

Low-Risk Alcohol Drinking Guidelines

In 2011 Canada introduced new Low-Risk Alcohol Drinking Guidelines (LRADG).¹ There are several components to the guidelines, and the ones relevant to this report are shown in **Table 1**. A full description of the Canadian LRADG's are available on the [Canadian Centre on Substance Abuse](#) website.¹ The LRADG's measured in this report are an adaptation of the actual guidelines based on the data available.

Purpose of Health Indicator Report: To provide information on the percent of adults aged 19 and over in Halton Region and Ontario, who exceeded the Canadian LRADG

Data Source: Canadian Community Health Survey (CCHS)²

Data Collection Period: 2001, 2003, 2005, 2007/08, 2009/10, 2011/12

For more information on statistical significance, data interpretation, and limitations in this report, see the [data notes](#) section on the last page.

Table 1: Criteria for calculating adherence to the LRADG using CCHS data

	Guideline 1		Guideline 2
Men	No more than 15 drinks a week	Only consume alcohol 5 days a week or less	No more than 5 drinks on any one occasion in the past 12 months
	No more than 3 drinks on a single day		
Women	No more than 10 drinks a week		
	No more than 2 drinks on a single day		
Health Impacts	Continuous, long term use of alcohol can lead to chronic conditions such as cirrhosis of the liver, cancer, cardiovascular disease and mental illnesses ¹		Binge/heavy drinking causes intoxication which can lead to injuries, car crashes or death ¹

Overall Findings:

- In 2011/12, Halton adults [48%(±5)] aged 19 and over were more likely than Ontario adults [42%(±1)] to exceed the LRADG. This difference was statistically significant (see **Figure 1**).
- In 2011/12, 48%(±5) of Halton adults aged 19 and over exceeded the LRADG, more specifically: 6%(±2) exceeded guideline 1; 20%(±4) exceeded guideline 2; 23%(±4) exceeded both guidelines (see **Figure 1**).
- In 2011/12, 42%(±1) of Ontario adults aged 19 and over exceeded the LRADG, more specifically: 5%(±1) exceeded guideline 1; 19%(±1) exceeded guideline 2; 18%(±1) exceeded both guidelines (see **Figure 1**).

