

# HEAVY DRINKING

## Heavy drinking:

Age-standardized percentage of individuals 19 years or older who reported drinking five or more drinks on at least one occasion per month in the past 12 months.

## Data sources:

Canadian Community Health Survey 2007/08, 2009/10, 2011/12, 2013/14, Statistics Canada, Share File, Ontario Ministry of Health and Long-Term Care.

## Rate calculation:

Crude rates were age-standardized using the Direct Method and standard 2011 Canadian population.

## Data analysis for Canadian Community Health Survey (CCHS) data:

The confidence intervals and variance were measured using the bootstrapping method, calculated with STATA IC/14.2 (2014).

## Interpretation if a significant difference:

A statistic interpreted as 'significantly different' from another is an estimate found to be statistically meaningful, in such a way that the difference between two estimates is unlikely due to chance and represents a real difference. Error bars noted in figures within this report illustrate 95% confidence intervals. If there is no overlap in range, the difference can be described as statistically significant.

## Overall

In 2013/14, the age-standardized percentage of adults of legal drinking age in the North Bay Parry Sound District Health Unit (NBPSDHU) region who drank five or more drinks on at least one occasion per month in the previous 12 months (i.e., participated in heavy drinking) was similar to the same percentage in Ontario (Table 1). In previous years (2007-12), this percentage was significantly higher in our region compared to Ontario. Percentages have not changed significantly since 2007/08 in any of the three regions.

Table 1. Percentage (95%) of Individuals Aged 19 Years or Older Who Reported Drinking Five or More Drinks on at Least One Occasion per Month in the Past 12 Months, By Region, 2007/08 – 2013/14

| Time period | NBPSDHU Region        | North East LHIN Region | Ontario              |
|-------------|-----------------------|------------------------|----------------------|
| 2007/08     | 26.7*<br>(22.9, 30.8) | 24.5*<br>(22.3, 26.8)  | 17.1<br>(16.4, 17.8) |
| 2009/10     | 23.9*<br>(18.8, 29.9) | 23.6*<br>(21.3, 26.2)  | 17.4<br>(16.6, 18.2) |
| 2011/12     | 23.4*<br>(18.7, 28.8) | 22.3*<br>(19.8, 25.1)  | 17.8<br>(17.0, 18.6) |
| 2013/14     | 21.8<br>(16.6, 28.1)  | 25.1*<br>(22.3, 28.1)  | 18.1<br>(17.3, 19.0) |

\* Estimate is significantly different from provincial estimate

## Gender

Data from 2007 to 2014 was combined to analyze heavy drinking by gender. About one in three males participated in heavy drinking, significantly higher compared to about one in four males in Ontario (Table 2). The age-standardized percentage for males who was about double than the percentage for females in our region.

Table 2. Percentage (95%) of Individuals Aged 19 Years or Older Who Reported Drinking Five or More Drinks on at Least One Occasion per Month in the Past 12 Months, By Gender & Region, 2007 – 2014 Combined

| Gender | NBPSDHU Region          | North East LHIN Region | Ontario              |
|--------|-------------------------|------------------------|----------------------|
| Male   | 34.7* ‡<br>(31.0, 38.5) | 33.8*<br>(31.5, 36.1)  | 24.4<br>(23.8, 25.0) |
| Female | 15.9<br>(12.8, 19.5)    | 13.8<br>(12.3, 15.4)   | U                    |

\* Estimate is significantly different from provincial estimate

‡ Estimate is significantly different from reference group

U Estimate for combined sample is unavailable as estimate changed between 2010-14

### Adjusted Household Income:

The population's household income adjusted for family size, divided into three equally sized groups (lowest income, middle income, and highest income). Household income is divided by the squared number of persons in that household, for each person. For example, lowest income represents the one third of households with the lowest income per household size and the third tertile represents the one third of households with the highest income per household size.

### Age Group

Data from 2007 to 2014 was combined to analyze heavy drinking by age groups. The age-standardized percentage of the population aged 45 to 64 years who participated in heavy drinking was significantly higher in our region (25.4%) compared to Ontario (14.3%; Table 3). The age-standardized rate of heavy drinking among those aged 19-24 was higher than the Ontario, but this difference was not statistically significant.

**Table 3. Percentage (95%) of Individuals Aged 19 Years or Older Who Reported Drinking Five or More Drinks on at Least One Occasion per Month in the Past 12 Months, By Age Group & Region, 2007 – 2014 Combined**

| Age Group (Years)  | NBPSDHU Region                 | North East LHIN Region | Ontario              |
|--------------------|--------------------------------|------------------------|----------------------|
| <b>19-24</b>       | 47.3<br>(35.7, 59.2)           | 45.0*<br>(39.1, 51.0)  | 34.7<br>(33.0, 36.5) |
| <b>25-44</b>       | 24.9<br>(20.7, 29.6)           | 28.7*<br>(26.2, 31.4)  | 20.2<br>(19.6, 20.8) |
| <b>45-64</b>       | 25.4* $\Delta$<br>(20.9, 30.5) | 18.6*<br>(16.5, 20.8)  | 14.3<br>(13.7, 14.9) |
| <b>65 or older</b> | 6.7<br>(4.8, 9.2)              | 5.4<br>(4.4, 6.6)      | U                    |

\* Estimate is significantly different from provincial estimate

$\Delta$  Estimate is significantly different from the North East LHIN region estimate

U Estimate for combined sample is unavailable as estimate changed between 2009-12

### Adjusted Household Income

Data from 2007 to 2014 was combined to analyze heavy drinking by adjusted household income. Heavy drinking was similar across all household income levels in our region (Table 4). In the North East LHIN region, significantly higher percentages of the population living in middle and high income households were drinking heavily compared to low income households.

