



Ontario

Cancer Care Ontario

Action Cancer Ontario



# Cancer Risk Factors in Ontario

Alcohol – levels of consumption



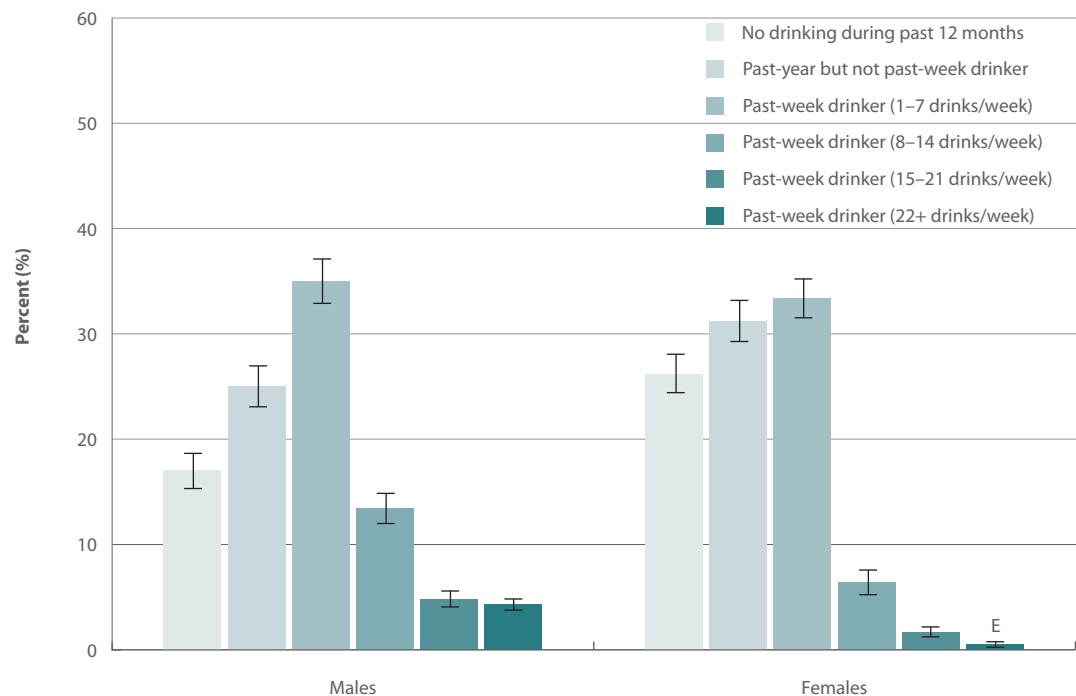
## 4. LEVELS OF ALCOHOL CONSUMPTION

While most adult Ontarians are not drinking more than recommended for cancer prevention, it is important to monitor all levels of alcohol consumption, given that there is no known “safe” lower limit of consumption to prevent an increased risk of cancer.<sup>1</sup> Even small amounts of alcohol have been shown to increase the risk of some cancers, and the risk of oral and pharyngeal cancers, as well as breast cancer, is increased with each additional drink consumed per day.<sup>1,9–11</sup>

### 4.1 OVERVIEW: DRINKING AT DIFFERENT LEVELS OF CONSUMPTION

**FIGURE 10.**

Alcohol consumption patterns during past 12 months and past week, Ontario adults (aged 19+), 2012



**Notes:** Estimates are age-standardized to the 2006 Canadian population.

┆ represent 95% confidence intervals.

E—Interpret with caution due to high sampling variability.

Alcohol consumption categories are mutually exclusive.

**Source:** Canadian Community Health Survey, 2012 (Statistics Canada)

- The majority of Ontario adults consume alcohol, with consumption generally higher among males than females. In 2012, 17.0% of adult males and 26.2% of adult females in Ontario reported that they had not had a drink in the past 12 months. This is similar to estimates published in other Ontario studies.<sup>36</sup>
- In 2012, a similar proportion of adult males (35.0%) and females (33.4%) reported having one to seven drinks during the past week, or an average of up to one drink a day (Figure 10).

