

CISDUS 2006

**DRUG USE AMONG STUDENTS
IN THE CAYMAN ISLANDS
1998 - 2006**

GANJA REPORT

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INTRODUCTION

In this report we describe the extent and patterns of ganja use among students in grades 7-12 across the Cayman Islands. The findings are based on the 2006 cycle of the *Cayman Islands Student Drug Use Survey* (CISDUS 2006). We are therefore able to present trend data on changes that have occurred over the past 8 years (1998, 2000, 2002, 2006) since the first survey was conducted.

Surveys such as CISDUS, contribute to a better understanding of both current and changing rates of drug use. Although the survey is based on a core set of questions, changes have been made to reflect contemporary public health issues.

It is important to note that this is the first in a series of research reports that the NDC will be publishing. Other subsequent reports will address issues including, but not limited to the following:

- Alcohol use;
- Inhalant use; and
- Multiple drug use.

This report, the first in a series, describes the extent of ganja use in 2006 by students in grades 7-12, and any changes that have occurred since 1998.

SURVEY DESIGN

The *CISDUS*, employs a census (i.e., a 100% sample) of students enrolled in grades 7-12. In 2006, 2,480 students in the twelve private and public schools were asked to complete anonymous, self-administered questionnaires between February 6th and 10th. Also, 2187, 2186, and 1946 students were interviewed in 2002, 2000 and 1998 respectively.

Although sample surveys are preferable for collecting data in large populations, there are several advantages to complete surveys when the population is small, as is the case for the Cayman Islands school population. First, public acceptance and compliance is often enhanced in complete surveys. In turn, this also strengthens political acceptance and credibility, especially in new research endeavors. Second, data analysis is less complicated because calculation of sampling error is irrelevant. Third, survey administration is easier. And fourth, complete surveys provide the maximum numbers required to study subgroup differences. In sum, complete surveys can increase reliability of collected data and public acceptance of it.

SAMPLE PARTICIPATION AND CHARACTERISTICS

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 2480 completed questionnaires in 2006; 2,187 completed questionnaires in 2002; 2,186 completed questionnaires 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, which is comparable to or exceeds other large-scale surveys conducted elsewhere (e.g., Ontario Student Drug Use Survey, 77%; U.S. Monitoring The Future survey, 85%).

As seen below, the major characteristics of the sample do not change significantly between 1998 and 2006. In sum, the high response rate and comparability between samples suggests a representative sample.

TABLE 1 **SAMPLE CHARACTERISTICS, CISDUS 1998-2006**

| | 1998 | | 2000 | | 2002 | | 2006 | |
|-------------|-------------|----------------|-------------|----------------|-------------|----------------|-------------|----------------|
| | Interviewed | Percentage (%) | Interviewed | Percentage (%) | Interviewed | Percentage (%) | Interviewed | Percentage (%) |
| Total | 1946 | | 2186 | | 2187 | | 2480 | |
| Male | 952 | 48.9 | 1063 | 48.9 | 1036 | 48.5 | 1228 | 49.7 |
| Female | 982 | 50.5 | 1111 | 51.1 | 1148 | 51.5 | 1242 | 50.3 |
| | | | | | | | | |
| Grade 7 | 359 | 18.4 | 409 | 18.7 | 429 | 19.6 | 427 | 17.3 |
| Grade 8 | 376 | 19.3 | 378 | 17.3 | 420 | 19.2 | 432 | 17.5 |
| Grade 9 | 329 | 16.9 | 361 | 16.5 | 340 | 15.5 | 452 | 18.3 |
| Grade 10 | 349 | 17.9 | 372 | 17.0 | 368 | 16.8 | 438 | 17.8 |
| Grade 11 | 300 | 15.4 | 369 | 16.9 | 321 | 14.7 | 405 | 16.4 |
| Grade 12 | 228 | 11.7 | 297 | 13.6 | 309 | 14.1 | 313 | 12.7 |
| | | | | | | | | |
| West Bay | 422 | 21.7 | 524 | 24.1 | 505 | 23.1 | 562 | 22.8 |
| George Town | 866 | 44.5 | 941 | 43.3 | 886 | 42.9 | 990 | 40.2 |
| Bodden Town | 390 | 20. | 423 | 19.5 | 481 | 20.6 | 562 | 22.8 |
| East End | 71 | 3.6 | 79 | 3.6 | 79 | 3.7 | 99 | 4.0 |
| North Side | 76 | 3.9 | 77 | 3.5 | 75 | 3.6 | 84 | 3.4 |
| Cayman Brac | 110 | 5.7 | 127 | 5.8 | 140 | 6.0 | 168 | 6.8 |

Note: sex-year difference: $X^2(3df)=2.60$, $p=.458$; grade-year difference: $X^2(15df)=23.578$, $p=.073$; region-year difference: $X^2(15df)=21.914$, $p=.110$

DATA ANALYSIS INTERPRETATION AND PRESENTATION

Because the survey is based on a complete sample, i.e., a census, there is no sampling error attached to estimates (although estimates still have error based on non-sampling error such as mis-reporting). Thus, the calculation of confidence intervals is inappropriate. Although these data are population derived, there are still important reasons to perform inferential statistical analysis. First, a complete census can be regarded as a sample because it is subject to observational error (rates of ganja use could vary slightly if the census was replicated the following day) and it has a population limited in time and space. Second, random sampling is not a prerequisite for drawing statistical inference. For example, if we were to find numerical differences in ganja use among districts, we still need to rule out the possibility of chance processes in generating the differences. Consequently, in this report we employ statistical tests, primarily the chi-square (χ^2) test, to ensure that differences are not due to chance processes.

This most important statement regarding the analysis in this report, or any survey report, is as follows:

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

We report a difference as statistically significant if the probability is at the .05 level or lower.