**Table 4. Percentage (95%) of Individuals Aged 19 Years or Older Who Reported Drinking Five or More Drinks on at Least One Occasion per Month in the Past 12 Months, By Adjusted Household Income Level & Region, 2007 – 2014 Combined**

| Income Level             | NBPSDHU Region       | North East LHIN Region          | Ontario                         |
|--------------------------|----------------------|---------------------------------|---------------------------------|
| <b>Low income (ref.)</b> | 22.6<br>(17.6, 28.6) | 18.8<br>(16.6, 21.2)            | 13.0<br>(12.3, 13.6)            |
| <b>Mid income</b>        | 25.5<br>(21.2, 30.3) | 24.1 $\ddagger$<br>(21.6, 26.9) | 19.2 $\ddagger$<br>(18.5, 19.9) |
| <b>High income</b>       | 27.7<br>(22.9, 33.0) | 26.2 $\ddagger$<br>(23.9, 28.6) | U                               |

$\ddagger$  Estimate is significantly different from reference group

U Estimate for combined sample is unavailable as estimate changed between 2009-12

### Unemployment:

Those involuntarily unemployed is defined by the population who had not worked at a job or business in the past week, had not been absent from work in the past week, and had looked for work in the past four weeks. Employment is defined by the population who had worked at a job or business in the past week, or had been absent from work in the past week.

## Education

Data from 2011 to 2014 was combined to analyze heavy drinking by highest level of education completed. The age standardized percentage of those participating in heavy drinking was significantly higher among those who had completed a trade/apprenticeship/college/university or higher education in our region (23%) compared to those with the same level of education in Ontario (17%; Table 5). Heavy drinking did not vary significantly by education level in our region.

**Table 5. Percentage (95%) of Individuals Aged 19 Years or Older Who Reported Drinking Five or More Drinks on at Least One Occasion per Month in the Past 12 Months, By Highest Level of Education Completed & Region, 2011 – 2014 Combined**

| Education  | NBPSDHU Region                   | North East LHIN Region | Ontario                |
|--|----------------------------------|------------------------|------------------------|
| Less than high school (ref.)                                     | 12.7 <sup>E</sup><br>(7.8, 19.8) | 21.8*<br>(17.2, 27.3)  | 14.6<br>(13.1, 16.3)   |
| Completed high school  | 23.7<br>(18.1, 30.4)             | 24.3*<br>(20.1, 29.1)  | 17.8 ‡<br>(16.7, 18.9) |
| Trade/<br>Apprenticeship/<br>College/<br>University<br>or higher | 23.1*<br>(18.4, 28.6)            | 21.5*<br>(19.1, 24.2)  | 16.5<br>(15.9, 17.2)   |

\* Estimate is significantly different from provincial estimate

‡ Estimate is significantly different from reference group

E Interpret with caution; the estimate is associated with high sampling variability

## Unemployment

Data from 2007 to 2014 was combined to analyze heavy drinking by employment status. Heavy drinking did not vary significantly by employment status in any of the three regions (Table 6). Heavy drinking was significantly higher among those who were employed and those involuntarily unemployed in our region and the North East LHIN region compared to those in Ontario.

**Table 6. Percentage (95%) of Individuals Aged 19 Years or Older Who Reported Drinking Five or More Drinks on at Least One Occasion per Month in the Past 12 Months, By Employment Status & Region, 2007 – 2014 Combined**

| Employment status        | NBPSDHU Region        | North East LHIN Region | Ontario              |
|--------------------------|-----------------------|------------------------|----------------------|
| Employed                 | 28.8*<br>(25.2, 32.8) | 27.1*<br>(25.4, 29.0)  | 20.6<br>(20.0, 21.1) |
| Involuntarily unemployed | 41.0*<br>(30.1, 52.8) | 27.6*<br>(22.2, 33.7)  | 18.7<br>(17.0, 20.5) |

\* Estimate is significantly different from provincial estimate

## Aboriginal identity

Data from 2011 to 2014 was combined to analyze heavy drinking by Aboriginal identity. Heavy drinking did not vary significantly by Aboriginal identity in our region or in the North East LHIN region (Table 7). Heavy drinking was significantly higher among those who did not identify as Aboriginal in our region and in the North East LHIN region compared to those in Ontario.

**Table 7. Percentage (95%) of Individuals Aged 19 Years or Older Who Reported Drinking Five or More Drinks on at Least One Occasion per Month in the Past 12 Months, By Aboriginal Identity & Region, 2011 – 2014 Combined**

| <b>Aboriginal Identity</b>                   | <b>NBPSDHU Region</b> | <b>North East LHIN Region</b> | <b>Ontario</b>         |
|--|-----------------------|-------------------------------|------------------------|
| <b>Identified as Aboriginal</b>              | 21.9<br>(14.7, 31.2)  | 24.8<br>(19.1, 31.5)          | 20.7 ‡<br>(18.5, 23.2) |
| <b>Did not identify as Aboriginal (ref.)</b> | 21.7*<br>(18.3, 25.6) | 21.2*<br>(19.2, 23.2)         | 16.0<br>(15.6, 16.5)   |

\* Estimate is significantly different from provincial estimate

‡ Estimate is significantly different from reference group