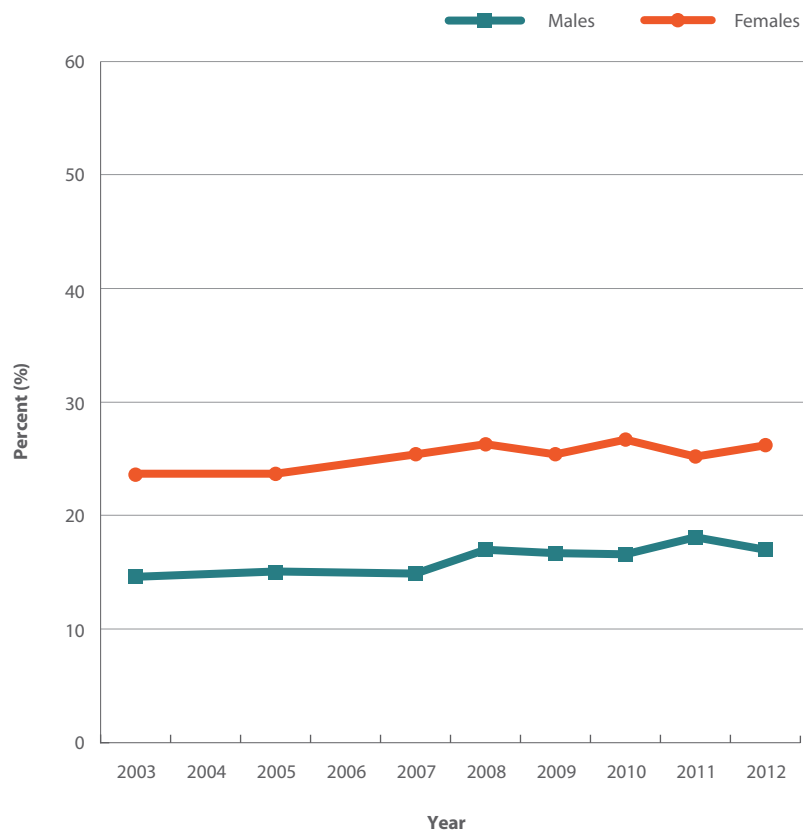


A significantly larger proportion of males, however, reported having eight to 14 drinks (13.4% males, 6.4% females), or an average of more than one and up to two drinks a day.

- Significantly more males reported drinking at higher levels of consumption; 4.8% of males compared with 1.7% of females reported having 15 to 21 drinks during the past week (an average of more than two and up to three drinks a day), while 4.3% of males compared with less than 1% of females reported having more than 22 drinks per week (an average of more than three drinks a day). Ontario adults drinking at higher levels of consumption are at an especially increased risk for cancer, given the substantial increase in risk associated with heavy alcohol drinking (four or more drinks per day).<sup>9,10,12–15</sup>

## 4.2 ABSTAINING DURING PAST YEAR

**FIGURE 11.**  
Percentage of Ontario adults (aged 19+) abstaining from drinking alcohol during past 12 months, 2003–2012