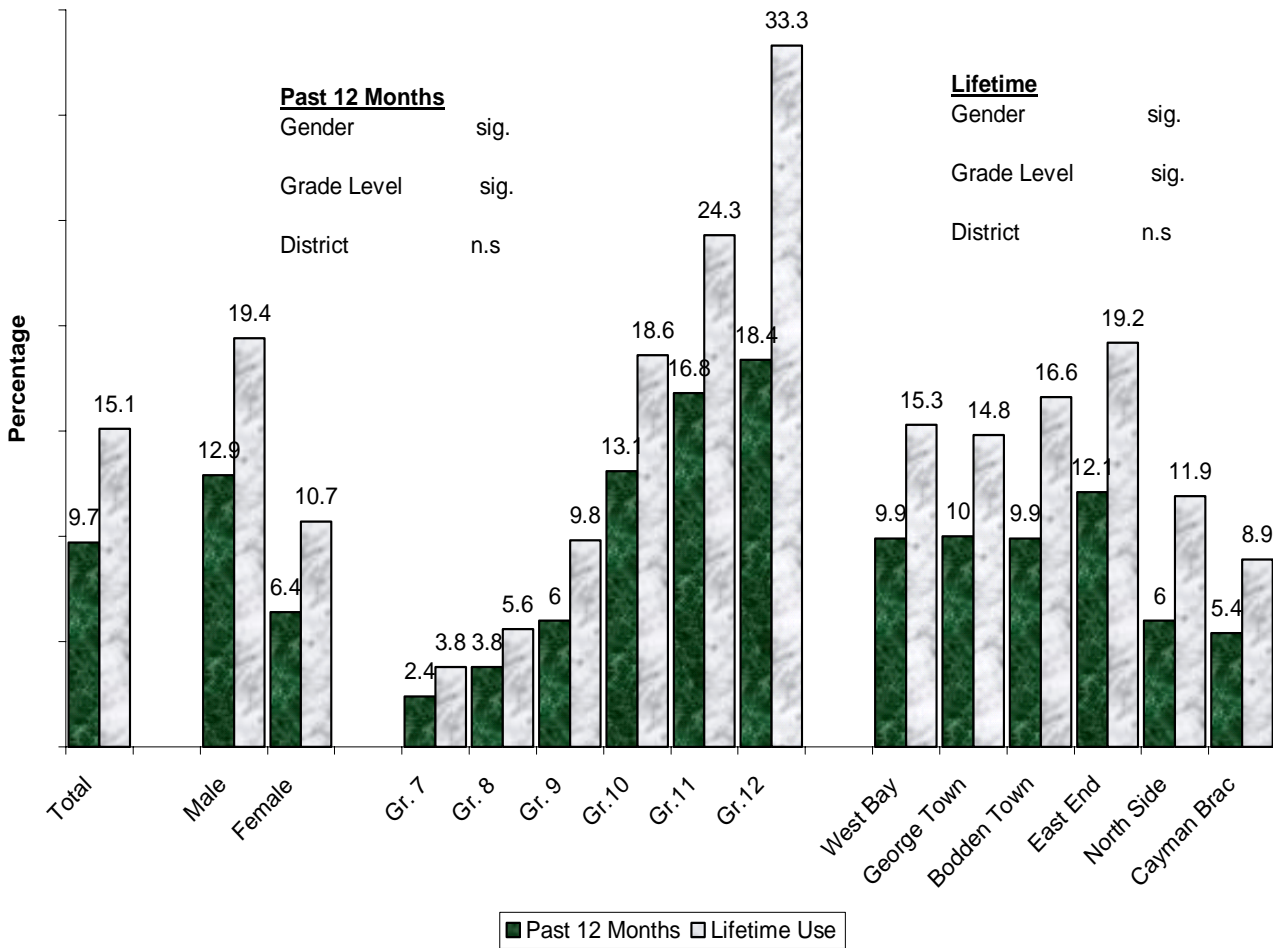
RESULTS

LIFETIME AND PAST YEAR GANJA USE IN 2006

As a prevalence measure, lifetime use is significantly higher than past 12 months use. Ganja remains the second most common drug used among the student population, with 9.7% reporting use during the 12 months before the survey and 15.1% reporting use of ganja during their lifetime.

In Figure 1, both past year and lifetime use of ganja varies significantly by gender and grade, but the differences across districts is not statistically significant.

FIGURE 1 LIFETIME AND PAST YEAR GANJA USE BY GENDER AND GRADE LEVEL, 2006, N=2,451



PREVALENCE OF GANJA USE

Overall ganja use increased from 6.6% in 1998 to 9.7% in 2006. While this shows a trend towards higher rates of ganja use, it is interesting to note that in the short-term 2002 to 2006, differences in rates of use were not significant. This would suggest that ganja use is somewhat stable at current rates of 9.5% in 2002 and 9.7% in 2006.

- **Sex:** The overall increase in ganja use from 8.5% in 1998 to 12.9% in 2006 is significant for males, but not for females. Ganja use among males and females was not found to vary significantly in the short-term, between 2002 to 2006.
- **Grade:** Among 10th to 12th graders, there are significant increases in the rates of ganja use between 1998 and 2006: 6.4% to 13.1% of 10th graders; 14.0% to 16.8% of 11th graders; and 11.9% to 18.4% of 12th graders. Ganja use by grade level was not found to vary significantly as a short-term trend between 2002 and 2006.
- **District:** Increases in ganja use across region was found to be significant in districts of George Town (from 6.5% in 1998 to 10.0% in 2006) and Bodden Town (from 3.9% in 1998 to 9.9% in 2006). No changes in ganja use occurred between 2002 and 2006.

TABLE 2 TRENDS IN GANJA PAST YEAR GANJA USE, BETWEEN 1998 AND 2006

| Year (N) | | 1998 (1946) | 2000 (2186) | 2002 (2187) | 2006 (2451) | Overall Change 1998 to 2006 | Comparing 2006 vs 2002 | Comparing 2006 vs 1998 |
|---------------|--------------------|----------------|----------------|----------------|----------------|-----------------------------------|------------------------------|------------------------------|
| Total | | 6.6 | 7.2 | 9.5 | 9.7 | *** | n.s | *** |
| Sex | Male | 8.5 | 8.3 | 11.8 | 12.9 | *** | n.s | *** |
| | Female | 4.7 | 6.1 | 7.4 | 6.4 | n.s | n.s | n.s |
| Grade | 7 | 1.7 | 1.2 | 1.9 | 2.4 | n.s | n.s | n.s |
| | 8 | 2.9 | 2.4 | 3.6 | 3.8 | n.s | n.s | n.s |
| | 9 | 5.8 | 5.3 | 6.5 | 6.0 | n.s | n.s | n.s |
| | 10 | 6.4 | 9.4 | 13.9 | 13.1 | ** | n.s | ** |
| | 11 | 14.0 | 10.9 | 18.8 | 16.8 | * | n.s | n.s |
| | 12 | 11.9 | 16.0 | 16.6 | 18.4 | n.s | n.s | * |
| Region | West Bay | 10.6 | 6.8 | 10.1 | 9.9 | n.s | n.s | n.s |
| | George Town | 6.5 | 7.6 | 9.8 | 10.0 | ** | n.s | ** |
| | Bodden Town | 3.9 | 7.1 | 10.0 | 9.9 | ** | n.s | *** |
| | East End | 5.7 | 7.8 | 3.8 | 12.1 | n.s | n.s. | n.s |
| | North Side | 4.0 | 7.8 | 6.8 | 6.0 | n.s | n.s | n.s |
| | Cayman Brac | 4.5 | 3.9 | 10.0 | 5.4 | n.s | n.s | n.s |

Notes: (1) Significance for Year Difference for 1998 are not presented because it was the first year in which the survey was conducted (2) * p>=0.05; ** p>=0.01; *** p>=0.001; n.s not significant; ~ nominal

Question: In the last 12 months, how often did you use marijuana (also known as ganja, weed, herb, grass, pot)?

