

## Alcohol-related hospitalizations and emergency department (ED) visits at a glance

### Highlights

- This report demonstrates the burden of alcohol consumption on the health system by examining the rates of alcohol-related hospitalizations and ED visits for acute events such as alcohol intoxication and for chronic conditions such as liver disease.
- In 2016, there were 29 hospitalizations and 106 ED visits for alcohol-related acute causes in Durham Region residents.
- The hospitalization and ED visit rates by sex in Durham Region residents fluctuated due to small counts; however, the provincial rates for hospitalizations and ED visits for acute causes in males were consistently higher than in females.
- Since 2007, the provincial rates for hospitalizations and ED visits for acute causes showed a steady increase in females only.
- In 2016, there were 781 alcohol-related hospitalizations and 1,369 alcohol-related ED visits for chronic conditions in Durham Region residents.
- The hospitalization and ED visit rates due to chronic diseases in Durham Region males were consistently higher than in females.
- The rates of hospitalization and ED visits in Durham Region residents were lower than the provincial rates.
- Since 2007, Durham Region's hospitalization rate for chronic conditions remained relatively stable while provincial rates showed a slight increase. Similarly, ED visit rates remained relatively stable in Durham Region but increased slightly in Ontario.

### Introduction

Alcohol-related harm for Durham Region is described in the following figures and tables.

- Age-standardized hospitalization rates for alcohol-related acute and chronic causes by sex
- Age-standardized ED visits for alcohol-related acute and chronic causes by sex

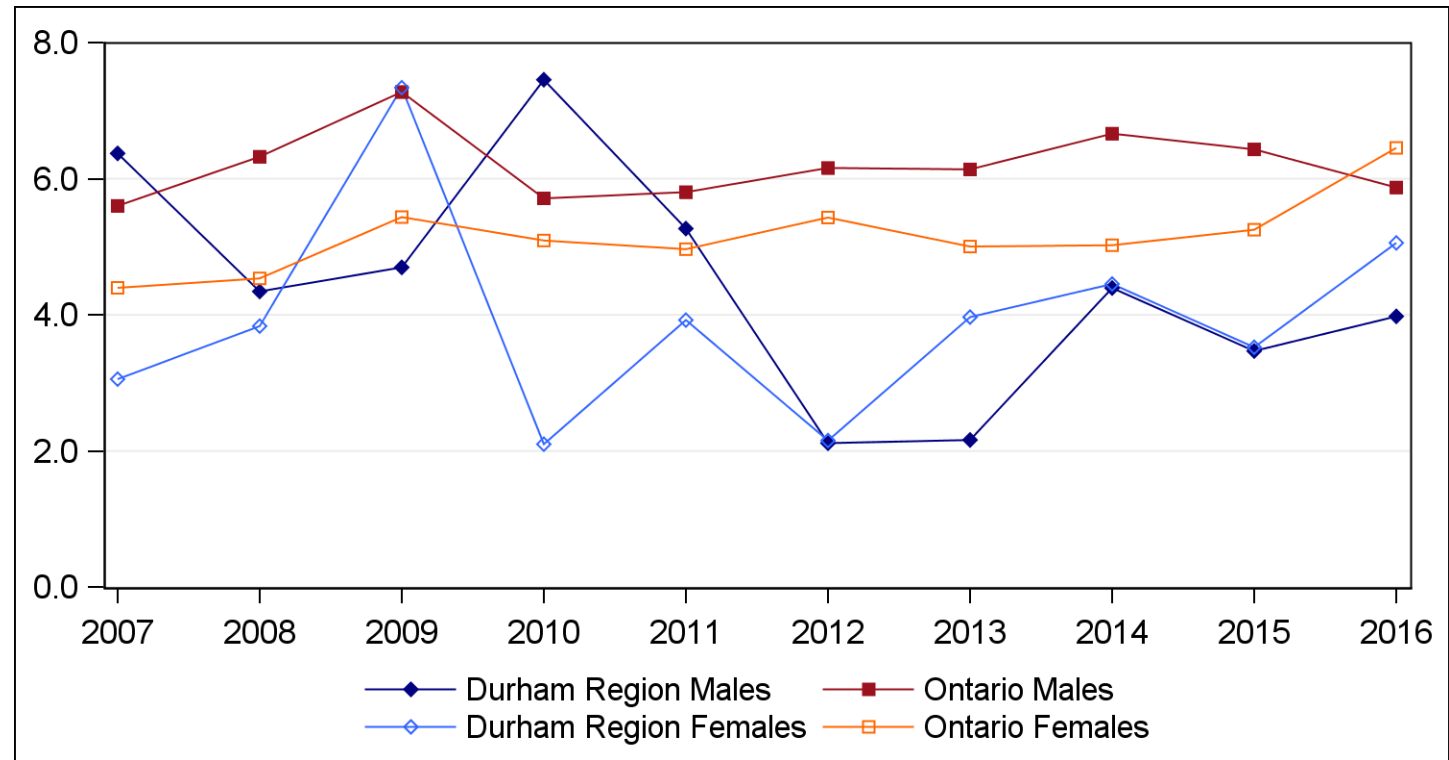
For additional local information on road safety related to impaired driving, contact the Durham Region Police Services, Traffic Services Branch.

