

Risky Alcohol Use in Women of Childbearing Age in Canada, 2003-2012

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Key Points

- The use of non-sex specific criteria for assessing binge drinking has meant that risky patterns of drinking among women has been substantially underestimated in some Canadian national surveys.
- Lowering the threshold of binge drinking by one drink to more-than-3 drinks/occasion monthly or more often in the past year increases the estimated prevalence of monthly binge drinking by 49.6% for women ages 15-44.
- Data from the 2011/12 Canadian Community Health Survey shows that an estimated 24% of underage girl drinkers, 58% of young adult women drinkers, 32% of women drinkers ages 25-34 and 24% of women drinkers age 35-44 are identified as monthly-or-more-often binge drinkers, using the more-than-3 drinks/occasion measure.
- When the lower threshold is used, the estimated prevalence of monthly binge drinking for young adult women (18/19-24) in Canada is higher than that of young adult men in 2011/12.
- Between 2009/10 and 2011/12, there was a statistically significant *decrease* in monthly risky drinking among underage girls, offsetting a similar increase between 2003 and 2005. Therefore, there was no statistically significant increase in monthly risky drinking among underage girls between 2003 and 2011/12.
- Between 2003 and 2012, there were statistically significant increases in estimated prevalence of monthly-or-more-often binge drinking for women drinkers age 18/19-44.
- These data suggest that risky drinking patterns are common and increasing in women between ages 18/19-44. As this group of women account for over 95% of births in Canada, these findings are relevant for strategies to prevent Fetal Alcohol Spectrum Disorder (FASD) at both policy and practice levels.

Risky Alcohol Use in Women of Childbearing Age in Canada, 2003-2012

Implications of using sex-specific criteria for identifying monthly risky drinking among women of childbearing ages in Canada

Introduction

Rates of binge drinking by men are in most cases higher than for women, and this has meant that the risky drinking by women can be underappreciated when both men and women are considered together. The use of non-sex specific criteria for assessing binge drinking in some Canadian national surveys has meant that the prevalence of risky patterns of drinking among women has been substantially underestimated. This brief research report describes the implications of using sex-specific criteria for identifying patterns of risky drinking, discusses trends in patterns of risky drinking by women of childbearing ages (15-44) from 2003 to 2011/12, and reviews the implications of these findings for FASD prevention efforts in Canada.

Background

General population surveys employ various measures to assess risky drinking such as questions to assess levels, patterns and harms from drinking as well as the use of valid and reliable screening instruments such as the Alcohol Use Disorders Identification Test (AUDIT). Up until 2013, the Canadian Community Health Survey identified risky drinkers as those who consume more than four drinks on a single occasion monthly (or more often) in the past year. The same measure was applied to both male and female drinkers. However, there are key differences in how alcohol affects men and women. In short, women experience more physical harms (and social risk) than men for any given level of consumption.

For this reason, revised, sex-specific low-risk drinking guidelines have been developed that lower the threshold of risky drinking for women to three

drinks/occasion to recognize these differences. This is important to understanding the risk of drinking for girls and women while pregnant and the impact of risky drinking on childbearing in Canada.

This report assesses the implications of using these new sex-specific criteria for defining risky drinking by women, specifically girls and women who are underage, young adult, adults 25-34 and adults 35-44, who account for over 98% of births in Canada. We use data from the Canadian Addiction Survey (CAS, 2004), the Canadian Alcohol and Drug Use Monitoring Survey (CADUMS, 2008, 2009 and 2010), and the Canadian Community Health Survey (2011/12) to determine the increase in prevalence of risky drinking for women when using the new, lower measure (more than three drinks/occasion monthly measure) and comparing it to using the higher indicator (more than 4 drinks/occasion measure).

Data and Analysis

1. Generating conversion measures

National survey data for the more-than-3 drinks/occasion and the more-than-4 drinks/occasion measures of binge drinking from the CAS and three iterations of the CADUMS were used to identify the average conversion factors for four age groups of women (underage, young adult, adults 25-34 and adults 35-44) (Table 1). Of note is the fact that women in these childbearing age groups account for over 98% of births in Canada.

