



# CISDUS Brief

## Trends in Tobacco Use by Students, 1998-2006

July 2007

This brief discusses tobacco smoking among students in 7<sup>th</sup>- to 12<sup>th</sup>-grade in the Cayman Islands, and trends between 1998 and 2006. The findings are based on data from the Cayman Islands Student Drug Use Survey (CISDUS), which was conducted in 1998, 2000, 2002, and most recently in 2006.

### Tobacco Smoking in 2006

In 2006, 4.8% of students in grades 7 to 12 reported smoking cigarettes during the month before the survey, and 6.8% smoked during the past year (see Figure 1).

Males are more likely than females to report past-month and past-year smoking. For example, 5.6% of males smoked in the past month compared to 3.9% of females (see Figure 1).

Both past-month and past-year smoking rates significantly increase with grade. Between grades 7 and 12, past-month smoking increases from 1.2% up to 11.9%, while past-year smoking increases from 3.3% up to 15.2%. Despite some variation, there are no significant differences in smoking rates among the six districts.

The 2006 CISDUS showed that, among those reporting ever smoking cigarettes (N=665), the average age of first use was 11.7 years. About 45% of smokers reported an “early onset” of use – that is, they smoked their first whole cigarette between age 6 and 11.

### Trends in Past Year Smoking

Table 1 presents trends in past year smoking between 1998 and 2006, for all students as well as among demographic subgroups. Overall, smoking in 2006 (6.8%) is significantly lower than the rate found in 1998 (8.5%), but the decrease mainly occurred in 2000 (5.9%) and rates remained stable since then (6.7% in 2002, 6.8% in 2006). Only females showed a significant decrease in smoking (8.4% in 1998 vs. 5.7% in 2006). Smoking among 7<sup>th</sup>-graders *increased* between 2002 and 2006, but the 2006 rate resembles that found in 1998. Grade 9 and 11 students showed a significant decrease in smoking between 1998 and 2006, while the remaining grades remained stable. Among the districts, only students in West Bay showed significant decrease in 2006 compared to 1998. It is important to note that, other than 7<sup>th</sup>-graders, no subgroup showed a significant change in smoking between 2002 and 2006.

### Key Highlights

- † In 2006, about 7% of students in grades 7 to 12 smoked cigarettes during the year prior to the survey; 5% smoked during the past month.
- † Males are more likely than females to smoke cigarettes. Smoking increases with grade. There is no significant variation among the districts.
- † Past-year smoking is lower in 2006 (7%) compared to the 1998 rate (9%), but is similar to rates found in 2000 (6%) and 2002 (7%).
- † Females showed a significant decrease in smoking over time, but males' smoking remained stable. Only students in 9<sup>th</sup>- and 11<sup>th</sup>-grade showed a decrease in smoking compared to 1998. Smoking among 7<sup>th</sup>-graders increased in 2006, reverting back to the level found in 1998.

Figure 1. Past Month and Past Year Smoking By Sex, Grade and District, 2006 C1SDUS