Go to the [Health Statistics in Durham Region webpage](#) found at [durham.ca](http://durham.ca) under Departments, Health, Statistics and Publications for more detailed, topic-specific reports on alcohol use.

Contact the Durham Health Connection Line at 905-666-6241 or 1-800-841-2729 for any questions.

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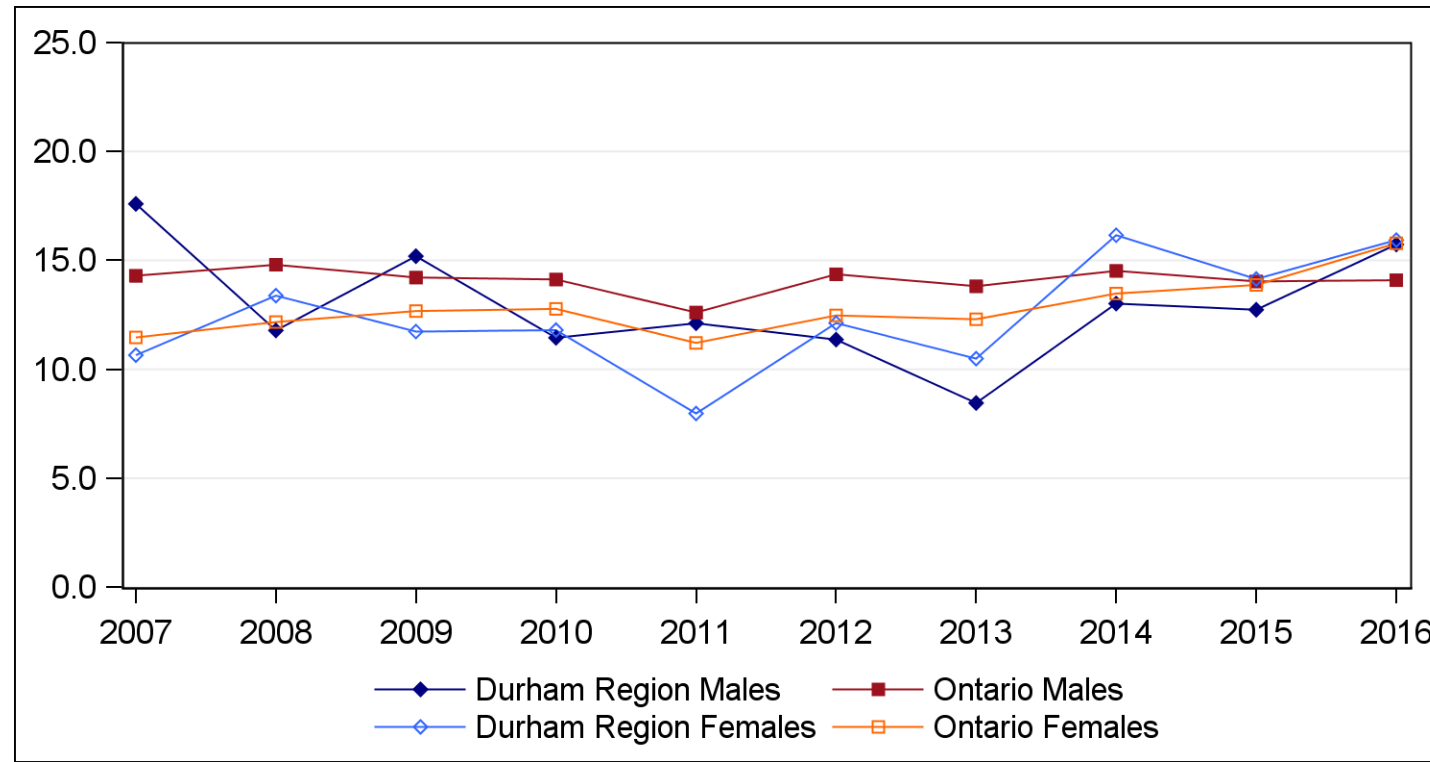
**Figure 1:** Age-standardized hospital separation rate per 100,000 for alcohol-related acute causes for Durham Region and Ontario, by sex, between 2007 and 2016