Table 1: Comparison of estimated percentage of current (past-year) drinking women in the general household population reporting more-than-3 drinks on one occasion and those reporting more-than-4 drinks on one occasion once a month or more often in past year, Canada, 2004, 2008, 2009, 2010

Age	CADUMS 2010		CADUMS 2009		CADUMS 2008		CAS 2004		Avg. % Difference
	> 3 drinks	> 4 drinks	> 3 drinks	> 4 drinks	> 3 drinks	> 4 drinks	> 3 drinks	> 4 drinks	
Underage	29.3	17.3	24.0	12.5	30.0	24.5	21.1	16.4	53.12
Young Adult	37.1	23.0	41.6	34.0	43.7	29.3	46.4	40.7	36.70
25-34	22.6	13.4	19.4	14.1	22.7	14.4	21.3	15.8	49.67
35-44	19.2	8.4	18.1	12.0	14.9	7.8	17.6	13.1	76.20
15-44	24.7	13.6	24.2	17.6	25.1	16.3	25.3	20.2	49.59

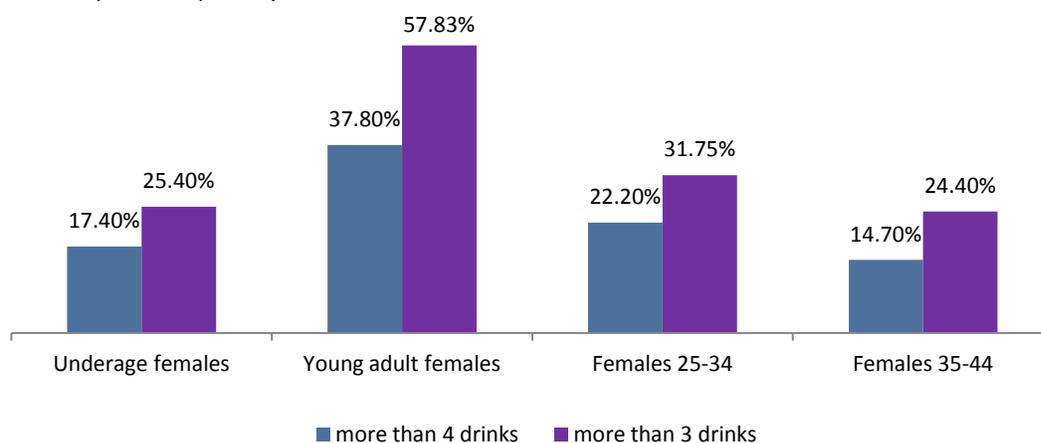
Notes: All estimates ($\pm 95\%$ CI) based on the weighted sample: >3 and >4 rates refer to proportion of sample in that age group reporting drinking 4+ or 5+ drinks per occasion at least monthly. Difference calculated as follows: $(\text{Rate } 4+ - \text{Rate } 5+) \times 100 / \text{Rate } 5+$. Underage are respondents age 15-17 in Alberta, Manitoba and Quebec and ages 15-18 in the rest of Canada. Young adult are drinkers age 18-24 in Alberta, Manitoba and Quebec and drinkers age 19-24 in the rest of Canada.

These data indicate that lowering the threshold of binge drinking by one drink to more-than-3 drinks/occasion monthly or more often in the past year increases the estimated prevalence of monthly binge drinking by an average of 53% for underage girls, 37% for young adult women, 50% for woman ages 25-34 and 76% for women ages 35-44. **For all ages combined the average difference in prevalence of monthly or more often drinking using the lower threshold increases by an estimated 49.6% (Table 1).**

2. Estimates of prevalence of risky drinking for 2011/12 using data from the Canadian Community Health Survey (CCHS)

Applying the age-specific conversion factors derived above reveals the following levels of risky drinking for women in Canada in 2011/12 (in Figure 1):

Figure 1: Comparison of estimates of prevalence of binge drinking among current (past-year) female drinkers using the more than 3 and more than 4 drinks/occasion monthly or more often in the past year measures, Canada, 2011/12



Source: Statistics Canada, Canadian Community Health Survey (CCHS), Custom tables on file with author.

