

# HEALTH SURVEILLANCE INDICATORS: HEAVY DRINKING EPISODES



## Public Health Relevance

'Frequent heavy drinking episodes' is defined in this report as having five or more alcoholic drinks on one occasion once per month or more in the past year. Heavy drinking puts people at higher risk for illness and death from liver disease. When consumed in excess, alcohol increases the risk of liver, throat, breast, and other cancers, as well as high blood pressure, stroke, and other health problems. In addition, people who engage in frequent heavy drinking episodes are at a higher risk for intoxication-related problems, such as driving collisions and unintentional and violent injuries. Excess alcohol consumption is also associated with suicide.

## Highlights

1. Heavy drinking amongst adults in Toronto remained fairly stable from 2007 to 2014.
2. The percent of adults engaged in heavy drinking in Toronto was not significantly different compared to the rest of the GTA and the rest of Ontario.
3. Socio-demographic factors such as gender, age, education, immigrant status, income level, and ethno-racial identity were associated with significant differences in heavy drinking amongst adults in Toronto.

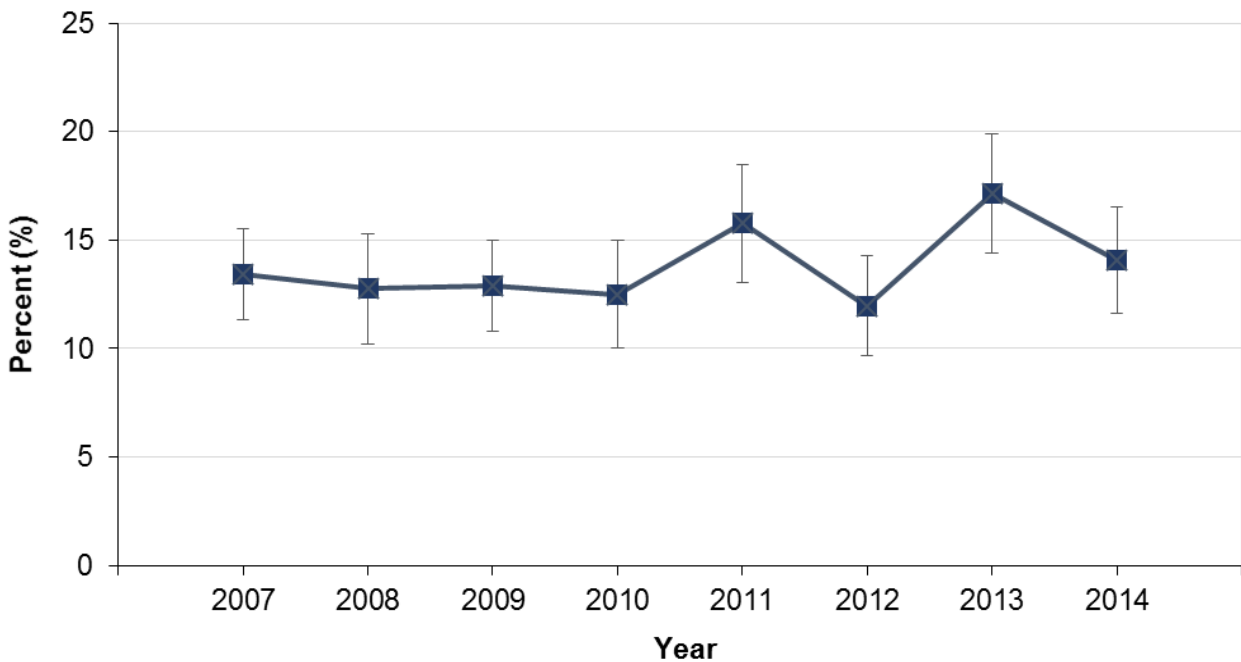
## Trends Over Time

Heavy drinking amongst adults in Toronto remained fairly stable from 2007 to 2014.

Figure 1 shows the percent of adults that engaged in frequent heavy drinking episodes in Toronto from 2007 to 2014.

The percent of adults that engaged in frequent heavy drinking episodes in Toronto remained fairly stable from 2007 (13.4%) to 2014 (14.1%).

**Figure 1: Percent Engaging in Frequent Heavy Drinking Episodes, Adults Aged 20 Years and Older, Toronto, 2007 to 2014**



Error bars (I) represent the 95% confidence intervals.

Data Source: see Data Notes.