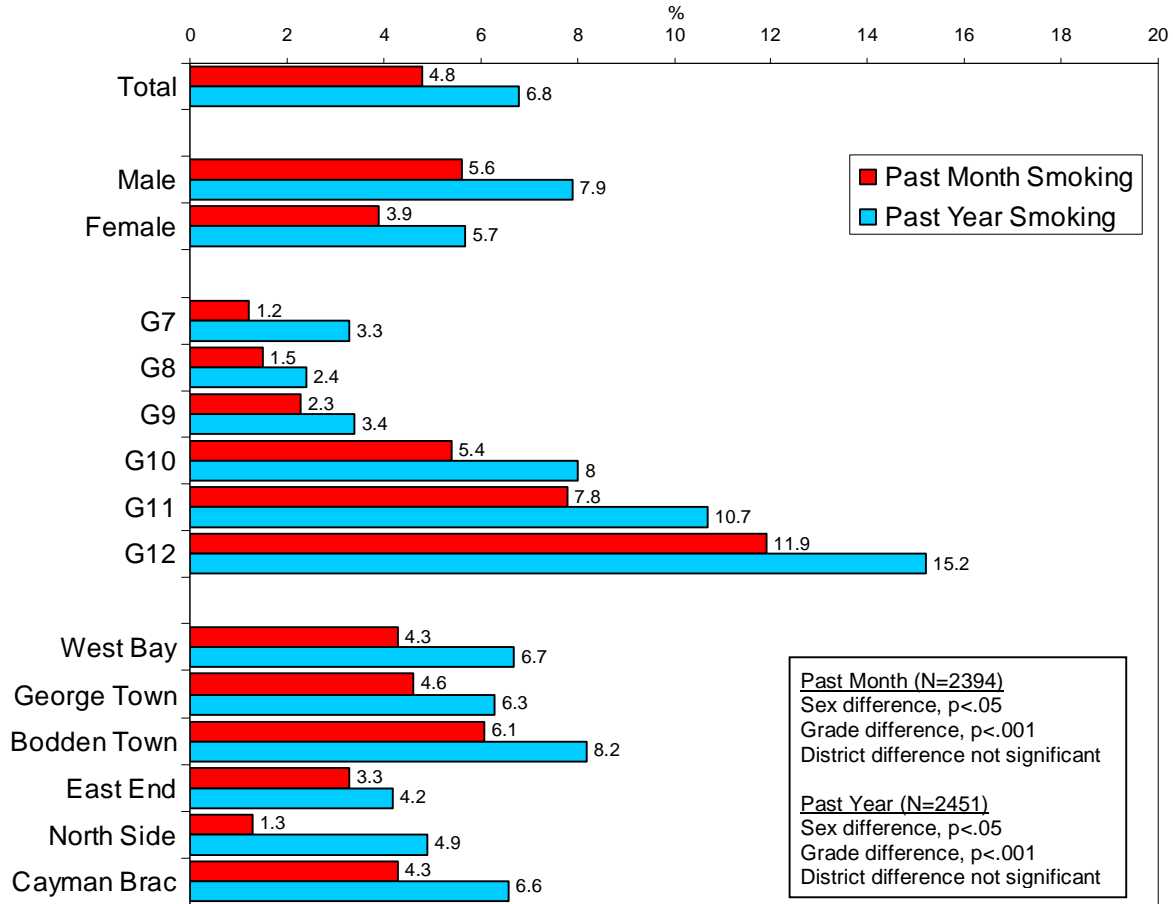


Table 1. Trends in Past Year Smoking (%), by Sex, Grade and District, 1998-2006

		1998 (N=)	2000 (2152)	2002 (2180)	2006 (2451)	Overall Change 1998 to 2006	Comparing 2006 vs 2002	Comparing 2006 vs 1998
Total		8.5	5.9	6.7	6.8	*	ns	*
Sex	Male	8.6	6.7	7.3	7.9	ns	ns	ns
	Female	8.4	5.2	6.1	5.7	*	ns	*
Grade	7	2.3	0.5	0.5	3.3	**	**	ns
	8	4.0	2.7	1.2	2.4	ns	ns	ns
	9	8.3	2.0	5.9	3.4	***	ns	**
	10	10.1	7.9	9.0	8.0	ns	ns	ns
	11	17.7	9.6	13.1	10.7	**	ns	**
	12	11.4	14.9	14.0	15.2	ns	ns	ns
District	West Bay	10.6	5.8	5.6	6.7	*	ns	*
	George Town	8.4	6.1	7.6	6.3	ns	ns	ns
	Bodden Town	5.7	5.2	7.5	8.2	ns	ns	ns
	East End	4.3	2.6	2.6	4.2	ns	ns	ns
	North Side	10.8	9.1	6.7	4.9	ns	ns	ns
	Cayman Brac	11.8	5.0	5.0	6.6	ns	ns	ns

Notes: (1) \* p<.05; \*\* p<.01; \*\*\* p<.001; ns=not significant; (2) sex\*year interaction=ns, grade\*year interaction=p<.01s, district\*year interaction=ns.

