



CISDUS Brief

Trends in Students' Binge Drinking, 1998-2010

October
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Heavy episodic drinking also commonly referred to as “binge” drinking; is defined as consuming five or more alcoholic drinks at one sitting. This pattern of drinking among youth warrants special attention because of the increased likelihood for harmful consequences such as injury, driving while intoxicated, violence and unsafe sex. This brief discusses binge drinking behaviours among students in grades 7 through 12 grade in the Cayman Islands, and changes between 1998 and 2010. The findings are based on data from the Cayman Islands Student Drug Surveys (CISDUS), which were conducted in 1998, 2000, 2002, 2006, and most recently in 2010.

Binge Drinking Prevalence in 2010

In 2010, the reported prevalence of binge drinking was 32.1%. Eight hundred and thirty-nine (839) students who were surveyed reported binge drinking at least once, in the two weeks before the survey was administered. About 23.5% of students binged only once, 5.1% binged 2 to three times, and 3.5% did so four or more times in the past two weeks.

Key Highlights

- In 2010, about 32% of students surveyed reported binge drinking at least once during the two weeks before the survey.
- Males (31%) and females (32%) were equally likely to binge drink. Binge drinking increased with grade levels, with more than a half of 12th graders reporting such behaviour. There were no significant variations among the districts.
- Reported binge drinking increased over time from 7% in 1998 (past month binge drink) to 32% in 2010 (past two weeks binge drink). Increasing trends occurred among both males and females.
- Drinking behaviours were correlated, over time, with reported alcohol availability and attitudes about alcohol.

As presented in Table 1 and Figure 1, there were no significant differences in binge drinking between males (31.4%) and females (32.7%). However, binge drinking did increase significantly with grade levels - from 20% of students in grades 7 through 9; and up to 51.5% among 12th graders. Despite some variations and increases, there were no significant differences among the six districts.

Trends in Binge Drinking

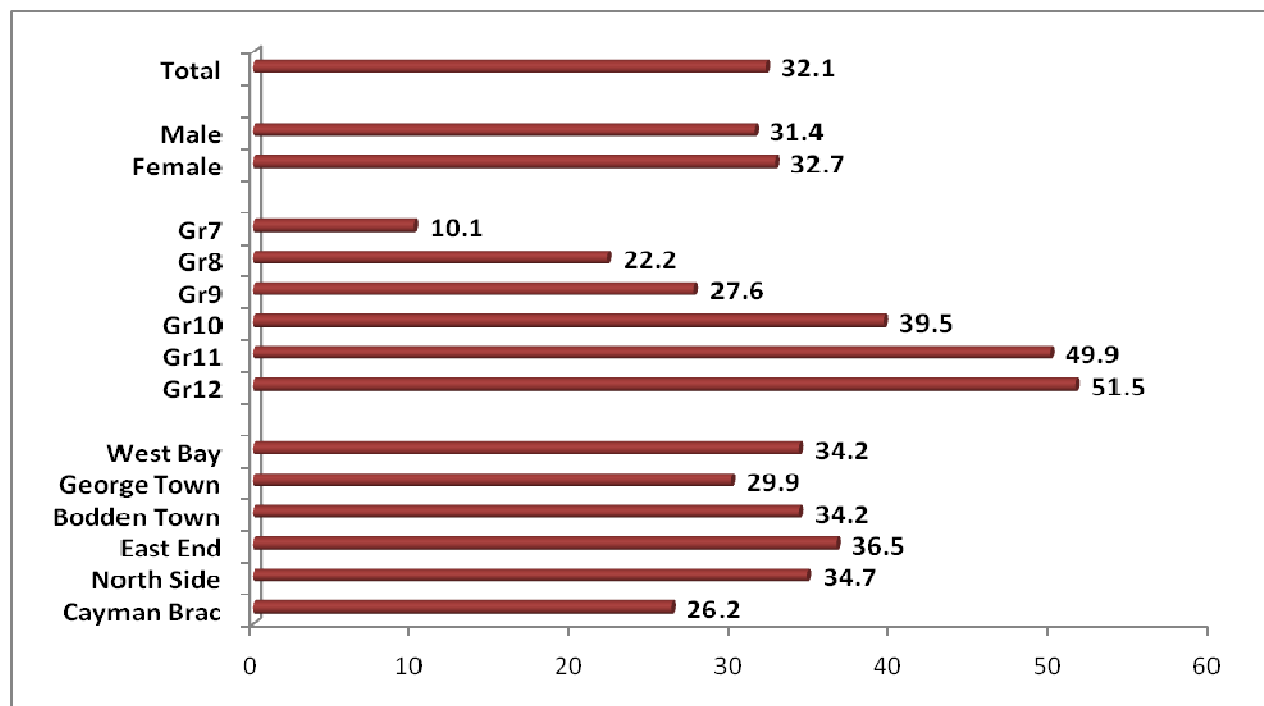
Binge drinking among Cayman Islands students significantly increased over time, in particular in 2010. In 1998, 7.2% of students reported binge drinking in the past month. The reported use increased to 12.7% in 2000 and remained steady in 2002 at 12.6%. , Increased use was reported again in 2006 with use up to 15.2% and in 2010, with use up to 32.1% (for the last two weeks prior to the survey (Table 1)).