**Table 1:** Count and age-standardized hospital separation rate per 100,000 for alcohol-related acute causes for Durham Region and Ontario, by sex, between 2007 and 2016

| Statistic                   | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|-----------------------------|------|------|------|------|------|------|------|------|------|------|
| Durham Region Females Rate  | 3.0  | 3.8  | 7.3  | 2.1  | 3.9  | 2.1  | 3.9  | 4.4  | 3.5  | 5.0  |
| Durham Region Females Count | 9    | 12   | 22   | 7    | 13   | 7    | 13   | 15   | 12   | 17   |
| Durham Region Males Rate    | 6.3  | 4.3  | 4.6  | 7.4  | 5.2  | 2.1  | 2.1  | 4.3  | 3.4  | 3.9  |
| Durham Region Males Count   | 19   | 13   | 14   | 22   | 16   | 7    | 7    | 14   | 11   | 12   |
| Ontario Females Rate        | 4.3  | 4.5  | 5.4  | 5.0  | 4.9  | 5.4  | 5.0  | 5.0  | 5.2  | 6.4  |
| Ontario Females Count       | 287  | 295  | 362  | 340  | 333  | 368  | 341  | 344  | 363  | 446  |
| Ontario Males Rate          | 5.6  | 6.3  | 7.2  | 5.7  | 5.8  | 6.1  | 6.1  | 6.6  | 6.4  | 5.8  |
| Ontario Males Count         | 358  | 400  | 464  | 368  | 378  | 405  | 407  | 446  | 432  | 402  |

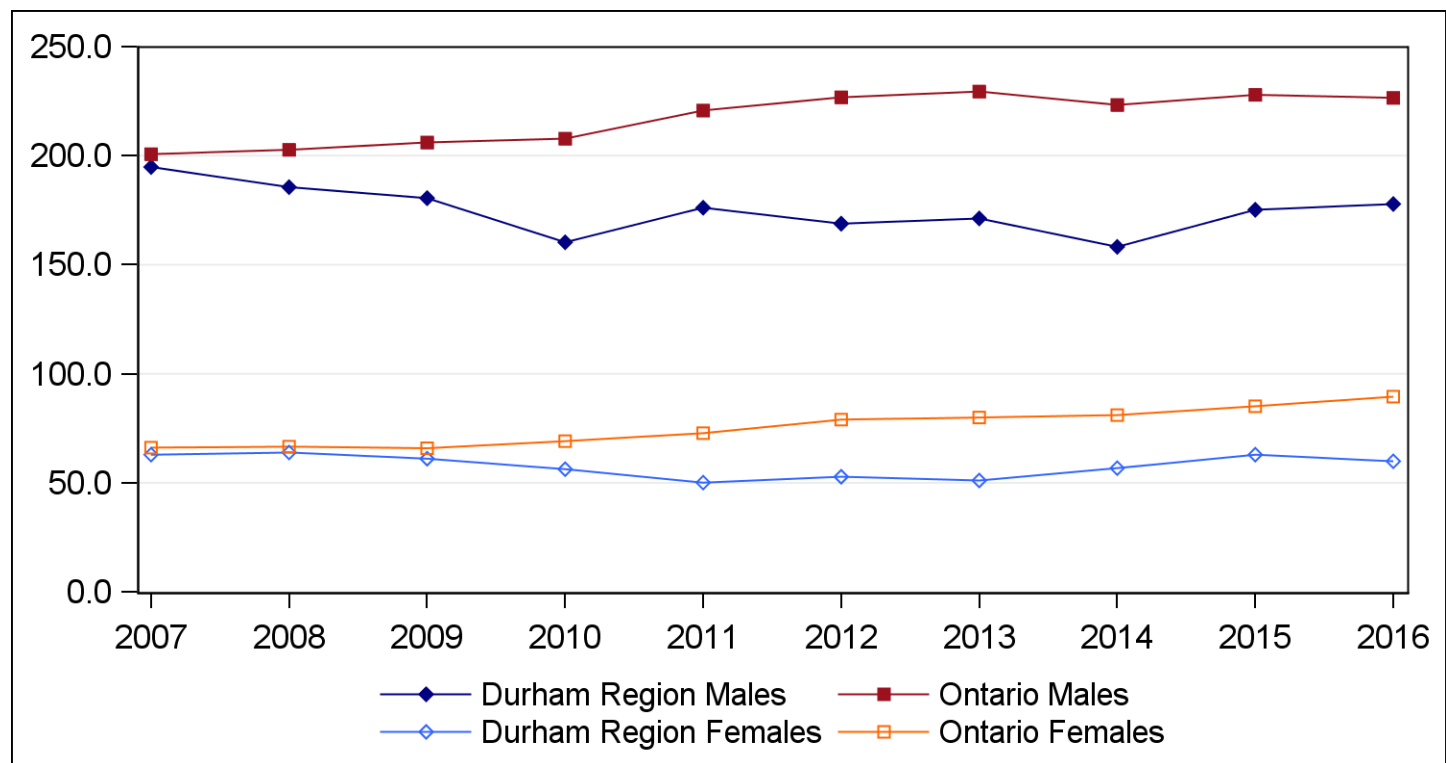
**Figure 2:** Age-standardized ED visit rates per 100,000 for alcohol-related acute causes for Durham Region and Ontario, by sex, between 2007 and 2016



