



ALCOHOL AND DRUG ABUSE DIVISION
State of Hawaii Department of Health

Ka Leo O Na Keiki

**The 2002 Hawaii Student Alcohol,
Tobacco, and Other Drug Use Study**

(1987-2002)

**Hawaii Adolescent Prevention and
Treatment Needs Assessment**

Executive Summary



**THE 2002 HAWAII STUDENT ALCOHOL,
TOBACCO, AND OTHER DRUG USE STUDY (1987-2002):**

**HAWAII ADOLESCENT PREVENTION AND
TREATMENT NEEDS ASSESSMENT**

Executive Summary

by

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Data presented here are excerpted from the comprehensive volume *The 2002 Hawaii Student Alcohol, Tobacco, and Other Drug Use Study (1987-2002): Hawaii Adolescent Prevention and Treatment Needs Assessment* (Pearson, 2003). The comprehensive report is available throughout the Hawaii State Public Library System; at Hamilton and Sinclair Libraries, University of Hawaii at Manoa; and at each of the District School Offices. The study was funded by the Hawaii Department of Health, Alcohol and Drug Abuse Division, with federal funds from the Substance Abuse Prevention and Treatment Block Grant.

Executive Summary

THE 2002 HAWAII STUDENT ALCOHOL, TOBACCO, AND OTHER DRUG USE STUDY

In the Spring of 2002, the State of Hawaii Department of Health, Alcohol and Drug Abuse Division, and Dr. Renee Storm Pearson from the University of Hawaii Speech Department collaborated in a study designed to assess prevalence and trends in substance use, treatment needs, and risk and protective factors that predict substance use and abuse among Hawaii public and private school students statewide. The survey was administered anonymously to all 6th-, 8th-, 10th-, and 12th-grade students in attendance who received written parental consent to participate in the study. The results presented in this report are based on the responses of 27,995 students from 181 public schools and 34 private schools. Data from the previous Hawaii student alcohol and other drug use studies conducted by the Hawaii State Department of Education and the Northwest Regional Educational Laboratory in 1987, 1989, 1991, and 1993 (Woo, Yen, & Pollard, 1994) and by Drs. Klinge and Miller in 1996, 1998, and 2000 (Klinge & Miller, 1997, 1999; Klinge, 2001) are used to assess trend results. Data from the national *2002 Monitoring the Future Study* (Johnston, O'Malley, & Bachman, 2003) are used to make nationwide comparisons.

The executive summary highlights the key findings from the *2002 Hawaii Student Alcohol, Tobacco, and Other Drug Use Study (1987-2002): Adolescent Prevention and Treatment Needs* (Pearson, 2003). Readers are encouraged to refer to the comprehensive volume for more specific details on the findings discussed in this report.

Section I highlights lifetime prevalence and trend data. Section II addresses monthly and daily prevalence and trend data. Prevalence refers to the percentage of the sample reporting use of a given substance on one or more occasions in the given time interval. Lifetime prevalence refers to use of a substance at least once in a student's lifetime, monthly prevalence refers to use of a substance at least once in the past 30 days, and daily prevalence refers to use of a substance on 20 or more occasions in the past 30 days. Eleven separate classes of drugs are distinguished for this report: Marijuana, inhalants, cocaine, methamphetamine, heroin or other opiates, sedatives or tranquilizers, hallucinogens, steroids, "club drugs" (ecstasy/MDMA, GHB, Rohypnol, and ketamine), alcohol, and tobacco. Use of "any illicit drug" includes the use of marijuana, inhalants, cocaine, methamphetamine, heroin or other opiates, tranquilizers or sedatives, hallucinogens, steroids, ecstasy, GHB, Rohypnol, or ketamine. Use of "any alcohol" refers to the use of wine, beer, or hard liquor. Use of "any tobacco" refers to the use of cigarettes or smokeless tobacco. Throughout this report, "substances" refer to alcohol, tobacco, and illicit drugs. Appendix A provides four prevalence tables. The first three tables provide lifetime, monthly, and daily prevalence trends from 1987 to 2002. Table 4 provides comparison data from the *Monitoring the Future Study*.

Section III summarizes adolescent treatment needs in the State of Hawaii. Appendix B provides treatment needs tables. Table 5 summarizes statewide treatment needs in grades 6, 8, 10, and 12 for each substance classification (alcohol, marijuana, stimulants, depressants, hallucinogens, and club drugs). Table 6 provides estimated statewide, county-level, district-level, and school-type (i.e., public versus private) treatment needs for students in grades 6 through 12 for alcohol and drug abuse.

Section IV summarizes adolescent prevention needs in the State of Hawaii. First, substance use onset, attitudes and beliefs about drugs, and the social environment are discussed. Next, the comprehensive risk and protective factor framework is explained, and key findings related to community profiles are highlighted. Appendix C provides a number of tables that focus on factors related to substance use, which should guide the development of substance abuse prevention programs.

SECTION I – LIFETIME PREVALENCE AND TRENDS

Lifetime prevalence of any illicit drug use (e.g., use of any illicit drug at least once in a person's lifetime) steadily increased in 1993 and 1996, continued to increase at the upper grade levels in 1998, and finally decreased across all four grade levels in 2000. In 2002, the proportion of students reporting the use of any illicit drug in their lifetimes continued to decline for 8th graders, but rose a modest 1 percentage point for 6th and 12th graders, and rose by 4 percentage points for 10th graders. Lifetime prevalence reports of ecstasy use have been rising each year since the substance was first included on the survey in 1996. Ecstasy use continued to rise in 2002 in grades 8, 10, and 12, bringing ecstasy prevalence reports to levels that are equivalent to those reported nationally. In 2002, marijuana use was up by 3 percentage points in grade 10, and inhalants and sedatives/tranquilizer use were both up by 2 percentage points in grade 12. Other illicit drugs have remained fairly stable in 2002 with increases and decreases of 1 percentage point or less. Nationwide, overall illicit drug use declined in 2002 among 10th graders and held steady among 12th graders. Nationwide reports of ecstasy use had been steadily increasing over the years; in 2002 nationwide ecstasy rates were down for the first time among 8th, 10th, and 12th graders.

Lifetime prevalence reports of alcohol use in Hawaii decreased across all grades for the first time in 2000 and continued on that trajectory in 2002, bringing alcohol rates to all-time lows in all grades surveyed. Self-reported drunkenness also dropped for the first time in 2000, but remained stable in 2002. Lifetime prevalence reports of cigarette use among adolescents reached all-time highs in 1996, both in Hawaii and nationwide. Beginning in 1998, lifetime prevalence of cigarette use began an encouraging decline in Hawaii and continued on that course in 2002. Lifetime prevalence reports of cigarette use in 2002 are nearly as low as those reported in 1987 and, in most grades, are lower than those reported in 1989. Although Hawaii substance use trends often reflect nationwide trends, Hawaii lifetime prevalence reports for alcohol, tobacco, and illicit drugs are generally much lower than nationwide reports.

Refer to Table 1 for lifetime prevalence data and Table 4 for nationwide comparison data (Appendix A). Figure 1 illustrates trends in lifetime illicit drug, alcohol, and cigarette use since 1987. Figures 2 and 3 display the nationwide comparison data for lifetime illicit drug, alcohol, and tobacco use.

- Lifetime use of **any illicit drug** steadily increased in 1993 and 1996, continued to increase in 1998 in the upper grades, and finally decreased across all four grade levels in 2000. In 2002, lifetime use of any illicit drug continued to drop in grade 8, but rose a modest 1 percentage point in grades 6 and 12, and rose 4 percentage points in grade 10. In 2002, lifetime prevalence reports of any illicit drug use, including inhalants, are 10% for 6th graders, 22% for 8th graders, 40% for 10th graders, and 49% for 12th graders.
- Lifetime prevalence reports of **marijuana** use, the most widely used of the illicit drugs, steadily increased from 1991 to 1998 in the upper grades, began to drop in the lower grades in 1998, and declined across all grades in 2000. In 2002, lifetime marijuana prevalence reports held steady for all grades, except the 10th grade, where marijuana use rose 3 percentage points. In 2000, lifetime marijuana prevalence reports dropped by 6 percentage points in the 10th grade, and thus, 10th-grade prevalence reports in 2002 (36%) remain lower than 1998 reports (39%). In 2002, 3% of 6th graders, 16% of 8th graders, 36% of 10th graders, and 46% of 12th graders reported trying marijuana at some point in their lifetimes. Prevalence reports in Hawaii for marijuana use are lower than nationwide reports, where 19% of 8th graders, 39% of 10th graders, and 48% of 12th graders reported having tried marijuana.

FIGURE 1
Trends in Lifetime Prevalence of Any Illicit Drug, Alcohol, and Cigarette Use
for Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 1987-2002

Figure 1a: **Sixth Grade** Lifetime Prevalence

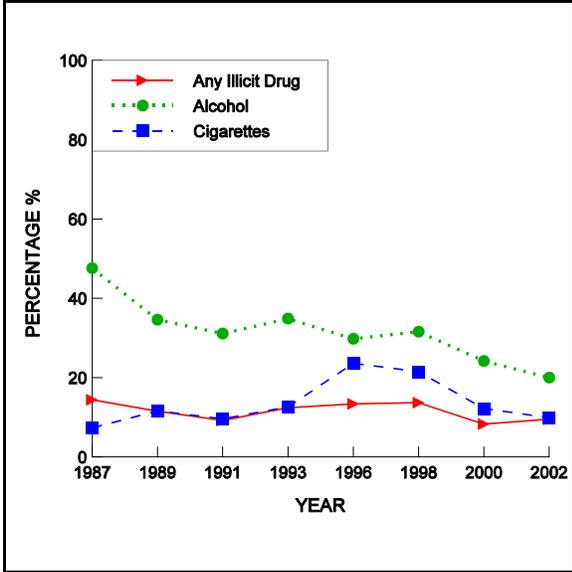


Figure 1b: **Eighth Grade** Lifetime Prevalence

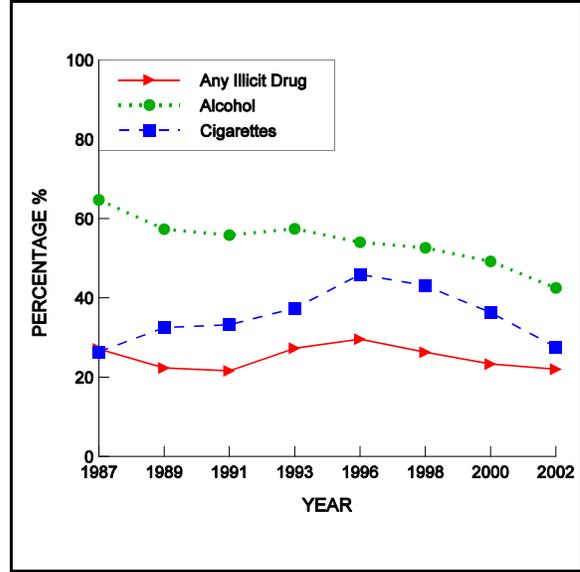


Figure 1c: **Tenth Grade** Lifetime Prevalence

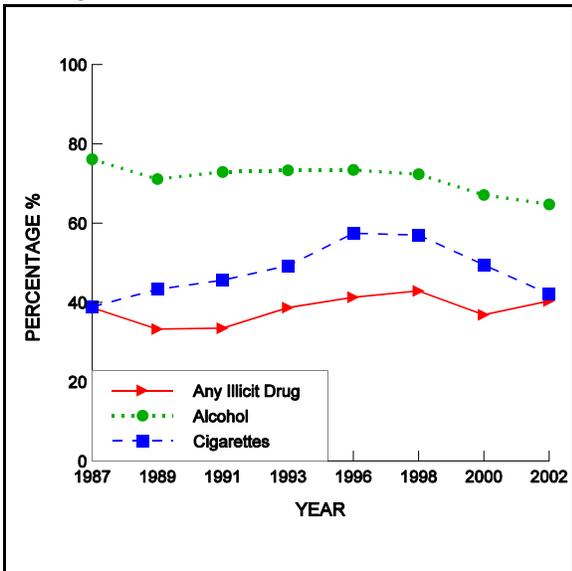
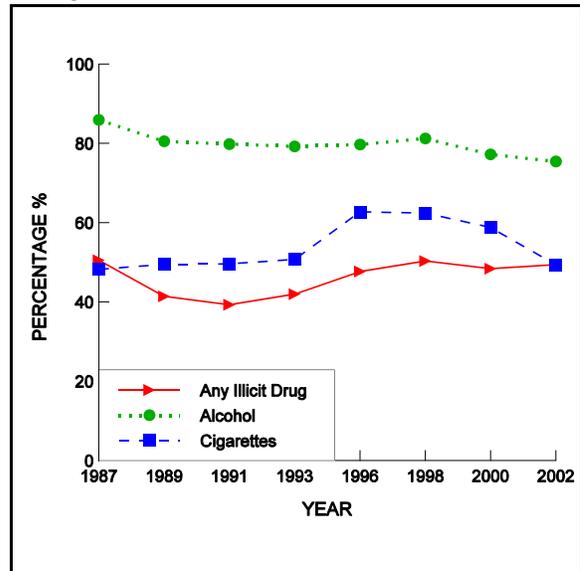


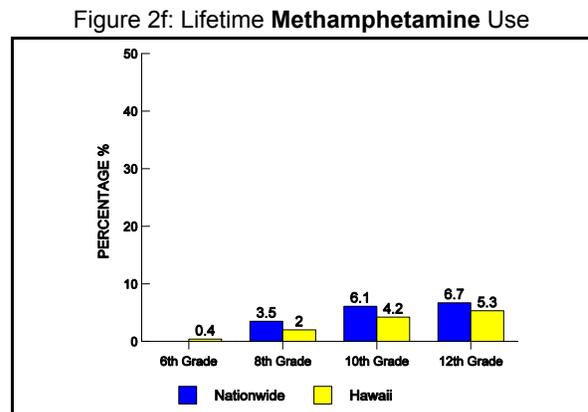
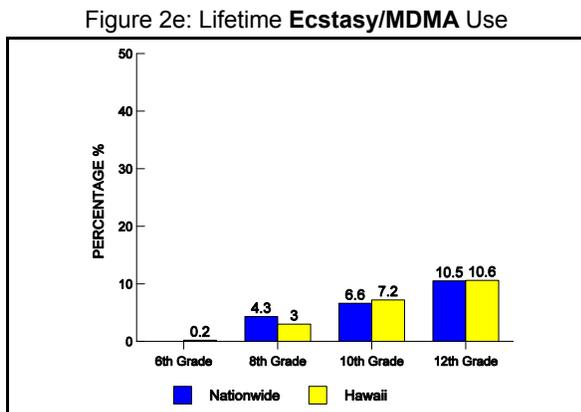
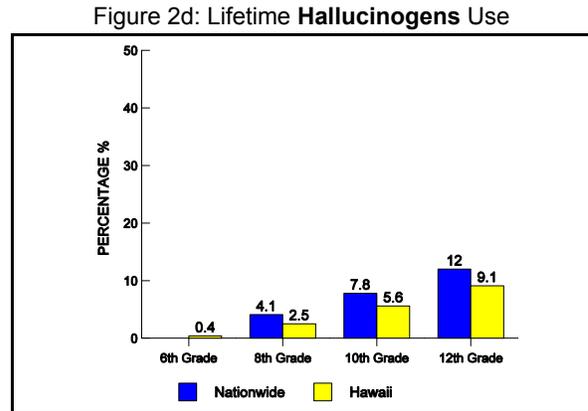
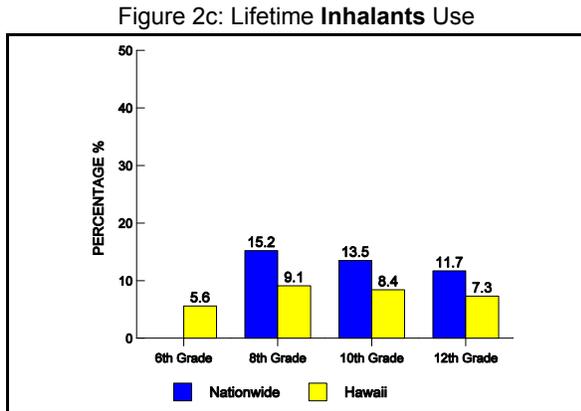
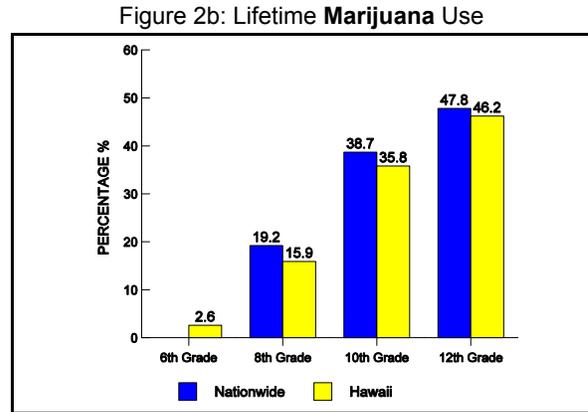
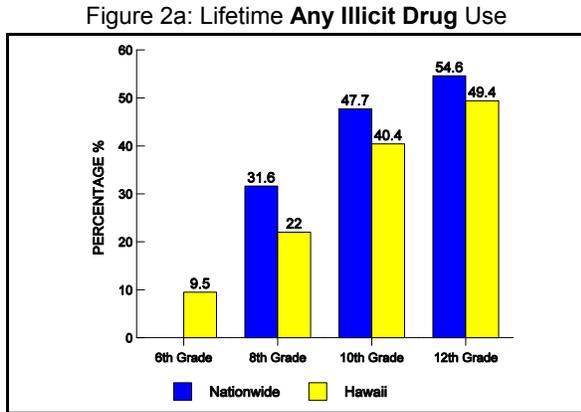
Figure 1d: **Twelfth Grade** Lifetime Prevalence



FINDINGS: Lifetime prevalence of any illicit drug use (e.g., use of an illicit drug at least once in a person’s lifetime) steadily increased in 1993 and 1996, continued to increase in 1998 in the upper grades, and finally decreased across all four grade levels in 2000. In 2002, lifetime use of any illicit drug continued to drop in grade 8, but rose a modest 1 percentage point in grades 6 and 12, and rose 4 percentage points in grade 10. Lifetime prevalence of any alcohol use remained relatively unchanged from 1989 to 1998 for students in the upper grades. A substantial decrease occurred in 2000 across all grades and continues in 2002. Cigarette use among adolescents was at an all-time high in 1996. An encouraging decline in lifetime prevalence of cigarette use started in 1998 and continued through 2002. Lifetime cigarette prevalence reports in 2002 are nearly back to reports in 1987.

- ***Inhalants*** are the most popular drugs for 6th graders, with 6% of these students reporting that they have tried inhalants to get high at some point in their lifetimes. Unlike the use of other drugs, prevalence rates for inhalants decline after the 8th grade. Prevalence rates for inhalant use decreased sharply from 1998 to 2000 in all grades. In 2002, inhalant use remained steady among 6th graders, dropped 1 percentage point for 8th graders, and rose by 1 to 2 percentage points for 10th and 12th graders. Nationwide, inhalant use declined in 2002 for grades 8, 10, and 12. Hawaii lifetime prevalence reports in 2002 for inhalant use in grades 8, 10, and 12 (9%, 8%, and 7%, respectively) remain much lower than nationwide reports in the same grades (15%, 14%, and 12%).
- Inhalants are followed in popularity by ***hallucinogens*** and ***ecstasy/MDMA***. Over the years, lifetime prevalence rates for hallucinogens have been the second highest among the illicit drugs for older students, but now are lower than ecstasy rates. Lifetime prevalence reports of hallucinogen use dropped among all grades in 2000. In 2002, lifetime prevalence reports of hallucinogen use held steady in grades 6 and 8, and continued to drop by approximately 1 percentage point in grades 10 and 12. Nationwide, lifetime prevalence reports of hallucinogen use also declined modestly among some grades. Nationwide reports, however, are higher in grades 8 (4%), 10 (8%), and 12 (12%) than Hawaii reports in the same grades (3%, 6%, and 9%, respectively).
- Nationwide, lifetime prevalence reports of ***ecstasy*** use have been rising each year, but finally dropped in 2002. In Hawaii, ecstasy use continues to rise in grades 8, 10, and 12, bringing ecstasy prevalence reports to a level that is nearly equivalent to nationwide reports. In 2002, lifetime prevalence rates of ecstasy use in Hawaii in grades 8, 10, and 12 are 3%, 7%, and 11%, respectively. These rates are nearly equivalent to 2002 nationwide reports in the same grades (4%, 7%, and 11%), but are slightly lower than national record high levels reached in 2001 (5%, 8%, and 12%). Johnston, O'Malley, and Bachman (2000) reported that ecstasy use was largely concentrated in the northeast in 1999 and diffused to the west in 2000. Klinge (2001) noted that Hawaii seems to be a year behind the west coast. Thus, Hawaii may still see one more year of increases in ecstasy use without effective prevention measures in place.
- Lifetime prevalence reports for ***methamphetamine*** use were at their highest point in 1989, dropped in 1991, and remained relatively unchanged until 1996, where they began to drop in grades 10 and 12. Lifetime prevalence reports for methamphetamine use dropped among all grade levels in 2000 and have basically held steady in 2002. In 2002, lifetime prevalence reports of methamphetamine use in grades 8, 10, and 12 are 2%, 4%, and 5%, which are more than 50% lower than 1989 rates of 6%, 10%, and 12%. Nationwide reports of methamphetamine use have declined only modestly over the years and are 2 percentage points higher than Hawaii prevalence reports.
- Lifetime prevalence reports for the use of ***cocaine*** and ***heroin or other opiates*** had been declining, but remained fairly stable in 2002 for grades 6, 8, and 10; in grade 12, cocaine use continued to decrease slightly, and heroin or other opiates use remained stable. Lifetime prevalence rates for cocaine use in grades 8, 10, and 12 are 2%, 3%, and 5%. Lifetime prevalence for heroin or other opiates is 1% or less. Nationwide reports for both of these illicit drugs have remained stable and are higher than Hawaii reports.

FIGURE 2
Lifetime Prevalence of Illicit Drug Use (Nationwide versus Hawaii), by Grade, 2002
 (Entries are percentages %)

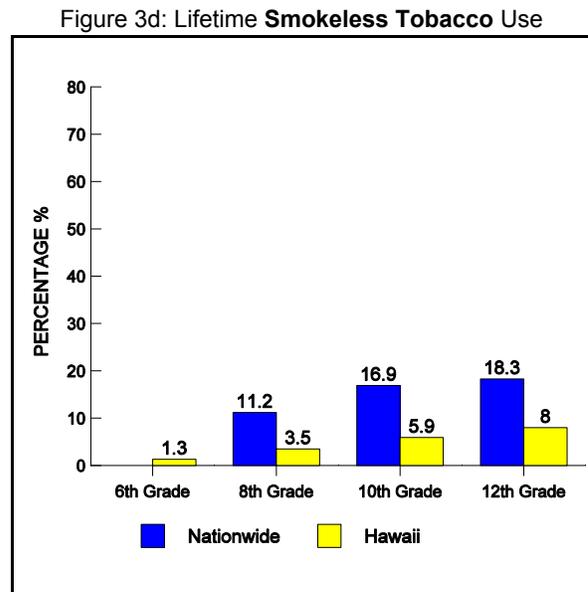
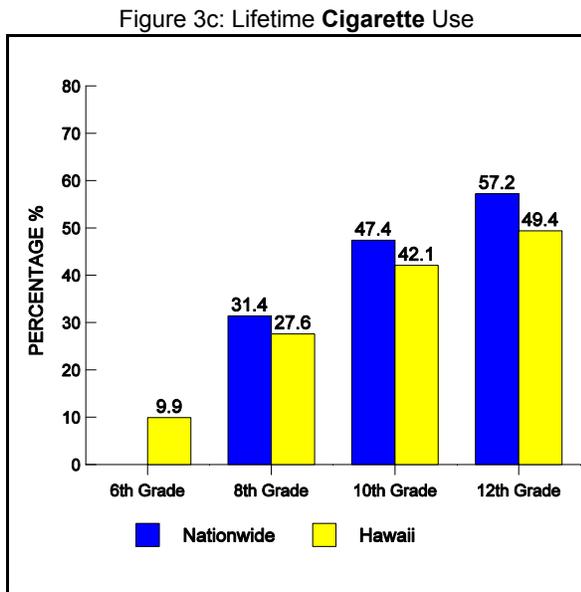
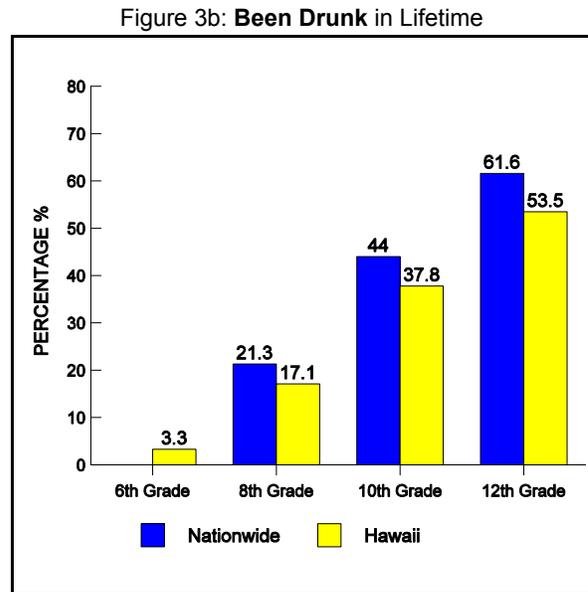
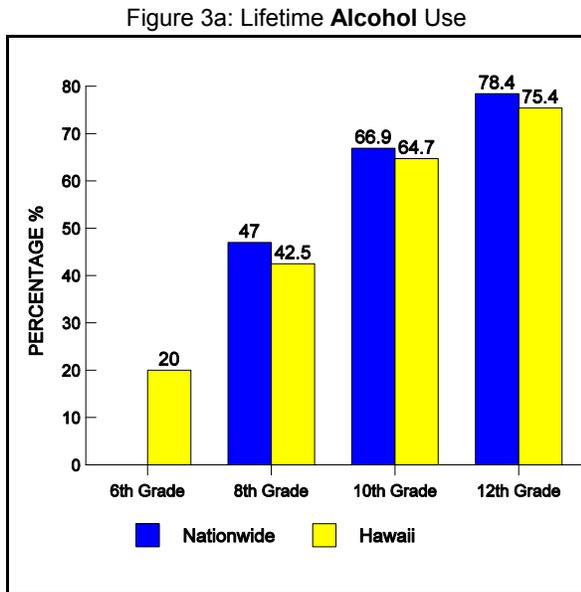


FINDINGS: Less than half of the students in Hawaii have tried an illicit drug, and the percentages in Hawaii who reported trying at least one illicit drug are lower than those reported nationwide. Marijuana is the most prevalent illicit drug for students in grades 8, 10, and 12; inhalants are the most prevalent illicit drugs for students in grade 6. In Hawaii, ecstasy is the second most prevalent drug among 8th, 10th, and 12th graders; prevalence reports for ecstasy use among students in Hawaii are similar to nationwide reports. Hawaii lifetime prevalence reports for illicit drugs other than ecstasy are lower than nationwide reports.

