay (applicable to median length of stay only)

4. Records where sex is categorized as undifferentiated (as of 2012-2013)

5. Records with invalid length of stay or patient registered but left without being seen or triaged (Visit Disposition = 02) (as of 2013–2014) (applicable to median length of stay calculation only)

Background, Interpretation and Benchmarks

Rationale This indicator was developed to inform government planners, policy-makers, health system decision-makers, health care providers, patients and the general public. It can help raise awareness and allow ED planners to make more informed decisions.

Interpretation The length of stay is the time elapsed from the patient's registration to the time he or she physically leaves the ED.

HSP Framework Dimension Health System Outputs: Appropriate and effective

Areas of Need Living With Illness, Disability or Reduced Function

Targets/Benchmarks Not applicable

References Not applicable

Availability of Data Sources and Results

Data Sources NACRS

Type of Year:

Fiscal

Available Data Years **First Available Year:**

2003

Last Available Year:

2016

Geographic Coverage Prince Edward Island, Nova Scotia, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia, Yukon

Reporting Level/Disaggregation Triage level, visit disposition, age and sex

Result Updates

Update Frequency Every year

Web Tool:

Indicator Quick Stats

Results **URL:** http://apps.cihi.ca/mstrapp/asp/Main.aspx?server=apmstrextpd_i.cihi.ca&project=Quick+Stats&uid=pce_pub_en&pwd=&evt=204FE74D9

Updates Not applicable

Quality Statement

Caveats and Limitations Not applicable

The number of facilities that submit ED visit data to the National Ambulatory Care Reporting System (NACRS) has varied since 2003–2004. Due to this variation, trending across fiscal years, especially for jurisdictions that did not have complete coverage, is not recommended. Users are advised to refer to the NACRS data quality documents for more details.

In 2003–2004, 2004–2005 and 2008–2009, some facilities reported a disproportionately high number of ED visit records (greater than 10%) coded as Visit Disposition 05 (left before medical treatment completed). These records were included in the number of ED visits but were excluded from the valid Visit Disposition count.

Trending Issues

For 2003–2004, 2004–2005 and 2005–2006, length of stay may be overestimated for some facilities due to the difficulty of collecting the exact time the visit was completed.

Length of stay might not be comparable across historical fiscal years due to newly added and/or retired time elements related to the calculation of length of stay; in 2007–2008, four data elements (Decision to Admit Date/Time and Date/Time Visit Completed) were deleted from NACRS because it was not possible to calculate key indicators. Four new data elements (Disposition Date/Time and Date/Time Patient Left ED) were introduced in NACRS in 2007–2008 so that key indicators, such as Time Waiting for an Inpatient Bed, could be calculated.

Median length of stay:

As of 2013–2014, median length of stay is calculated based on LOS_HOURS, which is a derived data element in NACRS. The median length of stay (in minutes) was converted by multiplying LOS_HOURS by 60.

From 2010–2011 to 2012–2013, length of stay = (Disposition Date/Time or Patient Left ED Date/Time) (Registration Date/Time or Triage Date/Time).

If Visit Disposition = 02, use Registration Date/Time; otherwise, use whichever is earlier: Triage Date/Time or Registration Date/Time.

If Visit Disposition = 06, 07, 08, 09, 12, 13 or 14, use Patient Left ED Date/Time if known; otherwise, use Disposition Date/Time.

If Visit Disposition = 01, 02, 03, 04, 05, 10, 11 or 15, use Disposition Date/Time if known; otherwise, use Patient Left ED Date/Time.

From 2008–2009 to 2009–2010, length of stay = (Disposition Date/Time or Patient Left ED Date/Time) (Registration Date/Time or Triage Date/Time).

Comments If Visit Disposition = 02, use Registration Date/Time; otherwise, use whichever is earlier: Triage Date/Time or Registration Date/Time.

If Visit Disposition = 06, 07, 08 or 09, use Patient Left ED Date/Time if known; otherwise, use Disposition Date/Time.

If Visit Disposition = 01, 02, 03, 04, 05, 10, 11, 12, 13, 14 or 15, use Disposition Date/Time if known; otherwise, use Patient Left ED Date/Time.

For 2007–2008, length of stay = (Disposition Date/Time or Patient Left ED Date/Time) (Registration Date/Time or Triage Date/Time).

If Visit Disposition = 02, use Registration Date/Time; otherwise, use whichever is earlier: Triage Date/Time or Registration Date/Time.

If Visit Disposition = 06, 07, 08 or 09, use Patient Left ED Date/Time if known; otherwise, use Disposition Date/Time.

If Visit Disposition = 01, 02, 03, 04, 05, 10, 11, 12, 13, 14 or 15, use Disposition Date/Time.

From 2003–2004 to 2006–2007, length of stay = (Visit Completed Date/Time) (Registration Date/Time or Triage Date/Time).

If Visit Disposition = 02, use Registration Date/Time; otherwise, use whichever is earlier: Triage Date/Time or Registration Date/Time.