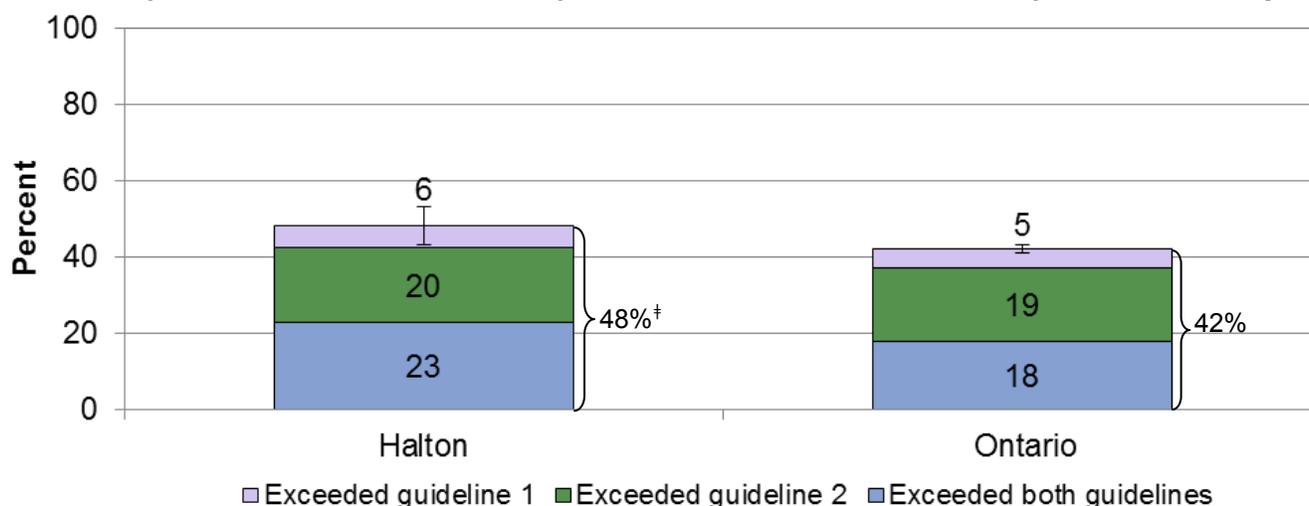


Figure 1: Percent of adults aged 19 and over who exceeded the LRADG, Halton Region and Ontario, 2011/12

*Rounded estimates were used for the presentation of data, thus estimates may not sum properly

Trends Over Time:

- From 2001 to 2011/12 there were no statistically significant differences in the percent of adults age 19 and over in either Halton or Ontario who exceeded the LRADG (see **Figure 2**).

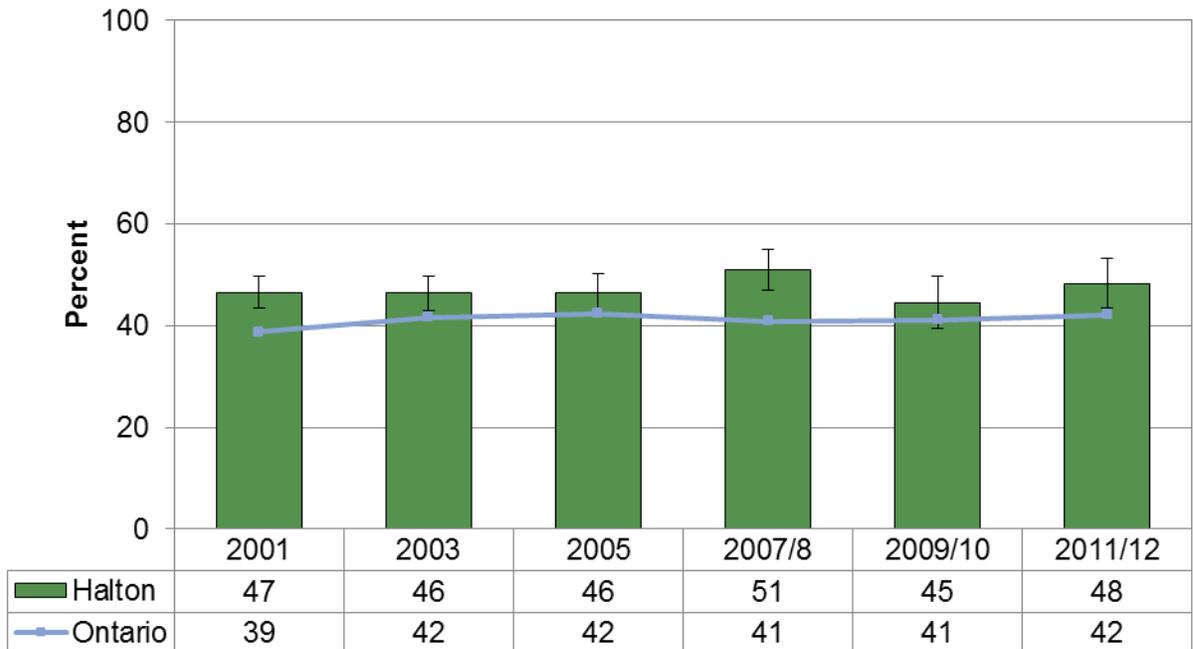


Figure 2: Percent of adults aged 19 and over who exceeded the LRADG, Halton Region and Ontario, 2001- 2012

Sex:

- In 2011/12, Halton males [60%(±8)] aged 19 and over were more likely than females [36%(±5)] to exceed the LRADG. This difference was statistically significant (see **Figure 3**).