FREQUENCY OF GANJA USE

FREQUENCY OF GANJA USE IN 2006

Frequent use of ganja is defined as using six or more times during the past 12 months. In Table 3, about 4.3% of students report using ganja frequently by this measure, which is a significant increase from 2.6% in 1998.

**TABLE 3 FREQUENCY OF PAST YEAR GANJA USE, BETWEEN 1998 AND 2006
(GRADES 7-12)**

| | N | 1998 (%) | N | 2000 (%) | N | 2002 (%) | N | 2006 (%) |
|---------------------------|------|----------|------|----------|------|----------|------|----------|
| Never Used | 1720 | 89.5 | 1936 | 89.5 | 1887 | 86.6 | 2082 | 84.9 |
| Not in the past 12 months | 75 | 3.9 | 73 | 3.4 | 85 | 3.9 | 132 | 5.4 |
| 1 to 2 Times | 58 | 3.0 | 75 | 3.9 | 83 | 3.8 | 100 | 4.1 |
| 3 to 5 Times | 18 | .9 | 24 | 1.1 | 39 | 1.8 | 30 | 1.2 |
| 6 to 9 Times | 10 | .5 | 20 | .9 | 30 | 1.4 | 25 | 1.0 |
| 10 to 19 Times | 41 | 2.1 | 36 | 1.7 | 55 | 2.5 | 82 | 3.3 |
| Total | 1922 | 100.0 | 2164 | 100.0 | 2179 | 100.0 | 2451 | 100.0 |

$$X^2 (15DF) = 49.05, P < .001$$

However, in Table 4 below, frequent ganja use among ganja users does not vary significantly between 1998 and 2006. This suggests that the pattern of use has remained stable among users.

TABLE 4 FREQUENCY OF PAST YEAR GANJA USE AMONG GANJA USERS, BETWEEN 1998 AND 2006 (GRADES 7-12)

| | N | 1998 (%) | N | 2000 (%) | N | 2002 (%) | N | 2006 (%) |
|----------------|-----|----------|-----|----------|-----|----------|-----|----------|
| 1 or 2 Times | 58 | 45.7 | 75 | 48.4 | 83 | 40.1 | 100 | 42.2 |
| 3 to 5 Times | 18 | 14.2 | 24 | 15.5 | 39 | 18.8 | 30 | 12.7 |
| 6 to 9 Times | 10 | 7.9 | 20 | 12.9 | 30 | 14.5 | 25 | 10.5 |
| 10 to 19 Times | 41 | 32.3 | 36 | 23.2 | 55 | 26.6 | 82 | 34.6 |
| Total | 127 | 100.0 | 155 | 100.0 | 207 | 100.0 | 237 | 100.0 |

$$X^2 (9DF) = 13.04, P = .161 (N.S.)$$

INCIDENCE AND ONSET

The incidence of ganja use refers to the number of first time ganja users over the past 12 months. In Table 5, the overall trend is an increase in new users from 5.1% in 1998 to 6.9% in 2006. This increase is significant among males, but not females. The percentage of new male users increased from 6.5% in 1998 to 9.0% in 2006. It is important to note that variation in the number of first time users by grade and district was not statistically significant.

TABLE 5 **NEW GANJA USERS IN PAST 12 MONTHS BETWEEN 1998 AND 2006**
(GRADES 7-12)

| Year (N) | | 1998 (1946) | 2000 (2186) | 2002 (2187) | 2006 (2451) | Overall Change 1998 to 2006 | Comparing 2006 vs 2002 | Comparing 2006 vs 1998 |
|---------------|--------------------|----------------|----------------|----------------|----------------|--------------------------------------|------------------------------|------------------------------|
| Total | | 5.1 | 4.8 | 5.9 | 6.9 | ** | n.s | ** |
| Sex | Male | 6.5 | 5.4 | 7.2 | 9.0 | ** | n.s | * |
| | Female | 3.8 | 4.2 | 4.8 | 4.8 | n.s | n.s | n.s |
| Grade | 7 | 2.1 | 0.5 | 1.2 | 2.2 | n.s | n.s | n.s |
| | 8 | 2.4 | 4.3 | 1.9 | 3.1 | n.s | n.s | n.s |
| | 9 | 4.6 | 4.5 | 5.6 | 5.7 | n.s | n.s | n.s |
| | 10 | 6.4 | 6.2 | 9.3 | 9.3 | n.s | n.s | n.s |
| | 11 | 8.9 | 6.6 | 10.7 | 10.8 | n.s | n.s | n.s |
| | 12 | 7.7 | 7.5 | 9.1 | 10.7 | n.s | n.s | n.s |
| Region | West Bay | 6.4 | 4.5 | 6.8 | 7.2 | n.s | n.s | n.s |
| | George Town | 5.4 | 4.8 | 5.3 | 7.1 | n.s | n.s | n.s |
| | Bodden Town | 3.4 | 5.7 | 6.7 | 6.7 | n.s | n.s | * |
| | East End | 5.9 | 2.6 | 5.2 | 8.3 | n.s | n.s | n.s |
| | North Side | 2.7 | 5.3 | 4.1 | 7.1 | n.s | n.s | n.s |
| | Cayman Brac | 4.7 | 3.2 | 5.8 | 3.7 | n.s | n.s | n.s |

Notes: (1) Significance for Year Difference for 1998 are not presented because it was the first year in which the survey was conducted (2) * $p >= 0.05$; ** $p >= 0.01$; *** $p >= 0.001$; n.s not significant; ~ nominal

Question: During the last 12 months, have you tried marijuana (ganja, weed, hashish) for the very first time?

Source: CISDUS, National Drug Council

In addition to the prevalence of ganja use, another important indicator of the character of ganja use is the onset of use, and most notably early onset – the percentage of students who use ganja for the first time at an early age. Figure 2 shows the cumulative percentages of students (by grade level) who report using ganja for the first time in 2006 by various ages. For example, 2.1% of 7th-graders used ganja by age 10 and 33.7% of 12th-graders used ganja by 17 years of age.

Early onset of ganja use (by age 10) varies from 2.1% of grade 7 students to 3.9% of grade 12 students.

