

# Ambulatory Care Sensitive Conditions

Name	Ambulatory Care Sensitive Conditions
Short/Other Names	Not applicable
Description	Age-standardized acute care hospitalization rate for conditions where appropriate ambulatory care prevents or reduces the need for admission to hospital, per 100,000 population younger than age 75.  For further details, please see the <a href="#">General Methodology Notes</a> .
Interpretation	Low rates are desirable.
HSP Framework Dimension	Health System Outputs: Appropriate and effective
Areas of Need	Living With Illness, Disability or Reduced Function
Geographic Coverage	All provinces/territories
Reporting Level/Disaggregation	National, Province/Territory, Region, Neighbourhood Income Quintile
Indicator Results	<a href="#">Accessing Indicator Results on Your Health System: In Depth</a>

## Identifying Information

Name Ambulatory Care Sensitive Conditions

Short/Other Names Not applicable

### Indicator Description and Calculation

Description Age-standardized acute care hospitalization rate for conditions where appropriate ambulatory care prevents or reduces the need for admission to hospital, per 100,000 population younger than age 75.

For further details, please see the [General Methodology Notes](#).

Calculation: (Total number of acute care hospitalizations for ambulatory care sensitive conditions in patients younger than age 75 ÷ total mid-year population younger than age 75) × 100,000 (age-adjusted)

Calculation: Place of residence  
Geographic Assignment

Calculation: Rate - per 100,000  
Type of Measurement

Calculation: Age-adjusted  
Adjustment Applied

Calculation: Direct Standardization  
Method of Adjustment  
**Standard Population:**  
Canada 2011

Denominator  
**Description:**  
Total mid-year population younger than age 75

**Description:**  
Total number of acute care hospitalizations for ambulatory care sensitive conditions in patients younger than age 75

#### Inclusions:

1. Hospitalization for an ambulatory care sensitive condition is identified as any most responsible diagnosis code of

– Grand mal status and other epileptic convulsions  
ICD-9/9-CM: 345  
ICD-10-CA: G40, G41

– Chronic obstructive pulmonary disease (COPD)

a. Any most responsible diagnosis (MRDx) code of  
ICD-9/9-CM: 491, 492, 494, 496  
ICD-10-CA: J41, J42, J43, J44, J47

b. MRDx of acute lower respiratory infection, only when a secondary diagnosis\* of J44 in ICD-10-CA or 496 in ICD-9/9-CM is also present  
ICD-9/9-CM: 466, 480–486, 487.0  
ICD-10-CA: J10.0, J11.0, J12–J16, J18, J20, J21, J22

\*Secondary diagnosis refers to a diagnosis other than the most responsible one.

– Asthma  
ICD-9/9-CM: 493  
ICD-10-CA: J45

– Diabetes  
ICD-9: 250.0, 250.1, 250.2, 250.7  
ICD-9-CM: 250.0, 250.1, 250.2, 250.8  
ICD-10-CA: E10.0, E10.1, E10.63, E10.64, E10.9  
E11.0, E11.1, E11.63, E11.64, E11.9  
E13.0, E13.1, E13.63, E13.64, E13.9  
E14.0, E14.1, E14.63, E14.64, E14.9

– Heart failure and pulmonary edema<sup>†</sup>  
ICD-9/9-CM: 428, 518.4  
ICD-10-CA: I50, J81

Numerator

– Hypertension<sup>†</sup>  
ICD-9/9-CM: 401.0, 401.9, 402.0, 402.1, 402.9  
ICD-10-CA: I10.0, I10.1, I11

– Angina<sup>†</sup>  
ICD-9: 411, 413  
ICD-9-CM: 411.1, 411.8, 413  
ICD-10-CA: I20, I23.82, I24.0, I24.8, I24.9

– Excluding cases with cardiac procedures.

List of cardiac procedure codes for exclusion:

CCP: 47<sup>^</sup>, 480<sup>^</sup>–483<sup>^</sup>, 489.1, 489.9, 492<sup>^</sup>–495<sup>^</sup>, 497<sup>^</sup>, 498<sup>^</sup>  
ICD-9-CM: 336, 35<sup>^</sup>, 36<sup>^</sup>, 373<sup>^</sup>, 375<sup>^</sup>, 377<sup>^</sup>, 378<sup>^</sup>, 379.4–379.8  
CCI: 1.HA.58.<sup>^</sup>, 1.HA.80.<sup>^</sup>, 1.HA.87.<sup>^</sup>, 1.HB.53.<sup>^</sup>, 1.HB.54.<sup>^</sup>, 1.HB.55.<sup>^</sup>, 1.HB.87.<sup>^</sup>, 1.HD.53.<sup>^</sup>, 1.HD.54.<sup>^</sup>, 1.HD.55.<sup>^</sup>,  
1.HH.59.<sup>^</sup>, 1.HH.71.<sup>^</sup>, 1.HJ.76.<sup>^</sup>, 1.HJ.82.<sup>^</sup>, 1.HM.57.<sup>^</sup>, 1.HM.78.<sup>^</sup>, 1.HM.80.<sup>^</sup>, 1.HN.71.<sup>^</sup>, 1.HN.80.<sup>^</sup>, 1.HN.87.<sup>^</sup>,  
1.HP.76.<sup>^</sup>, 1.HP.78.<sup>^</sup>, 1.HP.80.<sup>^</sup>, 1.HP.82.<sup>^</sup>, 1.HP.83.<sup>^</sup>, 1.HP.87.<sup>^</sup>, 1.HR.71.<sup>^</sup>, 1.HR.80.<sup>^</sup>, 1.HR.84.<sup>^</sup>, 1.HR.87.<sup>^</sup>,  
1.HS.80.<sup>^</sup>, 1.HS.90.<sup>^</sup>, 1.HT.80.<sup>^</sup>, 1.HT.89.<sup>^</sup>, 1.HT.90.<sup>^</sup>, 1.HU.80.<sup>^</sup>, 1.HU.90.<sup>^</sup>, 1.HV.80.<sup>^</sup>, 1.HV.90.<sup>^</sup>, 1.HW.78.<sup>^</sup>,  
1.HW.79.<sup>^</sup>, 1.HX.71.<sup>^</sup>, 1.HX.78.<sup>^</sup>, 1.HX.79.<sup>^</sup>, 1.HX.80.<sup>^</sup>, 1.HX.83.<sup>^</sup>, 1.HX.86.<sup>^</sup>, 1.HX.87.<sup>^</sup>, 1.HY.85.<sup>^</sup>, 1.HZ.53 rubric  
(except 1.HZ.53.LA-KP), 1.HZ.54.<sup>^</sup>, 1.HZ.55 rubric (except 1.HZ.55.LA-KP), 1.HZ.56.<sup>^</sup>, 1.HZ.57.<sup>^</sup>, 1.HZ.59.<sup>^</sup>, 1.HZ.80.<sup>^</sup>,  
1.HZ.85.<sup>^</sup>, 1.HZ.87.<sup>^</sup>, 1.IF.83.<sup>^</sup>, 1.IJ.50.<sup>^</sup>, 1.IJ.54.GQ-AZ, 1.IJ.55.<sup>^</sup>, 1.IJ.57.<sup>^</sup>, 1.IJ.76.<sup>^</sup>, 1.IJ.80.<sup>^</sup>, 1.IJ.86.<sup>^</sup>, 1.IK.50.<sup>^</sup>,  
1.IK.57.<sup>^</sup>, 1.IK.80.<sup>^</sup>, 1.IK.87.<sup>^</sup>, 1.IN.84.<sup>^</sup>, 1.LA.84.<sup>^</sup>, 1.LC.84.<sup>^</sup>, 1.LD.84.<sup>^</sup>, 1.YY.54.LA-NJ, 1.YY.54.LA-FS, 1.YY.54.LA-NM

Note: Code may be coded in any position. Procedures coded as abandoned after onset (Intervention Status Attribute = A) are excluded.

2. Admission to an acute care institution (Facility Type Code = 1)

3. Age at admission younger than 75

4. Sex recorded as male or female

**Exclusions:**

1. Records with discharge as death (Discharge Disposition Code = 07)

2. Newborn, stillbirth or cadaveric donor records (Admission Category Code = N, R or S)

**Background, Interpretation and Benchmarks**

Rationale Hospitalization for an ambulatory care sensitive condition is considered to be a measure of access to appropriate primary health care. While not all admissions for these conditions are avoidable, it is assumed that appropriate ambulatory care could prevent the onset of this type of illness or condition, control an acute episodic illness or condition, or manage a chronic disease or condition. A disproportionately high rate is presumed to reflect problems in obtaining access to appropriate primary care.

Interpretation Low rates are desirable.

HSP Framework Dimension Health System Outputs: Appropriate and effective

Areas of Need Living With Illness, Disability or Reduced Function

Targets/Benchmarks The appropriate level of hospitalization for these conditions is not known, and large regional variations in the rate of hospitalization for these conditions exist.

Anderson GM. Common Conditions Considered Sensitive to Ambulatory Care. In Patterns of Health Care in Ontario, 2nd Ed. Eds. V. Goel et al. Ottawa, ON: CMA; 1996: 104-110.

Billings J, Anderson GM, Newman LS. Recent Findings on Preventable Hospitalizations. *Health Aff (Millwood)* 1996(15): 239-249.

**References**

Billings J, Zeitel L, Lukomnik J, et al. Impact of Socio-Economic Status on Hospital Use in New York City. *Health Aff (Millwood)* 1993(12): 162-173.

Manitoba Centre for Health Policy and Evaluation. Concept: Ambulatory Care Sensitive (ACS) Conditions. <http://mchp-apps>

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, Neighbourhood Income Quintile

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 Limitations Not applicable

Trending Issues Not applicable

Indicator results are also available in

Comments

- The Health Indicators e-publication (<http://yourhealthsystem.cihi.ca/epub/?language=en>), updated annually starting from data year 2001-2002