

# Coronary Artery Bypass Graft (CABG) Rate

Name	Coronary Artery Bypass Graft (CABG) Rate
Short/Other Names	CABG
Description	<p>This indicator measures the age-standardized rate of coronary artery bypass graft (CABG) surgery performed on inpatients in acute care hospitals, per 100,000 population age 18 and older.</p> <p>For further details, please see the <a href="#">General Methodology Notes</a>.</p>
Interpretation	Does not apply to this measure (i.e., there is no predefined preference for the measure score)
HSP Framework Dimension	Health System Inputs and Characteristics: Health system resources
Areas of Need	Not applicable
Geographic Coverage	All provinces/territories
Reporting Level/Disaggregation	National, Province/Territory, Region
Indicator Results	<a href="http://www.cihi.ca/hirpt/?language=en">http://www.cihi.ca/hirpt/?language=en</a>
Identifying Information	
Name	Coronary Artery Bypass Graft (CABG) Rate
Short/Other Names	CABG
Indicator Description and Calculation	
Description	<p>This indicator measures the age-standardized rate of coronary artery bypass graft (CABG) surgery performed on inpatients in acute care hospitals, per 100,000 population age 18 and older.</p> <p>For further details, please see the <a href="#">General Methodology Notes</a>.            (Total number of discharges for CABG for inpatients 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	Direct Standardization
Denominator	<p><b>Standard Population:</b> Canada 2011</p> <p><b>Description:</b> Total mid-year population age 18 and older</p> <p><b>Description:</b> Total number of discharges for CABG for inpatients age 18 and older</p> <p><b>Inclusions:</b></p> <ol style="list-style-type: none"> <li>CABG is identified as the following procedure code recorded in any position of the procedure code fields:</li> </ol> <p>CCP: 48.1^</p> <p>ICD-9-CM: 36.1</p> <p>CCI: 1.IJ.76^^</p> <ol style="list-style-type: none"> <li>Age at admission 18 years and older</li> <li>Sex recorded as male or female</li> <li>Admission to an acute care institution (Facility Type Code = 1)</li> </ol> <p><b>Exclusions:</b></p> <ol style="list-style-type: none"> <li>Newborn, stillbirth or cadaveric donor records (Admission Category = N, R or S)</li> <li>CABG can be performed in designated cardiac centres only; therefore, procedures reported by facilities without on-site CABG services were excluded from the indicator calculation.</li> <li>Procedures coded as out of hospital and abandoned after onset (Intervention Status Attribute = A or OOH Indicator Flag = Y)</li> </ol>
Numerator	

## Background, Interpretation and Benchmarks

### Rationale

As with other types of surgical procedures, variation in CABG surgery rates can be attributed to numerous factors, including differences in population demographics, physician practice patterns and availability of services. In cases amenable to treatment with less-invasive procedures, percutaneous coronary intervention (PCI), an alternative intervention to improve blood flow to the heart muscle, may be used. Variations in the extent to which PCI is utilized may result in variations in the rate of bypass surgery.

### Interpretation

Does not apply to this measure (i.e., there is no predefined preference for the measure score)

### HSP Framework Dimension

Health System Inputs and Characteristics: Health system resources

### Areas of Need

Not applicable

### Targets/Benchmarks

Benchmarks have not been identified for this indicator.

Cardiac Care Network of Ontario Consensus Panel on Target Setting. *Final Report and Recommendations*. 2004.

Conigliaro, J. et al. "Understanding Racial Variation in the Use of Coronary Revascularization Procedures: The Role of Clinical Factors." *Archives of Internal Medicine* 160 (2000): pp. 1329-1335.

### References

Faris, P. D. et al. "Diagnostic Cardiac Catheterization and Revascularization Rates for Coronary Heart Disease." *Canadian Journal of Cardiology* 20 (2004): pp. 391-397.

Institute for Clinical Evaluative Sciences. *Cardiovascular Health and Services in Ontario*. Toronto, Ont.: ICES, 1999.

Yap, A. G. et al. "Coronary Artery Bypass Surgery on Small Patients." *Journal of Invasive Cardiology* 12 (2000): pp. 242-246.

### Availability of Data Sources and Results

#### Data Sources

DAD, HMDB

#### Type of Year:

Fiscal

#### First Available Year:

2010

#### Last Available Year:

2017

#### Available Data Years

All provinces/territories

#### Geographic Coverage

#### Reporting Level/Disaggregation

National, Province/Territory, Region

#### Result Updates

#### Update Frequency

Every year

#### Web Tool:

Health Indicators e-Publication

URL: <http://www.cihi.ca/hirpt/?language=en>

#### Updates

Not applicable

#### Quality Statement

### Caveats and Limitations

Some residents in New Brunswick's Zone 4 and Zone 5 receive CABG in Quebec under a referral agreement between the 2 provinces. Due to differences in data collection, New Brunswick residents receiving care in Quebec cannot be assigned to their region of residence; thus the rates for these 2 regions are suppressed.

### Trending Issues

Not applicable

### Comments

CABG operations can be performed in designated cardiac centres only; therefore, procedures reported by facilities without on-site CABG services were excluded from the indicator calculation.