FIGURE 2 AGE OF ONSET, GRADES 7-12, N=2451, 2006

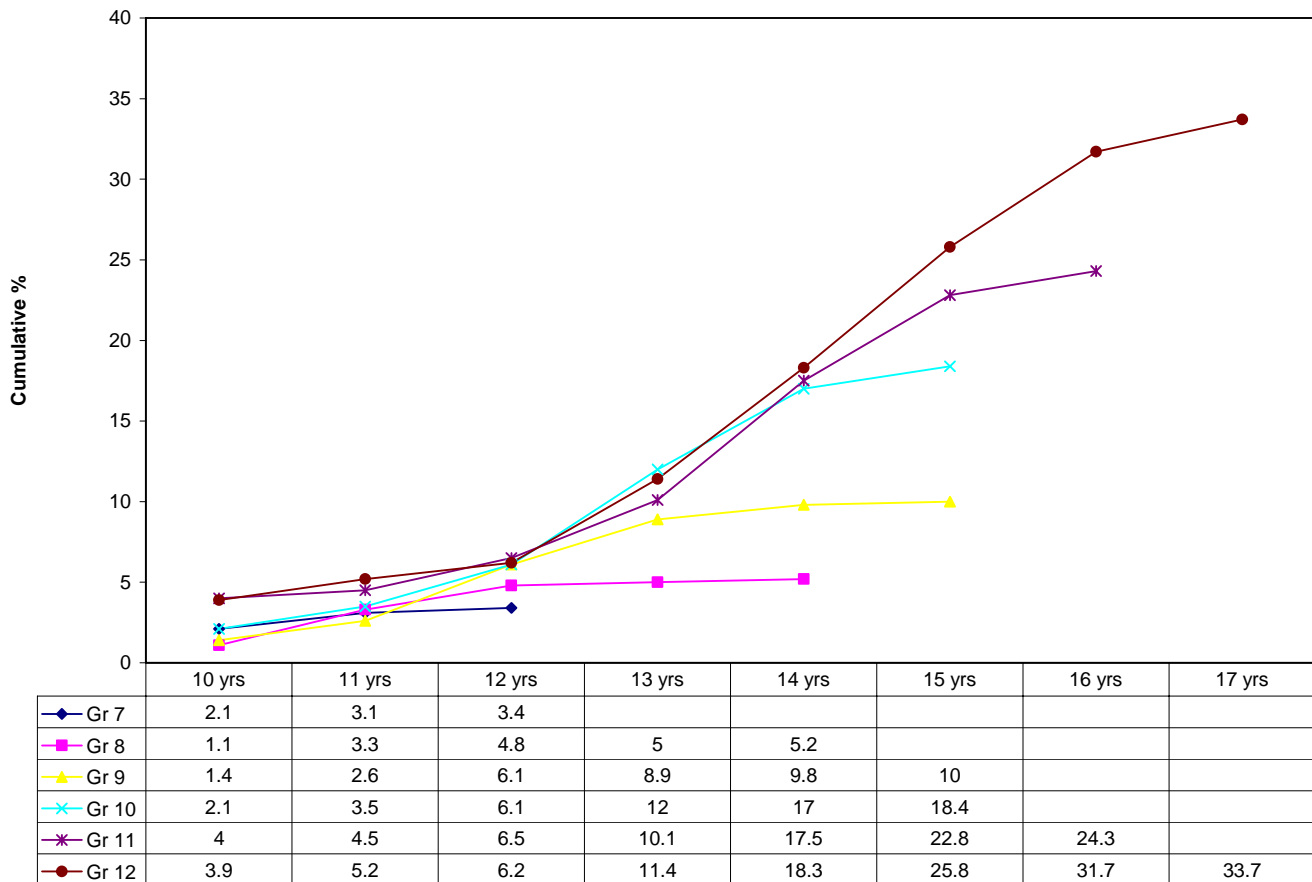
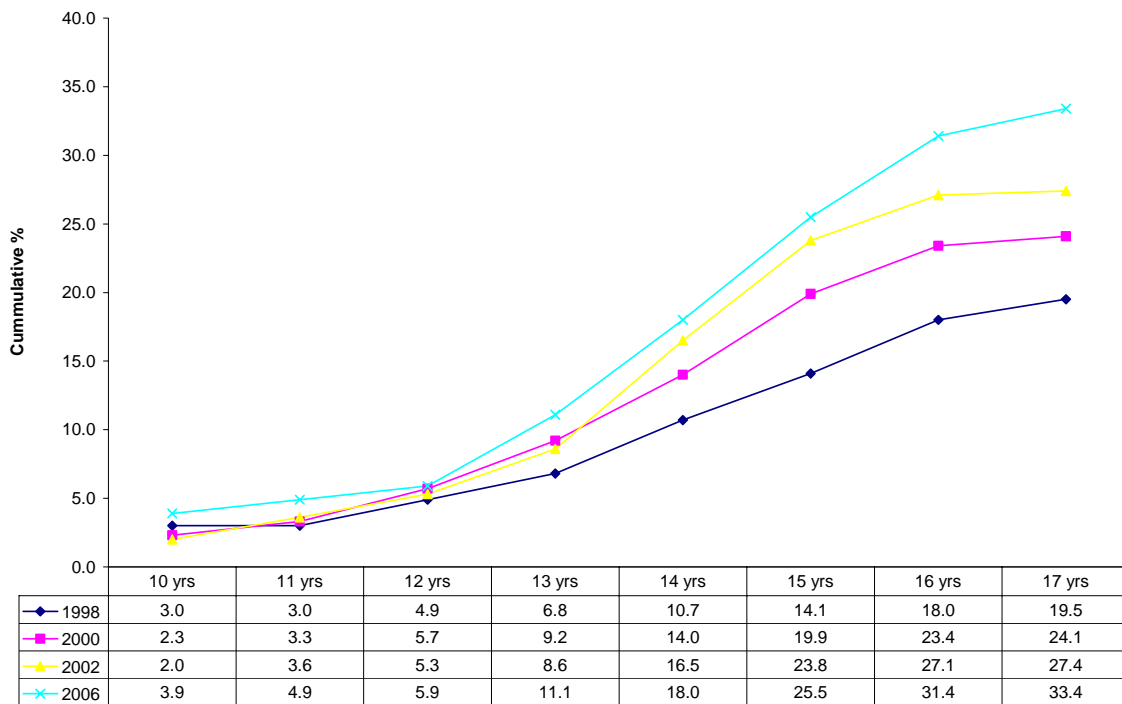


Figure 3 shows the age at which ganja was first used among G12 students between 1998 and 2006. It is evident from these data that more students in 2006 use ganja at earlier ages than did students in 1998. For example, 18.0% of G12 students used ganja by age 14, compared to only 10.7% in 1998.