These data indicate that an estimated 24% of underage girl drinkers, 58% of young adult women drinkers, 32% of women drinkers ages 25-34 and 24% of women drinkers age 35-44 are identified as monthly-or-more-often binge drinkers using the more-than-3 drinks/occasion measure. Of note is the fact that when the lower threshold is used, the estimated prevalence of monthly binge drinking for young adult women in Canada is higher than that of young adult men in 2011/12 (Table 2).

Table 2: Estimated prevalence of monthly or more often binge drinking among current (past-year) drinkers using sex-specific criteria, 2011/12

	Underage	Young Adult	Adults 25-34	Adults 35-44
Females (more-than-3 drinks/occasion)	25.4	57.8	31.8	24.4
Males (more-than-4 drinks/occasion)	26.2	53.1	44.2	30.7

Source: Statistics Canada, Canadian Community Health Survey, 2011/12; custom tables on file with authors.

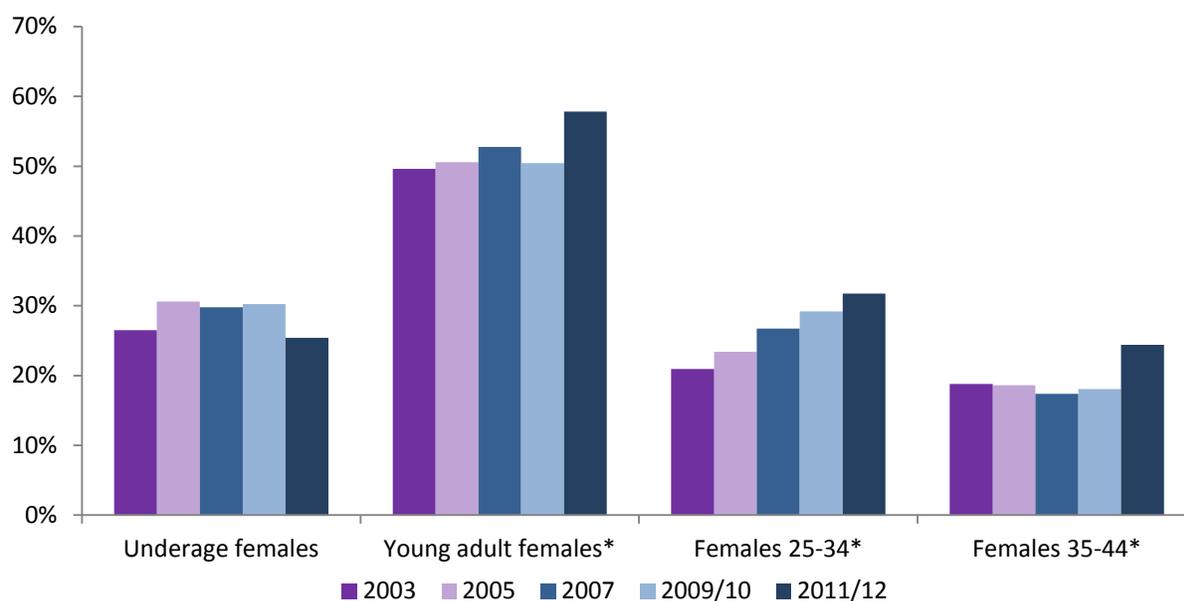
Notes: Underage are respondents age 15-17 in Alberta, Manitoba and Quebec and ages 15-18 in the rest of Canada. Young adult are drinkers age 18-24 in Alberta, Manitoba and Quebec and drinkers age 19-24 in the rest of Canada.

Also of note, Statistics Canada shifted to using the lower threshold to identify binge drinking in women in the 2013 iteration of the Canadian Community Health Survey, so actual numbers for the lower threshold will be available in 2014.

3. Trends in monthly-or-more-often binge drinking among women of childbearing ages, 2003-2012

Figure 2 shows the trends in binge drinking among women of childbearing years over a nine year time period. Converting these findings to all women in Canada, an estimated 16.9% of women in Canada age 15 and over binge drink monthly or more often when the more-than-3 drinks per occasion measure is used.