Both males and females showed increases in binge drinking over time. Among males, the rate increased mainly between 1998 (7.5%) and 2000 (15.4%), and has since stabilized, remaining at 16.6% in 2006. *Males* in 2010 showed a notable increase to 31.4%. Rates for females show a similar pattern. There are small increases between 1998 (6.9%), 2000 (10.2%), 2002 (11.3%) and 2006 (13.9%); in 2010 however, there is a significant increase of rates, to 32.7%.

Binge drinking among 7th graders has significantly increased over time from 1.5% in 1998 up to 10.1% in 2010. The same significant changes are noted amongst students in grades 8 and 9. Students in grades 10, 11 and 12 also showed increases since 1998. However, only among 12th graders was there a significant increase as noted: - 2002 (19.5%), 2006 (30.2%) and 2010 (51.5%).

All districts reported significant increases in binge drinking between 1998 and 2010.

Figure 1: Percentage of students reporting binge drinking during the past two weeks by sex, grade and district, 2010



Source: CISDUS2010, National Drug Council

Table 1: Trends in the past month binge drinking (%) 1998-2006 and two weeks binge drinking (%) 2010, by sex, grade and district.

| Year | 1998 | 2000 | 2002 | 2006 | 2010 | |
|----------------------|--------------------|--------|--------|--------|--------|------|
| N | (1892) | (2158) | (2168) | (2410) | (2612) | |
| Overall Total | 7.2 | 12.7 | 12.6 | 15.2 | 32.1 | |
| Gender | Male | 7.5 | 15.4 | 14.0 | 16.6 | 31.4 |
| | Female | 6.9 | 10.2 | 11.3 | 13.9 | 32.7 |
| Grade | Grade 7 | 1.5 | 6.1 | 5.4 | 9.9 | 10.1 |
| | Grade 8 | 3.8 | 6.1 | 7.4 | 6.8 | 22.2 |
| | Grade 9 | 8.8 | 13.7 | 11.5 | 10.7 | 27.6 |
| | Grade 10 | 6.6 | 12.2 | 18.9 | 16.5 | 39.5 |
| | Grade 11 | 12.8 | 16.5 | 16.3 | 21.9 | 49.9 |
| | Grade 12 | 12.7 | 24.3 | 19.5 | 30.2 | 51.5 |
| District | West Bay | 8.3 | 10.1 | 12.4 | 14.8 | 34.2 |
| | George Town | 7.7 | 13.8 | 13.0 | 17.1 | 29.9 |
| | Bodden Town | 4.5 | 11.8 | 12.2 | 14.1 | 34.2 |
| | East End | 5.9 | 10.4 | 9.2 | 16.1 | 36.5 |
| | North Side | 8.1 | 17.1 | 16.2 | 13.3 | 34.7 |
| | Cayman Brac | 9.3 | 15.4 | 11.5 | 9.8 | 26.2 |