- Use of *sedatives or tranquilizers* had been declining over the last few years. In 2002, lifetime prevalence reports for sedatives and tranquilizers remained unchanged among 6th and 8th graders but increased by 1 to 2 percentage points among 10th and 12th graders. The increases in the upper grades, while fairly small, places lifetime prevalence reports for sedatives or tranquilizers close to 1987 reports, which were at all-time highs. In 1987, 3% of 8th graders, 5% of 10th graders, and 6% of 12th graders had tried sedatives or tranquilizers. In 2002, 2% of 8th graders, 5% of 10th graders, and 6% of 12th graders had tried sedatives or tranquilizers.
- Lifetime prevalence reports of *steroid* use were also declining over the last few years, but increased in 2002 by 1 percentage point among 6th, 10th, and 12th graders, and remained unchanged among 8th graders. In 2002, 2% of the students in grades 6 and 8, and 3% of the students in grades 10 and 12 reported they had tried steroids.
- Lifetime prevalence for use of *any alcohol* (beer, wine, or hard liquor) remained relatively unchanged from 1989 to 1998 for students in the upper grades. A substantial decrease occurred in 2000 across all grades and continued in 2002. In 2002, lifetime prevalence reports of any alcohol use in grades 6, 8, 10, and 12 are 20%, 43%, 65%, and 75%, down from 2000 reports of 24%, 49%, 67%, and 77%. Nationwide lifetime prevalence reports of alcohol use have also been on a downward trajectory, but remain slightly higher than Hawaii prevalence reports.
- Reports of *drunkenness* decreased at all grade levels in 2000 but leveled off in 2002. In 2002, nearly one fifth of the 8th graders (17%), more than one third of the 10th graders (38%), and half of the seniors (54%) reported getting drunk at least once in their lifetimes. Nationwide reports of drunkenness decreased in 2002 but remain higher than Hawaii reports.
- *Cigarette* use among adolescents was at an all-time high in 1996, both in Hawaii and nationwide. An encouraging decline in cigarette use started in 1998 and continued through 2002. In 2002, 10% of 6th graders, 28% of 8th graders, 42% of 10th graders, and 49% of 12th graders reported trying cigarettes. Lifetime cigarette prevalence reports in 2002 are nearly back to where they were in 1987. The continued decrease in prevalence reports of cigarette use corresponds to national trends and, like most substances, Hawaii cigarette prevalence reports remain lower than nationwide reports.
- Reports of *regular cigarette use* follow a similar trajectory as cigarette use in general. Decreases in regular cigarette use, however, are not noted among 6th-grade students, where regular cigarette use fell sharply from 1998 (6%) to 2000 (2%) and has since stabilized in 2002 (2%). In 2002, 2% of 6th graders, 9% of 8th graders, 15% of 10th graders, and 21% of 12th graders reported that they had used cigarettes on a regular basis at some point in their lifetimes. Half as many 8th-grade students in 2002 (9%) reported having ever used cigarettes on a regular basis as in 1996 (20%).
- *Smokeless tobacco* has been tried by less than 10% of Hawaii students in all grades, which is substantially less than nationwide reports in grades 8 (4% vs. 11%), 10 (6% vs. 17%), and 12 (8% vs. 18%).

FIGURE 3
Lifetime Prevalence of Alcohol and Tobacco (Nationwide versus Hawaii), by Grade, 2002

(Entries are percentages %)



FINDINGS: Approximately 1 out of 5 students in grade 6 has tried alcohol, and 1 out of 10 students in grade 6 has tried cigarettes. Less than half of the students in grade 8 have tried alcohol, and approximately one fourth of them have tried cigarettes. The majority of Hawaii students in grades 10 and 12 have tried alcohol at least once in their lifetimes and more than half of the seniors reported that they had been drunk. The majority of Hawaii students in all grades have *not* tried cigarettes, and very few students have tried smokeless tobacco. Hawaii lifetime prevalence reports for alcohol use, self-reported drunkenness, cigarette use, and smokeless tobacco use are lower than nationwide reports.

SECTION II – MONTHLY AND DAILY PREVALENCE AND TRENDS

From 1993 to 1996, monthly prevalence reports increased substantially for most substances, across all grades. This rise halted in 1998, with decreases in 1998 and 2000 offsetting many of the large increases occurring in 1996. In 2002, monthly prevalence reports in grades 6 and 8 remained stable for each illicit drug. In grade 10, monthly prevalence reports of marijuana use increased by 1 percentage point, but reports of other illicit drug use for 10th graders remained fairly stable. In grade 12, monthly prevalence reports of marijuana use decreased by 2 percentage points, and monthly prevalence reports of ecstasy decreased by 1 percentage point; reports of other illicit drug use among 12th graders remained stable. Monthly prevalence reports of alcohol use started on a downward trajectory in 1998 and have continued on that course in grades 6 and 8 in 2002; monthly prevalence reports of alcohol use increased by 1 percentage point in grade 10 and held steady in grade 12. Monthly prevalence reports of cigarette use started to decrease in 1998 and continued on that course in 2002 in grades 8, 10, and 12; monthly prevalence reports of cigarette use in grade 6 dropped by 50% in 2000 and have since stabilized. In sum, monthly prevalence reports of illicit drug use have basically stabilized; monthly prevalence reports of alcohol and cigarette use have, in most cases, continued on a downward trajectory. Most substances are not used on a daily basis by Hawaii students except for marijuana, alcohol, and cigarettes. Daily marijuana prevalence rates remained unchanged in grades 6, 8, and 12, but increased slightly among students in grade 10. Daily alcohol prevalence rates remained unchanged in all grades surveyed. Daily cigarette prevalence rates remained stable in grades 6 and 8, but continued to decrease in grades 10 and 12. Daily cigarette prevalence rates are approximately 50% lower in 2002 than in 1996.

Refer to Table 2 for monthly prevalence data, Table 3 for daily prevalence data, and Table 4 for nationwide comparison data (Appendix A). Figure 4 illustrates trends in monthly substance use since 1987, and Figure 5 displays the nationwide comparison data for monthly substance use.

- Monthly use of **any illicit drug** increased drastically for all grade levels in 1996 and began to drop back down by 2000. In 2002, a downward trend continued only in grade 12; in grade 8, reports held steady; and in grades 6 and 10, reports are up 1 to 2 percentage points. Nationwide, monthly prevalence reports of any illicit drug use have remained stable in grade 12 but have decreased in grades 8 and 10. Nationwide reports of monthly use of illicit drugs are only slightly higher than Hawaii reports. In Hawaii, 12% of 8th graders, 21% of 10th graders, and 23% of 12th graders have used an illicit drug in the past 30 days; nationwide, 13% of 8th graders, 22% of 10th graders, and 26% of 12th graders have used an illicit drug in the past 30 days.
- Reports of monthly illicit drug use have changed the most for marijuana and ecstasy. All other reports of monthly illicit drug use have changed by less than 1 percentage point. The percentages of 6th and 8th graders who reported using **marijuana** in the past 30 days have stabilized at 1% and 9%, respectively. In 2002, 18% of 10th graders reported using marijuana in the past 30 days, which is up from 17% in 2000. Reports of monthly marijuana use are down by 2 percentage points among 12th graders (21% in 2002, compared to 23% in 2000).
- Reports of monthly **ecstasy** use dropped slightly for 12th graders and remained fairly stable among 6th, 8th, and 10th graders. Monthly reports of ecstasy use in grades 8, 10, and 12 are 2%, 2%, and 3%, which are fairly similar to nationwide reports. The stabilization pattern in monthly prevalence reports of ecstasy use in Hawaii could be an encouraging sign that ecstasy use will soon begin a downward trajectory in Hawaii.

FIGURE 4
Trends in Monthly (30-Day) Prevalence of Any Illicit Drug, Alcohol, and Cigarette Use
for Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 1987-2002

Figure 4a: Sixth Grade 30-Day Prevalence

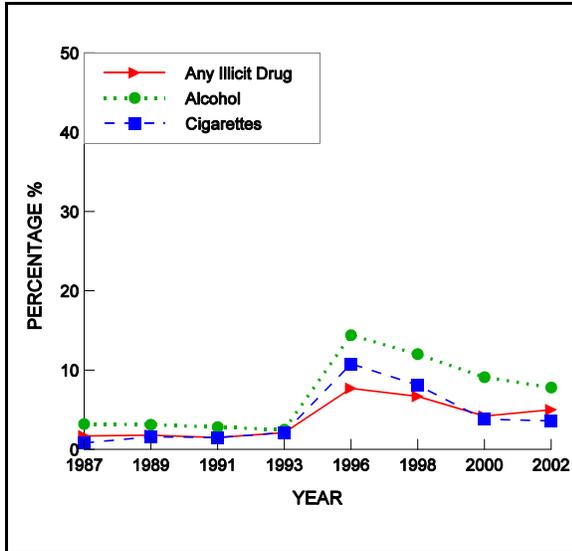


Figure 4b: Eighth Grade 30-Day Prevalence

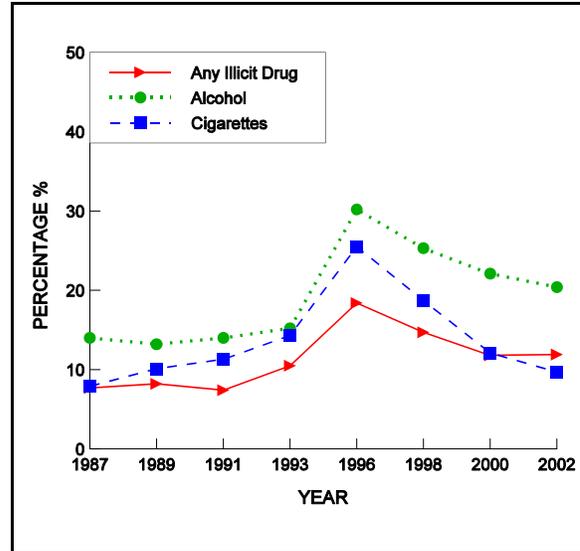


Figure 4c: Tenth Grade 30-Day Prevalence

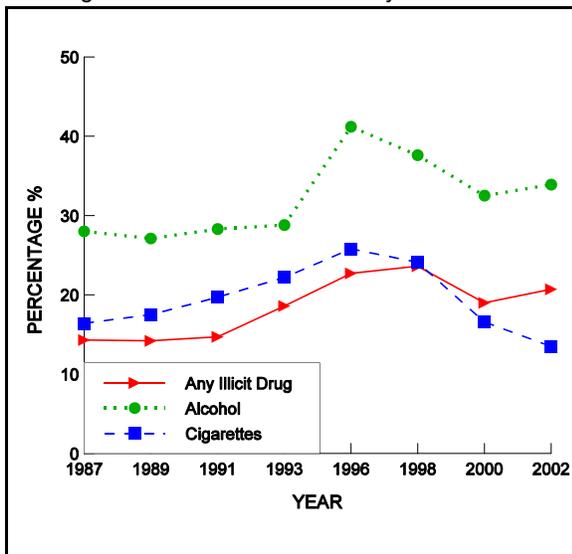
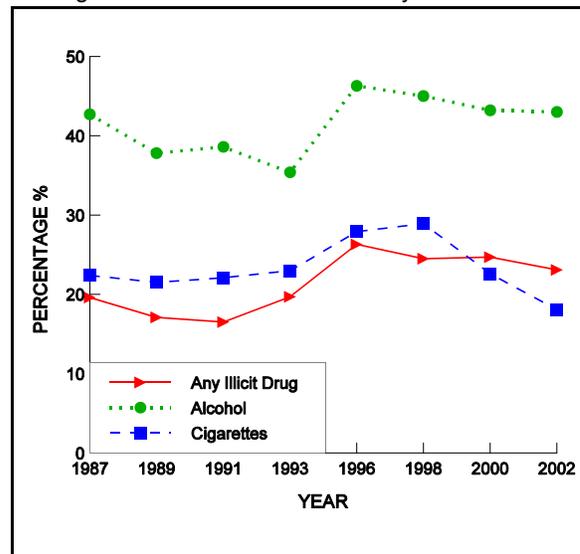


Figure 4d: Twelfth Grade 30-Day Prevalence



FINDINGS: Monthly use of any illicit drug, alcohol, and cigarettes increased drastically for all grade levels in 1996 and then began on a downward trajectory in 1998 for most substances, in most grades. In 2002, the downward trend for monthly illicit drug prevalence reports continued only in grade 12; in grade 8, reports remained stable; and in grades 6 and 10, reports increased slightly. The downward trend for monthly alcohol prevalence reports continued in 2002 in grades 6 and 8, were up slightly in grade 10, and remained unchanged in grade 12. Over the last few years, monthly cigarette prevalence reports have been dramatically dropping. In 2002, monthly cigarette prevalence reports continued to decrease in grades 8, 10, and 12, where they are approaching all-time lows; in grade 6, monthly cigarette use remained stable.

FIGURE 5
Monthly (30-Day) Prevalence of Various Substances (Nationwide versus Hawaii), by Grade, 2002
 (Entries are percentages %)

Figure 5a: 30-Day Prevalence of **Any Illicit Drug Use**

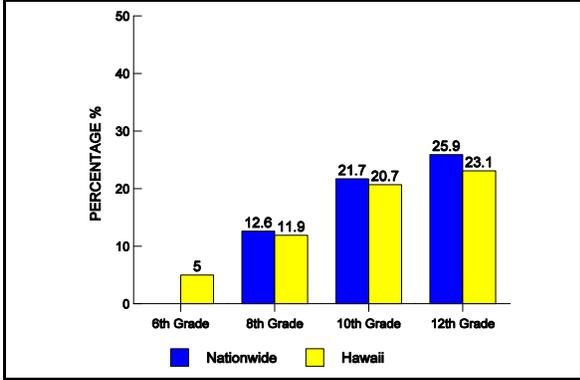


Figure 5b: 30-Day **Marijuana Use**

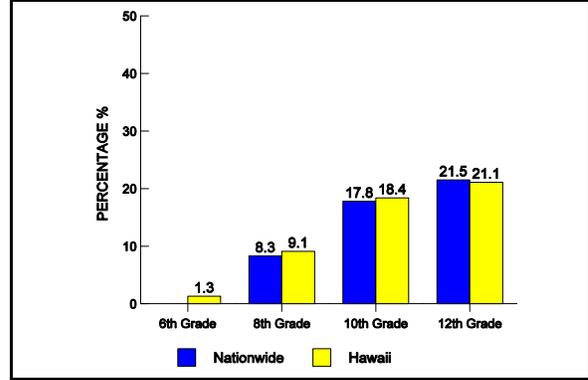


Figure 5c: 30-Day **Ecstasy/MDMA Use**

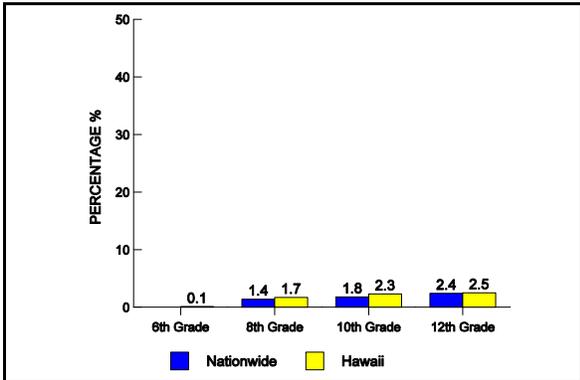


Figure 5d: 30-Day **Alcohol Use**

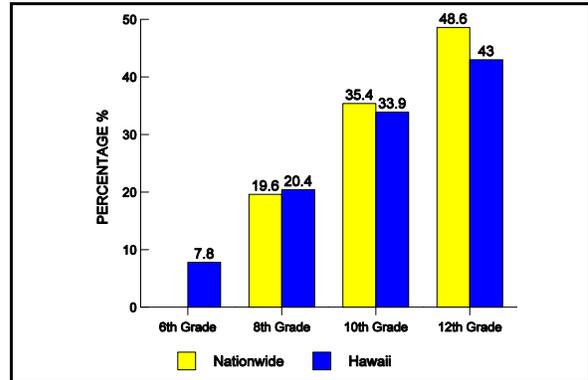


Figure 5e: 30-Day **Cigarette Use**

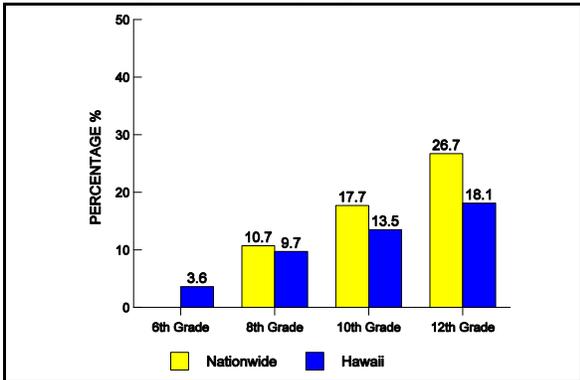
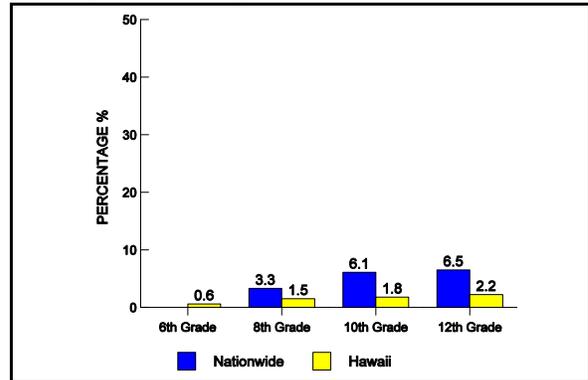


Figure 5f: 30-Day **Smokeless Tobacco Use**

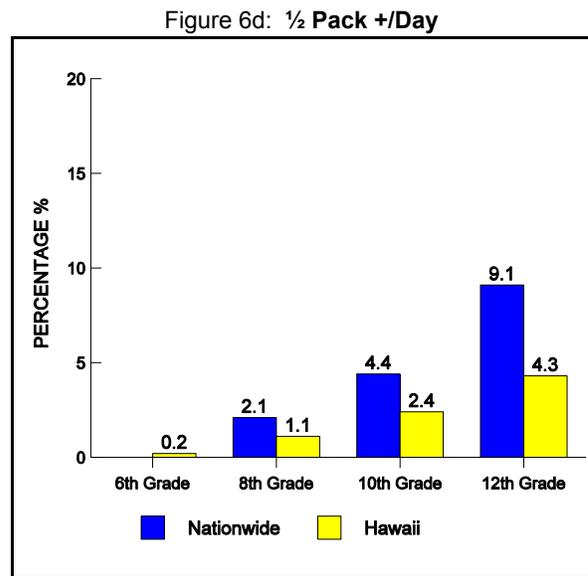
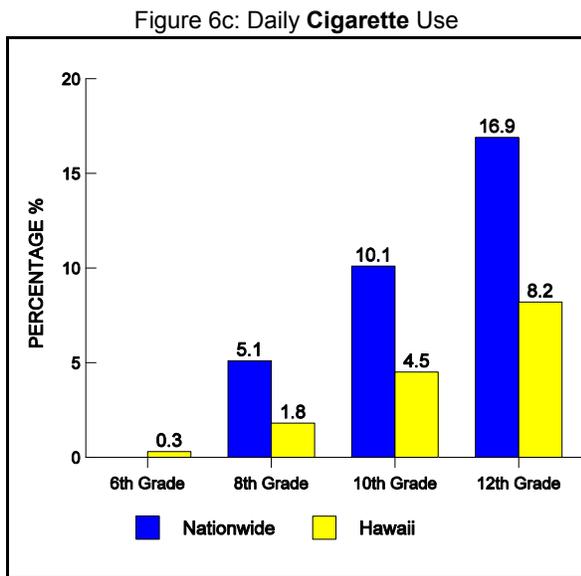
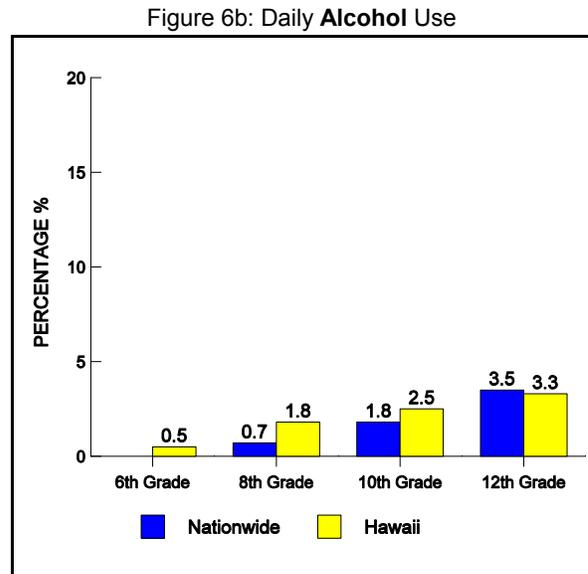
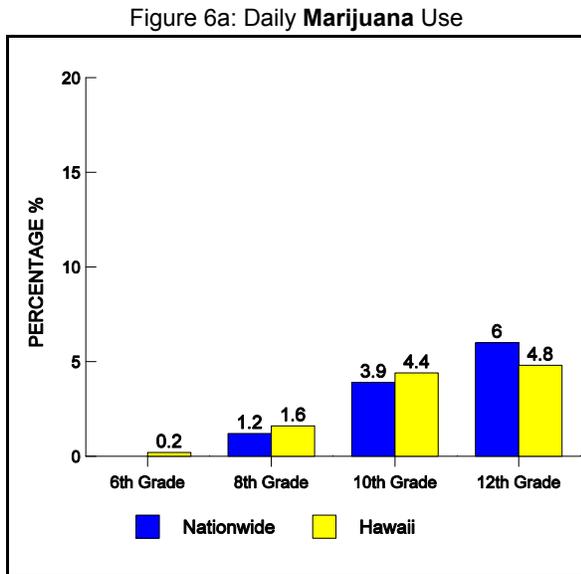


FINDINGS: Monthly prevalence reports by Hawaii students in grades 8, 10, and 12 for marijuana and ecstasy use are fairly similar to nationwide reports. Hawaii monthly prevalence reports for use of other illicit drugs, alcohol, and tobacco are typically lower than nationwide reports. The exception is in grade 8, where Hawaii students' monthly prevalence reports typically reflect nationwide reports. Hawaii monthly prevalence reports of cigarette and smokeless tobacco use are lower, across all grades surveyed, than nationwide reports.

- Monthly alcohol prevalence reports peaked in 1996 and started on a downward trajectory in 1998. In 2002, monthly *alcohol* prevalence reports decreased only in grades 6 and 8, were up by 1 percentage point in grade 10, and remained unchanged in grade 12. Reports of monthly alcohol use in 2002 remain substantially lower than 1996 and 1998 reports. In 2002, monthly prevalence reports of alcohol use in grades 6, 8, 10, and 12 are 8%, 20%, 34%, and 43%. Nationwide, monthly prevalence reports of alcohol use in grades 8, 10, and 12 are 20%, 35%, and 49%. Thus, monthly alcohol prevalence reports in Hawaii are fairly similar to nationwide reports in grades 8 and 10, but are lower in grade 12.
- One of the most encouraging downward trends in monthly prevalence is for tobacco use. Monthly *cigarette* use was on the rise from 1987 to 1996, but over the last few years has been consistently and dramatically dropping. In 2002, monthly cigarette use continued to decrease in grades 8, 10, and 12 and are approaching or have reached all-time lows; in grade 6, monthly cigarette use remained stable at 4%. Monthly cigarette prevalence reports in 2002 for grades 8, 10, and 12 are 10%, 14%, and 18%, which are 2 to 5 percentage points lower than reports in 2000. In grade 6, monthly cigarette prevalence rates are still higher than those noted in the late-'80s and early-'90s, but are more than 50% less than 1996 and 1998 reports. Nationwide, monthly cigarette prevalence reports have also been on the decline, but remain higher than those reported in Hawaii.
- Monthly *smokeless tobacco* rates remain 2% or less across all grades and are at least 50% lower than nationwide reports.
- Daily use of illicit drugs is generally nonexistent, except for daily use of *marijuana*. Hawaii reports of daily marijuana use are similar to nationwide reports in grades 8 (1.6% in Hawaii, compared to 1.2% nationwide) and 10 (4.4% in Hawaii, compared to 3.9% nationwide) and are slightly lower than nationwide reports in grade 12 (4.8% in Hawaii, compared to 6.0% nationwide). In 2002, daily marijuana use increased by 1 percentage point in grade 10 and remained unchanged in all other grades.
- Reports of daily marijuana use by students in grades 8 (1.6%) and 10 (4.4%) are similar to reports of daily cigarette use by students in the same grades (1.8% and 4.5%, respectively). Daily *cigarette* use has been decreasing since 1998 and continues on that downward trajectory for students in the upper grades. Daily cigarette use dropped by 2 percentage points in grade 10 and by 4 percentage points in grade 12. Cigarettes are used on a daily basis by 2% of 8th graders, 5% of 10th graders, and 8% of 12th graders. In 1996 and 1998, reports of daily cigarette use were approximately twice as high as 2002 reports.
- Hawaii reports of daily *alcohol* use in grades 8 (1.8%) and 10 (2.5%) are slightly higher than nationwide reports in the same grades (0.7% and 1.8%, respectively). However, 12th-grade reports of daily alcohol use in Hawaii (3.3%) are similar to 12th-grade reports nationwide (3.5%). Reports of daily alcohol use in 2002 are similar to reports in 2000.