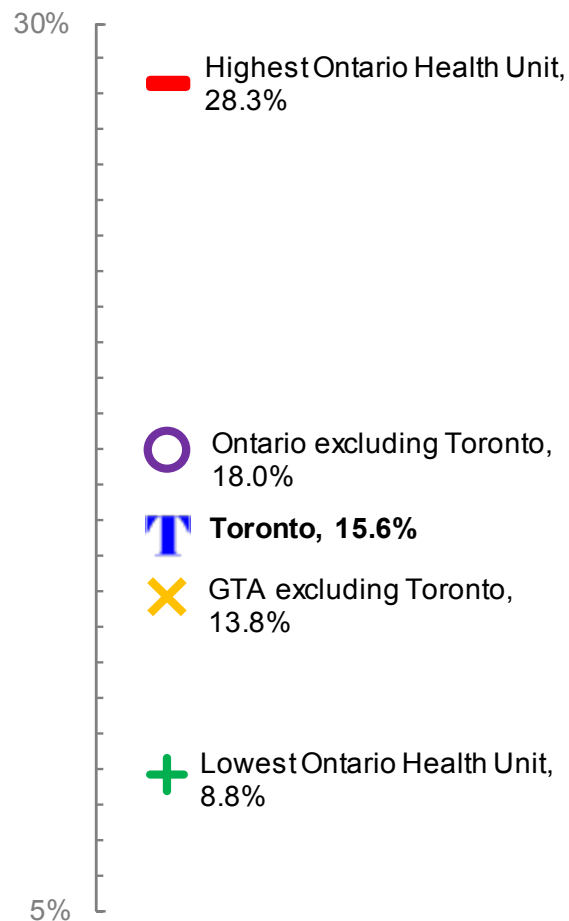
## Regional Comparisons

The percent of adults that engaged in heavy drinking in Toronto was not significantly different compared to the rest of the GTA and the rest of Ontario.

Figure 2 shows the percent of adults that engaged in frequent heavy drinking episodes in Toronto compared to the rest of Ontario (Ontario without Toronto), the rest of the Greater Toronto Area (GTA without Toronto), and the health units (HUs) in Ontario with the highest and lowest percent in 2013/2014.

The percent of adults that engaged in frequent heavy drinking in Toronto was not significantly different compared to the rest of the GTA and the rest of Ontario.

**Figure 2: Percent Engaging in Frequent Heavy Drinking Episodes, Adults Aged 20 Years and Older, Selected Regions in Ontario, 2013/2014**



Data Source: see Data Notes.

## Socio-demographics

Socio-demographic factors such as gender, age, education, immigrant status, income level, and ethno-racial identity were associated with significant differences in heavy drinking amongst adults in Toronto.

Table 1 shows the percent of adults that engaged in frequent heavy drinking episodes by sex in Toronto in 2013/2014.

Males were significantly more likely to engage in frequent heavy drinking as compared to females.

**Table 1: Percent Engaging in Frequent Heavy Drinking Episodes by Sex, Adults Aged 20 Years and Older, Toronto, 2013/2014**

Sex	%
Male	19.9 <sup>H</sup>
Female	11.7

<sup>H</sup> Significantly higher than the other sex indicating an unfavourable result for this group.  
Data Source: see Data Notes.

Table 2 shows the percent of adults that engaged in frequent heavy drinking episodes by age group in Toronto in 2013/2014.

Heavy drinking decreased significantly with increasing age. Adults in the 20 to 39 years age group were significantly more likely to engage in frequent heavy drinking as compared to adults in the 40 years and older age groups. Adults in the 65 years and older age group were significantly less likely to engage in frequent heavy drinking as compared to adults in the younger age groups.

**Table 2: Percent Engaging in Frequent Heavy Drinking Episodes by Age Group, Adults Aged 20 Years and Older, Toronto, 2013/2014**

Age Group	%
20 to 39 Years	25.5 <sup>H</sup>
40 to 64 Years	11.1 <sup>H</sup>
65 Years and older	4.3 <sup>C</sup>

<sup>H</sup> Significantly higher than the age group with the lowest percent, thus, indicating an unfavourable result for this group.

<sup>C</sup> Moderately high sampling variability, interpret with caution.

Data Source: see Data Notes.

Table 3 shows the percent of adults that engaged in frequent heavy drinking episodes by education level in Toronto in 2013/2014.

Adults who had completed high school education or more were significantly more likely to engage in frequent heavy drinking as compared to adults with less than high school education.

**Table 3: Percent Engaging in Frequent Heavy Drinking Episodes by Education Level, Adults Aged 20 Years and Older, Toronto, 2013/2014**

Education Level	%
Less than High School	6.6 <sup>c</sup>
High School Graduate	17.7 <sup>H</sup>
Post-Secondary Education	17.0 <sup>H</sup>

<sup>c</sup> Moderately high sampling variability, interpret with caution.

<sup>H</sup> Significantly higher than the education level with the lowest percent, thus, indicating an unfavourable result for this group.

Data Source: see Data Notes.

Table 4 shows the percent of adults that engaged in frequent heavy drinking episodes by immigrant status in Toronto in 2013/2014.

Canadian-born adults were significantly more likely to engage in frequent heavy drinking as compared to immigrant adults.

**Table 4: Percent Engaging in Frequent Heavy Drinking Episodes by Immigrant Status, Adults Aged 20 Years and Older, Toronto, 2013/2014**

Immigrant Status	%
Immigrant	8.0
Canadian-born	28.2 <sup>H</sup>

<sup>H</sup> Significantly higher than the immigrant status group with the lowest percent, thus, indicating an unfavourable result for this group.