Source: CISDUS2010, National Drug Council

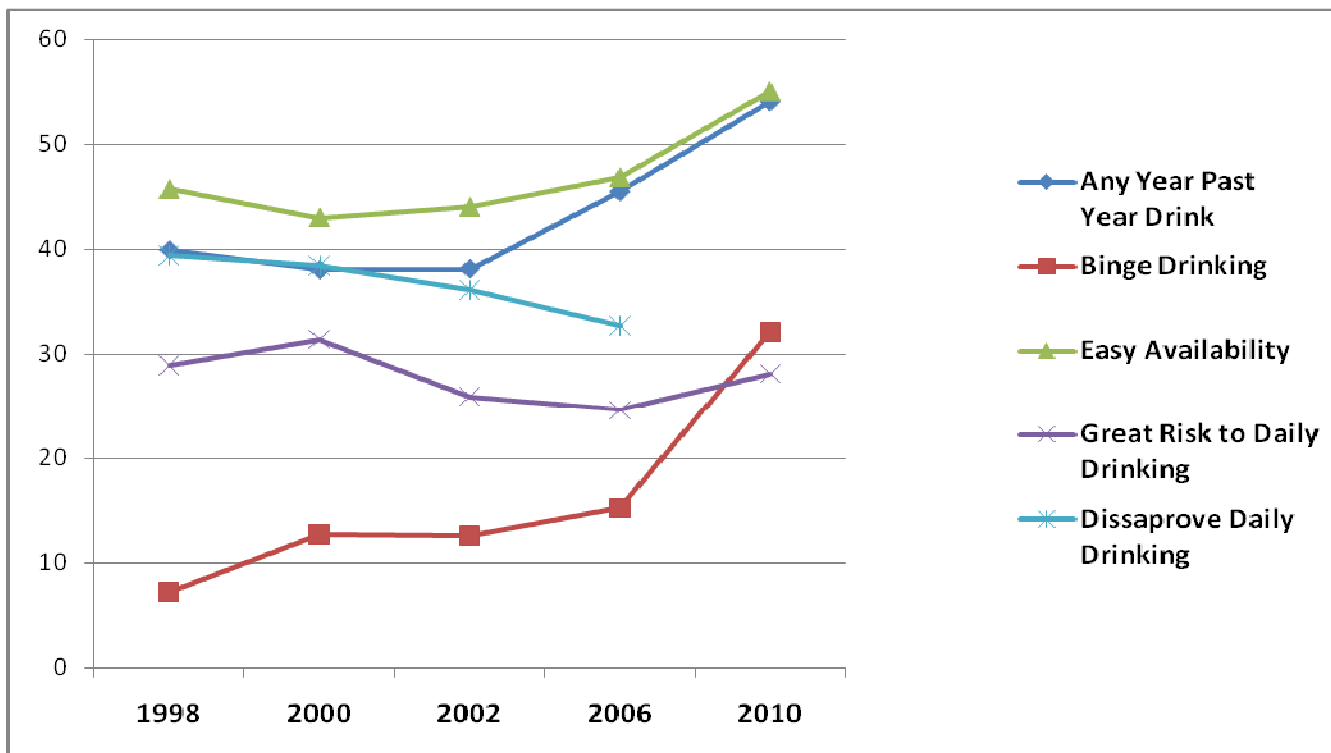
Comparison between drinking behaviours, alcohol availability, perceptions of risk and disapproval.