**Notes:** Estimates are age-standardized to the 2006 Canadian population.

**Source:** Canadian Community Health Survey, 2003, 2005, 2007–2012 (Statistics Canada)

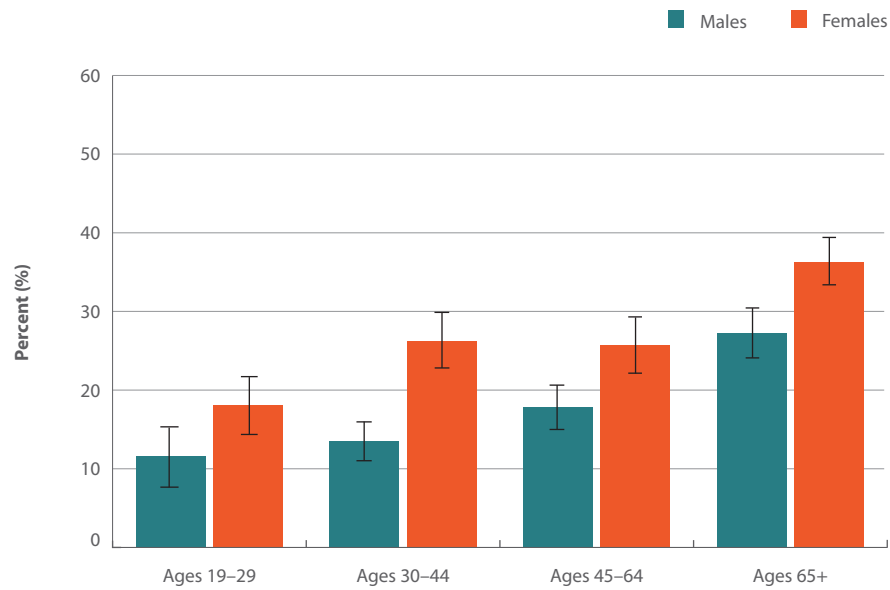


- The prevalence of abstaining during the past 12 months increased significantly between 2003 (males 14.6%, females 23.6%) and 2012 (males 17.0%, females 26.2%); the proportion was consistently higher in females than in males throughout this period (Figure 11).
- The group of adults who have not had a drink in the past 12 months is likely heterogeneous, with composition that includes never-drinkers, as well as people who have stopped drinking alcohol for a variety of reasons, including past problem-drinking behaviours. Although data on past drinking behaviour is not currently available in the Canadian Community Health Survey (CCHS), data from 2005, the most recent year for which data on former drinkers are available, show that over half of adults who reported not drinking during the past 12 months were former drinkers (67% males, 59% females) who reported having at least one drink in their lifetime. Among those who were former drinkers, the proportion of former drinkers who regularly drank more than 12 drinks a week was much higher in males (35%) than in females (7%).
- The increase in prevalence of abstaining from drinking may be explained, in part, by the increased proportion of immigrants from countries where alcohol consumption is less common. The immigrant proportion of Canada's population has increased steadily, while the countries of origin among immigrants to Canada have changed from mostly European to predominantly Asian and African over the past several decades.<sup>44</sup>



**FIGURE 12.**

Percentage of Ontario adults (aged 19+) abstaining from drinking alcohol during past 12 months, by age group, 2012



**Notes:** I represent 95% confidence intervals.

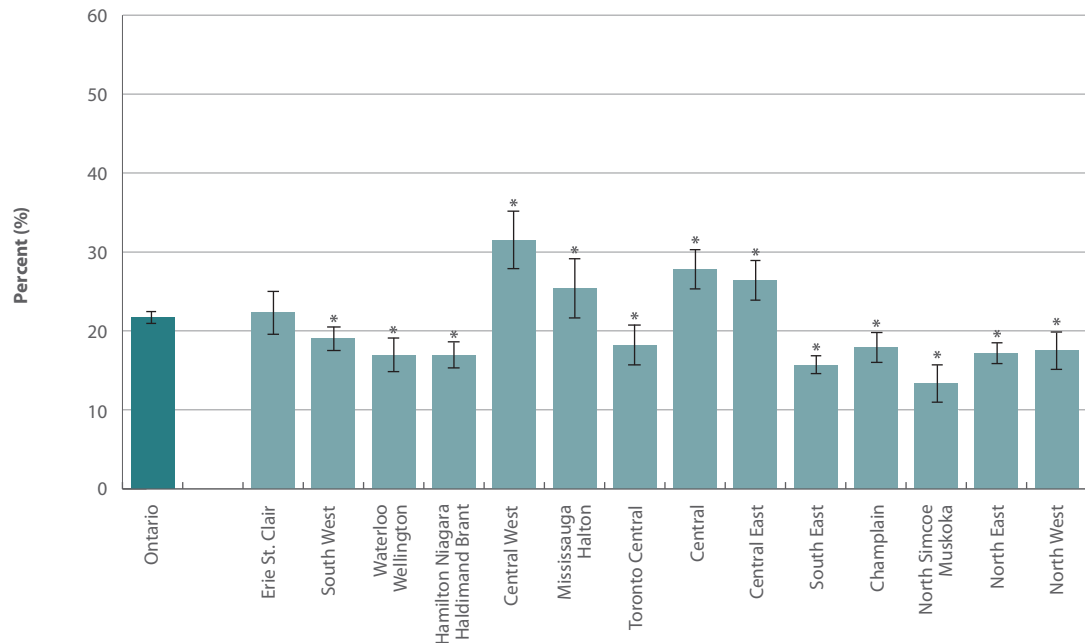
**Source:** Canadian Community Health Survey, 2012 (Statistics Canada)

- In 2012, the age-specific prevalence of abstinence during the past 12 months was lowest in the 19–29 age group (males 11.6%, females 18.1%) and generally rose with increasing age (Figure 12). Prevalence was significantly higher among adults aged 65 and older (27.2% males, 36.3% females) than among all younger age groups.
- For all age groups, a larger proportion of females than males reported abstaining in the past 12 months.