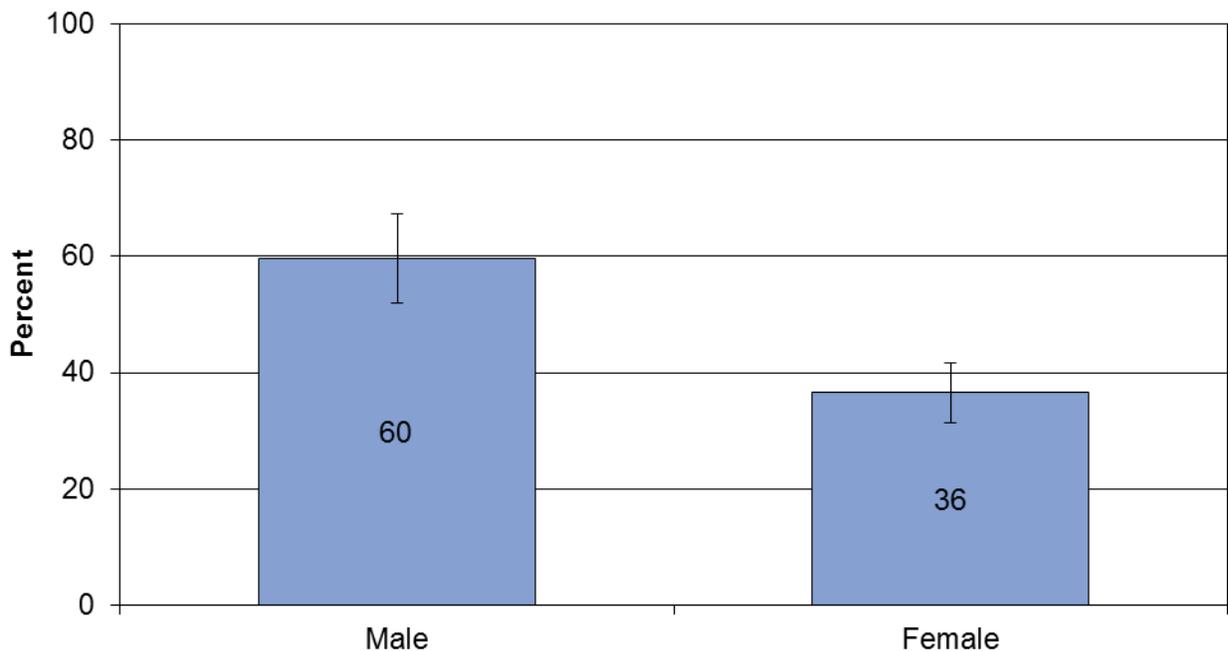


Figure 3: Percent of adults aged 19 and over who exceeded the LRADG, by sex, Halton Region, 2011/12

Age:

- In 2011/12, younger adults in Halton were more likely than older adults to exceed the LRADG. Differences were statistically significant when comparing adults aged 19-24 [76%(±11)] to all other age groups as well as when comparing adults aged 25-44 [53%(±6)] to adults aged 65 and over [30%(±9)] (see **Figure 4**).