FIGURE 6
Daily Prevalence of Marijuana, Alcohol, and Tobacco (Nationwide versus Hawaii), 2002

(Entries are percentages %)



FINDINGS: Daily substance use is generally highest for cigarettes, followed by marijuana and then alcohol. Although reports of daily cigarette use by seniors (8.2%) is nearly twice as high as reports of daily marijuana use by seniors (4.8%), reports of daily cigarette and marijuana use are equivalent to one another for students in grades 6, 8, and 10. Daily use of alcohol is lower than daily use of marijuana and cigarettes for students in the upper grades, but is equal to daily use of marijuana and cigarettes in the lower grades. Nationwide reports of daily cigarette use and smoking 1/2 a pack of cigarettes per day are twice as high as Hawaii reports. Reports of daily marijuana and alcohol use in Hawaii are fairly similar to daily reports nationwide.

NOTES: *Daily Prevalence* is indicated by students responding that they have used the substance on 20 or more occasions in the past 30 days. *1/2 Pack +/Day* includes students who smoked at least a 1/2 pack of cigarettes a day in the past 30 days.

SECTION III – TREATMENT NEEDS

Beginning in 1996, adolescent treatment needs in the State of Hawaii were assessed in the survey by using the *Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised* (DSM-III-R) criteria for substance abuse, which emphasize negative social and interpersonal consequences resulting from using alcohol and illicit drugs. The present study used the DSM-III-R criteria to determine adolescent treatment needs for alcohol, marijuana, stimulants (cocaine, methamphetamine, or speed), depressants (downers, sedatives, or heroin), hallucinogens, and club drugs (ecstasy/MDMA, GHB, Rohypnol, or ketamine). Two types of diagnoses are distinguished by the DSM-III-R criteria: dependence and abuse. Dependence is the most severe diagnosis and includes physiological symptoms, such as tolerance and withdrawal, and behavioral symptoms, such as impaired control over the use of a substance. Abuse is a residual category for those who do not meet the criteria of dependence but who use substances in dangerous situations or who use substances despite having problems related to their substance use. Because of the high likelihood that substance abuse by adolescents will turn into a dependency problem, students are considered needing treatment, or at least screening for treatment, if they meet either a dependence or abuse diagnosis for any of the six substance classifications.

Substance abuse treatment is needed for 1% of 6th graders, 6% of 8th graders, 16% of 10th graders, and 21% of 12th graders statewide. Many students who abuse alcohol also abuse illicit drugs, and the most common illicit drug abused is marijuana. More than 9,000 public school students in grades 6 through 12 (approximately 11%) are estimated to need treatment for alcohol and/or drug abuse. Statewide treatment needs for the combined public and private school population in grades 6 through 12 are estimated to be 11,319 (11%), which is less than estimated statewide treatment needs in 2000 (13%) and 1998 (16%) but still higher than those reported in 1996 (10%). Treatment needs are highest in Hawaii and Maui Counties (14% each) and lowest in the City & County of Honolulu (9%) and Kauai County (13%). The City & County of Honolulu, however, has a much larger number of students with treatment needs ($n = 5,458$) than Hawaii ($n = 1,787$), Kauai ($n = 671$), and Maui Counties ($n = 1,558$). At the district level, Windward District exceeds other districts on Oahu in regards to the proportion of students needing treatment and has treatment needs equal to Hawaii and Maui Districts (14% each). Although the State of Hawaii has effective residential, outpatient, and school-based treatment programs for adolescents, less than 15% of the students diagnosed with a substance abuse problem from the current study have utilized a treatment facility. Students are much more likely to receive help for a substance abuse problem if they perceive they need help and if they have been told by others to get help.

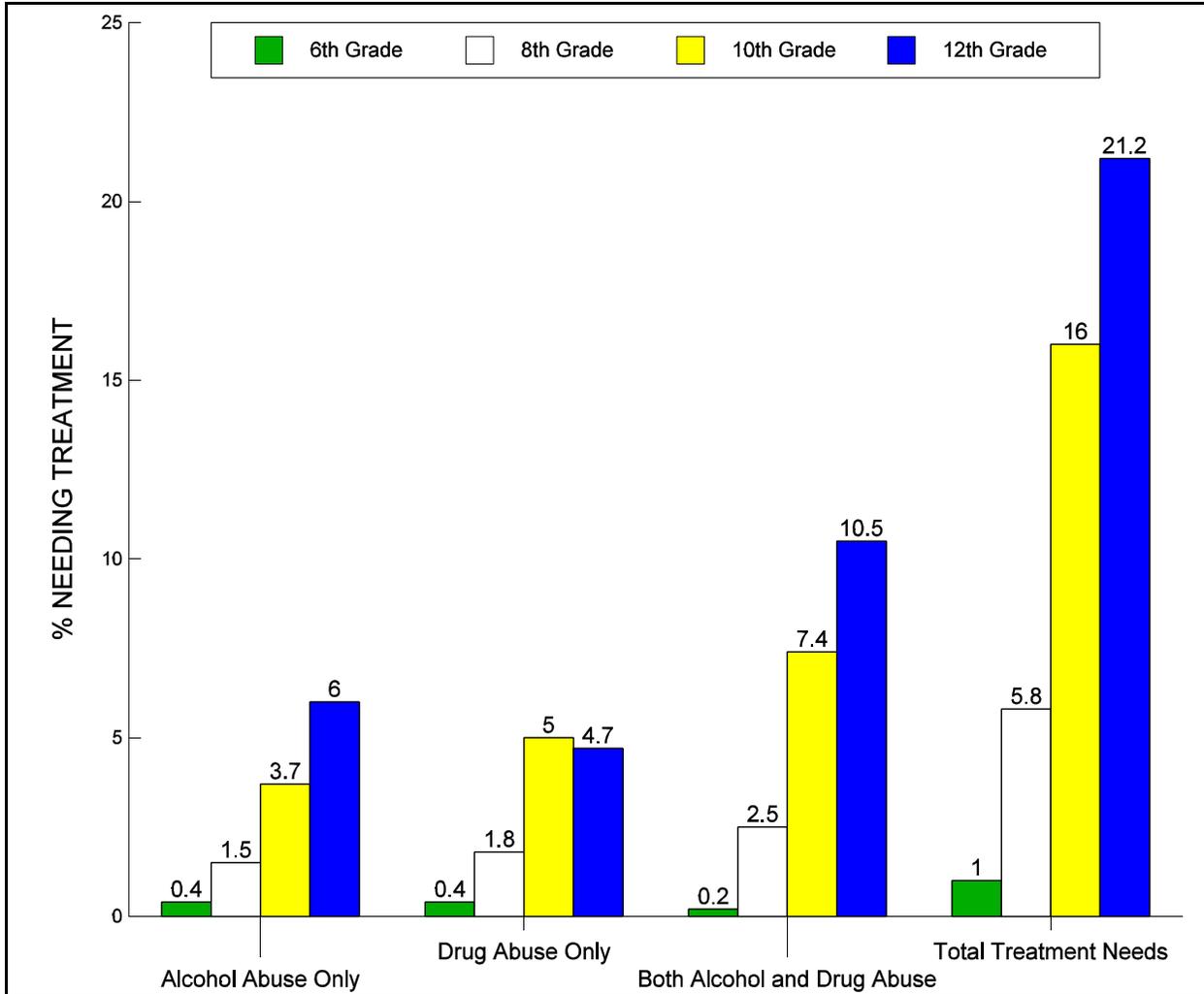
Refer to Table 5 for statewide treatment needs in grades 6, 8, 10, and 12 for each substance classification, and refer to Table 6 for estimated statewide, county-level, district-level, and school-type (i.e., public versus private) treatment needs for students in grades 6 through 12 (Appendix B). Figures 7 and 8 illustrate statewide treatment needs for various substances, Figure 9 displays trends in statewide treatment needs, and Figure 10 displays trends in district treatment needs.

- One percent of 6th graders, 6% of 8th graders, 16% of 10th graders, and 21% of 12th graders met the criteria of needing substance abuse treatment in 2002. Approximately half of the students who need treatment require help for *both* alcohol and drug abuse rather than for either of these alone. For instance, 11% of the seniors need treatment for *both* alcohol and drug abuse, whereas 6% need treatment for *only* alcohol abuse, and 5% need treatment for *only* drug abuse.

- Illicit drug abuse treatment needs are largely a function of marijuana abuse. The percentage of students needing treatment for marijuana abuse in grades 8 (3%), 10 (10%), and 12 (13%) are only slightly lower than the percentage of students in grades 8, 10, and 12 needing treatment for any alcohol abuse (4%, 11%, and 16%, respectively).
- Estimated statewide treatment needs for public school students in grades 6 through 12 are as follows: 2,355 students (2.7%) for alcohol abuse only; 2,802 students (3.2%) for drug abuse only; 4,330 students (4.9%) for both alcohol and drug abuse; and 9,474 students (10.8%) for any substance abuse. Combining public and private school treatment need estimates brings the total number of students needing treatment for any substance abuse to 11,319, or 11% of the student population. Thus, at least 1 out of 10 students in grades 6 through 12 is estimated to need substance abuse treatment.
- Broken out by county, Hawaii and Maui Counties have the largest proportion of students in grades 6 through 12 estimated to need treatment (14% each), followed by Kauai County (13%) and the City & County of Honolulu (9%). The City & County of Honolulu, however, has a much larger *number* of students in grades 6 through 12 estimated to need treatment ($n = 5,458$) than Hawaii ($n = 1,787$), Maui ($n = 1,558$), or Kauai Counties ($n = 671$). At the district level, Windward District exceeds other districts on Oahu by 5 to 6 percentage points in regards to treatment needs and has treatment needs equal to Hawaii and Maui Districts (14% each).
- Statewide treatment needs for alcohol and/or drug abuse increased drastically from 1996 to 1998 but dropped in 2000 and continued to drop in 2002. Total estimated treatment need percentages for students in grades 6 through 12 statewide were 10% in 1996, 16% in 1998, and 13% in 2000. In 2002, statewide treatment needs in grades 6 through 12 are 11%, which is still slightly higher than 1996 estimates.
- Hawaii District witnessed the greatest decrease in treatment need estimates in 2002, bringing their treatment needs back to the level reported in 1996 (14%). Treatment need estimates in Hawaii District were 14% in 1996, jumped to 21% in 1998, decreased only slightly in 2000 (20%), and then dropped substantially in 2002 (14%). Windward District experienced a 4 percentage-point decrease in treatment needs from 2000 (18%) to 2002 (14%); 2002 treatment need estimates in Windward District are still twice as high as 1996 estimates. Treatment need estimates in all other districts dropped by 2 to 3 percentage points in 2002, bringing treatment needs near 1996 levels.
- Over the years, certain subgroups of the population have consistently had higher treatment needs than other subgroups. Consistent with previous years, females in grades 8 and 10 had higher treatment needs than males in grades 8 and 10, whereas males in grade 12 had higher treatment needs than females in grade 12. In grades 8, 10, and 12, Native Hawaiian and White students have consistently had much higher treatment needs than Japanese, Filipino, and Chinese students; the trend continues in 2002.
- Less than 15% of the students diagnosed with a substance abuse problem from the current study have utilized treatment facilities. Students are much more likely to receive help for a substance abuse problem if they perceive they need help and if they are told by others to get help. Unfortunately, the percentage of students who perceive that they have a problem or who have been told to get help is less than 5%.

FIGURE 7
2002 Hawaii Statewide Treatment Needs for Alcohol and Drug Abuse
Based on the DSM-III-R Criteria, by Grade

(Entries are percentages %)

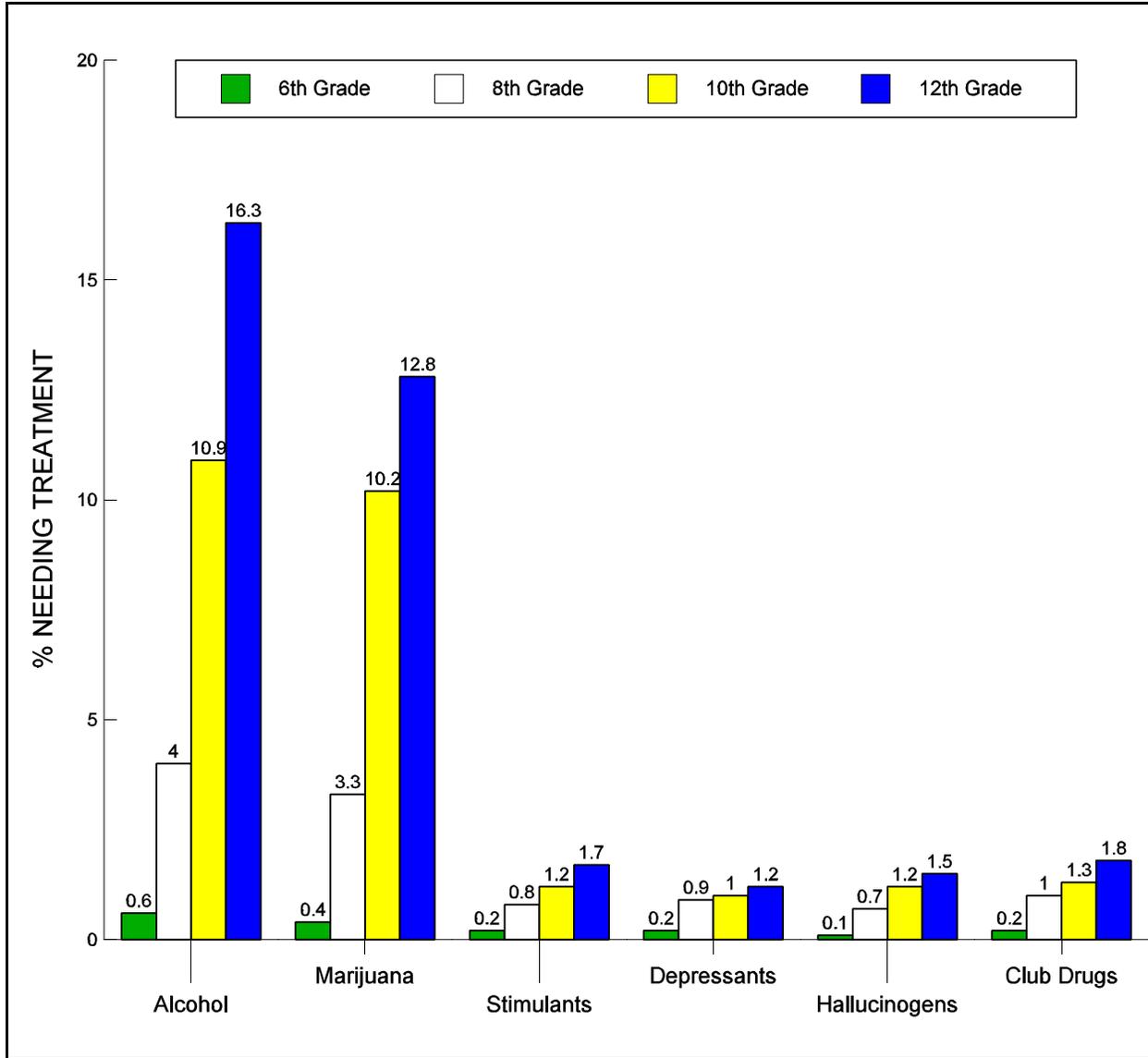


FINDINGS: Approximately half of the students who need treatment need help for both alcohol and drug abuse rather than for either of these alone. Approximately 1 out of 5 seniors (21%) and 1 out of 6 students in grade 10 (16%) need treatment for substance abuse; more than 50% of these students who need treatment need help for both an alcohol and drug abuse problem. Very few students in the lower grades need substance abuse treatment, but given the seriousness of the diagnosis, the percentages are still alarmingly high.

NOTES: *Alcohol Abuse Only* includes students classified as dependent on or abusers of alcohol according to the DSM-III-R criteria, but who are not dependent on or abusers of illicit drugs. *Drug Abuse Only* includes students classified as dependent on or abusers of at least one illicit drug according to the DSM-III-R criteria, but who are not dependent on or abusers of alcohol. Illicit drug dependency/abuse is assessed for marijuana, stimulants, depressants, “club drugs” (ecstasy/MDMA, GHB, Rohypnol, or ketamine), and hallucinogens. *Both Alcohol and Drug Abuse* includes students classified as dependent on or abusers of both alcohol and illicit drugs. *Total Treatment Needs* refers to any substance abuse and includes students who are classified as dependent on or abusers of alcohol, illicit drugs, or both alcohol and illicit drugs, according to the DSM-III-R criteria.

FIGURE 8
2002 Statewide Treatment Needs for Abuse of Alcohol and Other Drugs of Concern
Based on the DSM-III-R Criteria, by Grade

(Entries are percentages %)

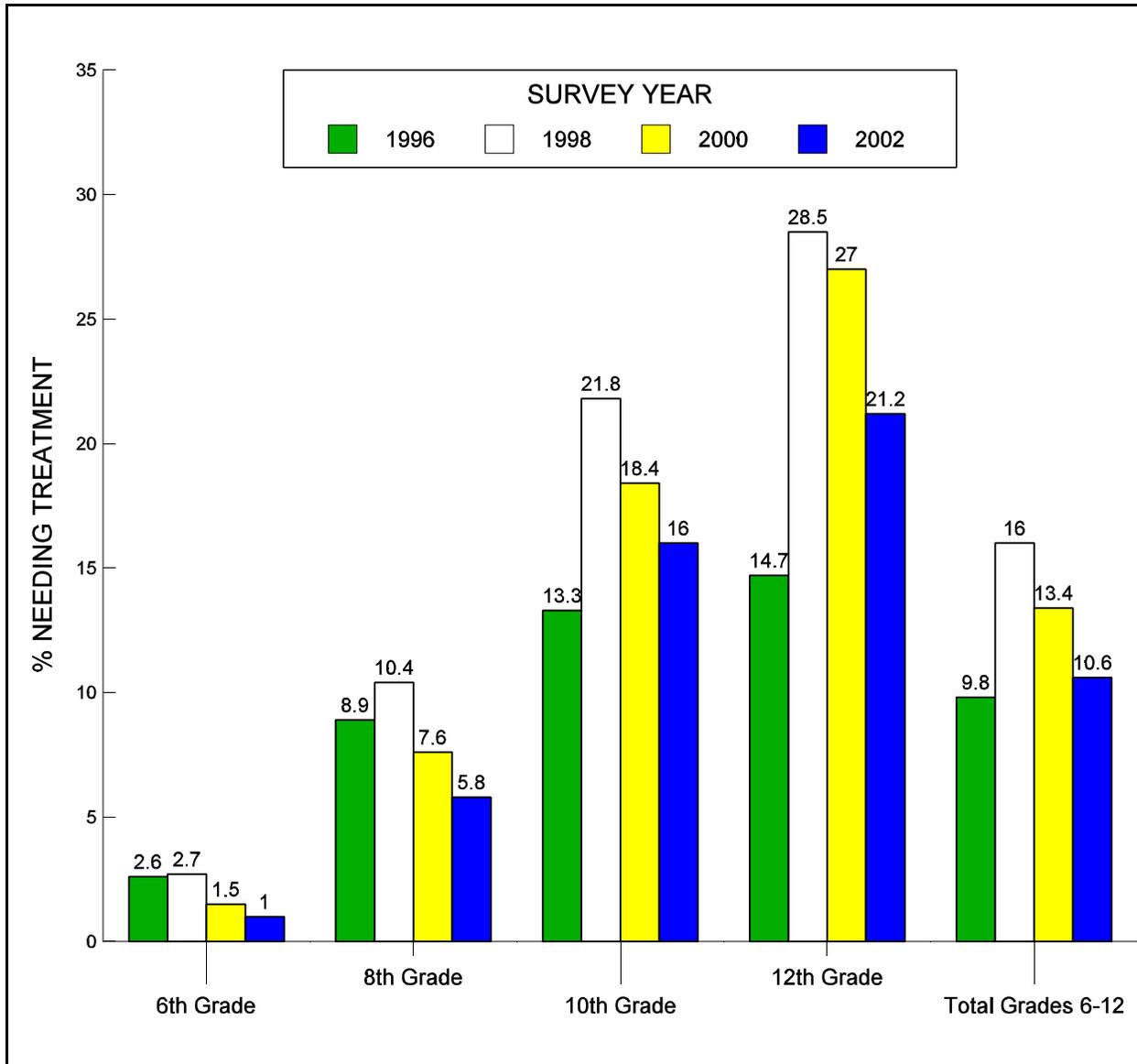


FINDINGS: Treatment needs are higher for alcohol abuse than for any other substance. Marijuana is the most commonly abused illicit drug, with the percentages of students needing treatment for marijuana abuse very similar to the percentages of students needing treatment for alcohol abuse.

NOTES: The percentages in the chart reflect the total treatment needs (abuse or dependency diagnosis) for each type of substance. The categories above are not mutually exclusive because some students who abuse one substance may also abuse another substance (e.g., a student may need treatment for both alcohol and marijuana abuse). Thus, total treatment needs cannot be determined by adding across substances listed in the chart. Refer to Figure 7 for total treatment needs. *Stimulants* include cocaine, methamphetamine, and speed. *Depressants* include downers, sedatives, and heroin. *Club Drugs* include ecstasy/MDMA, GHB, Rohypnol, and ketamine.

FIGURE 9
Trends in Hawaii Statewide Treatment Needs (1996-2002)

(Entries are percentages %)

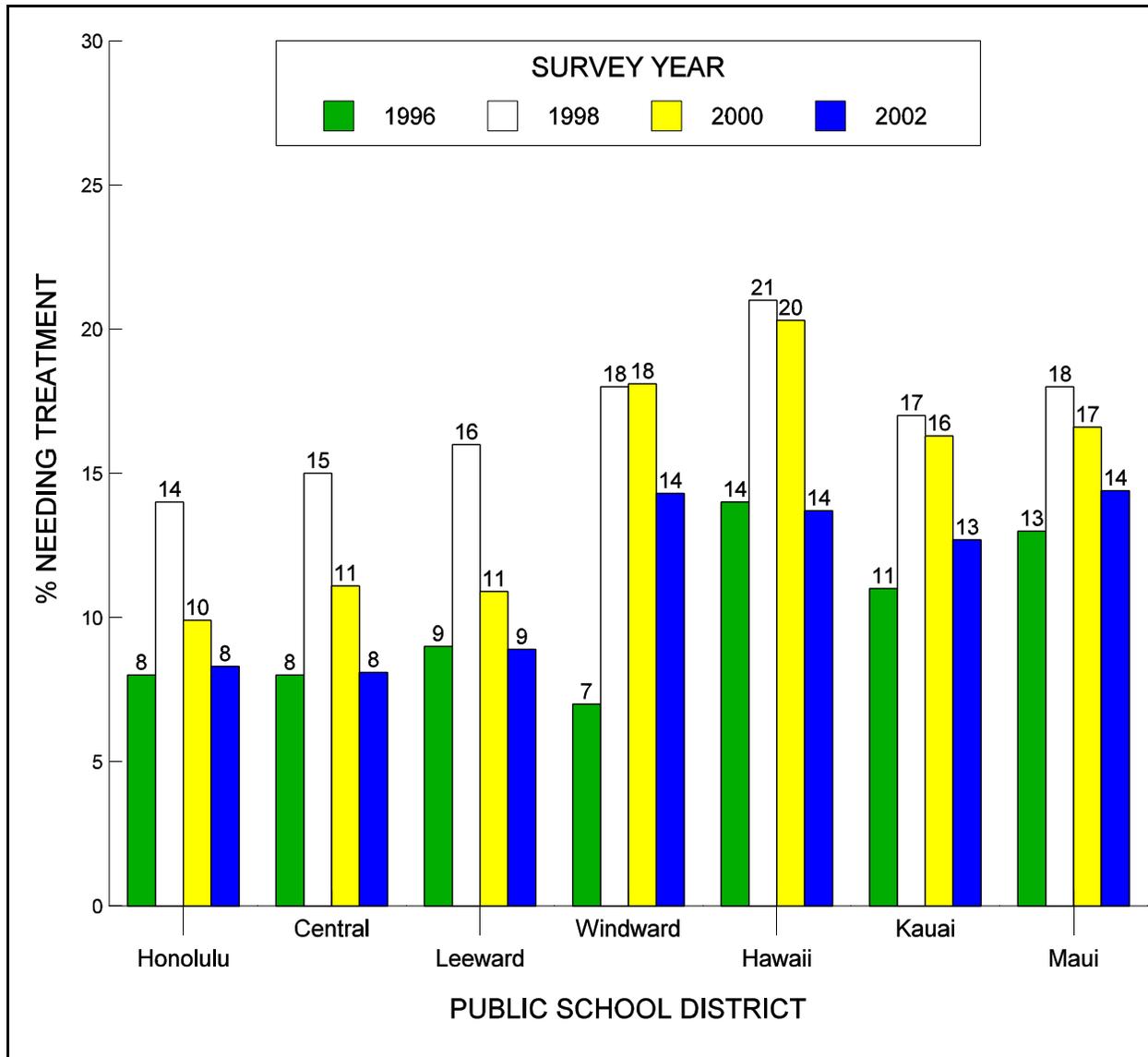


FINDINGS: Statewide treatment needs for alcohol and/or drug abuse increased drastically from 1996 to 1998, particularly in the upper grades. Statewide treatment needs began an encouraging downward trend in 2000. Treatment needs in 2002 are lower than 1996 estimates in grades 6 and 8; treatment needs dropped in grades 10 and 12 in 2002 but remain higher than 1996 estimates. In 2002, total statewide treatment needs in grades 6 through 12 are estimated at 11% of the student population.