FIGURE 3 ONSET BY GRADE 12 STUDENTS, 1998 TO 2006, N=2451



GANJA PROBLEMS

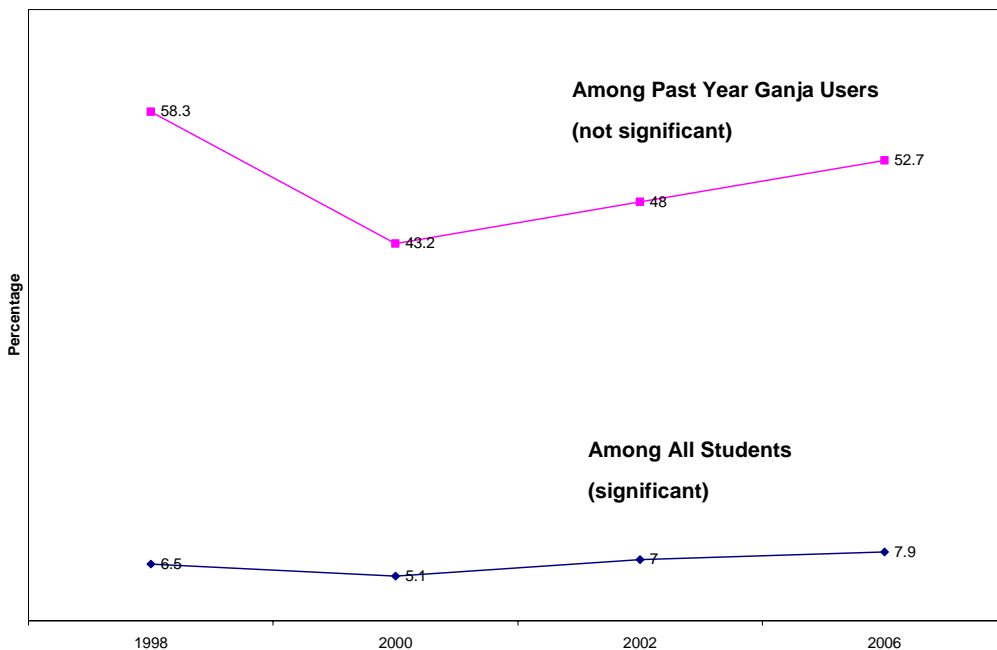
Figure 4 shows the percentage of students and past year ganja users who report experiencing two symptoms of ganja dependence. We report the percentage of students who report any of these two symptoms:

- “Have you ever tried to stop using ganja/herb or hashish but found you couldn’t stop?”; and
- “In the past 12 months have you tried to cut down your use of ganja/herb hashish?”.

A sizeable percentage of ganja users have attempted to reduce their use. Over half (52.7%) of past year ganja users (7.9% of all students) report unsuccessful quit attempts ever or attempts to reduce their use of cannabis during the past year.

Reports of problems, which vary from 43.2% to 58.3 among users and from 5.1% to 7.9% among all students, have not changed substantially across years. The only statistically significant comparison indicates that among all students, significantly fewer students report any problems in 2000 (5.1%) compared to 2006 (7.9%).

FIGURE 4 GANJA PROBLEMS AMONG ALL STUDENTS AND GANJA USERS, GRADES (7-12) FROM 1998 TO 2006



In this section we describe the context in which ganja is used by students in the Cayman Islands. Figure 5 shows, over time, variation in the following four measures.

- **Availability** – “How easy or difficult would it be for you to get marijuana (ganja, herb marijuana, grass, pot, hashish, hash, hash oil) if you wanted some?”;
- **Risk** – “How much do you think people risk harming themselves (physically or in other ways) if they ...try ganja or herb (marijuana, pot, ganja, grass) once or twice;
- **Friends** – “How many of your close friends have used ganja in the past 12 months?” ; and
- **Approval** – “ Do you disapprove of people (18 or older) doing the following: Trying ganja or herb (marijuana, pot, grass) once or twice?”.

AVAILABILITY

About 26.0% of students report that ganja is easy or very easy to obtain. Males are more likely than females to report easy access (28.8% vs 23.4%) and access increases with grade (from 4.0% of G7 students to 52.6% among G12 students). Reported availability is significantly lower in 2006 than 2002 (26.0% vs 29.2%) but is not lower than 1998 or 2000 (26.2%, 26.9%, respectively).

PERCEIVED RISK

About 12.3% of students report no risk in using ganja. Perceived risk is lower among males than females: 9.1% of females report no risk compared to 15.8% of males. There is weak variation according to grade and district. Perceptions of risk have been stable between 1998 and 2006.