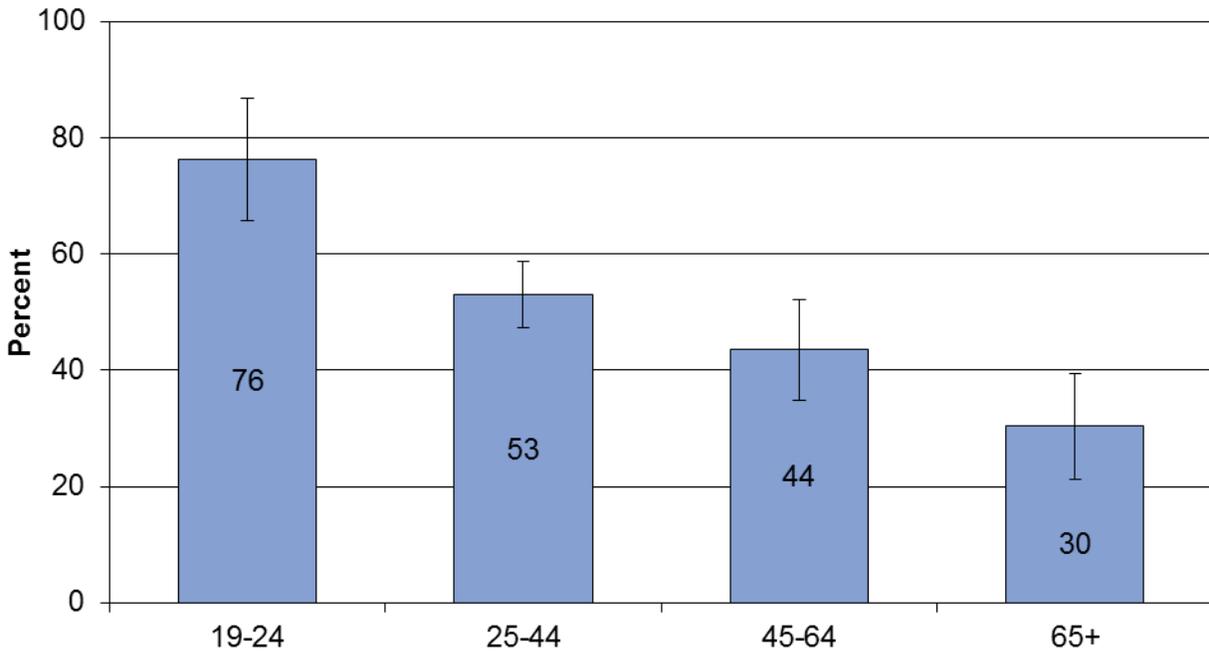


Figure 4: Percent of adults aged 19 and over who exceeded the LRADG, by age, Halton Region, 2011/12

Municipality:

- In 2011/12, there were no statistically significant differences by municipality in the percent of Halton adults aged 19 and over who exceeded the LRADG (see **Figure 5**).