**Table 2:** Count and age-standardized ED visit rates per 100,000 for alcohol-related acute causes for Durham Region and Ontario, by sex, between 2007 and 2016

| Statistic                   | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|-----------------------------|------|------|------|------|------|------|------|------|------|------|
| Durham Region Females Rate  | 10.6 | 13.3 | 11.7 | 11.7 | 7.9  | 12.1 | 10.4 | 16.1 | 14.1 | 15.9 |
| Durham Region Females Count | 33   | 43   | 37   | 38   | 26   | 40   | 34   | 53   | 47   | 54   |
| Durham Region Males Rate    | 17.5 | 11.7 | 15.1 | 11.4 | 12.1 | 11.3 | 8.4  | 13.0 | 12.7 | 15.7 |
| Durham Region Males Count   | 55   | 36   | 48   | 35   | 38   | 35   | 28   | 41   | 42   | 52   |
| Ontario Females Rate        | 11.4 | 12.1 | 12.6 | 12.7 | 11.2 | 12.4 | 12.2 | 13.4 | 13.8 | 15.7 |
| Ontario Females Count       | 746  | 799  | 839  | 851  | 752  | 840  | 835  | 916  | 949  | 1085 |
| Ontario Males Rate          | 14.2 | 14.8 | 14.2 | 14.1 | 12.6 | 14.3 | 13.8 | 14.5 | 14.0 | 14.0 |
| Ontario Males Count         | 918  | 951  | 919  | 919  | 831  | 950  | 922  | 975  | 947  | 964  |