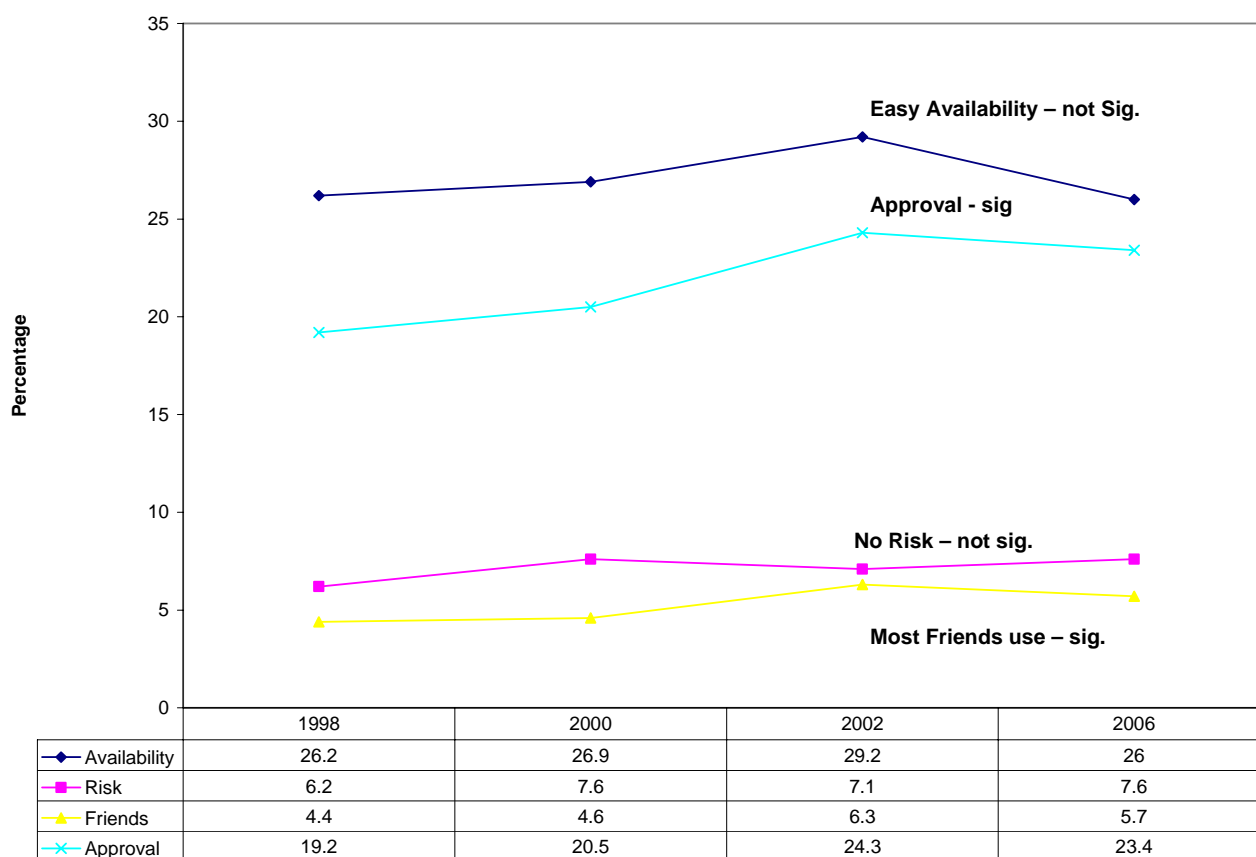
GANJA USE BY CLOSE FRIENDS

One in twenty (5.7%) of students report that most or all their close friends use ganja. These reports vary by grade, from 1.0% of G7 students to 11.1% of G11 students, but does not differ by sex (6.4% of males vs 5.1% of females). Although there has been some variation between 1998 and 2006, there is no significant recent change in the use of ganja by close friends between 2002 and 2006.

APPROVAL OF GANJA USE

Almost one-quarter of students (23.4%) do not disapprove of cannabis being tried. Approval is higher among males than females (27.6% vs 19.4%) and increases with grade (from 13.7% to 29.9%). Norms of approval are generally higher in 2006 compared to 1998 (23.4% vs 19.2%); however, changes between 2002 and 2006 are generally nominal. Two findings worthy of mention are declines in approval among G7 students (from 19.3% to 13.7%) and among Cayman Brac students (from 18.0% to 9.7%).

Figure 5 Context of Ganja Use



CORRELATES OF GANJA USE

It is important to note that the size of the drug using population and the pattern of drug use are only two components of the harm caused by drug abuse. A host of other factors influence whether the use of a given drug causes significant problems to society or individuals. For example, the pharmacological effects of the drug being used, its addictive potential, level of purity, economic and social cost of treatment and enforcement. As well as evaluating the harm caused by drug use, it is important to balance the percentage using a drug and the absolute number of users.

Therefore, in evaluating the harm caused by ganja use it is important to know, not only the size of the adolescent population using ganja, but also the factors that correlate with drug use. This information is particularly useful in identifying high-risk groups, which should inform policy accordingly.

From these results we have identified the following factors that are associated with the use of ganja by students:

Table 6 Correlates of Ganja Use

| FACTOR | STUDENTS ARE..... |
|--|---|
| PEER USE | 13.1 times more likely to use ganja if they have any close friends who use ganja |
| AVAILABILITY | 11.4 times more likely to use ganja if it is easy to get |
| PARENTAL MONITORING | 3.1 times more likely to use ganja if their parents do not know where they are when they are not at home |
| FAMILY UNIT | 2.2 times more likely to use ganja if they do not live with both parents |
| FAMILY RELATIONS | 1.9 times more likely to use ganja if they are not getting along with your family |
| FAMILY DISAPPROVAL OF EXPERIMENTATION | 1.8 times more likely to use ganja if their family does not disapprove of trying ganja |
| CHURCH ATTENDANCE | 1.6 times more likely to use ganja if they do not attend church regularly |
| FAMILY COMMUNICATION | 1.6 times more likely to use ganja if they cannot talk about problems with a family member |
| FAMILY DISAPPROVAL OF USE | 1.5 times more likely to use ganja if their family does not disapprove of regular ganja use |
| SET/LEVEL CLASSES | 1.4 times more likely to use ganja if they are not in set 1 / level 1 classes |
| FAMILY TIME | 1.4 times more likely to use ganja if they do not spend most of their weekends with their family |
| EXTRACURRICULAR ACTIVITIES | No significant influence on ganja use |
| PERCEPTION OF HEALTH RISK | No significant influence on ganja use |

TABLE 7 SOME INSIGHTFUL COMPARISONS...

| | | | | |
|--------------|---|--------------------|-------------|---|
| 30.0% | who find it <u>easy</u> to get ganja, use it | <i>compared to</i> | 2.9% | who find it <u>difficult</u> to get ganja, and use it |
| 21.5% | whose parents <u>do not know</u> where they are when they are not at home, use it | <i>compared to</i> | 7.0% | whose parents <u>do know</u> where they are when they are not at home, and use it |
| 20.6% | who have close friends who <u>use</u> ganja, also use it | <i>compared to</i> | 1.5% | who <u>do not</u> have close friends who use ganja, and use it |
| 14.1% | whose families <u>do not</u> disapprove of trying ganja, use it | <i>compared to</i> | 8.8% | whose families <u>disapprove</u> of trying ganja, and use it |
| 13.1% | who are attending church <u>less than</u> once per month, use it | <i>compared to</i> | 7.3% | who attend church <u>regularly</u> , and use it |
| 11.7% | who <u>are not</u> getting along well with their family, use it | <i>compared to</i> | 6.8% | who <u>are</u> getting along well with their family, and use it |
| 11.4% | who <u>cannot</u> talk to family members about problems, use it | <i>compared to</i> | 7.8% | who <u>can</u> talk to family members about problems, and use it |
| 11.3% | who <u>do not</u> spend time with their family on weekends, use it | <i>compared to</i> | 7.5% | who <u>do</u> spend time with their family on weekends, and use it |
| 11.2% | who are in <u>lower than</u> set 1/level 1 classes, use it | <i>compared to</i> | 7.2% | who are in <u>set 1/level 1</u> classes, and use it |

COMPARISONS TO OTHER SURVEYS

Table 8 compares past year ganja use among Cayman Islands 10th- and 12th-grade students to those from the United States and Canada (Ontario). As seen rates of ganja use in the Cayman Islands is significantly lower compared to North America.