Figure 2: Trends in estimated prevalence of monthly or more often binge drinking (more than 3 drinks/occasion) among current (past-year) female drinkers, Canada



Source: Statistics Canada, Canadian Community Health Survey, 2003-2012. Custom tables on file with authors.

Notes: * indicates statistically significant ($p < 0.05$) increase in risky drinking between 2003 and 2011/12. Underage are respondents age 15-17 in Alberta, Manitoba and Quebec and ages 15-18 in the rest of Canada. Young adult are drinkers age 18-24 in Alberta, Manitoba and Quebec and drinkers age 19-24 in the rest of Canada.

Results

The data in Figure 2 indicate several important findings:

- There were statistically significant ($p < 0.05$) increases in estimated prevalence of monthly or more often binge drinking for women drinkers age 18/19-44 between 2003 and 2011/12. These women account for over 95% of births in Canada.¹
- There were increases in risky drinking for young adult women and women ages 35-44 in the last reporting cycle (2011/12).

¹ Although the age categories used to track births by Statistics Canada are different than the ones used in our analysis, the breakdown of all births by age of the mother in 2011 in Canada was: age <15: 0.04%; age 15-19: 4.12%; age 20-24: 15.63%; age 25-34: 62.05%; age 35-44: 18.00%.

- There were increases for women of prime child bearing ages (25-34) in every reporting period after 2003, producing an almost linear upward trend over the last 9 years. This large and continual increase in risky drinking is noteworthy given that this age cohort accounts for over 60% of births in Canada. This increase also reflects the highest increase in monthly-or-more-often risky drinking of any other age group (male or female) between 2003 and 2012.
- There were very high rates of monthly-or-more-often risky drinking among young adult women (50% and higher) over the reporting period, and a large, statistically significant increase in monthly-or-more-often risky drinking from 2009/10 to 2011/12. This increase places the point estimate of monthly-or-more-often risky drinking for young adult women (58%) higher than that of young adult men (53%) in 2011/12.
- There was a statistically significant *decrease* in monthly risky drinking among underage girls between 2009/10 and 2011/12 offsetting a similar increase between 2003 and 2005. Therefore, there was no statistically significant increase in monthly risky drinking among underage girls between 2003 and 2011/12.

Implications for FASD Prevention

The data presented here suggest that patterns of risky drinking are common and increasing among women where they have been largely stable for men. The high prevalence of monthly-or-more-often binge drinking among women of childbearing ages in Canada has implications at the research, policy, and practice levels.

Implications for Research: Accurately assessing trends in drinking and risky drinking by girls and women in these age groups is an important foundation for health promotion programming for women and for preventing Fetal Alcohol Spectrum Disorder. It is also important to know the prevalence of unplanned pregnancy in Canada and to study effective preconception approaches to preventing risky drinking by girls and women, to prevent inadvertent fetal alcohol exposure early in pregnancy.

Implications for Policy: While Canada is considered a world leader in implementing many effective alcohol control policies, some concerning policy trends which have an impact on women's drinking remain, such as: (1) the availability of relatively inexpensive coolers and cider in some jurisdictions (a type of alcohol that is particularly popular with young women); (2) the targeting of women by alcohol producers and advertisers (e.g., Girls Night Out and Mommy Juice Wines, Skinny Girl Vodka), (3) the increasing physical availability of alcohol in many jurisdictions (e.g., expanded days, hours, locations of sale) and (4) the erosion of government control systems in some jurisdictions.

Implications for Practice: Reducing rates of binge drinking among women of childbearing ages can contribute to reducing the risk of FASD across the population. The promotion of Canada's Low-Risk Alcohol Drinking Guidelines, as well as the use of the Screening, Brief Intervention and Referral to Treatment (SBIRT) protocol by health care providers are two key approaches for preventing FASD in practice. Specialized support and services for women at high-risk of having an alcohol-exposed pregnancy and gender-informed treatment services for women with alcohol dependence are also important.