NOTES: Statewide estimates provided in the graph are for public and private school students who need treatment for dependence on or abuse of one or more of the following substances: alcohol, marijuana, stimulants, depressants, hallucinogens, or club drugs. *Total Grades 6-12* refers to the percentage of students in grades 6 through 12 who are estimated to need treatment for substance abuse based on the DSM-III-R screening criteria.

FIGURE 10
Trends in Hawaii Public School District Treatment Needs (1996-2002)

(Entries are percentages %)



FINDINGS: Total treatment needs nearly doubled across most districts from 1996 to 1998 and then dropped or remained unchanged in 2000. In 2002, total treatment needs dropped by 2 to 6 percentage points in all districts, which brings treatment needs in many districts to a level that is equivalent, or nearly equivalent, to 1996 treatment need estimates. The exception is in Windward District, where treatment need estimates in 2002 are twice as high as 1996 estimates. Over the years, Hawaii District has had the highest treatment needs. In 2002, treatment needs in Hawaii District dropped substantially, which brought Hawaii District treatment need estimates to a level that is fairly equivalent to Windward, Kauai, and Maui Districts. Consistent with previous years, treatment needs in 2002 are lower in Honolulu, Central, and Leeward Districts than other districts.

NOTES: Statewide estimates provided in the graph are for public school students who need treatment for dependency on or abuse of one or more of the following substances: alcohol, marijuana, stimulants, depressants, hallucinogens, or club drugs.

SECTION IV – PREVENTION NEEDS

For decades, student surveys have addressed core predictor variables such as age of onset, adolescent attitudes and beliefs about substances, societal influences, and student demographic background. Recent attention, however, has turned to the role of risk and protective factors in the domains of community, family, school, and peer-individual to explain substance use initiation and continuation, and to help communities prioritize prevention efforts. The risk and protective factor framework addresses measurable risk factors, which are precursors for drug and alcohol problems, and measurable protective factors, which “moderate or buffer” the impact of risk factors by improving coping, adaptation, and competence. This section overviews factors related to substance use and addresses the risk and protective factor framework.

Refer to Appendix C for tables that address various factors related to use, such as onset of substance use (Table 7), perceived harmfulness of substances (Table 8), friends’ disapproval of substances (Table 9), frequent exposure to substance use by others (Table 10), perceived availability of substances (Table 11), and annual prevalence of antisocial behaviors (Tables 12 and 13). Refer to Appendix D for risk and protective factor tables designed to guide statewide prevention efforts. Figure 11 illustrates trends in perceived harmfulness of substances, Figure 12 displays perceived availability of substances, and Figure 13 displays trends in ability to purchase alcohol and tobacco.

- Alcohol and tobacco are generally tried earlier than other drugs, and are significant predictors of subsequent drug use. **Age of onset** for alcohol and tobacco use correlates with the use of every illicit drug surveyed, the total number of different drugs tried, amount of marijuana use, and substance abuse.
- **Onset of alcohol and tobacco use** occurs by the age of 10 for at least 1 out of 10 students. The peak age of alcohol initiation varies by grade level reporting, but is typically around 9 years of age, with another large set of students reporting that they first tried alcohol between the ages of 14 and 15. The peak age of tobacco initiation occurs at age 9 or younger, for all grade levels, but does not taper off until after 14 years of age. The majority of students who drink report that more serious alcohol abuse (getting drunk) occurs between the ages of 15 and 16, with 1 out of 10 students reporting that they had been drunk by the age of 13. Smoking cigarettes on a regular basis does not generally occur prior to age 12 or 13. Thus, alcohol and tobacco education efforts need to occur prior to age 9, with education efforts reintroduced in the following years.
- **Onset of illicit drugs** occurs as early as 9 years of age, but most typically between the ages of 13 and 16. The use of **marijuana**, however, is begun by 9 or 10 years of age, with the percentage of students using marijuana nearly doubling from age 9 to age 10, from age 10 to age 11, from age 11 to age 12, and from age 12 to age 13. Approximately one fourth of the 10th and 12th graders reported that they had used marijuana by the time they were 14 years old. Thus, efforts to educate about the dangers of marijuana use should occur by age 9, with the strongest efforts occurring in the 8th grade.
- **Beliefs about harmfulness** associated with alcohol and tobacco use dropped in 2002 for grades 8, 10, and 12, and increased in grade 6. Reports of perceived harmfulness associated with **alcohol** use are similar to nationwide reports for students in grades 8 and 10, but are higher than nationwide reports for students in grade 12. Reports of perceived harmfulness associated with **cigarette** use are much higher in Hawaii than nationwide.

FIGURE 11

Trends in Perceived Harmfulness Associated With Various Substances, by Grade, 1987-2002

Figure 11a: Use **Marijuana** Occasionally

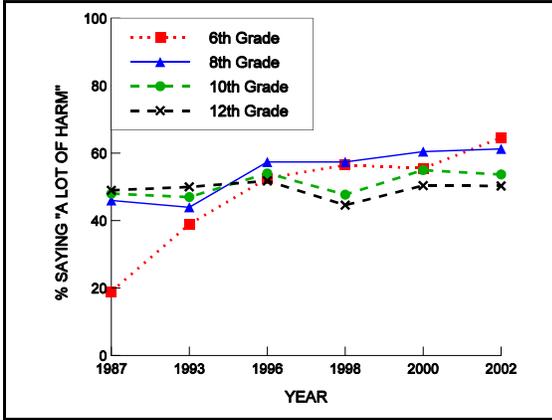


Figure 11b: Use **Hallucinogens** Occasionally

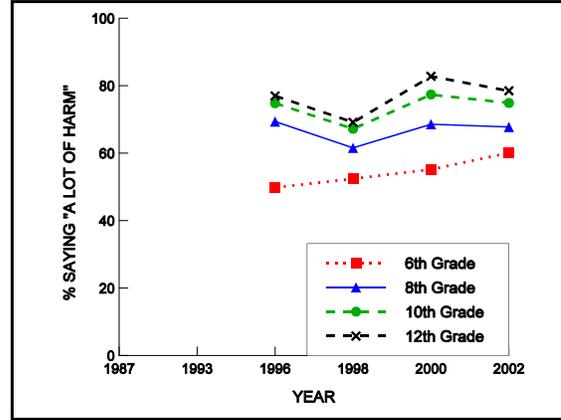


Figure 11c: Use **Cocaine** Occasionally

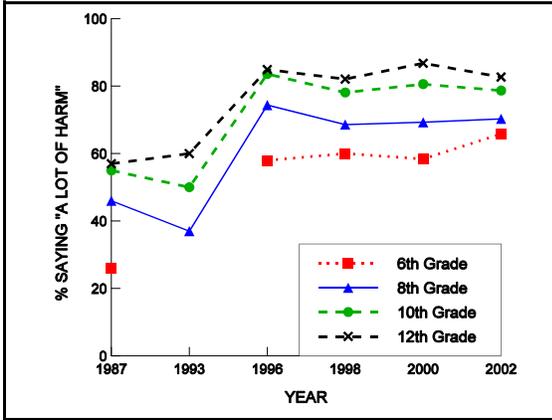


Figure 11d: Use **Methamphetamine** Occasionally

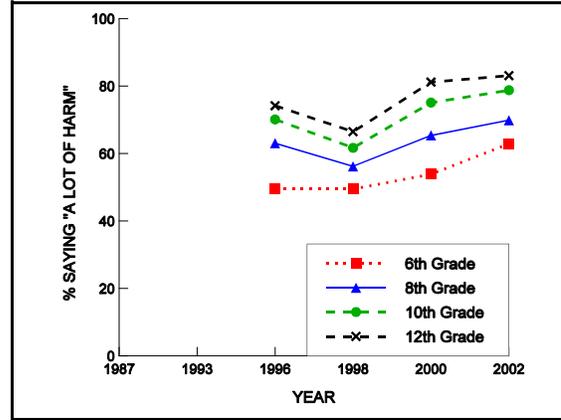


Figure 11e: **Weekend Binge Drinking**

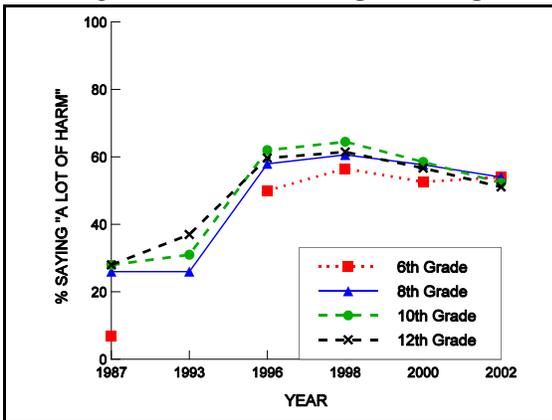
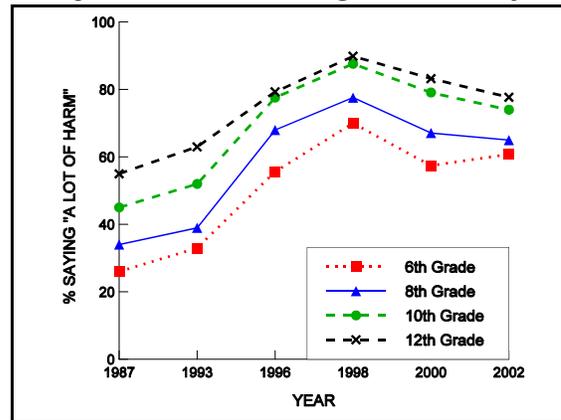


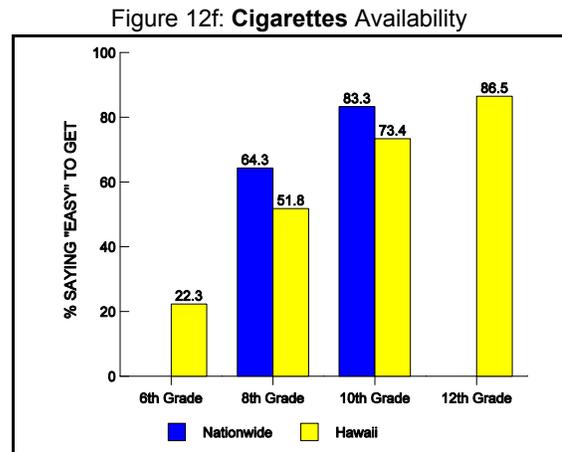
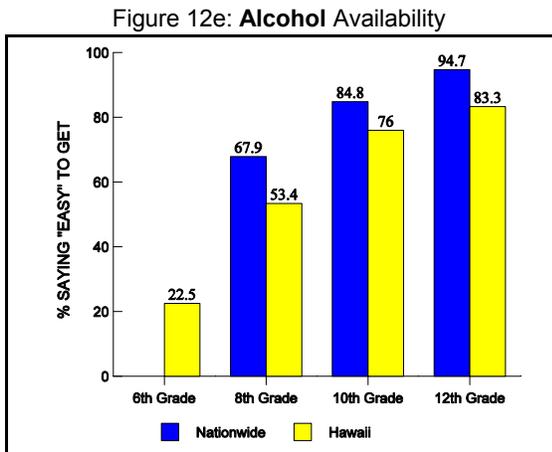
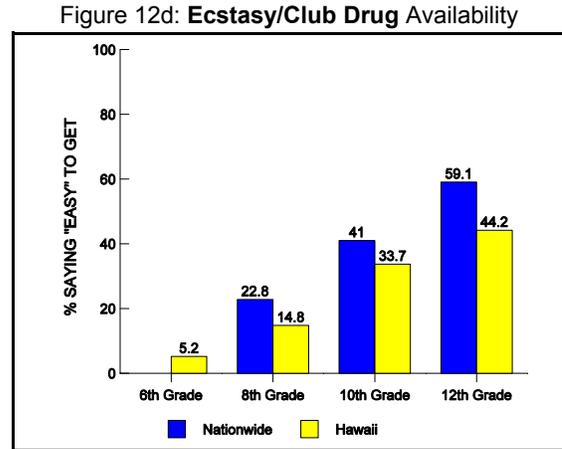
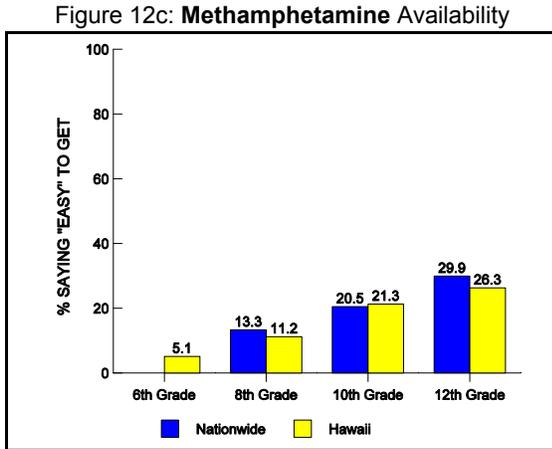
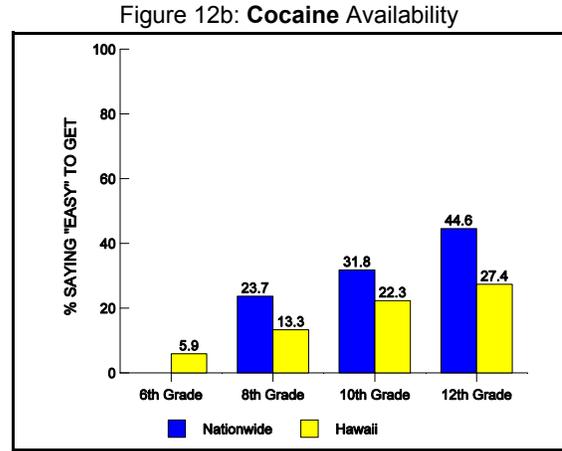
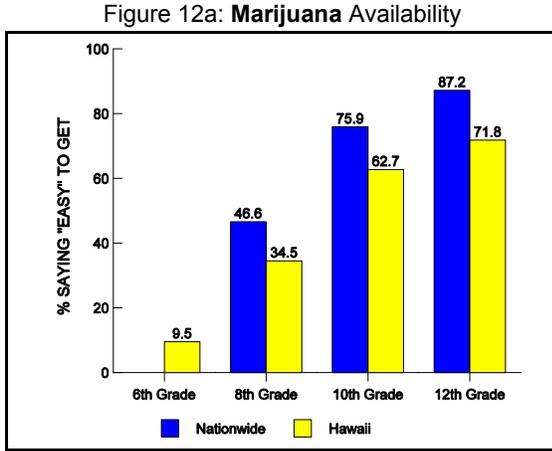
Figure 11f: **1+ Packs of Cigarettes Per Day**



FINDINGS: Risk perceptions for methamphetamine use started on an upward trajectory in 2000 and continued on that course in 2002. Risk perceptions for other illicit drugs, however, generally decreased in 2002 among students in the upper grades. Risk perceptions associated with alcohol and tobacco dropped slightly in 2002 for grades 8, 10, and 12, and increased in grade 6.

- Coinciding with decreases in lifetime prevalence reports for methamphetamine use, reports of perceived harmfulness associated with methamphetamine use started on an upward trajectory in 2000 and continued on that course in 2002. Reports of perceived ***harmfulness associated with other illicit drugs*** increased among students in the lower grades but decreased among students in the upper grades. Reports of perceived harmfulness associated with illicit drug use continue to be much higher in Hawaii than nationwide reports. The relationship between risk perceptions and drug use accounts for less than 10% of the variance in substance use.
- One of the variables most likely to protect an adolescent from substance use is ***peer disapproval perceptions***. The vast majority of students believe that their friends would not condone the use of illicit drugs, with disapproval ratings for illicit drugs, other than marijuana, well over 80% for all grade levels. The occasional use of marijuana, on the other hand, is as accepted as weekend binge drinking and slightly more accepted than smoking one or more packs of cigarettes a day. Although the majority of students (50% or more) indicated that friends would disapprove of them using alcohol, cigarettes, or illicit drugs, at least 1 out of 20 students reported that their friends would think it was “cool” if they engaged in weekend binge drinking and occasional marijuana use.
- ***Exposure to substance use*** by community, family, and friends is one of the best predictors of alcohol, tobacco, and other drug use. More than one third of 6th and 8th graders and more than half of 10th and 12th graders are frequently exposed (once a week or more) to at least one individual who uses ***tobacco***. The primary source of tobacco exposure is from parents for students in the lower grades; the primary source of tobacco exposure is from other people in the students’ environment for students in the upper grades. Fewer students are frequently exposed to ***alcohol*** use than tobacco use, with the percentages frequently exposed to alcohol generally 10 percentage points lower than exposure to tobacco. The primary source of alcohol exposure is from parents for students in all grades. The percentages of students frequently exposed to tobacco and alcohol are up from previous years for students in grades 6, 8, and 10, and the increases are primarily a function of increased exposure from adults in the students’ environment rather than from siblings and friends. Frequent exposure to illicit drugs is typically from close friends and other people in the students’ environment for students in grades 8, 10, and 12; students in grade 6 are not frequently exposed to illicit drug use by friends.
- Students in Hawaii see alcohol, tobacco, and illicit drugs as less obtainable than students nationwide. ***Perceptions of substance availability*** decreased or stabilized for students in grade 12, but have, in many instances, increased for students in grades 6, 8, and 10.
- ***Perceptions of ecstasy availability*** have been on an upward trajectory since 1996 and continue to climb by 2 to 8 percentage points in all grades surveyed in 2002. Although alcohol and cigarette use continue to decline in Hawaii, ***perceptions of alcohol and cigarette availability*** are up by 2 to 9 percentage points for students in grades 6, 8, and 10. Perceived availability of substances is a slightly better predictor of substance use than risk perceptions. Students are more likely to use a substance as the substance becomes easier to obtain.

FIGURE 12
Perceived Availability of Various Substances (Nationwide versus Hawaii, by Grade, 2002)
 (Entries are percentages %)



FINDINGS: Students in Hawaii view alcohol, tobacco, and most illicit drugs as less obtainable than students nationwide. The exception is methamphetamine, which is viewed as easily obtainable by an equal proportion of 10th graders nationwide and in Hawaii.

- In 1997, the State of Hawaii initiated several tobacco “stings” in an effort to decrease merchant sales of cigarettes to minors. In March of 2000, a series of alcohol “stings” were initiated. The efforts seem to be paying off, with the reported ability to ***purchase alcohol and tobacco*** generally 50% lower in 2002 than in 1996. In 2002, ability to purchase alcohol and tobacco has begun to stabilize for students in the lower grades. In the upper grades, ability to purchase tobacco continues to drop in grades 10 and 12. Ability to purchase alcohol is up 1 percentage point among 10th graders, but is down 2 percentage points among 12th graders. The primary source of both alcohol and tobacco purchases is from a store employee; however, the percentages able to buy alcohol or tobacco from a store employee in 2002 have either decreased or stabilized.
- Certain subgroups are associated with greater alcohol, cigarette, and other drug use. Students from different ***ethnic backgrounds*** exhibit different patterns of alcohol and other drug use. Native Hawaiian and White students report the highest substance use; Chinese students report the lowest. ***Sex differences*** in illicit drug prevalence reports are often minimal until grade 12, where males typically surpass females. Females, however, have higher prevalence reports for methamphetamine and ecstasy use. Alcohol and cigarette prevalence rates are higher among females than males in grades 8, 10, and 12. More regular alcohol use, however, is higher among males than females in grade 12.
- Twenty-eight risk factors and 11 protective factors that are characteristic of the community, family, school environments, and the students and their peer groups were used in the current study to create ***community profiles of risk and protective factors***. Risk factors predict increased likelihood of drug use, delinquency, and violent behaviors, whereas protective factors exert a positive influence or buffer the negative influence of risk, thus reducing the likelihood that adolescents will engage in problem behaviors. The study’s findings related to specific school, community, and subgroup profiles are not covered in this executive summary report because they are too complex in nature to be briefly summarized. The reader, however, is encouraged to obtain reports related to their community or subgroup of interest prior to implementing prevention efforts directed at reducing substance use and antisocial behaviors (ASBs) in a specific community. Reports are located on the State of Hawaii Department of Health’s web page (www.hawaii.gov/health/resource/adad/adsurv.html).
- ***Annual Antisocial Behavior (ASB) prevalence rates*** are 12% or less for all ASBs, except for reports of being drunk or high at school. Nearly 1 out of 5 students in grades 10 (18%) and 12 (19%) reported that they were drunk or high at school at least once in the past year, and more than 10% reported having engaged in this behavior three or more times in the past year. Approximately 1 out of 10 students in grades 10 and 12 reported having sold illegal drugs in the past year and nearly 1 out of 10 students in all grades reported having attacked someone with the intent of seriously hurting them. Very few students (4% or less) reported carrying a handgun, taking a handgun to school, or attempting to steal a vehicle. Annual prevalence rates for having at least one best friend who has engaged in various ASBs are four times as high as self-reported engagement of ASBs. In the upper grades, more than one fourth of the students, and often more than one third, reported having a best friend who has been suspended from school, dropped out of school, sold illegal drugs, or been arrested. Only 7% or fewer of the students reported that they have at least one best friend who has carried a handgun.

FIGURE 13
Trends in Ability to Purchase Alcohol and Tobacco
as Reported by Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 1996-2002
 (Entries are percentages %)

Figure 13a: Alcohol From a Store Employee

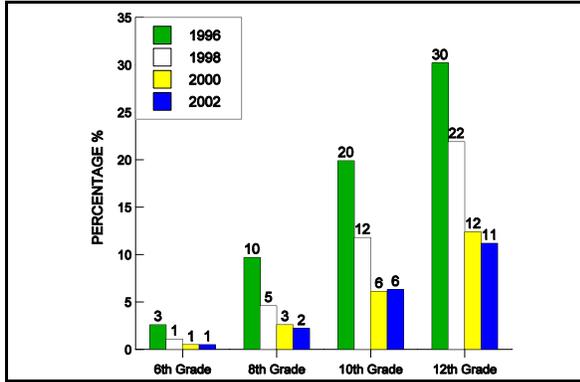


Figure 13b: Tobacco From a Store Employee

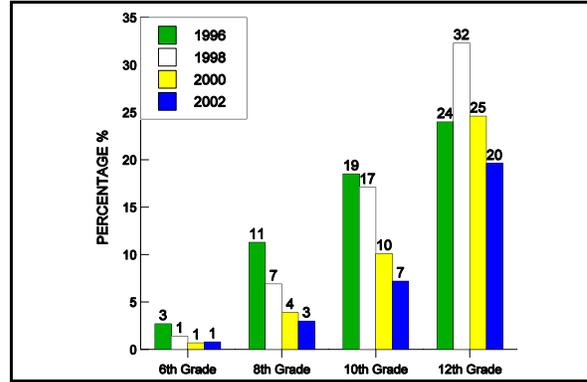


Figure 13c: Alcohol From a Bar

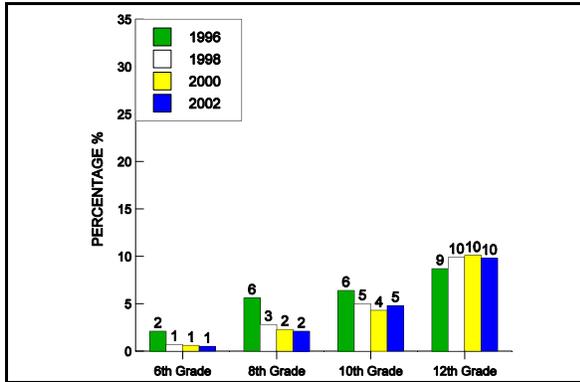


Figure 13d: Tobacco From a Bar

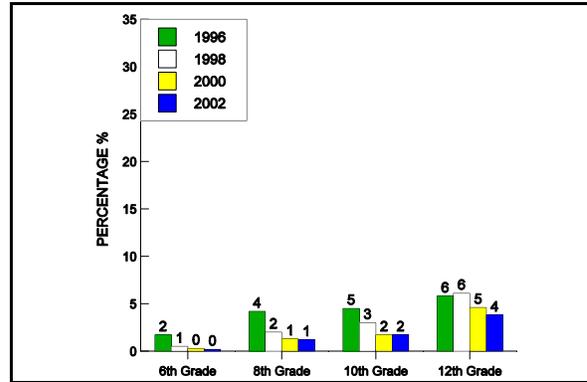


Figure 13e: Alcohol From a Restaurant

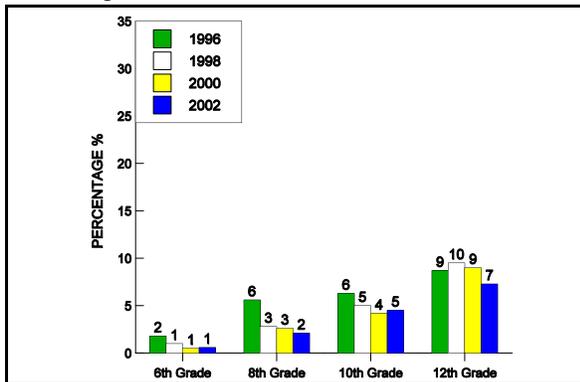
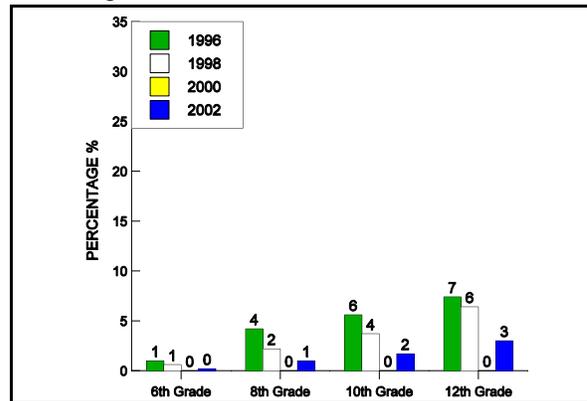


Figure 13f: Tobacco From a Restaurant



FINDINGS: The State of Hawaii initiated several tobacco “stings” in 1997; alcohol stings were initiated a few years after. Overall reported ability to purchase alcohol and tobacco is generally 50% lower in 2002 than in 1996. The primary source of both alcohol and tobacco purchases is from a store employee; however, the percentages able to buy alcohol or tobacco from a store employee in 2002 have either decreased or stabilized.