TABLE 8 PAST YEAR CANNABIS USE

| | Cayman Islands (2006) | United States (2005) | Canada, Ontario (2005) |
|-----------------|----------------------------------|-----------------------------|-----------------------------------|
| Grade 10 | 13.1 | 26.6 | 33.6 |
| | | | |
| Grade 12 | 18.4 | 33.6 | 46.2 |

SUMMARY & DISCUSSION

As with all studies there are some limitations, which must be acknowledged before any discussion of results and implications can take place. Self reported data cannot be readily verified. However, under conditions of anonymity, such as class administration, there is evidence that reports of drug use are reasonably accurate. Nevertheless, we must accept that drug use data based on self-reports are underestimated to some unknown degree. Fortunately, these results have not been found to change over time, and thus remain valid and unbiased. The high response rate of the study has increased the validity of the results by reducing the bias due to non-responses by students present or absent from school. And finally, this study cannot be generalized to adolescents not attending school, e.g., drop-outs, street youth and adolescents in the workplace.

The results presented show both gains and losses in terms of overall drug use. There are positive findings that signal a reduction or containment of rates of ganja use, and negative findings that should be viewed as warnings for public health professionals.

SOME OF THE MORE POSITIVE FINDINGS ARE AS FOLLOWS:

- **Ganja use among students remained stable in 2006.**

While a trend towards higher rates of ganja use is evident between 1998 and 2006 with rates increasing from 6.6% to 9.7%, the percentage of students reporting ganja use has not risen significantly between in 2002 (9.5%) and in 2006 (9.7%).

- **No increase in new users between 2002 and 2006**

The percentage of students using ganja for the first time was unchanged between 2002 and 2006 (5.9% vs 6.9%)

- **Reported easy availability down**

Fewer students in 2006 reported that ganja was easily available compared to 2002 (26.0% vs 29.2%).

- **Approval of cannabis use has stabilized**

Although approval of ganja use increased from 1998 to 2002 (from 19.2% to 24.3%), this trend did not continue into 2006 (23.4%). Moreover, approval of ganja declined significantly among G7 students (from 19.3% in 2002 to 13.4% in 2006).

- **Ganja use among Cayman Islands students is only half the rate compared to other international surveys.**

However, there are also some findings that should be flagged as health warnings:

- **Current rates remain higher compared to 1998**

Although ganja use did not increase significantly between 2002 and 2006, the current rate of 9.7% remains higher than rate of 6.6% found in 1998.

- **More males using ganja.**

The percentage of males reporting ganja use has increased significantly from 8.5% in 1998 to 12.9% in 2006. Female ganja use did not change significantly.

- **More students in higher grades using ganja.**

Rates of ganja use by students in higher grades have increased significantly (from 6.4% to 13.1% of 10th graders between 1998 and 2006, and from 11.9% to 18.4% of 12th graders over the same period)..

- **More ganja use in central districts.**

Rates of ganja use have increased significantly among students residing in the districts of George Town (6.5% in 1998 to 10.0% in 2006) and Bodden Town (3.9% in 1998 to 9.9% in 2006).

- **Use of ganja at higher frequencies.**

More students reporting ganja use 6 or more times during the past year (2.6% in 1998 to 4.3% in 2006).

- **More students use ganja at younger ages.**

In 2006, 18.0% of G12 students used ganja by age 14, compared to only 10.7% in 1998

- **About one-half of all past year ganja users report attempts to quit. Thus, there are intervention opportunities to reduce consumption.**

APPENDICES

Table A1 Easy Availability

| Year (N) | | 1998 (1946) | 2000 (2186) | 2002 (2187) | 2006 (2451) | Overall Change 1998 to 2006 | Comparing 2006 vs 2002 | Comparing 2006 vs 1998 |
|---------------|--------------------|----------------|----------------|----------------|----------------|--------------------------------------|---------------------------|---------------------------|
| Total | | 26.2 | 26.9 | 29.2 | 26.0 | n.s | ** | n.s |
| Sex | Male | 28.4 | 31.2 | 31.2 | 28.8 | n.s | n.s | n.s |
| | Female | 24.4 | 23.0 | 27.5 | 23.4 | n.s | * | n.s |
| Grade | 7 | 4.7 | 2.9 | 3.9 | 4.0 | n.s | n.s | n.s |
| | 8 | 13.5 | 8.2 | 11.1 | 9.0 | n.s | n.s | * |
| | 9 | 21.6 | 21.0 | 18.6 | 17.0 | n.s | n.s | n.s |
| | 10 | 29.3 | 31.1 | 38.7 | 30.9 | * | n.s | * |
| | 11 | 48.8 | 47.2 | 52.5 | 47.7 | n.s | n.s | n.s |
| | 12 | 50.7 | 55.6 | 58.9 | 52.6 | n.s | n.s | n.s |
| Region | West Bay | 31.6 | 28.5 | 33.3 | 26.4 | n.s | ** | n.s |
| | George Town | 23.9 | 28.6 | 28.8 | 24.7 | * | * | n.s |
| | Bodden Town | 23.9 | 24.6 | 31.4 | 28.4 | * | n.s | n.s |
| | East End | 25.4 | 14.7 | 23.2 | 34.5 | * | n.s | n.s |
| | North Side | 34.7 | 25.3 | 19.4 | 24.3 | n.s | n.s | n.s |
| | Cayman Brac | 28.0 | 25.4 | 21.8 | 21.7 | n.s | n.s | n.s |

Notes:

(1) Significance for Year Difference for 1998 are not presented because it was the first year in which the survey was conducted (2) * $p \geq 0.05$; ** $p \geq 0.01$; *** $p \geq 0.001$; n.s not significant; ~ nominal

Question: How easy or difficult would it be for you to get marijuana (ganja, herb marijuana, grass, pot, hashish, hash, hash oil) if you wanted some?