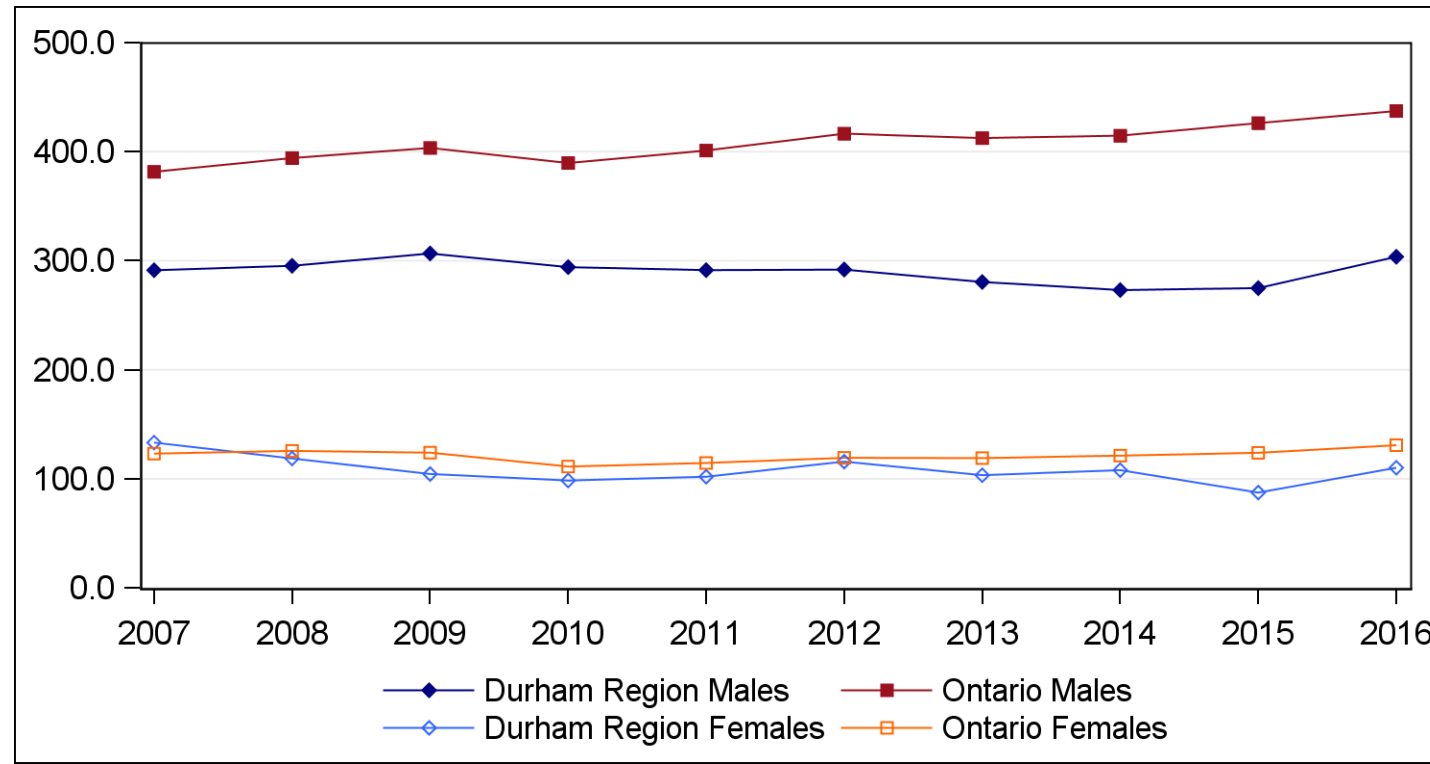
**Figure 3:** Age-standardized hospital separation rate per 100,000 for alcohol-related chronic conditions for Durham Region and Ontario, by sex, between 2007 and 2016



**Table 3:** Count and age-standardized hospital separation rate per 100,000 for alcohol-related acute causes for Durham Region and Ontario, by sex, between 2007 and 2016

| Statistic                   | 2007   | 2008   | 2009   | 2010   | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   |
|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Durham Region Females Rate  | 62.9   | 63.9   | 61.0   | 56.2   | 50.1   | 52.8   | 51.0   | 56.7   | 62.9   | 59.8   |
| Durham Region Females Count | 176    | 179    | 177    | 168    | 157    | 167    | 165    | 189    | 214    | 209    |
| Durham Region Males Rate    | 194.7  | 185.5  | 180.5  | 160.2  | 176.1  | 168.8  | 171.1  | 158.1  | 175.1  | 177.8  |
| Durham Region Males Count   | 467    | 468    | 473    | 436    | 491    | 492    | 511    | 482    | 554    | 572    |
| Ontario Females Rate        | 66.1   | 66.6   | 65.8   | 69.1   | 72.7   | 79.0   | 79.9   | 81.0   | 85.1   | 89.5   |
| Ontario Females Count       | 4,205  | 4,312  | 4,325  | 4,616  | 4,943  | 5,448  | 5,602  | 5,779  | 6,125  | 6,505  |
| Ontario Males Rate          | 200.6  | 202.6  | 206.0  | 207.7  | 220.7  | 226.7  | 229.4  | 223.2  | 227.8  | 226.5  |
| Ontario Males Count         | 11,655 | 12,031 | 12,473 | 12,856 | 13,954 | 14,639 | 15,111 | 14,975 | 15,573 | 15,755 |

**Figure 4:** Age-standardized ED visit rate per 100,000 for alcohol-related chronic conditions for Durham Region and Ontario, by sex, between 2007 and 2016



