

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	https://apps.cihi.ca/mstrapp/asp/Main.aspx?server=apmstrextpd_i.cihi.ca&project=Quick+Stats&uid=pce_pub_en&pwd=8

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

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)

Numerator

3. Records where sex is categorized as undifferentiated (as of 2012–2013)
4. 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)
5. Duplicate records that were identified using all data elements except the following: am_care_key, abstract_id_number and date_recorded

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: 2017
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: https://apps.cih.ca/mstrapp/asp/Main.aspx?server=apmstrextpd_i.cih.ca&project=Quick+Stats&uid=pce_pub_en&pwd=&evt=2C FE74D9
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. When the exact time the visit is completed is not available, some vendor systems and abstractors may use 2359 as a proxy value.
	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.