- Scholars over the years have argued that substance use and ASBs are a function of the accumulation of multiple risk factors and multiple protective factors. The greater the number of risk factors to which an individual is exposed, the greater likelihood that he or she will use or abuse substances. The greater the number of protective factors to which an individual is exposed, the greater the likelihood that he or she will abstain from substance use. Examining the **risk and protective factor indexes** is an important starting point for determining which communities are in greatest need of prevention services.
- **Comparisons across counties** on the risk factor index (i.e., the number of risk factors) show that a greater percentage of students in the City & County of Honolulu (25%) than Hawaii (23%), Kauai (16%), and Maui Counties (18%) are exposed to a high number of risk factors. This is in contrast to reports in 2000 (see Klinge, 2001) where Hawaii County had the highest proportion of students with elevated risk and the City & County of Honolulu had the lowest proportion. The increase in risk factors in the City & County of Honolulu helps explain increases in 2002 prevalence rates for the City & County of Honolulu. County differences on the protective factor index are minimal.
- **Comparisons across public school districts** on the risk factor index show that Hawaii District has the largest proportion of students with elevated risk on the risk factor index (23%), followed by Windward District (20%), Maui District (19%), Leeward District (16%), Kauai District (15%), Central District (14%), and Honolulu District (12%). Thus, prevention resources are most needed in Hawaii, Windward, and Maui Districts.
- **Comparisons among males and females** show that a greater proportion of males than females are exposed to a high number of risk factors and a low number of protective factors. **Comparisons across ethnic groups** show that larger proportions of Native Hawaiian and White students than students from other ethnic groups are exposed to a high number of risk factors. Nearly twice as many Native Hawaiians (22%) and Whites (21%) than Filipinos (13%) are exposed to a high number of risk factors; differences are even more pronounced when comparing these groups to Chinese (6%) and Japanese (9%). Ethnic differences are minimal on the protective factor index.
- Understanding **which risk and protective factors to address** in various communities involves examining which risk factors are above the statewide percentages and which protective factors are below the statewide percentages. The comparison to the statewide percentages provides information in determining the relative importance of each risk or protective factor level for the specific subgroup. Prevention efforts should move toward reversing or reducing elevated risk factors or enhancing low protective factors. The community profiles developed in the comprehensive report and in various subgroup reports illustrate where prevention efforts should be prioritized in various communities. Table 16 summarizes the county and district profiles, and Table 17 summarizes the sex and ethnicity profiles. These tables also identify problematic risk factors (i.e., risk factors above statewide percentages) and problematic protective factors (i.e., protective factors below statewide percentages) in 2000 compared to 2002. Prevention efforts need to focus on factors that remain or have become problematic in 2002.

SECTION V – CONCLUSION AND RECOMMENDATIONS

The results of the *2002 Hawaii Student Alcohol, Tobacco, and Other Drug Use Study* indicate that substance use continues to be a significant problem affecting the youth of Hawaii, but the stabilization patterns in most illicit drug use, the current downward trends in alcohol and cigarette use, and the continuing decline in treatment needs all are encouraging.

Lifetime prevalence reports for use of each illicit drug have generally stabilized in 2002, except for ecstasy, marijuana, and sedative or tranquilizer use. Ecstasy use continues to rise among students in grades 8, 10, and 12, bringing ecstasy prevalence reports to levels equivalent to those reported nationally. In 2002, marijuana prevalence reports held steady for all grades except grade 10: In grade 10, lifetime and monthly marijuana prevalence reports increased but remained below 1998 prevalence reports. Use of sedatives or tranquilizers have also increased slightly in 2002 among students in the upper grades, and are nearing record high levels. Other increases were generally quite modest and did not bring prevalence rates back to the level reported in 1998. Alcohol remains the most prevalent substance, but lifetime alcohol prevalence rates have been on the decline and are currently lower than a decade earlier, when they were at an all-time low. Lifetime prevalence reports for cigarette use started on a downward trajectory in 1998 in some grades and have continued on that course through 2002.

Monthly and daily substance use prevalence reports increased drastically from 1993 to 1996. This rise halted in 1998 at all grade levels. Most decreases in the last few years have brought monthly prevalence reports down to 1993 levels, and some have even reached 1987 levels, the year the study first began. Hawaii typically follows nationwide trends, except in ecstasy use which finally decreased nationwide but continues to rise in Hawaii. Prevalence rates in Hawaii for alcohol, tobacco, and illicit drugs other than ecstasy are lower than nationwide prevalence rates.

Coinciding with the decreasing prevalence rates are the declining estimated treatment needs among adolescents in the State of Hawaii. Total estimated treatment needs for students in grades 6 through 12 statewide were 16% in 1998, dropped to 13% in 2000, and continued to drop to 11% in 2002. Treatment needs in 2002 are still higher than they were in 1996 (10%). Treatment needs are highest in Hawaii and Maui Counties, where 14% are estimated to need treatment. Hawaii County/District, however, witnessed the largest decreases in treatment needs, bringing treatment need estimates in Hawaii County back to 1996 levels.

The risk and protective factor framework utilized in the current study highlights that prevention needs are unique to each community and each subgroup. Prevention efforts directed at key risk and protective factors have been shown to have a significant impact on adolescent substance use. Reduction of alcohol and tobacco sales to minors following state-initiated alcohol and tobacco “stings” is a key example of prevention efforts working. Not only have sales to minors dropped since these stings were initiated, but alcohol and tobacco use rates continue on an encouraging downward trajectory. In sum, declining substance use rates and declining treatment needs can continue in the State of Hawaii as long as prevention efforts are directed at reducing elevated risk factors and promoting protective factors.

RECOMMENDATIONS

Although the alcohol, tobacco, and other drug use study was in a school setting, an examination of factors related to adolescent substance use and abuse show that effective prevention and treatment programs must extend well beyond the school campus. Effective prevention and treatment programs require the combined efforts of communities, law enforcement, families, media, and ongoing school-based substance abuse programs. The Hawaii Department of Health, Alcohol and Drug Abuse Division (ADAD), makes the following recommendations based on the findings from *The 2002 Hawaii Student Alcohol, Tobacco, and Other Drug Use Study (1987-2002): Adolescent Prevention and Treatment Needs Assessment* (Pearson, 2003).

- **MAKE SUBSTANCE ABUSE PREVENTION A PRIORITY IN EVERY COMMUNITY.** Research has shown that prevention plans that take into account community-level risk and protective factors have the greatest potential for successfully decreasing the rates of youth substance abuse. Perceived availability of substances and exposure to people using substances are critical risk factors in substance use and abuse. Thus, community efforts to reduce availability through voluntary efforts by merchants and through community enforcement of merchant compliance with Federal and State laws prohibiting sales of alcohol and tobacco products to minors must be continued and increased. Tightening of local ordinances restricting drinking and cigarette smoking in public settings is needed to decrease exposure to substance abuse.
- **STRENGTHEN THE FAMILY'S ROLE AND SKILLS IN SUBSTANCE ABUSE PREVENTION EFFORTS.** Parents and family members must recognize that exposure to substance use by family members puts children and adolescents at great risk for substance use and abuse. Parents' expressed disapproval of substance use is a powerful deterrent against substance use and abuse by children. The risk and protective factors addressed in this study suggest that parents need to take an active role in their children's lives, including talking to them about the dangers of substance use, monitoring their activities, understanding their problems, and being prepared to support their need to receive treatment for substance abuse.
- **ENSURE THAT EVERY ADOLESCENT WHO HAS SUBSTANCE ABUSE OR DEPENDENCE PROBLEMS GETS TREATMENT.** Although substance abuse is a community problem, school-based treatment programs make treatment easily accessible to youths who need treatment. Accessible school-based substance treatment programs should be sustained and expanded to all high schools and intermediate schools. Material about substance abuse treatment and counseling programs must be distributed more widely in schools and must thoroughly emphasize the fact that these services are strictly confidential.

- **INCREASE MASS MEDIA COVERAGE ON SUBSTANCE ABUSE PREVENTION AND TREATMENT.** Community efforts must include extensive mass media coverage designed to alter the myth that substance use is normative behavior (e.g., “everyone is using substances”), to educate parents regarding their critical role in substance use prevention and treatment, to teach parents skills for better family communication, and to increase public awareness regarding substance abuse symptoms and treatment programs. Components of a comprehensive media campaign could include television public service announcements, featured news stories, and radio programming. Additionally, distribution of printed material in workplaces, physicians’ offices, and health care agencies could be used to increase public awareness and to teach community members skills they could use to modify their substance use behaviors and behaviors of others.
- **INCREASE COMMUNITY AWARENESS OF THE SERIOUS CONSEQUENCES OF UNDERAGE ALCOHOL USAGE.** Communities need to employ effective strategies designed to decrease underage alcohol usage. Underage alcohol usage initiatives should include limiting access to alcohol through stricter enforcement of laws and regulations designed to prohibit alcohol use by minors and by providing prevention and education activities that deter youth alcohol usage in schools and within communities. Media and public relation efforts need to raise awareness of the problems and solutions to underage drinking.
- **STRENGTHEN SUBSTANCE ABUSE PREVENTION PROGRAMS IN THE SCHOOL AND THE COMMUNITY.** A comprehensive substance abuse prevention program must begin no later than the fourth grade and continue through high school. Prevention efforts should target identified risk and protective factors and convey the important message that the majority of students are not using alcohol, tobacco, or drugs. School-based prevention programs must be augmented by community-based approaches serving young people after school and by parenting programs, particularly for parents of young adolescents and for high-risk families. All school and community based prevention efforts should address identified risk and protective factors and should use proven, science-based curricula and approaches.

APPENDIX A PREVALENCE TABLES

Table 1: Trends in Lifetime Prevalence of Various Substances for Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 1987-2002.

Table 1 lists the percentage of students, in each grade, using various substances at least once in their lifetimes and represents the proportion of students who have experimented with various substances. The table provides Hawaii lifetime prevalence trend data from 1987 to 2002 and records the percentage-point change in lifetime prevalence reports from 2000 to 2002.

Table 2: Trends in Monthly (30-Day) Prevalence of Various Substances for Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 1987-2002.

Table 2 lists the percentage of students, in each grade, using various substances at least once in the past 30 days and represents the proportion of students who are currently using various substances. The table provides Hawaii monthly prevalence trend data from 1987 to 2002 and records the percentage-point change in monthly prevalence reports from 2000 to 2002.

Table 3: Trends in Daily Prevalence of Various Substances for Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 1996-2002.

Table 3 lists the percentage of students, in each grade, using various substances on 20 or more occasions in the past 30 days and represents the proportion of students who are using various substances on a daily or near-daily basis. Daily substance use was first assessed in 1996. The table provides data from 1996 to 2002 and records the percentage-point change in prevalence reports from 2000 to 2002.

Table 4: A Comparison of Nationwide versus Hawaii Substance Usage Rates, by Grade, 2002.

Table 4 displays data from the 2002 Hawaii Student Alcohol, Tobacco, and Other Drug Use Survey and the national comparison data from the 2002 Monitoring the Future Survey. The table provides lifetime, monthly, and daily prevalence data across each grade level for each substance. The national Monitoring the Future Study does not survey students in grade 6; thus, national comparison data for students in grade 6 are not provided.

TABLE 1
Trends in Lifetime Prevalence of Various Substances
for Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 1987-2002

(Entries are percentages %)

	1987	1989	1991	1993	1996	1998	2000	2002	2000-2002 change
Any Illicit Drug, Including Inhalants ^a									
6th Grade	14.4	11.5	9.2	12.4	13.4	13.7	8.3	9.5	+1.2
8th Grade	27.1	22.3	21.6	27.3	29.6	26.3	23.3	22.0	-1.3
10th Grade	38.7	33.3	33.5	38.7	41.3	42.9	36.9	40.4	+3.5
12th Grade	50.5	41.4	39.3	42.0	47.7	50.3	48.4	49.4	+1.0
Any Illicit Drug, Excluding Inhalants ^b									
6th Grade	—	—	—	—	6.4	6.6	4.2	5.2	+1.0
8th Grade	—	—	—	—	23.0	20.9	18.5	18.2	-0.3
10th Grade	—	—	—	—	37.8	40.7	35.2	38.6	+3.4
12th Grade	—	—	—	—	45.9	48.9	47.8	48.5	+0.7
Marijuana									
6th Grade	3.0	2.5	1.7	2.4	5.1	4.9	2.4	2.6	+0.2
8th Grade	16.5	13.1	12.3	16.7	21.5	19.2	15.9	15.9	0.0
10th Grade	32.9	26.2	25.7	31.4	36.5	39.2	33.2	35.8	+2.6
12th Grade	46.0	36.2	34.3	37.1	44.7	47.7	45.8	46.2	+0.4
Inhalants									
6th Grade	10.6	8.7	7.2	9.4	9.7	10.1	5.3	5.6	+0.3
8th Grade	14.9	13.0	12.7	16.6	15.2	12.5	9.9	9.1	-0.8
10th Grade	13.4	12.8	14.2	15.6	11.2	10.2	7.0	8.4	+1.4
12th Grade	11.5	11.2	10.2	12.0	7.9	8.1	5.7	7.3	+1.6
Cocaine									
6th Grade	0.8	0.8	0.7	1.0	1.9	2.0	0.4	0.4	0.0
8th Grade	3.8	4.3	3.4	4.0	5.3	4.2	2.2	2.1	-0.1
10th Grade	8.0	7.7	6.4	7.2	5.8	5.3	3.5	3.1	-0.4
12th Grade	14.8	10.5	9.1	8.2	7.9	6.0	5.8	4.5	-1.3
Methamphetamine									
6th Grade	—	1.4	1.0	1.3	1.4	1.8	0.5	0.4	-0.1
8th Grade	—	6.1	4.3	4.9	4.4	4.6	2.3	2.0	-0.3
10th Grade	—	9.9	7.0	7.8	5.9	6.7	4.5	4.2	-0.3
12th Grade	—	11.7	8.9	8.4	7.5	7.7	5.8	5.3	-0.5
Heroin or Other Opiates									
6th Grade	1.0	0.9	0.6	0.8	1.3	1.4	0.2	0.3	+0.1
8th Grade	3.3	2.6	2.4	2.7	3.4	2.7	1.2	1.0	-0.2
10th Grade	4.4	4.2	4.1	4.1	1.9	2.3	1.3	1.3	0.0
12th Grade	6.0	5.1	4.6	5.1	2.7	2.0	1.8	1.4	-0.4
Sedatives/Tranquilizers									
6th Grade	1.3	0.7	0.8	0.9	1.4	1.6	0.4	0.5	+0.1
8th Grade	2.7	2.8	2.5	2.7	3.6	3.0	1.8	1.9	+0.1
10th Grade	4.7	4.1	4.2	4.0	3.9	3.9	3.2	4.5	+1.3
12th Grade	6.3	4.5	4.2	4.3	4.8	3.9	3.8	5.8	+2.0

(Table continued on next page)

TABLE 1 (continued)
Trends in Lifetime Prevalence of Various Substances
for Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 1987-2002
(Entries are percentages %)

	1987	1989	1991	1993	1996	1998	2000	2002	2000-2002 change
Hallucinogens									
6th Grade	0.9	1.0	0.8	1.2	1.6	1.9	0.4	0.4	0.0
8th Grade	3.4	4.1	3.5	4.5	6.5	4.6	2.9	2.5	-0.4
10th Grade	6.3	6.6	7.1	9.1	7.8	9.2	6.4	5.6	-0.8
12th Grade	8.3	7.9	8.6	10.8	12.0	11.6	9.9	9.1	-0.8
Steroids									
6th Grade	3.3	2.2	2.2	1.9	1.5	2.0	1.3	2.0	+0.7
8th Grade	5.4	4.0	3.1	3.1	2.8	2.6	2.2	2.1	-0.1
10th Grade	4.8	4.1	3.8	3.7	2.2	2.1	1.7	2.6	+0.9
12th Grade	4.5	4.4	3.5	3.3	2.4	1.6	1.8	2.8	+1.0
Ecstasy/MDMA									
6th Grade	—	—	—	—	—	1.4	0.1	0.2	+0.1
8th Grade	—	—	—	—	—	2.9	2.0	3.0	+1.0
10th Grade	—	—	—	—	—	4.1	5.3	7.2	+1.9
12th Grade	—	—	—	—	—	5.3	8.4	10.6	+2.2
GHB									
6th Grade	—	—	—	—	—	—	—	0.1	—
8th Grade	—	—	—	—	—	—	—	1.4	—
10th Grade	—	—	—	—	—	—	—	2.0	—
12th Grade	—	—	—	—	—	—	—	2.6	—
Rohypnol									
6th Grade	—	—	—	—	—	—	—	0.2	—
8th Grade	—	—	—	—	—	—	—	0.9	—
10th Grade	—	—	—	—	—	—	—	1.3	—
12th Grade	—	—	—	—	—	—	—	0.9	—
Ketamine									
6th Grade	—	—	—	—	—	—	—	0.2	—
8th Grade	—	—	—	—	—	—	—	0.8	—
10th Grade	—	—	—	—	—	—	—	1.4	—
12th Grade	—	—	—	—	—	—	—	1.7	—
Any Alcohol Use									
6th Grade	47.6	34.6	31.1	34.9	29.8	31.6	24.2	20.0	-4.2
8th Grade	64.7	57.3	55.8	57.4	54.0	52.6	49.2	42.5	-6.7
10th Grade	76.1	71.1	72.9	73.3	73.4	72.3	67.1	64.7	-2.4
12th Grade	85.9	80.5	79.8	79.2	79.7	81.2	77.2	75.4	-1.8
Beer or Wine ^c									
6th Grade	36.0	25.4	22.0	24.5	28.5	30.3	23.3	19.3	-4.0
8th Grade	52.3	48.5	47.8	48.5	52.1	50.3	47.2	41.1	-6.1
10th Grade	65.2	63.4	65.4	64.7	71.2	69.7	64.5	62.6	-1.9
12th Grade	76.4	71.8	71.8	69.7	77.7	78.7	74.9	72.5	-2.4

(Table continued on next page)

TABLE 1 (continued)
Trends in Lifetime Prevalence of Various Substances
for Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 1987-2002

(Entries are percentages %)

	1987	1989	1991	1993	1996	1998	2000	2002	2000-2002 change
Hard Liquor									
6th Grade	11.1	8.7	7.3	8.7	9.4	9.3	5.1	5.1	0.0
8th Grade	28.2	25.9	25.9	28.9	32.9	31.1	25.5	23.6	-1.9
10th Grade	47.7	43.3	47.3	49.2	56.8	56.0	51.0	49.6	-1.4
12th Grade	62.6	56.7	57.7	57.6	68.2	69.8	66.3	65.6	-0.7
Been Drunk									
6th Grade	—	—	—	—	5.6	5.8	2.9	3.3	+0.4
8th Grade	—	—	—	—	22.9	20.4	17.3	17.1	-0.2
10th Grade	—	—	—	—	40.1	40.7	37.5	37.8	+0.3
12th Grade	—	—	—	—	52.2	55.4	53.0	53.5	+0.5
Any Tobacco Use									
6th Grade	—	—	—	—	24.2	22.2	12.7	10.5	-2.2
8th Grade	—	—	—	—	46.6	44.1	37.2	28.2	-9.0
10th Grade	—	—	—	—	58.4	58.0	50.5	43.2	-7.3
12th Grade	—	—	—	—	64.7	63.6	60.0	50.5	-9.5
Cigarettes									
6th Grade	7.3	11.6	9.6	12.6	23.6	21.5	12.2	9.9	-2.3
8th Grade	26.4	32.5	33.2	37.4	45.9	43.1	36.3	27.6	-8.7
10th Grade	38.9	43.3	45.6	49.3	57.4	57.0	49.5	42.1	-7.4
12th Grade	48.2	49.5	49.6	50.7	62.7	62.4	58.8	49.4	-9.4
Regular Cigarette Use^d									
6th Grade	—	—	—	—	6.3	6.1	2.1	2.2	+0.1
8th Grade	—	—	—	—	19.9	18.6	11.8	9.4	-2.4
10th Grade	—	—	—	—	26.6	28.3	19.3	15.3	-4.0
12th Grade	—	—	—	—	29.5	31.4	25.6	21.1	-4.5
Smokeless Tobacco									
6th Grade	3.2	2.8	2.8	3.1	3.5	3.1	1.2	1.3	+0.1
8th Grade	8.2	6.2	6.8	7.1	8.1	5.9	3.6	3.5	-0.1
10th Grade	13.3	10.5	10.0	10.1	10.6	10.2	5.3	5.9	+0.6
12th Grade	17.5	14.4	13.7	13.0	16.8	15.9	10.0	8.0	-2.0

Approximate Ns for 2002: 6th grade = 9,924; 8th grade = 7,152; 10th grade = 5,971; 12th grade = 4,948.

NOTES: ‘—’ indicates data not available. *Lifetime Prevalence* is defined as use of a substance at least once in a student’s lifetime.

^a *Any Illicit Drug, Including Inhalants* includes the use of marijuana, inhalants, cocaine, methamphetamine, heroin or other opiates, sedatives or tranquilizers, hallucinogens, steroids, ecstasy/MDMA, GHB, Rohypnol, or ketamine. Ecstasy was first added to the survey in 1998. GHB, Rohypnol, and ketamine were first added to the survey in 2002.

^b *Any Illicit Drug, Excluding Inhalants* includes the use of marijuana, cocaine, methamphetamine, heroin or other opiates, sedatives or tranquilizers, hallucinogens, steroids, ecstasy/MDMA, GHB, Rohypnol, or ketamine. Ecstasy was first added to the survey in 1998. GHB, Rohypnol, and ketamine were first added to the survey in 2002.

^c In 1987-1993, beer and wine were measured separately. This table reports the higher number for the beer and wine percentages reported in the 1987-1993 report. Students were asked if they had tried beer or wine – “more than a few sips.”

^d Students were asked if they had smoked cigarettes on a regular basis. Students in this category may not be regular smokers anymore.