**FIGURE 13.**

Percentage of Ontario adults (aged 19+) abstaining from drinking alcohol during past 12 months, by Local Health Integration Network, 2010–2012 combined



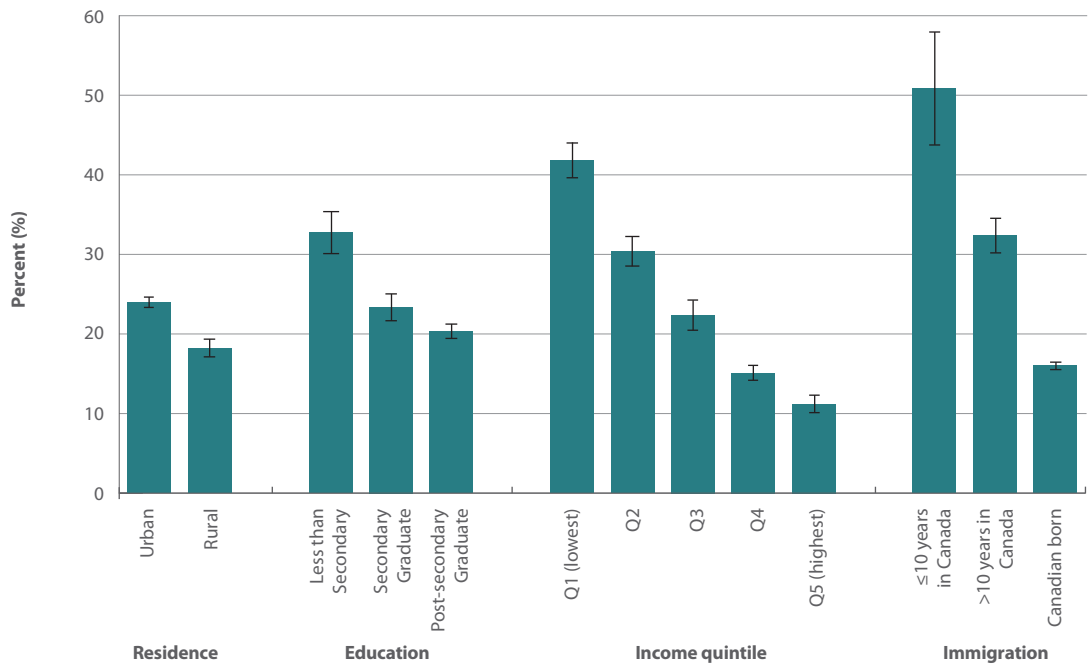
**Notes:** Estimates are age-standardized to the 2006 Canadian population.   
 I represent 95% confidence intervals.   
 Data from CCHS cycles 2010 through 2012 combined to increase sample size for analyses by Local Health Integration Network.   
 \*Estimate is significantly higher or lower than the Ontario estimate.   
**Source:** Canadian Community Health Survey, 2010–2012 (Statistics Canada)

- The proportion of adults abstaining from drinking during the past 12 months varied significantly among Ontario’s 14 Local Health Integration Networks (LHINs), from a low of 13.4% in the North Simcoe Muskoka LHIN to a high of 31.5% in the Central West LHIN (Figure 13; see Appendix D for map showing LHIN boundaries). This is consistent with Figure 6, which shows that the prevalence of drinking in excess of the cancer prevention recommendations was the highest in the North Simcoe Muskoka LHIN and among the lowest in the Central West LHIN.
- The prevalence of abstinence during the past 12 months differed significantly from the provincial estimate of 21.7% in all LHINs except Erie St. Clair. Prevalence in the Central West, Mississauga Halton, Central and Central East LHINs was higher than the provincial estimate, while prevalence in the South West, Waterloo Wellington, Hamilton Niagara Haldimand Brant, Toronto Central, South East, Champlain, North Simcoe Muskoka, North East and North West LHINs was significantly lower.
- Differences in the demographics, and in particular immigration, may have contributed to the variation among LHINs in the proportion of the population that abstained from



drinking in the past 12 months. Recent immigrants were substantially more likely to have reported abstinence during the past year compared with Canadian-born adults (Figure 14) and the proportion of the population they comprise varies widely from LHIN to LHIN.<sup>45</sup>

**FIGURE 14.** Percentage of Ontario adults (aged 30+) abstaining from drinking alcohol during past 12 months, by selected socio-demographic factors, 2010–2012 combined



**Notes:** Estimates are age-standardized to the 2006 Canadian population.  
 ┆ represent 95% confidence intervals.  
 Data from CCHS cycles 2010 through 2012 combined to increase sample size for analyses by socio-demographic factors.  
**Source:** Canadian Community Health Survey, 2010–2012 (Statistics Canada)

- The proportion of adult Ontarians abstaining from drinking alcohol during the past 12 months differs strikingly across levels of four socio-demographic factors (Figure 14).
- For 2010–2012 combined, the prevalence of abstinence during the past 12 months was significantly higher among adults (aged 30+) living in urban (24.0%) than in rural areas (18.2%), among the least educated group (32.8%) than in the most educated group (20.3%), among the lowest income group (41.8%) than in the highest (11.2%) and among immigrants who have been in Canada for 10 years or less (50.8%) than Canadian-born adults (16.0%).