Data Source: see Data Notes.

Table 5 shows the percent of adults that engaged in frequent heavy drinking episodes by income level in Toronto in 2013/2014.

The percent of adults that engaged in frequent heavy drinking increased significantly with income level. Adults in the high income group were significantly more likely to engage in frequent heavy drinking as compared to low and middle income groups.

**Table 5: Percent Engaging in Frequent Heavy Drinking Episodes by Income Level, Adults Aged 20 Years and Older, Toronto, 2013/2014**

Income Level	%
Low Income	8.1
Middle Income	15.0 <sup>H</sup>
High Income	23.0 <sup>H</sup>

<sup>H</sup> Significantly higher than the income group with the lowest percent, thus, indicating an unfavourable result for this group.

Data Source: see Data Notes.

Table 6 shows the percent of adults that engaged in frequent heavy drinking episodes by ethno-racial identity in Toronto in 2013/2014.

White adults were significantly more likely to engage in frequent heavy drinking as compared to racialized adults.

**Table 6: Percent Engaging in Frequent Heavy Drinking Episodes by Ethno-racial Identity, Adults Aged 20 Years and Older, Toronto, 2013/2014**

Ethno-racial Identity	%
White	22.7 <sup>H</sup>
Racialized	8.0

<sup>H</sup> Significantly higher than the other ethno-racial group, thus, indicating an unfavourable result for this group.

Data Source: see Data Notes.

## Data Notes

### Notes

- Significant differences were estimated using overlapping confidence intervals. Although this method is conservative ( $\alpha \sim < 0.01$ ) and most appropriate when comparing mutually exclusive groups, it was chosen as an objective means of drawing conclusions on population-based data. Multiple comparisons performed in the analyses were not taken into consideration when choosing the level of significance to test.
- Toronto is compared to the rest of Ontario (Ontario with Toronto removed) as opposed to the Ontario total because Toronto comprises a large proportion of the Ontario population. Toronto is also compared to the rest of the GTA (Greater Toronto Area) for the same reason.
- Data used for the regional comparisons normally shows the percentage for the Ontario health units with the highest and the lowest percentage. The purpose of these comparisons is to show the percent for Toronto relative to other areas in Ontario.
- The estimates in this indicator page are from self-reported data from the Canadian Community Health Survey (CCHS). Self-reported data have a number of limitations. People do not always remember their behaviours, and may under-report or over-report certain behaviours or characteristics based on their perceived social desirability. For example, people may report lower alcohol consumption because they perceive this to be a "better" response. In addition, surveys do not always provide a representative picture of the whole population. The CCHS under-represents people of low income, people with low education, new immigrants, and people with serious mental health issues. If a respondent did not respond to a survey question relevant to the analysis presented, they were excluded from both the numerator and the denominator.
- Time trend analysis is based on the most recent 8 years of data. This is because the CCHS changed from a two-year release cycle to an annual release cycle starting in 2007.

### Definitions

**95% Confidence Interval** is the range within which the true value lies, 19 times out of 20.

**Frequent Heavy Drinking Episodes** is defined as having had five or more alcoholic drinks on one occasion once per month or more in the past 12 months.

**Immigrants** are those respondents whose country of birth is outside of Canada.

**Income Level** is derived as three equally divided parts of the weighted population based on the respondents' adjusted household income ratios. A respondent's adjusted household income ratio is calculated using the total household income, Statistics Canada's 2013-2014 Low Income Cut Offs (LICOs), and the CCHS income adjustment factor. Approximately 30% of survey respondents included in this analysis had their income level imputed based on other socio-demographic characteristics.

**Racialized** is used to define groups that do not identify themselves as White, recognizing that 'races' or 'visible minorities' are socially constructed but have real consequences for individuals and communities. Ethnic origins in this category include Black, Korean, Filipino, Japanese, Chinese, South Asian, Southeast Asian, Arab, West Asian, Latin American, other racial/cultural origin, and multiple racial/cultural origins. Aboriginal respondents are not included in this category because of their unique identity, history, and experiences. They are excluded from the analysis by ethno-racial identity.

**Sex** defines people based on their biological characteristics, whereas 'Gender' is a socially constructed concept. From a social determinants of health perspective, certain health conditions can be associated with gender, and from a biological perspective, health conditions can be associated with sex. Although reporting based on both concepts would be preferable, the data source used here only collects information on sex, and not gender.

## Sources

**Canadian Community Health Survey:** Canadian Community Health Survey (CCHS), 2007 to 2014. Statistics Canada, Share File, Knowledge Management and Reporting Branch, Ontario Ministry of Health and Long-Term Care.

Used in:

- Figure 1
- Tables 1

Health Surveillance Indicators: Heavy Drinking Episodes

Category: Chronic Disease

Prepared: November 2017

This indicator report is part of a series that informs the ongoing assessment of Toronto's health status. For a full list of the indicators, please go to: [www.toronto.ca/health](http://www.toronto.ca/health)