**Table 4:** Count and age-standardized ED rate per 100,000 for alcohol-related chronic conditions for Durham Region and Ontario, by sex, between 2007 and 2016

| Statistic                   | 2007   | 2008   | 2009   | 2010   | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   |
|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Durham Region Females Rate  | 133.2  | 118.6  | 104.4  | 98.4   | 101.9  | 115.8  | 103.3  | 107.9  | 87.4   | 110.1  |
| Durham Region Females Count | 403    | 364    | 321    | 308    | 327    | 373    | 341    | 358    | 292    | 374    |
| Durham Region Males Rate    | 291.2  | 295.3  | 306.6  | 294.1  | 291.3  | 291.9  | 280.5  | 273.0  | 274.8  | 303.6  |
| Durham Region Males Count   | 817    | 844    | 893    | 869    | 868    | 899    | 877    | 871    | 888    | 995    |
| Ontario Females Rate        | 123.1  | 125.6  | 124.0  | 111.2  | 114.5  | 119.2  | 119.0  | 121.3  | 123.8  | 130.8  |
| Ontario Females Count       | 7,979  | 8,212  | 8,187  | 7,414  | 7,694  | 8,089  | 8,143  | 8,353  | 8,581  | 9,140  |
| Ontario Males Rate          | 381.5  | 394.1  | 403.4  | 389.5  | 401.0  | 416.5  | 412.4  | 414.6  | 426.1  | 437.2  |
| Ontario Males Count         | 23,541 | 24,562 | 25,345 | 24,751 | 25,911 | 27,300 | 27,384 | 27,844 | 28,944 | 30,138 |

## Data Sources

Hospitalization and ED visit data are collected by the Canadian Institute for Health Information (CIHI) on a fiscal year basis. For hospitalizations, the main diagnostic code gives the primary reason for the hospital stay or "most responsible diagnosis" (MRD) while for ED visits, the main diagnostic code is the "main problem" (MP) that is deemed to be the clinically significant reason for the visit. A second set of codes, external cause codes, are used to classify the environmental events, circumstances and conditions that cause an injury (i.e. accidental fall). External cause codes are not used as a MRD or MP so need to be examined separately. Hospitalization and ED visit data provide only a crude measure of the prevalence of an injury. Data are influenced by factors that are unrelated to health status such as availability and accessibility of care, administrative policies and hospital procedures. For example, the 2003 SARS outbreaks likely reduced admissions in affected hospitals including Durham Region. This may influence comparisons between areas and over time.

For all indicators, data were analyzed by the residence of the patient, not where the hospitalization or ED visit occurred. For hospitalizations and ED visits, Ontario residents treated outside of the province were excluded; however, less than 0.5 per cent of hospitalizations for Ontario residents are out-of-province. Data were reported by calendar year, based on year of separation or visit. Hospitalizations to psychiatric facilities are not captured. This report includes hospitalization and ED visit indicators with relevance to public health programming.

Hospitalizations and ED visits for alcohol-related acute conditions that are 100% caused by alcohol were selected using ICD-10-CA codes R78.0 (alcohol in blood), T51 (.0, .1, .9) (toxic effects of alcohol) X45 (alcohol poisoning), X65 (intentional self-poisoning by and exposure to alcohol) and Y15 (excessive blood alcohol level). This excludes events such as injuries from motor vehicle crashes where alcohol may be a contributing factor. Hospitalizations and ED visits for alcohol-related chronic conditions that are 100% caused by alcohol were selected using ICD-10-CA codes F10 (.0 - .9) (alcohol psychosis, abuse and dependence syndrome), G62.1 (alcohol polyneuropathy), G31.2 (degeneration of the nervous system due to alcohol), G72.1 (alcoholic myopathy), I42.6 (alcohol cardiomyopathy), K29.2 (alcoholic gastritis), K70 (.0 - .4, .9) (alcoholic liver disease), Q86.0 (fetal alcohol syndrome), P04.3 (fetus and newborn affected by maternal use of alcohol) and O35.4 (.01, .03, .09) (maternal care for suspected damage to fetus from alcohol) and K86.0 (alcohol induced chronic pancreatitis). This excludes conditions such as heart disease and cancer where alcohol may be a contributing factor. Multiple codes can exist for each hospitalization or ED visit. As such, a unique visit number, either the DAD key or NACRS key respectively, was used to count the number of visits where at least one of the above codes was captured as the most responsible diagnosis/main problem or comorbidity.

## Definitions

### Age-standardized hospitalization rate

An age-standardized hospitalization rate is the number of hospitalizations per 100,000 population that would occur if the population had the same age distribution as the 2011 Canadian population. This rate provides a single summary number that allows populations with different age compositions to be compared.

### Age-standardized ED visit rate

An age-standardized ED Visit Rate is the number of ED visits per 100,000 population that would occur if the population had the same age distribution as the 2011 Canadian population. This rate provides a single summary number that allows populations with different age compositions to be compared.