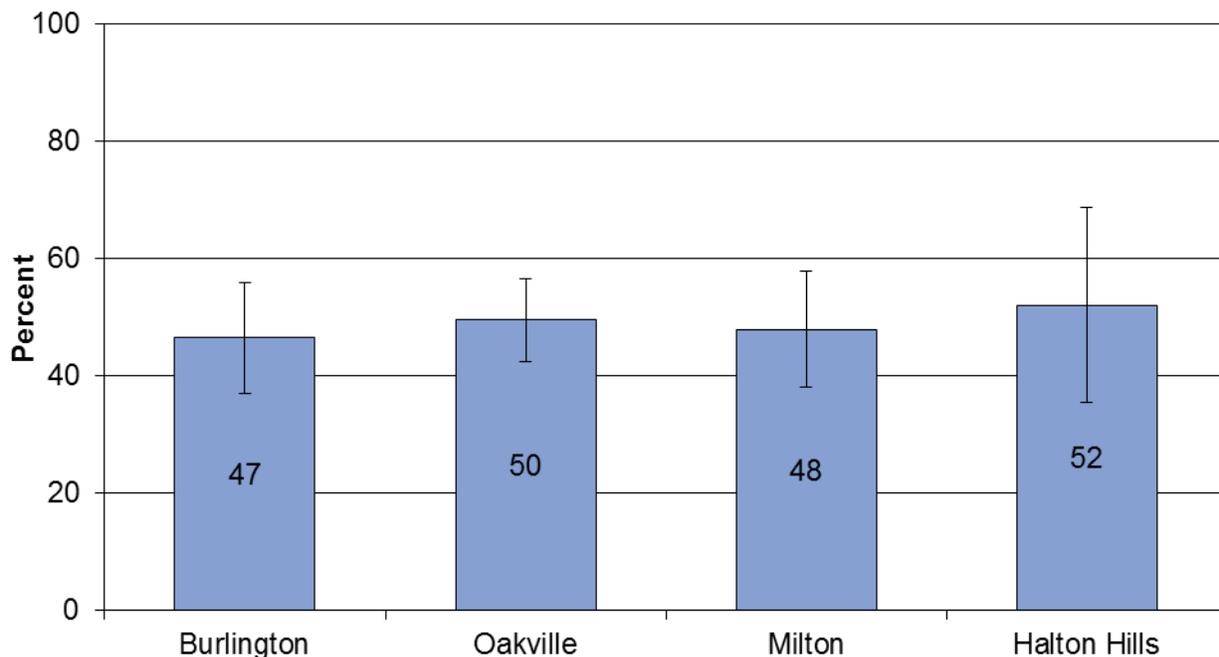


Figure 5: Percent of adults aged 19 and over who exceeded the LRADG, by municipality, Halton Region, 2011/12

Income and Education:

- In 2011/12, Halton adults aged 19 and over were more likely to exceed the LRADG as income increased. This difference was statistically significant when comparing adults in the lowest income group [38%(±10)] to adults in the highest income group [60%(±7)] (see **Figure 6**).
- In 2011/12, Halton adults aged 19 and over who were post-secondary graduates were more likely than adults who were not post-secondary graduates to exceed the LRADG, however this difference was not statistically significant (see **Figure 6**).

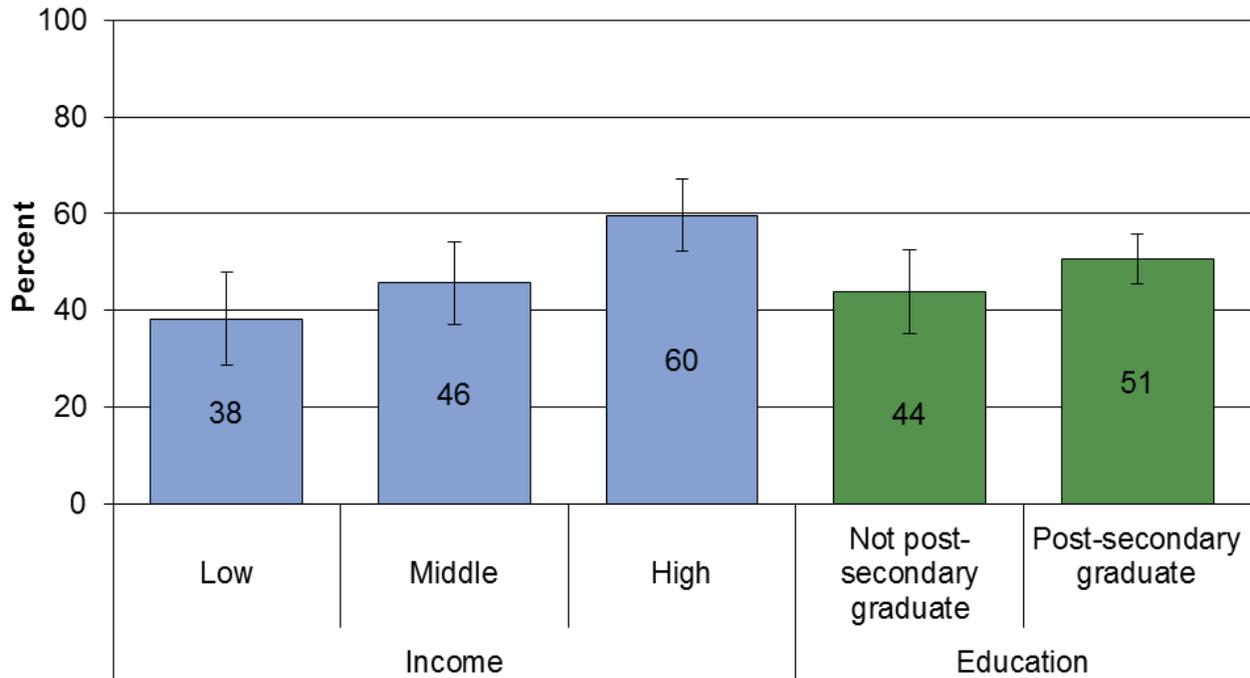


Figure 6: Percent of adults aged 19 and over who exceeded the LRADG, by income and education, Halton Region, 2011/12

Data notes on next page...