- A clear gradient is observed for each socio-demographic factor; the proportion of adults abstaining decreased significantly with increasing education level, increasing income and increasing time spent in Canada.
- The predominant countries of origin among immigrants to Canada have changed over the past several decades. Before 1961, 93% of immigrants to Ontario were from Europe;<sup>39</sup> between 2006 and 2011, 71% of immigrants were arriving from Asia (including the Middle East) and Africa.<sup>40</sup> This suggests that, as with immigrant and non-immigrant differences in exceeding cancer prevention recommendations (see section 3.5), the higher prevalence of abstinence during the past 12 months among immigrants—particularly recent immigrants—compared with Canadian-born adults might be explained by the increased proportion of immigrants from Asia and Africa, where adult per capita consumption of alcohol is much lower.<sup>41</sup>

### 4.3 NUMBER OF DRINKS CONSUMED WEEKLY

**FIGURE 15.** Number of drinks consumed weekly among Ontario adults (aged 19+) who reported having a drink during past 12 months, 2003–2012



Source: Canadian Community Health Survey, 2003, 2005, 2007–2012 (Statistics Canada)



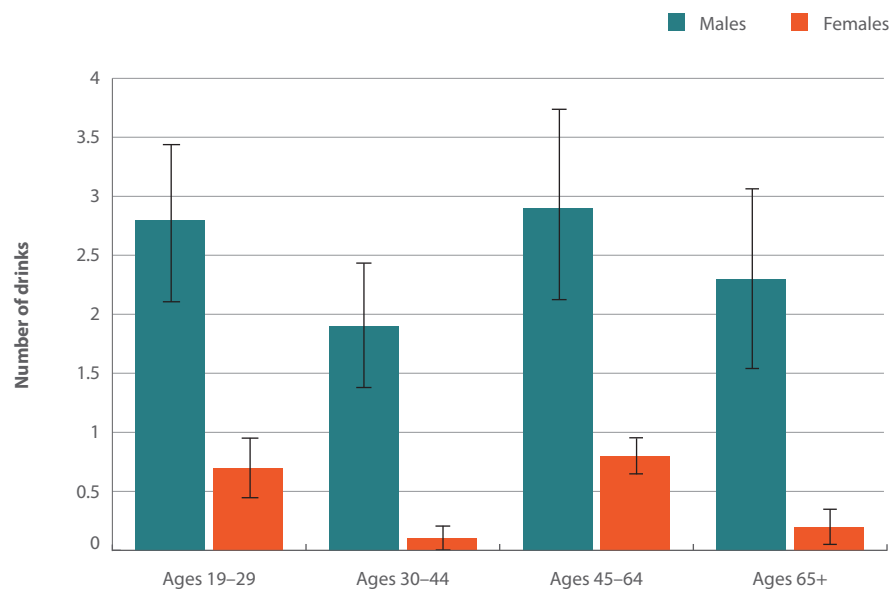


- The median and average number of drinks consumed during the past week among adult Ontarians who reported having a drink during the past 12 months are shown in **Figure 15**. Because the majority of the population consumes low levels of alcohol, while a small number of individuals consume high levels, the median is more representative of the typical level of consumption. The mean is also displayed for comparison with other reports of alcohol consumption.<sup>36</sup>
- In 2012, half of males in Ontario consumed less than 2.4 drinks per week, while half of females consumed less than 0.6 drinks per week.
- For males, the median number of drinks consumed during the past week appeared to increase slightly between 2003 and 2005 before declining through 2012. For females, the median remained relatively stable at around half a drink per week between 2003 and 2012.
- Between 2003 and 2012, the average number of drinks consumed during the past week remained relatively stable at around six drinks for males and three drinks for females. This is similar to estimates published in other Ontario studies.<sup>36</sup>
- Both the median and mean number of drinks consumed during the past week were consistently higher in males than females.
- While self-reports of alcohol exposure underestimate per capita alcohol consumption, a consistently strong association between trends in survey and sales data has been demonstrated, indicating that both are important sources of information.<sup>46</sup> Per capita sales data, while suggesting higher consumption than self-reported data, show the same stability over time as the trend observed in **Figure 15**.<sup>47</sup>