Source: CISDUS, National Drug Council

Table A2 No risk

| Year (N) | | 1998 (1946) | 2000 (2186) | 2002 (2187) | 2006 (2451) | Overall Change 1998 to 2006 | Comparing 2006 vs 2002 | Comparing 2006 vs 1998 |
|---------------|--------------------|----------------|----------------|----------------|----------------|--------------------------------------|------------------------------|------------------------------|
| Total | | 12.5 | 11.6 | 11.9 | 12.3 | n.s | n.s | n.s |
| Sex | Male | 14.8 | 13.6 | 13.2 | 15.8 | n.s | n.s | n.s |
| | Female | 10.1 | 9.7 | 10.8 | 9.1 | n.s | n.s | n.s |
| Grade | 7 | 13.5 | 11.2 | 10.7 | 10.1 | n.s | n.s | n.s |
| | 8 | 11.7 | 11.6 | 10.7 | 8.0 | n.s | n.s | n.s |
| | 9 | 8.4 | 7.0 | 10.6 | 12.3 | n.s | n.s | n.s |
| | 10 | 9.5 | 10.7 | 13.3 | 12.8 | n.s | n.s | n.s |
| | 11 | 17.6 | 17.1 | 14.8 | 16.4 | n.s | n.s | n.s |
| | 12 | 15.7 | 11.8 | 11.8 | 15.1 | n.s | n.s | n.s |
| Region | West Bay | 11.3 | 10.4 | 13.6 | 12.0 | n.s | n.s | n.s |
| | George Town | 12.7 | 12.3 | 11.9 | 12.7 | n.s | n.s | n.s |
| | Bodden Town | 12.7 | 11.4 | 12.7 | 12.9 | n.s | n.s | n.s |
| | East End | 12.5 | 15.2 | 21.1 | 13.8 | n.s | n.s | n.s |
| | North Side | 13.9 | 8.2 | 4.7 | 11.1 | n.s | n.s | n.s |
| | Cayman Brac | 12.4 | 10.8 | 3.7 | 9.1 | n.s | n.s | n.s |

Notes: (1) Significance for Year Difference for 1998 are not presented because it was the first year in which the survey was conducted (2) * $p \geq 0.05$; ** $p \geq 0.01$; *** $p \geq 0.001$; n.s not significant; ~ nominal

Question: We would like to know your opinions on the effects of using certain drugs and other substances. How much do you think people risk harming themselves (physically or in other ways) if they ... Try ganja or herb (marijuana, pot, ganja, grass) once or twice?..

Source: CISDUS, National Drug Council

Table A3 Friends

| Year (N) | | 1998 (1946) | 2000 (2186) | 2002 (2187) | 2006 (2451) | Overall Change 1998 to 2006 | Comparing 2006 vs 2002 | Comparing 2006 vs 1998 |
|---------------|--------------------|----------------|----------------|----------------|----------------|--------------------------------------|---------------------------|---------------------------|
| Total | | 4.4 | 4.6 | 6.3 | 5.7 | * | n.s | * |
| Sex | Male | 5.6 | 4.5 | 6.6 | 6.4 | n.s | n.s | n.s |
| | Female | 3.3 | 4.8 | 6.0 | 5.1 | * | n.s | * |
| Grade | 7 | 0.3 | 1.4 | 1.7 | 1.0 | n.s | n.s | n.s |
| | 8 | 0.9 | 2.5 | 1.6 | 2.6 | n.s | n.s | n.s |
| | 9 | 5.0 | 2.6 | 4.7 | 3.6 | n.s | n.s | n.s |
| | 10 | 4.5 | 7.4 | 10.6 | 7.3 | * | n.s | n.s |
| | 11 | 8.3 | 6.3 | 11.2 | 11.1 | n.s | n.s | n.s |
| | 12 | 10.4 | 8.0 | 9.2 | 8.4 | n.s | n.s | n.s |
| Region | | | | | | | | |
| | West Bay | 6.8 | 3.5 | 6.5 | 6.8 | n.s | n.s | n.s |
| | George Town | 3.6 | 4.8 | 5.9 | 5.2 | n.s | n.s | n.s |
| | Bodden Town | 3.5 | 4.2 | 7.0 | 5.5 | n.s | n.s | n.s |
| | East End | 1.5 | 8.7 | 4.2 | 7.1 | n.s | n.s | n.s |
| | North Side | 5.6 | 8.1 | 4.3 | 2.8 | n.s | n.s | n.s |
| | Cayman Brac | 5.6 | 4.1 | 8.3 | 5.7 | n.s | n.s | n.s |

Notes: (1) Significance for Year Difference for 1998 are not presented because it was the first year in which the survey was conducted (2) * $p \geq 0.05$; ** $p \geq 0.01$; *** $p \geq 0.001$; n.s not significant; ~ nominal

Question: How many of your close friends have used ganja or herb in the last 12 months?

Source: CISDUS, National Drug Council

Table A4 Approval

| Year | | 1998 | 2000 | 2002 | 2006 | Overall Change 1998 to 2006 | Comparing 2006 vs 2002 | Comparing 2006 vs 1998 |
|---------------|--------------------|--------|--------|--------|--------|-----------------------------|------------------------|------------------------|
| (N) | | (1946) | (2186) | (2187) | (2451) | | | |
| Total | | 19.2 | 20.5 | 24.3 | 23.4 | *** | n.s | *** |
| Sex | Male | 21.4 | 23.8 | 27.3 | 27.6 | ** | n.s | *** |
| | Female | 17.1 | 17.2 | 21.7 | 19.4 | * | n.s | n.s |
| Grade | 7 | 13.0 | 16.0 | 19.3 | 13.7 | n.s | * | n.s |
| | 8 | 14.4 | 16.6 | 18.2 | 16.5 | n.s | n.s | n.s |
| | 9 | 16.6 | 16.4 | 22.4 | 17.3 | n.s | n.s | n.s |
| | 10 | 20.8 | 21.6 | 27.9 | 29.6 | ** | n.s | ** |
| | 11 | 29.1 | 27.1 | 28.4 | 33.2 | n.s | n.s | n.s |
| | 12 | 23.6 | 26.0 | 31.0 | 29.4 | n.s | n.s | n.s |
| Region | | | | | | | | |
| | West Bay | 21.9 | 19.3 | 21.9 | 24.1 | n.s | n.s | n.s |
| | George Town | 18.7 | 22.2 | 27.2 | 25.1 | *** | n.s | *** |
| | Bodden Town | 16.6 | 19.3 | 24.5 | 23.1 | * | n.s | ** |
| | East End | 24.6 | 21.9 | 23.2 | 28.4 | n.s | n.s | n.s |
| | North Side | 27.5 | 20.8 | 23.7 | 19.1 | n.s | n.s | n.s |
| | Cayman Brac | 11.7 | 14.3 | 18.0 | 9.7 | n.s | * | n.s |

Notes: (1) Significance for Year Difference for 1998 are not presented because it was the first year in which the survey was conducted (2) * $p \geq 0.05$; ** $p \geq 0.01$; *** $p \geq 0.001$; n.s not significant; ~ nominal

Question: People differ in whether or not they disapprove of others doing certain things. Do you disapprove of people (18 or older) doing the following: Trying ganja or herb (marijuana, pot, grass) once or twice?

Source: CISDUS, National Drug Council