TABLE 2
Trends in Monthly (30-Day) Prevalence of Various Substances
for Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 1987-2002
 (Entries are percentages %)

	1987	1989	1991	1993	1996	1998	2000	2002	2000-2002 change
Any Illicit Drug, Including Inhalants ^a									
6th Grade	1.7	1.8	1.5	2.1	7.7	6.7	4.2	5.0	+0.8
8th Grade	7.7	8.2	7.4	10.5	18.4	14.7	11.8	11.9	+0.1
10th Grade	14.3	14.2	14.7	18.6	22.7	23.6	19.0	20.7	+1.7
12th Grade	19.6	17.1	16.5	19.7	26.3	24.5	24.7	23.1	-1.6
Any Illicit Drug, Excluding Inhalants ^b									
6th Grade	—	—	—	—	4.3	3.7	2.4	2.7	+0.3
8th Grade	—	—	—	—	15.7	13.0	10.3	10.5	+0.2
10th Grade	—	—	—	—	22.0	23.3	18.6	20.0	+1.4
12th Grade	—	—	—	—	25.9	24.3	24.5	22.9	-1.6
Marijuana									
6th Grade	0.4	0.6	0.4	0.5	3.4	2.6	1.3	1.3	0.0
8th Grade	5.2	4.9	4.9	7.5	14.8	11.8	8.9	9.1	+0.2
10th Grade	12.4	11.1	12.7	16.0	21.2	22.3	17.2	18.4	+1.2
12th Grade	17.2	13.9	14.6	17.9	25.0	23.0	22.7	21.1	-1.6
Inhalants									
6th Grade	1.0	0.9	0.9	1.3	5.1	4.5	2.4	2.8	+0.4
8th Grade	2.7	3.4	2.6	3.7	7.2	4.8	3.2	3.4	+0.2
10th Grade	2.3	3.0	2.8	3.0	3.1	2.4	1.5	2.2	+0.7
12th Grade	1.8	2.5	1.8	2.1	2.4	1.4	0.8	1.3	+0.5
Cocaine									
6th Grade	0.3	0.3	0.2	0.3	1.3	1.3	0.4	0.4	0.0
8th Grade	1.4	1.7	1.3	1.6	3.4	2.6	1.2	1.3	+0.1
10th Grade	2.7	3.0	2.4	2.7	2.7	2.3	1.3	1.2	-0.1
12th Grade	4.8	3.8	3.5	2.4	3.6	1.8	1.5	1.3	-0.2
Methamphetamine									
6th Grade	—	0.4	0.2	0.3	1.0	1.0	0.3	0.2	-0.1
8th Grade	—	2.7	1.6	1.9	3.0	3.1	1.1	1.2	+0.1
10th Grade	—	4.8	2.9	3.2	2.8	3.0	1.6	1.8	+0.2
12th Grade	—	5.5	3.4	3.1	2.8	2.3	1.6	1.8	+0.2
Heroin or Other Opiates									
6th Grade	0.2	0.2	0.1	0.2	1.0	0.8	0.1	0.1	0.0
8th Grade	0.9	0.9	1.0	1.0	2.4	1.8	0.8	0.7	-0.1
10th Grade	1.5	1.5	1.3	1.5	1.4	1.4	0.5	0.7	+0.2
12th Grade	1.5	1.5	1.4	1.4	1.7	0.7	0.5	0.4	-0.1
Sedatives/Tranquilizers									
6th Grade	0.2	0.3	0.3	0.3	0.9	0.7	0.2	0.1	-0.1
8th Grade	0.9	1.1	1.1	0.9	2.5	2.1	1.0	0.9	-0.1
10th Grade	1.4	1.5	1.1	1.5	1.9	1.7	1.2	1.7	+0.5
12th Grade	1.3	1.3	1.0	0.9	2.0	1.6	1.6	1.8	+0.2

(Table continued on next page)

TABLE 2 (continued)
Trends in Monthly (30-Day) Prevalence of Various Substances
for Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 1987-2002

(Entries are percentages %)

	1987	1989	1991	1993	1996	1998	2000	2002	2000-2002 change
Hallucinogens									
6th Grade	0.2	0.3	0.2	0.4	1.0	0.9	0.3	0.2	-0.1
8th Grade	1.0	1.6	1.3	1.5	4.2	2.8	1.4	1.3	-0.1
10th Grade	1.9	2.8	2.9	3.4	4.3	3.6	2.2	1.8	-0.4
12th Grade	2.2	2.6	2.8	3.5	5.3	3.1	2.0	1.7	-0.3
Steroids									
6th Grade	0.8	0.5	0.6	0.5	1.0	1.1	0.8	0.9	+0.1
8th Grade	2.0	1.5	1.4	1.1	2.2	1.8	1.3	1.3	0.0
10th Grade	1.9	1.8	1.7	1.9	1.4	1.3	1.0	1.2	+0.2
12th Grade	1.8	2.0	1.2	1.7	1.7	1.0	0.9	1.1	+0.2
Ecstasy/MDMA									
6th Grade	—	—	—	—	—	0.7	0.1	0.1	0.0
8th Grade	—	—	—	—	—	2.0	1.3	1.7	+0.4
10th Grade	—	—	—	—	—	1.9	2.9	2.3	-0.6
12th Grade	—	—	—	—	—	1.7	3.9	2.5	-1.4
GHB									
6th Grade	—	—	—	—	—	—	—	0.1	—
8th Grade	—	—	—	—	—	—	—	1.0	—
10th Grade	—	—	—	—	—	—	—	1.0	—
12th Grade	—	—	—	—	—	—	—	0.8	—
Rohypnol									
6th Grade	—	—	—	—	—	—	—	0.2	—
8th Grade	—	—	—	—	—	—	—	0.8	—
10th Grade	—	—	—	—	—	—	—	0.6	—
12th Grade	—	—	—	—	—	—	—	0.4	—
Ketamine									
6th Grade	—	—	—	—	—	—	—	0.1	—
8th Grade	—	—	—	—	—	—	—	0.7	—
10th Grade	—	—	—	—	—	—	—	0.8	—
12th Grade	—	—	—	—	—	—	—	0.6	—
Any Alcohol Use									
6th Grade	3.2	3.1	2.8	2.5	14.4	12.0	9.1	7.8	-1.3
8th Grade	14.0	13.2	14.0	15.2	30.2	25.3	22.1	20.4	-1.7
10th Grade	28.0	27.1	28.3	28.8	41.2	37.6	32.5	33.9	+1.4
12th Grade	42.7	37.8	38.6	35.4	46.3	45.0	43.2	43.0	-0.2
Beer or Wine ^c									
6th Grade	2.1	1.9	1.7	1.6	13.7	11.4	8.7	7.5	-1.2
8th Grade	10.1	10.0	10.3	11.5	28.6	23.9	20.3	19.2	-1.1
10th Grade	21.6	21.0	22.2	22.9	38.8	34.6	28.9	30.4	+1.5
12th Grade	35.5	30.6	31.2	29.4	43.6	41.7	39.1	38.1	-1.0

(Table continued on next page)

TABLE 2 (continued)
Trends in Monthly (30-Day) Prevalence of Various Substances
for Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 1987-2002

(Entries are percentages %)

	1987	1989	1991	1993	1996	1998	2000	2002	2000-2002 change
Hard Liquor									
6th Grade	0.6	0.8	0.5	0.7	6.5	5.4	3.2	2.2	-1.0
8th Grade	5.5	5.7	6.3	7.8	22.1	17.6	14.8	11.6	-3.2
10th Grade	13.4	14.2	16.0	16.7	31.5	29.1	26.7	24.4	-2.3
12th Grade	20.4	19.9	21.4	20.2	36.5	35.1	35.5	32.6	-2.9
Any Tobacco Use									
6th Grade	—	—	—	—	11.2	8.6	4.0	3.9	-0.1
8th Grade	—	—	—	—	26.1	19.1	12.5	10.2	-2.3
10th Grade	—	—	—	—	26.7	24.9	17.1	14.2	-2.9
12th Grade	—	—	—	—	28.9	29.7	23.4	19.0	-4.4
Cigarettes									
6th Grade	0.8	1.6	1.5	2.1	10.8	8.1	3.8	3.6	-0.2
8th Grade	7.9	10.1	11.3	14.3	25.5	18.7	12.1	9.7	-2.4
10th Grade	16.4	17.5	19.7	22.2	25.8	24.1	16.6	13.5	-3.1
12th Grade	22.4	21.5	22.1	23.0	27.9	28.9	22.6	18.1	-4.5
Smokeless Tobacco									
6th Grade	0.4	0.4	0.5	0.5	1.9	1.5	0.5	0.6	+0.1
8th Grade	1.0	1.5	1.7	2.0	4.5	2.9	1.5	1.5	0.0
10th Grade	2.1	2.6	2.7	2.8	3.7	3.0	1.4	1.8	+0.4
12th Grade	3.8	3.3	3.5	3.6	5.2	3.1	2.0	2.2	+0.2

Approximate Ns for 2002: 6th grade = 9,924; 8th grade = 7,152; 10th grade = 5,971; 12th grade = 4,948.

NOTES: ‘ — ’ indicates data not available. *Monthly (30-Day) Prevalence* is defined as use of a substance at least once in the past 30 days.

^a *Any Illicit Drug, Including Inhalants* includes the use of marijuana, inhalants, cocaine, methamphetamine, heroin or other opiates, sedatives or tranquilizers, hallucinogens, steroids, ecstasy/MDMA, GHB, rohypnol, or ketamine. Ecstasy was first added to the survey in 1998. GHB, Rohypnol, and ketamine were first added to the survey in 2002.

^b *Any Illicit Drug, Excluding Inhalants* includes the use of marijuana, cocaine, methamphetamine, heroin or other opiates, sedatives or tranquilizers, hallucinogens, steroids, ecstasy/MDMA, GHB, Rohypnol, or ketamine. Ecstasy was first added to the survey in 1998. GHB, Rohypnol, and ketamine were first added to the survey in 2002.

^c In 1987-1993, beer and wine were measured separately. This table reports the higher number for the beer and wine percentages reported in the 1987-1993 report. Students were asked if they had tried beer or wine – “more than a few sips.”

TABLE 3
Trends in Daily Prevalence of Various Substances
for Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 1996-2002

(Entries are percentages %)

	1996	1998	2000	2002	2000-2002 change
Any Illicit Drug, Including Inhalants ^a					
6th Grade	1.2	1.0	0.5	0.5	0.0
8th Grade	4.0	3.4	2.0	2.2	+0.2
10th Grade	5.2	5.3	4.0	4.9	+0.9
12th Grade	7.3	5.7	5.1	5.4	+0.3
Any Illicit Drug, Excluding Inhalants ^b					
6th Grade	0.8	0.7	0.4	0.3	-0.1
8th Grade	3.6	3.1	1.9	2.1	+0.2
10th Grade	4.9	5.2	4.0	4.8	+0.8
12th Grade	6.7	5.7	5.1	5.4	+0.3
Marijuana					
6th Grade	0.7	0.4	0.2	0.2	0.0
8th Grade	3.1	2.4	1.5	1.6	+0.1
10th Grade	4.2	4.7	3.4	4.4	+1.0
12th Grade	6.4	5.2	4.6	4.8	+0.2
Inhalants					
6th Grade	0.5	0.5	0.2	0.2	0.0
8th Grade	1.3	0.7	0.3	0.3	0.0
10th Grade	0.7	0.6	0.1	0.2	+0.1
12th Grade	0.6	0.3	0.1	0.2	+0.1
Cocaine					
6th Grade	0.4	0.2	0.1	0.0	-0.1
8th Grade	1.1	0.6	0.2	0.1	-0.1
10th Grade	0.8	0.6	0.1	0.2	+0.1
12th Grade	0.9	0.1	0.2	0.2	0.0
Methamphetamine					
6th Grade	0.2	0.1	0.0	0.1	+0.1
8th Grade	0.9	0.5	0.1	0.1	0.0
10th Grade	0.8	0.6	0.3	0.2	-0.1
12th Grade	0.6	0.4	0.3	0.3	0.0
Heroin or Other Opiates					
6th Grade	0.3	0.1	0.0	0.0	0.0
8th Grade	0.9	0.4	0.1	0.0	-0.1
10th Grade	0.7	0.4	0.1	0.1	0.0
12th Grade	0.6	0.1	0.2	0.1	-0.1
Sedatives/Tranquilizers					
6th Grade	0.3	0.2	0.0	0.0	0.0
8th Grade	0.9	0.4	0.1	0.1	0.0
10th Grade	0.7	0.4	0.2	0.2	0.0
12th Grade	0.6	0.2	0.2	0.2	0.0

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TABLE 3 (continued)
Trends in Daily Prevalence of Various Substances
for Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 1996-2002
(Entries are percentages %)

	1996	1998	2000	2002	2000-2002 change
Hallucinogens					
6th Grade	0.3	0.1	0.0	0.0	0.0
8th Grade	1.1	0.5	0.2	0.1	-0.1
10th Grade	0.6	0.6	0.3	0.1	-0.2
12th Grade	0.8	0.3	0.3	0.2	-0.1
Steroids					
6th Grade	0.3	0.3	0.1	0.1	0.0
8th Grade	1.0	0.4	0.2	0.2	0.0
10th Grade	0.7	0.4	0.2	0.2	0.0
12th Grade	0.7	0.3	0.2	0.3	+0.1
Ecstasy/MDMA					
6th Grade	—	0.1	0.0	0.0	0.0
8th Grade	—	0.5	0.1	0.2	+0.1
10th Grade	—	0.5	0.2	0.2	0.0
12th Grade	—	0.2	0.3	0.2	-0.1
GHB					
6th Grade	—	—	—	0.0	—
8th Grade	—	—	—	0.1	—
10th Grade	—	—	—	0.2	—
12th Grade	—	—	—	0.0	—
Rohypnol					
6th Grade	—	—	—	0.1	—
8th Grade	—	—	—	0.1	—
10th Grade	—	—	—	0.1	—
12th Grade	—	—	—	0.1	—
Ketamine					
6th Grade	—	—	—	0.1	—
8th Grade	—	—	—	0.1	—
10th Grade	—	—	—	0.2	—
12th Grade	—	—	—	0.1	—
Any Alcohol Use					
6th Grade	0.9	0.9	0.7	0.5	-0.2
8th Grade	3.1	2.8	1.6	1.8	+0.2
10th Grade	3.8	3.8	2.4	2.5	+0.1
12th Grade	4.7	3.2	3.5	3.3	-0.2
Beer or Wine ^c					
6th Grade	0.8	0.7	0.6	0.4	-0.2
8th Grade	2.8	2.4	1.4	1.6	+0.2
10th Grade	3.4	3.2	2.1	2.0	-0.1
12th Grade	4.1	2.7	3.1	2.9	-0.2

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TABLE 3 (continued)
Trends in Daily Prevalence of Various Substances
for Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 1996-2002

(Entries are percentages %)

	1996	1998	2000	2002	2000-2002 change
Hard Liquor					
6th Grade	0.7	0.5	0.2	0.2	0.0
8th Grade	2.7	2.2	1.2	1.1	-0.1
10th Grade	2.9	3.0	2.0	1.9	-0.1
12th Grade	3.4	2.3	2.6	2.0	-0.6
Any Tobacco Use					
6th Grade	1.1	0.9	0.4	0.4	0.0
8th Grade	6.6	4.9	2.3	1.9	-0.4
10th Grade	10.8	10.6	6.2	4.6	-1.6
12th Grade	14.5	14.5	12.1	8.5	-3.6
Cigarettes					
6th Grade	1.1	0.9	0.4	0.3	-0.1
8th Grade	6.5	4.8	2.2	1.8	-0.4
10th Grade	10.6	10.4	6.1	4.5	-1.6
12th Grade	14.3	14.2	11.8	8.2	-3.6
½ Pack +/Day^d					
6th Grade	—	—	0.4	0.2	-0.2
8th Grade	—	—	1.9	1.1	-0.8
10th Grade	—	—	3.1	2.4	-0.7
12th Grade	—	—	5.9	4.3	-1.6
Smokeless Tobacco					
6th Grade	0.2	0.1	0.1	0.0	-0.1
8th Grade	1.1	0.7	0.3	0.2	-0.1
10th Grade	0.8	0.7	0.3	0.3	0.0
12th Grade	1.4	0.5	0.4	0.5	+0.1

Approximate Ns for 2002: 6th grade = 9,924; 8th grade = 7,152; 10th grade = 5,971; 12th grade = 4,948.

NOTES: ‘ — ’ indicates data not available. *Daily Prevalence* is defined as use of a substance on 20 or more occasions in the past 30 days.

^a *Any Illicit Drug, Including Inhalants* includes the use of marijuana, inhalants, cocaine, methamphetamine, heroin or other opiates, sedatives or tranquilizers, hallucinogens, steroids, ecstasy/MDMA, GHB, Rohypnol, or ketamine. Ecstasy was first added to the survey in 1998. GHB, Rohypnol, and ketamine were first added to the survey in 2002.

^b *Any Illicit Drug, Excluding Inhalants* includes the use of marijuana, cocaine, methamphetamine, heroin or other opiates, sedatives or tranquilizers, hallucinogens, steroids, ecstasy/MDMA, GHB, Rohypnol, or ketamine. Ecstasy was first added to the survey in 1998. GHB, Rohypnol, and ketamine were first added to the survey in 2002.

^c Students were asked if they had tried beer or wine – “more than a few sips.”

^d Students were asked how frequently they had smoked cigarettes in the past 30 days. Answer choices included (1) not at all, (2) less than one cigarette per day, (3) one or five cigarettes per day, (4) about ½ pack per day, (5) about one pack per day, and (6) more than one pack per day. *½ Pack +/Day* includes students answering either about ½ pack per day, about one pack per day, or more than one pack per day.

TABLE 4
A Comparison of Nationwide versus Hawaii Substance Usage Rates, by Grade, 2002

(Entries are percentages %)

	Lifetime		30-Day		Daily	
	Nationwide 2002	Hawaii 2002	Nationwide 2002	Hawaii 2002	Nationwide 2002	Hawaii 2002
Any Illicit Drug, Including Inhalants ^a						
6th Grade	—	9.5	—	5.0	—	0.5
8th Grade	31.6	22.0	12.6	11.9	—	2.2
10th Grade	47.7	40.4	21.7	20.7	—	4.9
12th Grade	54.6	49.4	25.9	23.1	—	5.4
Any Illicit Drug, Excluding Inhalants ^b						
6th Grade	—	5.2	—	2.7	—	0.3
8th Grade	24.5	18.2	10.4	10.5	—	2.1
10th Grade	44.6	38.6	20.8	20.0	—	4.8
12th Grade	53.0	48.5	25.4	22.9	—	5.4
Marijuana						
6th Grade	—	2.6	—	1.3	—	0.2
8th Grade	19.2	15.9	8.3	9.1	1.2	1.6
10th Grade	38.7	35.8	17.8	18.4	3.9	4.4
12th Grade	47.8	46.2	21.5	21.1	6.0	4.8
Inhalants						
6th Grade	—	5.6	—	2.8	—	0.2
8th Grade	15.2	9.1	3.8	3.4	—	0.3
10th Grade	13.5	8.4	2.4	2.2	—	0.2
12th Grade	11.7	7.3	1.5	1.3	—	0.2
Cocaine						
6th Grade	—	0.4	—	0.4	—	0.0
8th Grade	3.6	2.1	1.1	1.3	—	0.1
10th Grade	6.1	3.1	1.6	1.2	—	0.2
12th Grade	7.8	4.5	2.3	1.3	—	0.2
Methamphetamine						
6th Grade	—	0.4	—	0.2	—	0.1
8th Grade	3.5	2.0	1.1	1.2	—	0.1
10th Grade	6.1	4.2	1.8	1.8	—	0.2
12th Grade	6.7	5.3	1.7	1.8	—	0.3
Heroin or other Opiates						
6th Grade	—	0.3	—	0.1	—	0.0
8th Grade	1.6	1.0	0.5	0.7	—	0.0
10th Grade	1.8	1.3	0.5	0.7	—	0.1
12th Grade	1.7	1.4	0.5	0.4	—	0.1
Sedatives/Tranquilizers						
6th Grade	—	0.5	—	0.1	—	0.0
8th Grade	4.3	1.9	1.2	0.9	—	0.1
10th Grade	8.8	4.5	2.9	1.7	—	0.2
12th Grade	11.4	5.8	3.3	1.8	—	0.2

(Table continued on next page)

TABLE 4 (continued)
A Comparison of Nationwide versus Hawaii Substance Usage Rates, by Grade, 2002
 (Entries are percentages %)

	Lifetime		30-Day		Daily	
	Nationwide 2002	Hawaii 2002	Nationwide 2002	Hawaii 2002	Nationwide 2002	Hawaii 2002
Hallucinogens						
6th Grade	—	0.4	—	0.2	—	0.0
8th Grade	4.1	2.5	1.2	1.3	—	0.1
10th Grade	7.8	5.6	1.6	1.8	—	0.1
12th Grade	12.0	9.1	2.3	1.7	—	0.2
Steroids						
6th Grade	—	2.0	—	0.9	—	0.1
8th Grade	2.5	2.1	0.8	1.3	—	0.2
10th Grade	3.5	2.6	1.0	1.2	—	0.2
12th Grade	4.0	2.8	1.4	1.1	—	0.3
Ecstasy/MDMA						
6th Grade	—	0.2	—	0.1	—	0.0
8th Grade	4.3	3.0	1.4	1.7	—	0.2
10th Grade	6.6	7.2	1.8	2.3	—	0.2
12th Grade	10.5	10.6	2.4	2.5	—	0.2
GHB						
6th Grade	—	0.1	—	0.1	—	0.0
8th Grade	—	1.4	—	1.0	—	0.1
10th Grade	—	2.0	—	1.0	—	0.2
12th Grade	—	2.6	—	0.8	—	0.0
Rohypnol						
6th Grade	—	0.2	—	0.2	—	0.1
8th Grade	0.8	0.9	0.2	0.8	—	0.1
10th Grade	1.3	1.3	0.4	0.6	—	0.1
12th Grade	—	0.9	—	0.4	—	0.1
Ketamine						
6th Grade	—	0.2	—	0.1	—	0.1
8th Grade	—	0.8	—	0.7	—	0.1
10th Grade	—	1.4	—	0.8	—	0.2
12th Grade	—	1.7	—	0.6	—	0.1
Any Alcohol Use						
6th Grade	—	20.0	—	7.8	—	0.5
8th Grade	47.0	42.5	19.6	20.4	0.7	1.8
10th Grade	66.9	64.7	35.4	33.9	1.8	2.5
12th Grade	78.4	75.4	48.6	43.0	3.5	3.3
Beer/Wine^c						
6th Grade	—	19.3	—	7.5	—	0.4
8th Grade	—	41.1	—	19.2	—	1.6
10th Grade	—	62.6	—	30.4	—	2.0
12th Grade	—	72.5	—	38.1	—	2.9
Hard Liquor						
6th Grade	—	5.1	—	2.2	—	0.2
8th Grade	—	23.6	—	11.6	—	1.1
10th Grade	—	49.6	—	24.4	—	1.9
12th Grade	—	65.6	—	32.6	—	2.0

(Table continued on next page)

TABLE 4 (continued)
A Comparison of Nationwide versus Hawaii Substance Rates, by Grade, 2002
 (Entries are percentages %)

	Lifetime		30-Day		Daily	
	Nationwide 2002	Hawaii 2002	Nationwide 2002	Hawaii 2002	Nationwide 2002	Hawaii 2002
Been Drunk						
6th Grade	—	3.3	—	—	—	—
8th Grade	21.3	17.1	6.7	—	0.3	—
10th Grade	44.0	37.8	18.3	—	0.5	—
12th Grade	61.6	53.5	30.3	—	1.2	—
Any Tobacco Use						
6th Grade	—	10.5	—	3.9	—	0.4
8th Grade	—	28.2	—	10.2	—	1.9
10th Grade	—	43.2	—	14.2	—	4.6
12th Grade	—	50.5	—	19.0	—	8.5
Cigarettes						
6th Grade	—	9.9	—	3.6	—	0.3
8th Grade	31.4	27.6	10.7	9.7	5.1	1.8
10th Grade	47.4	42.1	17.7	13.5	10.1	4.5
12th Grade	57.2	49.4	26.7	18.1	16.9	8.2
Regular Cigarette Use^d						
6th Grade	—	2.2	—	—	—	—
8th Grade	—	9.4	—	—	—	—
10th Grade	—	15.3	—	—	—	—
12th Grade	—	21.1	—	—	—	—
½ Pack +/Day^e						
6th Grade	—	—	—	—	—	0.2
8th Grade	—	—	—	—	2.1	1.1
10th Grade	—	—	—	—	4.4	2.4
12th Grade	—	—	—	—	9.1	4.3
Smokeless Tobacco						
6th Grade	—	1.3	—	0.6	—	0.0
8th Grade	11.2	3.5	3.3	1.5	0.8	0.2
10th Grade	16.9	5.9	6.1	1.8	1.7	0.3
12th Grade	18.3	8.0	6.5	2.2	2.0	0.5

Approximate Ns for the 2002 Hawaii Study: 6th grade = 9,924; 8th grade = 7,152; 10th grade = 5,971; 12th grade = 4,948.

NOTES: ‘—’ indicates data not available. *Nationwide* indicates 2002 Monitoring the Future Study. *Lifetime* use is defined as use at least once in a student’s lifetime. *30-Day* use is defined as use at least once in the past 30 days. *Daily* use is defined as use on 20 or more occasions in the past 30 days.

^a *Any Illicit Drug, Including Inhalants* includes marijuana, inhalants, cocaine, methamphetamine, heroin or other opiates, sedatives or tranquilizers, hallucinogens, steroids, ecstasy/MDMA, GHB, Rohypnol, or ketamine.

^b *Any Illicit Drug, Excluding Inhalants* includes marijuana, cocaine, methamphetamine, heroin or other opiates, sedatives or tranquilizers, hallucinogens, steroids, ecstasy/MDMA, GHB, Rohypnol, or ketamine.

^c Students were asked if they had tried beer or wine – “more than a few sips.”

^d Students were asked if they had smoked cigarettes on a regular basis. Students in this category may not be regular smokers anymore.

^e Students were asked how frequently they smoked cigarettes in the past 30 days. *½ Pack +/Day* includes students answering about one-half pack per day, about one pack per day, or more than one pack per day.

APPENDIX B TREATMENT NEEDS TABLES

Table 5: Hawaii Statewide Treatment Needs Based on the DSM-III-R Criteria for Sixth, Eighth, Tenth, and Twelfth Graders, 2002.

The table first presents alcohol treatment needs for students in grades 6, 8, 10, and 12 by listing the percentages of students who fit either an alcohol dependence (most severe diagnosis and includes both physiological symptoms, such as tolerance and withdrawal, and behavioral symptoms, such as impaired control over the use of a substance) or abuse diagnosis (a residual category for those who don't meet the criteria of dependence but who use substances in dangerous situations or who use substances despite having physical, social, psychological, or occupational problems related to their substance use) according to the DSM-III-R criteria, followed by the percentages of students for each of these categories. Adolescents who meet either a dependence or an abuse diagnosis are considered needing substance abuse treatment. The percentages of students in grades 6, 8, 10, and 12 fitting either a drug dependence or abuse diagnosis, for any illicit drug, are presented next. The percentages of students in grades 6, 8, 10, and 12 fitting drug abuse and dependence diagnoses for each drug classification are also presented. Next a summary of treatment needs is presented, which includes the percentage of students at each grade level who need treatment for alcohol use only, drug use only, both alcohol and drug use, and alcohol and/or drug use (i.e., total treatment needs).

Table 6: Summary of Hawaii Statewide Treatment Needs for Students in Grades 6 Through 12, by County, District, and School Type: Estimated Number of Students Needing Treatment for Alcohol and Drug Abuse, 2002.

The table summarizes county, district, and statewide treatment needs estimates for Hawaii students in grades 6 through 12. The column "Any Substance Abuse Treatment Needs" shows that at least 11% of Hawaii students in grades 6 through 12 need treatment for alcohol, drugs, or both alcohol and drugs. Estimates are slightly higher for public school students (11%) than private school students (10%). Not all private schools participated in the study. Thus, any differences between public and private schools may reflect a sampling bias.