**FIGURE 16.**

Median number of drinks consumed weekly among Ontario adults (aged 19+) who reported having a drink during past 12 months, by age group, 2012



**Notes:** I represent 95% confidence intervals.

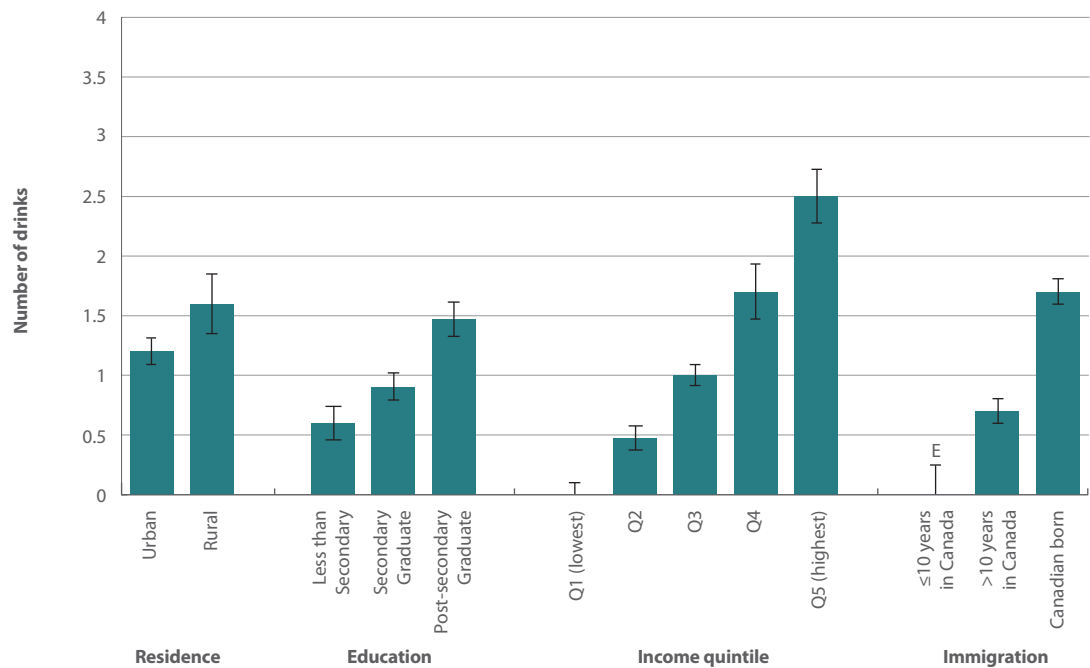
**Source:** Canadian Community Health Survey, 2012 (Statistics Canada)

- In 2012, median alcoholic drink consumption among adult Ontarians who reported having a drink during the past 12 months varied widely by sex and age group (Figure 16). The median number of drinks consumed during the past week was higher in the 19–29 and 45–64 age groups than in the 30–44 and 65 and older age groups. These differences were statistically significant for females only. Across all age groups, median data showed that males reported drinking significantly more alcoholic beverages per week on average than females.
- Median drink consumption appeared to be the lowest among adults aged 30 to 44 for both males and females, which may reflect this being the typical age group for childbearing and childrearing.



**FIGURE 17.**

Median number of drinks consumed weekly among Ontario adults (aged 30+) who reported having a drink during past 12 months, by selected socio-demographic factors, 2010–2012 combined



**Notes:** I represent 95% confidence intervals.

E—Interpret with caution due to high sampling variability.

Data from CCHS cycles 2010 through 2012 combined to increase sample size for analyses by socio-demographic factors.

**Source:** Canadian Community Health Survey, 2010–2012 (Statistics Canada)

- The median number of drinks consumed during the past week differed significantly across levels of four socio-demographic factors (Figure 17).
- For 2010–2012 combined, median drink consumption was significantly higher among adults (aged 30+) living in rural (1.6 drinks) than in urban areas (1.2 drinks), among the most educated group (1.5 drinks) than the least educated group (0.6 drinks), among the highest income group (2.5 drinks) than the lowest (0 drinks), and among Canadian-born adults (1.7 drinks) than immigrants who have been in Canada for 10 or more years (0.7 drinks).
- These results, together with the prevalence of drinking in excess of the cancer prevention recommendations and not drinking during the past 12 months by socio-demographic factors, reflect significant disparities in alcohol consumption in Ontario. Adults living in rural areas, those with the highest level of education, those with the highest income and those born in Canada are more likely to drink more alcohol.