Data Notes:

Definitions:

A **drink** is defined by CCHS as one bottle/can/pint of beer, one glass of wine or one wine cooler, one drink or cocktail with 1.5oz of liquor.²

Statistical Significance:

A **95% confidence interval (CI)** refers to the range of values that has a 95% chance of including the true estimate. 95% CI's are reported in brackets or presented as "I" shaped bars in the graphs. A large CI means that there was a large amount of variability in responses or the sample size for the category was small. When CIs do not overlap between 2 or more groups (e.g., when comparing males and females) it means that the differences between the groups are **statistically significant** and unlikely to be due to chance alone. Since overlapping confidence intervals are used to determine statistical significance, p-values are not calculated. This is a conservative approach ($\alpha < 0.01$) which is more appropriate when multiple comparisons are being made, such as in this report. Trends over time were tested for significance using linear regression and autocorrelation.

Data Interpretation:

Income is based on the ratio of each survey respondent's annual household income (INC_3) to the low income cut-off (LICO, 2011) corresponding to their household size, and community size. The low income group are those in the lowest 30% of income ratios, the middle income group are those in the 31st-70th% of income ratios and the high income group are those in the top 30% of income ratios.

Coefficient of variation (CV) refers to the precision of the estimate. When the CV is between 16.6 and 33.3, the estimate should be interpreted with caution because of high variability and has been marked with an asterisk (*). Estimates with a CV of 33.3 or greater are not reportable and have been marked with double asterisks (**) in the graphs and tables.

Analysis of CCHS data uses weights to adjust for sampling design and the population.³ Bootstrapping techniques were used to produce the coefficient of variation (CV) and 95% confidence intervals.

Limitations:

CCHS results are self-reported and may not necessarily be recalled accurately. Individuals living on First Nations Reserves and Crown lands; residents of institutions; full-time members of the Canadian Armed Forces; and residents of certain remote areas were excluded.

Part of the LRADG indicator is based on the respondent's reported alcohol consumption in the previous week. Some respondents may have consumed more or less than they typically would but these discrepancies should even out over the year and the population.

New LRADGs were introduced in 2011, therefore numbers in this report may not match previous versions, as the analysis has been re-done to follow the current guidelines. Five guidelines are outlined in the LRADG, however available data from CCHS only allows for the inclusion of guidelines 1 and 2 when calculating the percent of adults who comply with LRADG. The actual LRADG guidelines indicate that women can have no more than 3 drinks on any one occasion, and men no more than 4, however this data was not available from CCHS, so estimates for exceeding guideline 2 are likely underestimated.

Heavier drinkers may be more difficult to reach in surveys. As a result, the percentages may be underestimated. Also, the perception of social approval/ disapproval by respondents may affect their response to questions on alcohol consumption.

Rounded estimates were used for the presentation of data, thus estimates may not total to 100 percent. Rounded CI's were used for the presentation of data; however, non-rounded CI's were used to determine statistically significant differences.

Respondents under the age of 19, as well as pregnant and breastfeeding mothers were excluded from the analysis of this report. Respondents who refused or answered don't know to any of the questions used to calculate LRADG were also excluded from analysis.

References:

1. Drinking Guidelines. 2014. Canadian Centre on Substance Abuse (CCSA). Accessed April 2014 from <http://www.ccsa.ca/Eng/topics/alcohol/drinking-guidelines/Pages/default.aspx>
2. Canadian Community Health Survey [2001-2012], Statistics Canada, Share File, Ontario MOHLTC
3. Thomas, S., Sarafin, C., & Simard, M. 2007. Review of the Weighting Methodology for the Canadian Community Health Survey. Accessed May 2013 from <http://www.fcsm.gov/07papers/Thomas.II-A.pdf>

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