TABLE 5
Hawaii Statewide Treatment Needs Based on the DSM-III-R Criteria for
Sixth, Eighth, Tenth, and Twelfth Graders, 2002

STATEWIDE TREATMENT NEEDS	6th Grade	8th Grade	10th Grade	12th Grade
ALCOHOL TREATMENT NEEDS (abuse or dependency)	0.6%	4.0%	10.9%	16.3%
<i>Alcohol Abuse</i>	0.2%	0.7%	1.7%	3.6%
<i>Alcohol Dependency</i>	0.5%	3.3%	9.2%	12.7%
DRUG TREATMENT NEEDS (abuse or dependency of any illicit drug)	0.6%	3.8%	11.0%	13.8%
1. Marijuana Treatment Needs (abuse or dependency)	0.4%	3.3%	10.2%	12.8%
<i>Marijuana Abuse</i>	0.1%	0.6%	2.0%	3.2%
<i>Marijuana Dependency</i>	0.3%	2.7%	8.3%	9.6%
2. Stimulant Treatment Needs (abuse or dependency)	0.2%	0.8%	1.2%	1.7%
<i>Stimulant Abuse</i>	0.1%	0.2%	0.3%	0.3%
<i>Stimulant Dependency</i>	0.1%	0.6%	0.9%	1.5%
3. Depressant Treatment Needs (abuse or dependency)	0.2%	0.9%	1.0%	1.2%
<i>Depressant Abuse</i>	0.1%	0.2%	0.2%	0.3%
<i>Depressant Dependency</i>	0.1%	0.7%	0.8%	0.9%
4. Hallucinogen Treatment Needs (abuse or dependency)	0.1%	0.7%	1.2%	1.5%
<i>Hallucinogen Abuse</i>	0.1%	0.2%	0.2%	0.3%
<i>Hallucinogen Dependency</i>	0.1%	0.5%	0.9%	1.2%
5. Club Drugs Treatment Needs (abuse or dependency)	0.2%	1.0%	1.3%	1.8%
<i>Club Drugs Abuse</i>	0.1%	0.3%	0.5%	0.9%
<i>Club Drugs Dependency</i>	0.1%	0.7%	0.8%	0.9%
SUMMARY OF TREATMENT NEEDS				
Alcohol Treatment Needs <i>Only</i>	0.4%	1.5%	3.7%	6.0%
Drug Treatment Needs <i>Only</i>	0.4%	1.8%	5.0%	4.7%
Both Alcohol and Drug Treatment Needs	0.2%	2.5%	7.4%	10.5%
Total Treatment Needs (Alcohol and/or Drug)	1.0%	5.8%	16.0%	21.2%
Number of Students Represented in the 2002 Study	9,924	7,152	5,971	4,948
Total Student Population	17,309	16,083	15,836	13,286
(a) Estimated # of Students Needing Alcohol Abuse Treatment	104	643	1,726	2,166
(b) Estimated # of Students Needing Drug Abuse Treatment	104	611	1,742	1,833
(c) Estimated # of Students Needing Any Substance Abuse Treatment	173	933	2,534	2,817

NOTES: Due to rounding error, summing the abuse and dependency percentages will not always equal the total percentages of students needing treatment for a particular substance. Some students who abuse alcohol also abuse illicit drugs. Thus, except for the items under *Summary of Treatment Needs*, the percentages of students who need treatment for various substances cannot be added to get the total percentage needing treatment. For the same reason, (a) estimated # of students needing alcohol abuse treatment and (b) estimated # of students needing drug abuse treatment cannot be added to get (c) estimated # of students needing any substance abuse treatment (i.e., total treatment needs).

TABLE 6
Summary of Hawaii Statewide Treatment Needs for Students in Grades 6 Through 12, by County, District, and School Type:
Estimated Number and Percentage of Students Needing Treatment for Alcohol and Drug Abuse, 2002

COUNTY/DISTRICT INFORMATION	Alcohol Abuse <i>Only</i> Treatment Needs		Drug Abuse <i>Only</i> Treatment Needs		<i>Both</i> Alcohol and Drug Abuse Treatment Needs		ANY SUBSTANCE ABUSE TREATMENT NEEDS		<i>Any</i> Alcohol Abuse Treatment Needs		<i>Any</i> Drug Abuse Treatment Needs		
	Total N	%	n	%	n	%	n	%	n	%	n	%	n
City & County of Honolulu	58,645	2.3%	1,355	2.8%	1,621	4.3%	2,490	9.3%	5,458	6.5%	3,785	6.1%	3,591
Honolulu District	16,517	2.2%	356	2.3%	373	3.9%	636	8.3%	1,364	5.9%	980	5.1%	840
Central District	15,714	2.0%	318	2.3%	361	3.8%	597	8.1%	1,277	5.8%	903	5.5%	862
Leeward District	17,841	2.5%	444	2.5%	450	4.0%	705	8.9%	1,593	6.3%	1,129	5.7%	1,020
Windward District	8,573	2.8%	237	5.1%	437	6.4%	552	14.3%	1,224	9.0%	773	10.1%	869
Hawaii County/District	13,077	4.2%	545	3.8%	491	5.8%	756	13.7%	1,787	9.8%	1,284	8.8%	1,150
Kauai County/District	5,268	2.9%	151	4.4%	233	5.5%	288	12.7%	671	8.2%	430	9.0%	476
Maui County/District	10,813	2.8%	304	4.2%	457	7.4%	796	14.4%	1,558	10.0%	1,082	10.3%	1,115
All Public Schools	87,803	2.7%	2,355	3.2%	2,802	4.9%	4,330	10.8%	9,474	7.5%	6,581	7.2%	6,332
Private Schools	19,058	2.9%	561	2.2%	413	4.6%	872	9.7%	1,845	7.5%	1,423	6.2%	1,187
TOTAL STATEWIDE	106,861	2.7%	2,916	3.0%	3,215	4.9%	5,202	10.6%	11,319	7.5%	8,004	7.0%	7,519

NOTES: A substance abuse/dependency diagnosis is calculated based on the student's response to items that correspond with the DSM-III-R criteria, which assess a variety of negative consequences related to substance use. Students responded to abuse and dependency questions for each of the following substances: alcohol, marijuana, stimulants (cocaine, methamphetamine, speed), depressants or downers (sedatives, heroin), hallucinogens, and club drugs (ecstasy, GHB, Rohypnol, ketamine). *Substance abuse* is indicated by at least one of the following: (1) continued use of the substance despite knowledge of having a persistent or recurrent problem(s) at school, home, work, or with friends because of the substance, or (2) substance use in situations in which use is physically hazardous (e.g., drinking or using drugs when involved in activities that could have increased the student's chance of getting hurt). For the student to be classified as abusing a substance, at least one of the two abuse symptoms must have occurred more than once in a single month or several times within the last year. In addition, the student must not meet the criteria for dependency on that substance. *Substance dependency* is the most severe diagnosis. Substance dependency is indicated by the student's response to nine different diagnostic criteria for dependency (e.g., marked tolerance, withdrawal symptoms, use of substances to relieve/avoid withdrawal symptoms, persistent desire or effort to stop use, using more than intended, neglect of activities, great deal of time spent using or obtaining the substance, inability to fulfill roles, drinking or using substances despite having problems). A student is considered dependent on the substance if he/she marked "yes" to at least three DSM-III-R symptoms and if he/she indicated that at least two of the symptoms occurred several times. The abuse estimates above include students who *either* abuse or are dependent on a particular substance. Only public school students are included in the county and district estimates.

APPENDIX C FACTORS RELATED TO USE TABLES

Table 7: Age of Onset for Various Illicit Drugs and Alcohol and Tobacco: A Comparison of Responses from Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 2002.

Students were asked to provide retrospective reports regarding what age, if ever, they first used various substances. Tables 7a and 7b address age of onset by indicating the percentage of students who have used various substances by certain ages.

Table 8: Perceived Harmfulness of Illicit Drugs, Alcohol, and Tobacco as Perceived by Sixth, Eighth, Tenth, and Twelfth Graders, Nationwide versus Hawaii, 2002.

Students were asked to indicate how much they think people risk harming themselves if they engage in various substance use activities. Table 8 lists the percentage of students in Hawaii versus nationwide who associated “a lot of harm/great risk” with various substances.

Table 9: Trends in Friends’ Disapproval of Substance Use, as Reported by Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 1996-2002.

Students were asked how their closest friends feel, or would feel, if they participated in various substance use behaviors. Table 9 lists the percentage of students who indicated that their friends would disapprove or strongly disapprove of them using various substances.

Table 10: Trends in Frequent Exposure to People Who Use Alcohol, Tobacco, and Other Drugs, as Reported by Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 1996-2002.

Students were asked how frequently they are exposed to tobacco, alcohol, and other drugs by various people in their environment. Table 10 lists the percentage of students who indicated frequent exposure (once a week or more) to people who use various substances.

Table 11: Trends in Perceived Availability of Illicit Drugs, Alcohol, and Tobacco as Perceived by Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 1993-2002.

A set of questions asked students to indicate how difficult they thought it would be for them to get various substances, if they wanted some. Table 11 lists the percentage of students who indicated obtaining substances is “fairly easy” or “very easy.”

Table 12: Annual Prevalence of Antisocial Behaviors (ASBs), as Reported by Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 2002.

Table 13: Annual Prevalence of Best Friends Displaying Antisocial Behaviors (ASBs), as Reported by Sixth, Eighth, Tenth, and Twelfth Graders, 2002.

Annual prevalence of antisocial behaviors (ASBs) corresponds to the percentage of students who have engaged in a specific ASB at least once in the past 12 months. Table 12 lists the percentage of students who reported engaging in specific ASBs at least once in the past year, and Table 13 lists the percentage of students who reported that at least one of their best friends had engaged in specific ASBs at least once in the past year.

TABLE 7A
Age of Onset for Various Illicit Drugs:
A Comparison of Responses From Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 2002
(Entries are percentages %)

Percent who used by the time they were 9 years old									
Grade level of respondents	Marijuana	Inhalants	Cocaine	Methamphetamine	Heroin or Other Opiates	Sedatives or Tranquilizers	Hallucinogens	Steroids	Ecstasy
6th Grade	0.7	1.8	0.2	0.3	0.1	0.2	0.2	0.7	0.1
8th Grade	1.1	1.8	0.3	0.2	0.1	0.2	0.2	0.2	0.2
10th Grade	1.8	1.5	0.2	0.2	0.1	0.2	0.2	0.2	0.2
12th Grade	1.2	1.0	0.2	0.1	0.1	0.1	0.2	0.2	0.1

Percent who used by the time they were 10 years old									
6th Grade	1.3	3.3	0.3	0.4	0.2	0.3	0.3	1.2	0.2
8th Grade	2.4	3.2	0.5	0.4	0.2	0.4	0.5	0.4	0.4
10th Grade	3.0	2.1	0.3	0.3	0.2	0.3	0.4	0.3	0.2
12th Grade	2.1	1.4	0.3	0.1	0.2	0.2	0.4	0.2	0.2

Percent who used by the time they were 11 years old									
6th Grade	2.3	5.2	0.4	0.4	0.2	0.4	0.4	1.9	0.2
8th Grade	4.3	4.4	0.8	0.6	0.3	0.6	0.8	0.7	0.6
10th Grade	4.9	2.9	0.6	0.5	0.4	0.5	0.7	0.3	0.4
12th Grade	3.4	1.9	0.4	0.2	0.2	0.3	0.5	0.2	0.2

Percent who used by the time they were 12 years old									
6th Grade	2.6	5.6	0.4	0.4	0.3	0.5	0.4	2.0	0.2
8th Grade	8.5	6.3	1.2	1.0	0.6	1.0	1.3	1.2	1.4
10th Grade	9.2	4.2	0.9	0.8	0.5	0.9	1.2	0.4	0.7
12th Grade	7.3	2.7	0.5	0.4	0.3	0.4	0.8	0.3	0.3

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TABLE 7A (continued)
Age of Onset for Various Illicit Drugs:
A Comparison of Responses From Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 2002
(Entries are percentages %)

Percent who used by the time they were 13 years old									
Grade level of respondents	Marijuana	Inhalants	Cocaine	Methamphetamine	Heroin or Other Opiates	Sedatives or Tranquilizers	Hallucinogens	Steroids	Ecstasy
8th Grade	14.9	8.7	1.8	1.7	0.9	1.7	2.2	1.8	2.7
10th Grade	16.3	5.6	1.3	1.2	0.7	1.5	1.8	0.8	1.5
12th Grade	13.4	3.7	0.9	0.8	0.4	0.8	1.3	0.4	0.5

Percent who used by the time they were 14 years old									
8th Grade	15.9	9.1	2.1	2.0	1.0	1.9	2.5	2.1	3.0
10th Grade	26.9	6.9	2.0	2.4	1.0	2.7	3.7	1.4	4.2
12th Grade	21.8	4.4	1.2	1.3	0.6	1.7	2.5	0.6	1.3

Percent who used by the time they were 15 years old									
10th Grade	34.7	8.3	2.8	3.9	1.3	4.1	5.2	2.3	6.8
12th Grade	31.3	5.3	2.1	2.5	0.8	2.6	4.4	1.1	3.3

Percent who used by the time they were 16 years old									
10th Grade	35.8	8.4	3.1	4.2	1.3	4.5	5.6	2.6	7.2
12th Grade	39.7	6.3	3.4	4.1	1.2	4.1	7.1	1.9	7.7

Percent who used by the time they were 17 or 18 years old									
12th Grade	46.2	7.3	4.5	5.3	1.4	5.8	9.1	2.8	10.6

TABLE 7B
Age of Onset for Alcohol and Tobacco
A Comparison of Responses From Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 2002
(Entries are percentages %)

Percent who used by the time they were 9 years old									
Grade level of respondents	ALCOHOL: Any Use	Beer or Wine	Hard Liquor	Been Drunk	Regularly Drank Alcohol	TOBACCO: Any Use	Smoked First Cigarette	Regularly Smoke Cigarettes	Smokeless Tobacco
6th Grade	9.4	9.0	1.6	1.0	0.7	5.9	5.5	0.8	0.6
8th Grade	11.0	10.8	2.7	1.5	0.7	9.8	9.4	1.4	0.9
10th Grade	11.2	10.9	3.0	1.3	0.7	9.2	8.7	1.0	0.9
12th Grade	9.4	9.0	3.1	1.4	0.5	8.6	8.4	0.7	0.6

Percent who used by the time they were 10 years old									
6th Grade	14.1	13.5	2.9	1.8	1.3	8.3	8.0	1.5	0.9
8th Grade	16.2	15.6	4.9	2.5	1.4	14.2	13.7	2.4	1.4
10th Grade	15.2	14.8	5.2	2.4	1.2	13.9	13.4	1.8	1.3
12th Grade	12.5	12.0	4.6	2.0	0.9	12.8	12.4	1.3	1.0

Percent who used by the time they were 11 years old									
6th Grade	19.1	18.3	4.7	3.0	2.1	10.2	9.7	2.1	1.2
8th Grade	20.9	20.2	7.4	4.3	2.4	18.0	17.4	3.6	2.0
10th Grade	19.0	18.4	7.5	3.4	1.9	18.8	18.3	3.0	1.6
12th Grade	14.8	14.1	6.2	3.0	1.2	17.3	16.9	2.3	1.3

Percent who used by the time they were 12 years old									
6th Grade	20.0	19.3	5.1	3.3	2.3	10.5	9.9	2.2	1.3
8th Grade	29.9	28.8	13.4	8.1	4.8	23.6	23.0	6.1	2.6
10th Grade	26.2	25.2	12.7	6.5	3.4	25.9	25.4	4.8	2.1
12th Grade	20.7	19.8	10.0	5.3	2.2	24.7	24.2	4.1	1.7

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TABLE 7B (continued)
Age of Onset for Alcohol and Tobacco:
A Comparison of Responses From Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 2002
(Entries are percentages %)

Percent who used by the time they were 13 years old									
Grade level of respondents	ALCOHOL: Any Use	Beer or Wine	Hard Liquor	Been Drunk	Regularly Drank Alcohol	TOBACCO: Any Use	Smoked First Cigarette	Regularly Smoke Cigarettes	Smokeless Tobacco
8th Grade	40.8	39.3	22.1	15.4	10.1	27.7	27.0	8.9	3.3
10th Grade	37.2	35.6	21.9	12.5	7.0	32.8	32.1	7.9	3.0
12th Grade	28.8	27.4	16.7	9.7	4.3	32.5	32.0	7.3	2.3

Percent who used by the time they were 14 years old									
8th Grade	42.5	41.1	23.6	17.1	11.5	28.2	27.6	9.4	3.5
10th Grade	51.1	49.2	35.0	23.9	14.5	38.8	38.0	11.3	4.2
12th Grade	30.0	38.4	27.3	17.7	9.0	38.5	37.8	10.1	3.5

Percent who used by the time they were 15 years old									
10th Grade	62.5	60.5	47.8	36.1	26.3	42.8	41.7	14.5	5.6
12th Grade	53.6	51.6	41.2	29.3	16.5	43.7	42.9	13.3	4.9

Percent who used by the time they were 16 years old									
10th Grade	64.7	62.6	49.6	37.8	28.0	43.2	42.1	15.3	5.9
12th Grade	66.9	64.2	55.9	43.3	28.1	47.3	46.4	17.5	6.5

Percent who used by the time they were 17 or 18 years old									
12th Grade	75.4	72.5	65.6	53.5	40.4	50.5	49.4	21.1	8.0

TABLE 8
Perceived Harmfulness of Illicit Drugs, Alcohol, and Tobacco as Perceived by
Sixth, Eighth, Tenth, and Twelfth Graders, Nationwide versus Hawaii, 2002

% saying “A lot of harm/Great risk”^a

<i>Q: How much do you think people harm or hurt themselves (physically or in other ways) if they:</i>	6th Grade ^b		8th Grade		10th Grade		12th Grade	
	Hawaii 2002	Nationwide 2002	Hawaii 2002	Nationwide 2002	Hawaii 2002	Nationwide 2002	Hawaii 2002	
Use marijuana (hash, pakalolo, pot, weed) occasionally?	64.6	46.0	61.3	32.0	53.7	23.2	50.3	
Use inhalants (glue, paint, sprays) occasionally?	57.6	42.8	64.8	48.7	71.9	—	76.8	
Use cocaine (crack, coke, blow, freebase) occasionally?	65.8	64.9	70.3	71.0	78.7	68.3	82.7	
Use methamphetamine (crystal meth, speed, ice, batu, crank) occasionally?	62.9	—	69.9	—	78.8	—	83.1	
Use hallucinogens (LSD/PCP, shrooms, acid) occasionally? ^c	60.1	29.6	67.8	40.1	74.9	36.7	78.5	
Use ecstasy or other “club drugs” (E, XTC, GHB, liquid ecstasy, liquid X, Rohypnol, roofies, ketamine, special K) occasionally? ^d	59.9	61.8	67.2	67.3	73.4	52.2	76.7	
Have five or more drinks of alcohol once or twice each weekend?	54.0	56.4	54.0	51.7	52.3	42.2	51.1	
Smoke one or more packs of cigarettes a day?	60.8	57.5	65.0	64.3	74.0	74.2	77.7	

NOTES: ‘ — ’ indicates data not available. *Nationwide* refers to results from the 2002 *Monitoring the Future Study (MTF)*.

^a Answer alternatives for the *Hawaii Student Alcohol and Drug Use Survey* were (1) No harm, (2) Some harm, (3) A lot of harm, and (4) I don’t know. Answer alternatives for the MTF study were (1) No risk, (2) Slight risk, (3) Moderate risk, (4) Great risk, and (5) Can’t say, drug unfamiliar. The percentage saying “A lot of harm” on the Hawaii survey and “Great risk” on the MTF survey are reported in the table.

^b Sixth graders are not surveyed in the *Monitoring the Future Study*.

^c MTF asks about using LSD once or twice, rather than using hallucinogens occasionally. Thus, the nationwide data may not be comparable to the Hawaii data.

^d MTF asks only about using ecstasy occasionally, rather than about using any club drugs occasionally.

TABLE 9
Trends in Friends' Disapproval of Substance Use,
as Reported by Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 1996-2002

(Entries are percentages %)

Q: How do you think your close friends feel (or would feel) about you:	1996	1998	2000	2002	'00-'02 change
Having five or more alcoholic drinks once or twice every weekend?					
<i>6th Grade</i>	81.8	82.4	86.2	87.6	+1.4
<i>8th Grade</i>	70.2	70.9	75.3	77.5	+2.2
<i>10th Grade</i>	60.4	59.4	65.9	62.6	-3.3
<i>12th Grade</i>	56.2	51.5	56.6	55.2	-1.4
Smoking one or more packs of cigarettes a day?					
<i>6th Grade</i>	80.2	80.6	85.4	86.9	+1.5
<i>8th Grade</i>	71.2	71.9	75.6	80.1	+4.5
<i>10th Grade</i>	70.9	69.9	76.6	77.4	+0.8
<i>12th Grade</i>	69.6	67.1	74.9	75.7	+0.8
Using marijuana (hash, pakalolo, pot, weed) occasionally?					
<i>6th Grade</i>	85.5	85.5	86.9	88.7	+1.8
<i>8th Grade</i>	73.3	74.9	75.7	77.8	+2.1
<i>10th Grade</i>	67.2	63.0	66.6	64.3	-2.3
<i>12th Grade</i>	62.0	58.8	59.0	59.3	+0.3
Trying inhalants (glue, paint, sprays) to get high?					
<i>6th Grade</i>	82.2	82.2	86.2	88.3	+2.1
<i>8th Grade</i>	78.6	78.9	80.2	84.5	+4.3
<i>10th Grade</i>	85.4	84.1	86.2	87.2	+1.0
<i>12th Grade</i>	87.3	87.3	89.7	90.3	+0.6
Using cocaine (crack, coke, blow, freebase) once or twice?					
<i>6th Grade</i>	86.1	86.2	87.5	89.8	+2.3
<i>8th Grade</i>	82.5	82.4	82.2	86.5	+4.3
<i>10th Grade</i>	87.0	86.8	87.3	88.3	+1.0
<i>12th Grade</i>	86.5	88.7	89.8	90.8	+1.0
Using methamphetamine (crystal meth., speed, ice, batu) once or twice?					
<i>6th Grade</i>	87.9	87.1	87.3	90.2	+2.9
<i>8th Grade</i>	85.1	83.8	82.5	87.1	+4.6
<i>10th Grade</i>	89.4	88.0	87.6	88.6	+1.0
<i>12th Grade</i>	90.3	90.4	90.3	91.0	+0.7
Using ecstasy occasionally?					
<i>6th Grade</i>	—	—	—	90.1	—
<i>8th Grade</i>	—	—	—	85.4	—
<i>10th Grade</i>	—	—	—	83.3	—
<i>12th Grade</i>	—	—	—	84.4	—
Using other illegal drugs (heroin, sedatives, hallucinogens, steroids)? ^b					
<i>6th Grade</i>	—	—	87.8	90.3	+2.5
<i>8th Grade</i>	—	—	82.1	87.1	+5.0
<i>10th Grade</i>	—	—	85.7	87.9	+2.2
<i>12th Grade</i>	—	—	86.3	90.4	+4.1

NOTE: ' — ' indicates data not available. Answer alternatives were (1) Would think it was cool, (2) Wouldn't care, (3) Would disapprove, and (4) Would strongly disapprove. The percentages above represent students who responded that their friends would disapprove or would strongly disapprove of them using various substances.

TABLE 10
Trends in Frequent Exposure to People Who Use Alcohol, Tobacco, and Other Drugs,
as Reported by Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 1996-2002

% saying “once a week” or “every day”^a

<i>Q: During the last 12 months, how often have you been around the following people when they were using:</i>	6th Grade					8th Grade				
	1996	1998	2000	2002	'00-'02 change	1996	1998	2000	2002	'00-'02 change
Alcohol:										
Parents ^b	—	17.5	13.0	16.1	+3.1	—	24.4	19.7	22.9	+3.2
Brothers or Sisters ^b	—	2.1	1.4	1.9	+0.5	—	4.1	4.1	4.2	+0.1
Other Relatives	14.0	12.3	7.5	11.0	+3.5	15.3	15.1	12.1	14.8	+2.7
Your 10 Closest Friends ^c	4.5	1.6	0.9	1.4	+0.5	10.8	7.3	5.5	5.8	+0.3
Other People	13.2	12.9	4.7	8.4	+3.7	16.3	16.5	8.3	11.9	+3.6
Tobacco:										
Parents	—	15.0	16.1	20.6	+4.5	—	22.5	21.4	24.8	+3.4
Brothers or Sisters	—	3.2	2.7	3.5	+0.8	—	6.9	6.7	7.1	+0.4
Other Relatives	11.9	11.2	10.4	15.8	+5.4	15.2	15.7	16.5	19.2	+2.7
Your 10 Closest Friends	6.2	2.4	1.5	2.4	+0.9	19.7	13.3	8.6	10.0	+1.4
Other People	14.4	15.9	7.3	13.0	+5.7	22.1	28.6	14.3	20.5	+6.2
Illicit Drugs:										
Parents	—	1.4	3.8	3.8	0.0	—	2.4	3.3	3.6	+0.3
Brothers or Sisters	—	1.0	1.0	0.9	-0.1	—	2.7	2.3	2.2	-0.1
Other Relatives	2.5	1.8	2.6	3.6	+1.0	5.1	3.3	3.5	3.8	+0.3
Your 10 Closest Friends	2.5	1.1	0.9	1.0	+0.1	3.7	6.7	4.7	5.2	+0.5
Other People	4.3	3.3	2.4	3.6	+1.2	2.5	6.1	4.9	6.2	+1.3
Frequent exposure to at least one person who uses alcohol	37.1	29.7	18.3	24.8	+6.5	43.2	37.9	27.7	33.9	+6.2
Frequent exposure to at least one person who uses tobacco	31.8	30.6	25.4	35.3	+9.9	42.7	45.3	37.3	43.4	+6.1
Frequent exposure to at least one person who uses illicit drugs	7.8	5.5	7.0	8.2	+1.2	15.1	12.0	9.9	11.4	+1.5

(Table continued on next page)

TABLE 10 (continued)
Trends in Frequent Exposure to People Who Use Alcohol, Tobacco, and Other Drugs,
as Reported by Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 1996-2002

% saying “once a week” or “every day”^a

<i>Q: During the last 12 months, how often have you been around the following people when they were using:</i>	10th Grade					12th Grade				
	1996	1998	2000	2002	'00-'02 change	1996	1998	2000	2002	'00-'02 change
Alcohol:										
Parents ^b	—	25.6	23.7	26.0	+2.3	—	25.8	24.5	24.5	0.0
Brothers or Sisters ^b	—	6.5	4.9	6.8	+1.9	—	6.8	7.3	7.3	0.0
Other Relatives	16.3	14.8	14.1	17.4	+3.3	14.9	12.8	13.2	14.3	+1.1
Your 10 Closest Friends ^c	18.9	15.0	12.4	13.8	+1.4	27.1	24.2	23.4	21.5	-1.9
Other People	16.3	19.4	12.2	15.8	+3.6	18.7	21.9	16.4	17.1	+0.7
Tobacco:										
Parents	—	25.4	24.9	26.4	+1.5	—	26.4	25.7	25.8	+0.1
Brothers or Sisters	—	10.4	8.7	9.2	+0.5	—	11.8	11.0	10.1	-0.9
Other Relatives	19.8	17.9	18.3	22.2	+3.9	18.4	16.8	18.8	19.5	+0.7
Your 10 Closest Friends	35.0	27.2	20.3	21.2	+0.9	43.1	37.6	34.1	30.7	-3.4
Other People	35.6	43.5	28.0	34.5	+6.5	37.5	47.4	34.9	36.8	+1.9
Illicit Drugs:										
Parents	—	3.1	3.5	3.5	0.0	—	2.2	3.3	2.9	-0.4
Brothers or Sisters	—	3.5	3.1	3.7	+0.6	—	2.7	3.6	2.9	-0.7
Other Relatives	3.4	3.7	4.6	4.2	-0.4	3.4	2.8	3.6	3.7	+0.1
Your 10 Closest Friends	16.2	14.9	11.5	12.8	+1.3	21.5	16.4	16.9	15.7	-1.2
Other People	12.0	12.1	9.4	12.5	+3.1	13.6	11.3	11.7	12.1	+0.4
Frequent exposure to at least one person who uses alcohol	50.9	43.8	38.4	41.3	+2.9	53.0	48.2	45.0	43.9	-1.1
Frequent exposure to at least one person who uses tobacco	58.5	60.6	50.5	56.0	+5.5	60.8	66.7	59.4	58.7	-0.7
Frequent exposure to at least one person who uses illicit drugs	20.6	20.7	17.0	19.7	+2.7	25.1	21.7	22.0	20.6	-1.4

NOTE: ‘—’ indicates data not available.