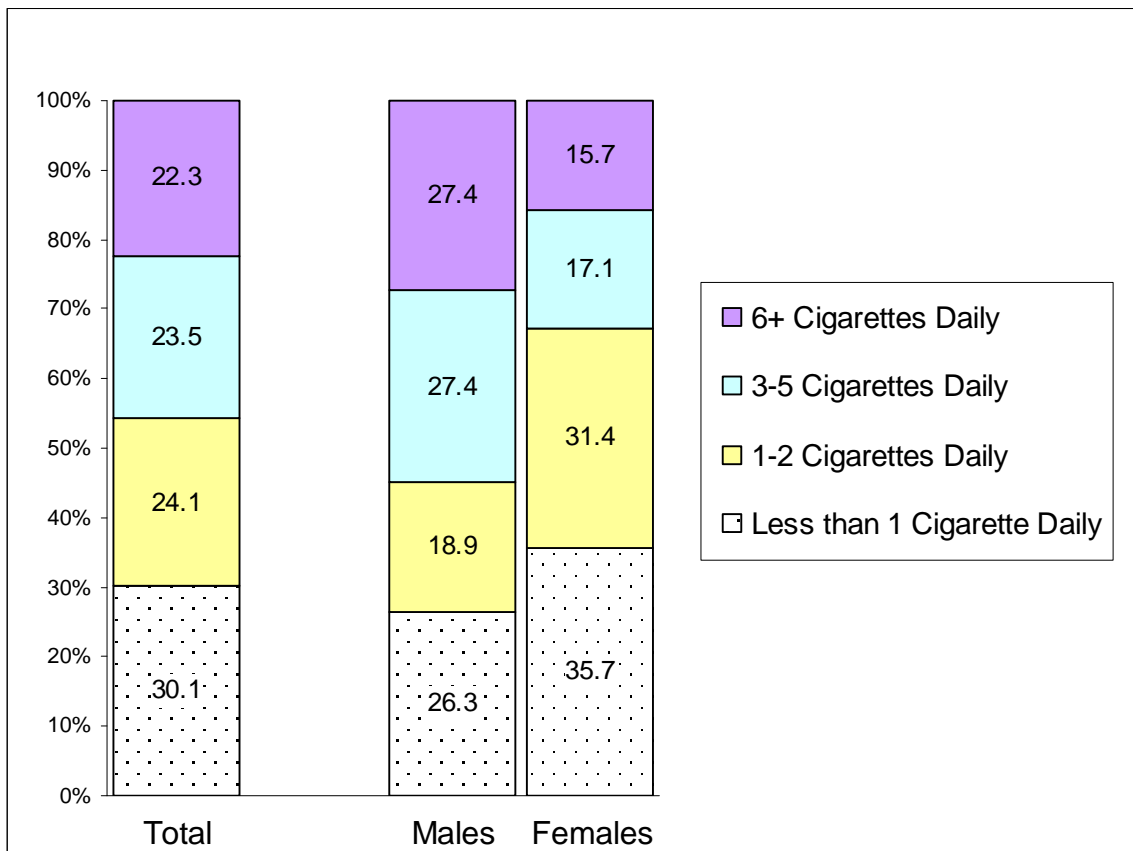
## Daily Smoking

In 2006, 4.7% of students in grades 7 to 12 report smoking cigarettes on a daily basis. Daily smoking has remained stable since 1998: 5.5% in 1998, 3.8% in 2000, and 3.9% in 2002.

Figure 2 presents the amount of cigarettes typically smoked per day, among all smokers in 2006 and broken down by sex. Almost one-third (30.1%) of smokers report smoking less than 1 cigarette daily, on average. About one-quarter (24.1%) smoke 1 or 2 cigarettes daily, 23.5% smoke 3 to 5 cigarettes daily, and 22.3% smoke 6 or more cigarettes daily.

There is a significant sex difference, with males more likely to smoke a greater amount of cigarettes per day. For example, 27.4% of male smokers usually smoke 6 or more cigarettes daily compared to 15.7% of female smokers. There is no significant variation by grade, or by district regarding amount of cigarettes smoked daily (data not presented).

**Figure 2. Usual Number of Cigarettes Smoked Daily Among Smokers (N=166),  
By Sex. 2006 CISDUS**



Note: sex difference  $X^2(3df)=8.0, p<.05$

## Comparisons with Other Student Surveys

Table 2 compares rates of daily smoking among students in grades 8, 10 and 12 in the Cayman Islands, Ontario, Canada, and the United States. Daily smoking among 8<sup>th</sup>-graders in the Cayman Islands is relatively lower compared to their counterparts in the US, but similar to Ontario 8<sup>th</sup>-graders. Daily smoking among 10<sup>th</sup>- and 12<sup>th</sup>-graders in the Cayman Islands is lower than Ontario estimates, but similar to US estimates.

**Table 2. Daily Smoking (%) for Grades 8, 10, and 12: Comparing the 2006 CISDUS, 2005 OSDUS, and the 2006 MTF Survey Findings**

	CISDUS	OSDUS	MTF
Grade 8	1.7	2.6	4.0
Grade 10	5.5	10.2	7.6
Grade 12	10.6	15.1	12.2

Notes: 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; the time frame used is the past year for the CISDUS and OSDUS, and the past month for MTF.

## Methods

The CISDUS employs a census (i.e., a 100% sample) of students enrolled in grades 7 to 12. All twelve middle and high schools in the Cayman Islands participated in the 1998, 2000, 2002 and 2006 surveys. Of the 2,945 enrolled students, 2,480 completed questionnaires in 2006; 2,187 in 2002; 2,186 in 2000, and 1,946 completed questionnaires in 1998. Student participation rates were 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 2006.

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

- **Past Month Smoking** is defined as smoking less than one whole tobacco cigarette or more per day during the past 4 weeks. Trying one cigarette is excluded.
- **Past Year Smoking** is defined as smoking less than one whole cigarette or more per day during the past 12 months. Trying one cigarette is excluded.
- **Daily Smoking** is defined as usually smoking one or more cigarettes per day, during the past 12 months.
- **Early Age of Onset** is defined as first smoking a cigarette between the ages of 6 and 11.
- **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

Miller, S.C., Paglia-Boak, A., & Adlaf, E.M. (2007). *Tobacco Use Among Students in the Cayman Islands: CISDUS Findings 1998-2006*. Cayman Islands: National Drug Council.

To obtain the CISDUS questionnaire or other CISDUS Reports, please call (345) 949-9000.