This section presents the relationship over time between students' alcohol use (annual prevalence and binge drinking), the reported cases of alcohol availability, and attitudes about alcohol. Research has shown that availability and attitudes are associated with current or subsequent rates of use of that substance. Notably these associations are correlational and thus, we can only determine whether or not they

move together in time, but we cannot know whether one factor causes another.

Figure 2 presents trends in two weeks binge drinking, past month binge drinking and any past year drinking by students. Figure 2 also represents reported alcohol availability, perceptions of risk of harm from daily drinking, and disapproval of daily drinking, from 1998 to 2010. In general; alcohol use increased as reported ease of availability increased, while perceptions of risk and disapproval of drinking gradually decreased. These temporal relationships are mostly evident between the years 2000 and 2006.

Figure 2. The relationship over time between drinking behaviours, alcohol availability, risk perception and disapproval of alcohol, CISDUS 1998-2010



Source: CISDUS2010, National Drug Council

Comparisons with Other Student Surveys

Table 2 compares estimates of past year binge drinking among students in grades 8, 10 and 12 in the Cayman Islands, Ontario Canada, and the United States. The rates in the Cayman Islands are notably higher across the three regions. Eighth graders in Canada (5%) are less likely to binge drinking compared with Caymanian (22%) and American students (8%). Tenth and twelfth graders in the Cayman Islands and in Canada are more likely to binge drink compared to American students.

Table 2: Binge Drinking during the Past Year (%) for Grades 8, 10, and 12: Comparing the CISDUS2010, OSDUS2009, and the MTF2009 Survey Findings:

| | CISDUS* | OSDUS | MTF* |
|----------|---------|-------|------|
| Grade 8 | 22.2 | 5.1 | 7.8 |
| Grade 10 | 39.5 | 25.9 | 17.5 |
| Grade 12 | 51.5 | 48.5 | 25.2 |

Note: * Time frame is the past 2 weeks
OSDUS is the *Ontario Student Drug Use Survey*, which was conducted in Ontario Canada; MTF is the *Monitoring the Future* survey, which was conducted across the USA.

Methods

The CISDUS employs a census (i.e., a 100% sample) of students enrolled in grades 7 to12. In 2010, 9 middle and high schools and Eagle House participated in the survey. For 1998, 2000, 2002 and 2006 all twelve middle and high schools in the Cayman Islands participated in the surveys. Student participation rates were 88% in 2010; 84% in 2006, 88% in 2002, 94% in 2000 and 86.0% in 1998. The demographic composition of the sample did not significantly change between 1998 and 2010

Because of the survey's complete sample (i.e., a census) there is no sampling error attached to an estimate (although estimates still have error based on non-sampling error, such as misreporting). Thus, no confidence intervals are required. Regarding the survey results, readers should bear in mind the following points:

- Since there is still the element of chance findings, the element of non-sampling errors, we cannot treat all absolute differences in percentages as meaningful and important.
- Small percentages are more unreliable than larger percentages.

Terminology

- **Binge Drinking in the Past 2 Weeks** is defined as drinking five or more drinks at one time at least once during the two weeks before the survey.
- **Past Year Drinking** is defined as drinking any alcohol during the past 12 months.
- **Easy Alcohol Availability** is defined as reporting that it is "easy" or "very easy" to obtain alcohol if one wanted.
- **Great Risk of Daily Drinking** is defined as reporting that drinking 1 to 2 drinks of alcohol every day would be a "great risk" of harm to someone (physically or in other ways).
- **Disapprove of Daily Drink** is defined as "strongly" disapproving of adults aged 18 and older drinking 1 or 2 drinks of alcohol every day.
- **Significant Difference** refers to a difference between percentages that is not likely due to chance. For example, a difference found at the $p < .05$ level of statistical significance is one that is less than 5% likely to occur by chance alone. In this report, any difference is considered statistically significant if the probability is at the .05 level or lower.

Source

CISDUS 2010 - Cayman Islands: National Drug Council.

To obtain the CISDUS questionnaire or other CISDUS Reports, please visit our web site: www.ndc.ky