^a Answer alternatives were (1) Not at all, (2) A few times a year, (3) Once or twice a month, (4) At least once a week, and (5) Almost every day.

^b In 1996, students reported on exposure to family members. From 1998 through 2002, students reported on exposure to parents and to brothers or sisters. Thus, the 1996 data regarding family members is not comparable to the 1998-2002 data regarding parents and brothers or sisters.

^c In 1996, students were asked to report on their friends rather than on their 10 closest friends.

TABLE 11
Trends in Perceived Availability of Illicit Drugs, Alcohol, and Tobacco as Perceived
by Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 1993-2002

% saying “very easy” or “fairly easy” to get^a

<i>Q: If you wanted some, how easy would it be for you to get:</i>	1993	1996	1998	2000	2002	'00-'02 change
Marijuana (hash, pakalolo, pot, weed)?						
6th Grade	11.0	10.7	6.5	6.0	9.5	+3.5
8th Grade	39.0	39.1	26.5	26.8	34.5	+7.7
10th Grade	63.0	64.1	57.2	57.3	62.7	+5.4
12th Grade	71.0	71.8	66.6	71.0	71.8	+0.8
Cocaine (crack, coke, blow, freebase)?						
6th Grade	—	7.1	4.4	4.2	5.9	+1.7
8th Grade	14.0	14.6	8.4	11.5	13.3	+1.8
10th Grade	27.0	23.6	15.0	21.7	22.3	+0.6
12th Grade	32.0	30.1	18.5	28.8	27.4	-1.4
Methamphetamine (crystal meth., ice, speed, batu, crank)?						
6th Grade	—	5.4	4.0	3.8	5.1	+1.3
8th Grade	15.0	11.3	8.2	10.6	11.2	+0.6
10th Grade	28.0	21.5	17.4	20.5	21.3	+0.8
12th Grade	35.0	29.4	22.2	28.8	26.3	-2.5
Hallucinogens (LSD/PCP, shrooms, acid)?						
6th Grade	—	8.8	5.8	4.3	5.0	+0.7
8th Grade	—	18.4	10.9	11.6	11.5	-0.1
10th Grade	—	33.3	25.2	24.0	23.8	-0.2
12th Grade	—	39.9	30.1	32.5	30.1	-2.4
Ecstasy or other “club drugs” (E, XTC, G, GHB, liquid ecstasy, rohypnol, roofies, ketamine, special K)?						
6th Grade	—	—	3.4	3.6	5.2	+1.6
8th Grade	—	—	6.2	10.4	14.8	+4.4
10th Grade	—	—	14.9	25.9	33.7	+7.8
12th Grade	—	—	22.4	39.0	44.2	+5.2
Alcohol (beer, wine, or hard liquor)?						
6th Grade	—	40.9	23.0	17.4	22.5	+5.1
8th Grade	—	74.4	51.3	47.6	53.4	+5.8
10th Grade	—	87.4	72.1	73.8	76.0	+2.2
12th Grade	—	92.2	77.4	83.7	83.3	-0.4
Cigarettes?						
6th Grade	—	32.3	19.7	14.3	22.3	+8.0
8th Grade	—	66.7	48.3	42.6	51.8	+9.2
10th Grade	—	83.1	72.6	69.8	73.4	+3.6
12th Grade	—	89.8	86.1	86.0	86.5	+0.5

NOTE: ‘ — ’ indicates data not available.

^a Answer alternatives were (1) Very easy, (2) Fairly easy, (3) Fairly difficult, and (4) Very difficult. The percentages in the table include those students saying either “very easy” or “fairly easy” to get.

TABLE 12
Annual Prevalence of Antisocial Behaviors (ASBs),
as Reported by Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 2002

(Entries are percentages %)

% Saying Specific Number of Times

<i>Number of Times ASB Occurred in Past Year or 12 Months:</i>	1 or 2 Times	3 to 5 Times	6 + Times	<i>At Least Once</i>
Been Suspended From School				
6th Grade	4.1	0.6	0.3	5.0
8th Grade	8.8	1.6	0.8	11.1
10th Grade	7.5	0.8	0.6	8.9
12th Grade	6.2	1.1	0.6	7.9
Been Drunk or High at School				
6th Grade	1.3	0.3	0.3	1.8
8th Grade	5.9	1.8	2.5	10.2
10th Grade	7.5	3.8	6.6	17.9
12th Grade	7.6	3.0	8.2	18.8
Taken a Handgun to School				
6th Grade	0.2	0.0	0.1	0.2
8th Grade	0.4	0.1	0.3	0.8
10th Grade	0.4	0.2	0.3	0.9
12th Grade	0.4	0.1	0.5	1.0
Sold Illegal Drugs				
6th Grade	0.3	0.1	0.1	0.5
8th Grade	1.8	0.9	1.1	3.8
10th Grade	4.3	1.4	3.0	8.6
12th Grade	4.4	1.7	3.7	9.8
Stolen or Tried to Steal a Vehicle				
6th Grade	0.7	0.1	0.1	0.9
8th Grade	1.9	0.5	0.5	2.9
10th Grade	2.7	0.7	0.8	4.2
12th Grade	1.8	0.5	0.7	3.0
Attacked Someone With Intent of Harm				
6th Grade	6.4	0.9	0.9	8.2
8th Grade	8.7	1.6	1.9	12.2
10th Grade	8.2	1.6	1.7	11.5
12th Grade	7.1	1.4	1.7	10.1
Carried a Handgun				
6th Grade	1.3	0.3	0.3	1.9
8th Grade	1.9	0.4	0.8	3.1
10th Grade	1.7	0.5	1.0	3.2
12th Grade	1.3	0.3	1.0	2.6
Been Arrested				
6th Grade	1.2	0.2	0.1	1.5
8th Grade	4.4	0.6	0.6	5.6
10th Grade	5.5	0.8	0.7	6.9
12th Grade	4.2	0.5	0.3	5.0

NOTES: *Annual Prevalence* refers to occurrence in the past 12 months. Students were asked how many times they have engaged in each antisocial behavior, listed in the table, during the past year or 12 months. Answer alternatives were (1) never, (2) 1 or 2 times, (3) 3 to 5 times, (4) 6 to 9 times, (5) 10 to 19 times, (6) 20 to 29 times, and (7) 30+ times.

TABLE 13
Annual Prevalence of Best Friends Displaying Antisocial Behaviors (ASBs),
as Reported by Hawaii Sixth, Eighth, Tenth, and Twelfth Graders, 2002

(Entries are percentages %)

% Saying Specific Number of Friends

<i>Number of Best Friends Displaying ASB in Past Year or 12 Months:</i>	1 Friend	2 Friends	3 Friends	4 Friends	<i>At Least One Friend</i>
Been Suspended From School					
6th Grade	13.8	5.7	2.0	3.4	24.8
8th Grade	17.1	10.3	5.4	12.9	45.7
10th Grade	16.9	10.7	4.8	11.6	44.1
12th Grade	15.8	9.6	4.0	9.4	38.9
Dropped Out of School					
6th Grade	5.8	1.4	0.5	0.6	8.3
8th Grade	7.9	2.5	1.1	2.0	13.5
10th Grade	15.8	5.5	2.1	4.1	27.5
12th Grade	17.2	7.3	3.1	5.3	32.9
Carried a Handgun					
6th Grade	1.7	0.4	0.1	0.4	2.6
8th Grade	4.0	1.1	0.5	1.3	6.9
10th Grade	4.4	1.3	0.4	1.2	7.3
12th Grade	4.1	1.2	0.4	1.4	7.1
Sold Illegal Drugs					
6th Grade	2.9	0.7	0.4	0.8	4.7
8th Grade	9.5	5.0	2.9	6.9	24.2
10th Grade	12.3	9.3	4.6	16.3	42.5
12th Grade	12.5	9.5	4.2	17.2	43.3
Stolen or Tried to Steal a Vehicle					
6th Grade	2.3	0.6	0.3	0.5	3.8
8th Grade	5.8	2.9	1.2	2.3	12.2
10th Grade	9.4	4.0	1.7	3.0	18.1
12th Grade	8.0	3.6	1.2	3.3	16.1
Been Arrested					
6th Grade	6.3	1.5	0.6	0.8	9.2
8th Grade	13.5	6.0	3.2	6.1	28.9
10th Grade	15.4	7.4	3.8	6.7	33.3
12th Grade	14.5	6.9	3.3	5.3	30.0

NOTES: *Annual Prevalence* refers to occurrence in the past 12 months. Students were asked how many of their four best friends have engaged in each antisocial behavior, listed in the table, during the past year or 12 months. Answer alternatives were (1) none, (2) 1 friend, (3) 2 friends, (4) 3 friends, and (5) 4 friends.

APPENDIX D RISK AND PROTECTIVE FACTORS TABLES

Table 14: Risk and Protective Factor Definitions.

Table 14 lists and defines the 28 risk factors and the 11 protective factors that were used in the study to create community prevention profiles. Risk factors are characteristics of school, community, and family environments, as well as characteristics of students and their peer groups, that are known to predict increased likelihood of drug use, delinquency, and violent behaviors among youths (Hawkins, Arthur, & Catalano, 1995; Hawkins, Catalano, & Miller, 1992; Lipsey & Derzon, 1998). Protective factors exert a positive influence or buffer against the negative influence of risk, thus reducing the likelihood that adolescents will engage in problem behaviors. Protective factors identified through research reviewed by Drs. Hawkins and Catalano include social bonding to family, school, community, and peers; healthy beliefs and clear standards for behavior; and individual characteristics. For bonding to serve as a protective influence, it must occur through involvement with peers and adults who communicate healthy values and set clear standards for behavior. Research on risk and protective factors has important implications for prevention efforts. The premise of this approach is that, in order to promote positive youth development and prevent problem behaviors, it is necessary to address those factors that predict the problem behaviors. By measuring risk and protective factors in a population, prevention programs can be implemented that will reduce elevated risk factors and increase protective factors.

Table 15: Correlations Between Risk/Protective Factors and Substance Use and Antisocial Behaviors (ASBs) Prevalence, 2002.

The predictive utility of risk and protective factor indexes and individual risk and protective factors were examined by correlating each index and factor with the occurrence of substance use and antisocial behaviors (ASBs). One important caveat should be made regarding the utility of statistical correlations based on variables that are measured at the same point in time. Some risk and protective factors may influence substance use and ASBs years down the line. Thus, the relationships between the risk or protective factors and current substance use and ASBs might be, in some instances, quite small. All of the risk and protective factors included in this study have been shown by other researchers to predict future substance use and adolescent delinquency. That is, all of the factors were previously tested over time, and each were determined to significantly predict future substance use. Correlations presented in Table 15 provide further proof that each factor is statistically related to substance use.

Table 16: Trends in Problematic Risk and Protective Factors in Hawaii, by County (Place of Residence) and Public School District: Identification of High Risk Factors and Low Protective Factors in 2000 versus 2002.

Table 17: Trends in Problematic Risk and Protective Factors in Hawaii, by Sex and Ethnicity: Identification of High Risk Factors and Low Protective Factors in 2000 versus 2002.

Tables 16 and 17 highlight specific risk and protective factors that should be the focus of prevention efforts in various communities and among different subgroups. County-level data includes both public and private school students. District-level data includes only public school students. The tables illustrate factors that were problematic in 2000 and that have become or remain problematic in 2002.

TABLE 14
Risk and Protective Factor Definitions

Risk Factors		
Community Domain	Low Neighborhood Attachment	Defined as a lack of connection to the community. Low levels of bonding to the neighborhood are related to higher levels of juvenile crime and drug selling.
	Community Disorganization	Defined as the prevalence of crime, violence, and delinquency in the neighborhood. Research has shown that neighborhoods with high population density, lack of public surveillance, physical deterioration, and high rates of adult crime also have higher rates of juvenile crime and drug selling.
	Transition & Mobility	Defined as amount of movement from one community or school to another. Neighborhoods with high rates of residential mobility have been shown to have higher rates of juvenile crime and drug selling, while children who experience frequent residential moves and stressful life transitions have been shown to have higher risk for school failure, delinquency, and drug use.
	Exposure to Community Alcohol, Tobacco, and Other Drug (ATOD) Use	Defined as frequent exposure to alcohol, tobacco, and other drug (ATOD) use by people in one's neighborhood or school. Frequent exposure to ATOD use influences normative beliefs and understanding of how to engage in the behavior and, thus, increases likelihood of ATOD use.
	Laws & Norms Favorable to Drug Use	Defined as the attitudes and policies a community holds about drug use and crime. Research has shown that legal restrictions on alcohol and tobacco use, such as raising the legal drinking age, restricting smoking in public places, and increasing taxation, have been followed by decreases in consumption. Moreover, national surveys of high school seniors have shown that shifts in normative attitudes toward drug use have preceded changes in prevalence of use.
	Perceived Availability of Drugs & Handguns	Defined as the perceived ease in obtaining drugs and firearms for adolescents. The availability of cigarettes, alcohol, marijuana, and other illegal drugs has been related to the use of these substances by adolescents. Availability of handguns is also related to a higher risk of crime by adolescents.
	Ability to Purchase Alcohol or Tobacco	Defined as whether or not a student has been able to purchase alcohol and/or tobacco from a store employee, a bar, or a restaurant. Corresponding with perceived availability, opportunities to purchase alcohol and tobacco have been related to use of these substances by adolescents.
	Protective Factors	
	Community Opportunities for Positive Involvement	Defined as opportunities to engage in prosocial activities in the community, such as sports or adult-supervised clubs. When opportunities are available in a community for positive participation, children are less likely to engage in substance use and other problem behaviors.
	Community Rewards for Positive Involvement	Defined as community encouragement for adolescents engaging in positive activities. Rewards for positive participation in activities help children bond to the community, thus lowering their risk for substance use.
Family Domain	Risk Factors	
	Poor Family Supervision	Defined as a lack of clear expectations for behavior and a failure of parents to monitor their children. Parents' failure to provide clear expectations and to monitor their children's behavior makes it more likely that their children will engage in drug use, whether or not there are family drug problems.
	Family Conflict	Defined as the degree to which family members fight or argue. Children raised in families high in conflict, whether or not the child is directly involved in the conflict, appear at risk for both delinquency and drug use.
	Lack of Parental Sanctions for Antisocial Behaviors (ASBs)	Defined as a low probability that parents will sanction their children for substance use, skipping school, and handgun use. Parents' failure to clearly communicate to their children that their children would be in trouble if caught using substances or engaging in antisocial behaviors places children at higher risk for substance use.
	Parental Attitudes Favorable Toward ATOD Use	Defined as parental attitudes approving of young people's ATOD use. In families where parents are tolerant of children's use, children are more likely to become drug abusers during adolescence.
	Exposure to Family ATOD Use	Defined as a high degree of exposure to parents' ATOD use. In families where parents use illegal drugs or are heavy users of alcohol, children are more likely to become drug abusers during adolescence. The risk is further increased if parents involve children in their own substance-using behavior – for example, asking the child to light the parent's cigarette or to get the parent a beer from the refrigerator.
	Parental Attitudes Favorable Toward ASB	Defined as parental attitudes excusing children for breaking laws. In families where parents are tolerant of antisocial behavior, children are more likely to engage in antisocial behavior.
	Family (Sibling) History of ASB	Defined as high ASB prevalence among brothers and sisters. When children are raised in a family with a history of problem behaviors, the children are more likely to engage in these behaviors.
	Protective Factors	
	Family Attachment	Defined as feeling connected to and loved by one's family. Young people who feel that they are a valued part of their family are less likely to engage in substance use and other problem behaviors.
Family Opportunities for Positive Involvement	Defined as opportunities for positive social interaction with parents. Young people who are exposed to more opportunities to participate meaningfully in the responsibilities and activities of the family are less likely to engage in drug use and other problem behaviors.	
Family Rewards for Positive Involvement	Defined as positive experiences with parental figures. When family members praise, encourage, and attend to their children's accomplishment, children are less likely to engage in substance use and ASB.	

(Table continued on next page)

TABLE 14 (continued)
Risk and Protective Factor Definitions

School Domain	Risk Factors	
	Low School Commitment	Defined as the student's inability to see the role of a student as a viable one. Factors such as disliking school and perceiving the course work as irrelevant are positively related to drug use.
	Poor Academic Performance	Defined as poor performance in school. Beginning in the late elementary grades (grades 4-6), academic failure increases the risk of drug abuse and delinquency.
	Protective Factors	
	School Opportunities for Positive Involvement	Defined as opportunities to become involved in school activities. When young people are given more opportunities to participate meaningfully in important activities at school, they are less likely to engage in drug use or problem behaviors.
School Rewards for Positive Involvement	Defined as positive feedback by school personnel for student achievement. When young people are recognized and rewarded for their contributions at school, they are less likely to be involved in substance use and other problem behaviors.	
Peer-Individual Domain	Risk Factors	
	Early Initiation of Problem Behaviors	Defined as early substance use and early onset of problem behaviors. The earlier the onset of any drug use, the greater the involvement in other drug use. Onset of drug use prior to the age of 15 is a consistent predictor of drug abuse; later age of onset of drug use has been shown to predict lower drug involvement and a greater probability of discontinuation of use.
	Favorable Attitudes Toward ATOD Use	Defined as perceptions that it is not wrong for young people to engage in ATOD use. Initiation of use of any substance is preceded by values favorable to its use. During the elementary school years, most children express anti-drug, anti-crime, and prosocial attitudes and have difficulty imagining why people use drugs. However, in middle school, as more youths are exposed to others who use drugs, their attitudes often shift toward greater acceptance of these behaviors. Youths who express positive attitudes toward drug use are at higher risk for subsequent drug use.
	Low Perceived ATOD Use Risk	Defined as perceived harmfulness associated with ATOD use. Young people who do not perceive drug use to be risky are far more likely to engage in drug use.
	Antisocial Behaviors (ASBs)	Defined as engaging in problem behaviors such as violence and delinquency.
	Favorable Attitudes Toward ASB	Defined as a student's acceptance of drug use, criminal activity, violent behavior, or ignorance of rules. Young people who accept or condone antisocial behavior are more likely to engage in a variety of problem behaviors, including drug use.
	Friends' ATOD Use	Defined as having several close friends who engage in ATOD use. Peer drug use has consistently been found to be among the strongest predictors of substance use among youths – even when young people come from well-managed families and do not experience other risk factors.
	Interaction with Antisocial Peers	Defined as having several close friends who engage in problem behaviors. Young people who associate with peers who engage in problem behaviors are at higher risk for engaging in antisocial behavior themselves.
	Rewards for Antisocial Involvement	Defined as having friends who approve of ATOD use and who are ignorant of laws and rules. Young people who receive rewards for their ASB are at higher risk for engaging further in ASB and ATOD use.
	Rebelliousness	Defined as not being bound by rules and taking an active rebellious stance toward society. Young people who do not feel like part of society, are not bound by rules, do not believe in trying to be successful or responsible, or who take an active rebellious stance toward society, are at higher risk of abusing drugs.
	Sensation Seeking	Defined as having a high need for sensation or arousal experiences. Young people with a high need for arousal have increased risk for participating in ATOD use and other problem behaviors.
	Gang Involvement	Defined as the degree of involvement in gangs or with gang members. Gang involvement often increases youth exposure to ATOD use and ASB, which puts them at greater risk for engaging in similar behaviors.
	Depression	Defined as signs of depression or lack of self-worth. Lack of self-worth is often associated with ATOD use.
	Protective Factors	
	Peer Disapproval of ATOD Use	Defined as student perceptions that his or her close friends would disapprove of him or her using substances. Peer pressure is a strong factor influencing adolescent behavior, and peer pressure not to use alcohol, tobacco, and other drugs is a very powerful deterrent.
	Religiosity	Defined as perceiving oneself to be religious and enjoying religious activities. Young people who regularly attend religious services are less likely to engage in problem behaviors.
	Belief in the Moral Order	Defined as beliefs that one is bound by societal rules. Young people who have a belief in what is "right" and "wrong" are less likely to use drugs.
Educational Aspirations	Defined as aspirations for continuing on to and graduating from college. National surveys of high school seniors have shown that ATOD use is significantly lower among students who expect to attend and graduate from college than among those who do not.	

TABLE 15
Correlations Between Risk/Protective Factors and Substance Use and Antisocial Behaviors (ASBs) Prevalence, 2002
(Entries are correlations)

Risk/Protective Factors	Alcohol, Tobacco, and Other Drug (ATOD) Use						Frequency of ASB Occurrence				
	Number of Drugs Used in Lifetime	Number of Drugs Used Past 30 Days	Monthly Cigarette Use	Monthly Alcohol Use	Monthly Marijuana Use	Substance Abuse	Drunk at School	Suspended from School	Attacked Someone	Sold Illegal Drugs	Arrested
Community Domain: Risk Factors											
Low Neighborhood Attachment	.09	.07	.06	.06	.05	.07	.05	.04	.06	.02	.04
Community Disorganization	.15	.13	.11	.14	.10	.13	.13	.10	.14	.10	.09
Transition & Mobility	.13	.08	.09	.11	.09	.11	.10	.08	.08	.07	.07
Exposure to Community ATOD Use	.38	.28	.30	.39	.36	.38	.34	.13	.19	.26	.15
Laws and Norms Favorable to ATOD Use	.38	.27	.26	.38	.34	.36	.32	.16	.20	.24	.16
Perceived Availability of Drugs and Handguns	.42	.27	.25	.37	.32	.36	.31	.15	.19	.25	.15
Ability to Purchase Alcohol or Tobacco	.44	.35	.40	.41	.34	.36	.37	.19	.21	.31	.21
Community Domain: Protective Factors											
Community Opportunities for Positive Involvement	NS	-.02	-.04	NS	-.02	NS	-.03	-.04	-.03	NS	-.03
Community Rewards for Positive Involvement	-.08	-.05	-.05	-.05	-.05	-.07	-.04	NS	-.03	-.02	NS
Family Domain: Risk Factors											
Poor Family Supervision	.23	.19	.15	.21	.18	.19	.17	.11	.13	.14	.11
Family Conflict	.10	.06	.07	.08	.05	.10	.07	.05	.10	.05	.04
Lack of Parental Sanctions for ASBs	.25	.22	.18	.24	.24	.22	.22	.14	.12	.17	.13
Parental Attitudes Favorable Toward ATOD Use	.34	.28	.27	.36	.33	.31	.29	.15	.13	.25	.12
Exposure to Family ATOD Use	.27	.21	.24	.31	.28	.26	.25	.11	.14	.19	.13
Parental Attitudes Favorable Toward ASB	.29	.26	.16	.24	.23	.23	.23	.15	.19	.19	.14
Family (Sibling) History of ASB	.30	.19	.24	.32	.28	.30	.25	.12	.12	.18	.12
Family Domain: Protective Factors											
Family Attachment	-.16	-.11	-.12	-.14	-.11	-.14	-.10	-.05	-.08	-.07	-.06
Family Opportunities for Prosocial Involvement	-.16	-.12	-.12	-.14	-.11	-.14	-.11	-.06	-.09	-.07	-.05
Family Rewards for Prosocial Involvement	-.19	-.13	-.15	-.16	-.13	-.16	-.13	-.08	-.10	-.09	-.08

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TABLE 15 (continued)
Correlations Between Risk/Protective Factors and Substance Use and Antisocial Behaviors (ASBs) Prevalence, 2002
(Entries are correlations)

Risk/Protective Factors	Alcohol, Tobacco, and Other Drug (ATOD) Use						Frequency of ASB Occurrence				
	Number of Drugs Used in Lifetime	Number of Drugs Used Past 30 Days	Monthly Cigarette Use	Monthly Alcohol Use	Monthly Marijuana Use	Substance Abuse	Drunk at School	Suspended from School	Attacked Someone	Sold Illegal Drugs	Arrested
School Domain: Risk Factors											
Low School Commitment	.28	.21	.18	.26	.24	.24	.23	.14	.17	.17	.12
Poor Academic Performance	.14	.11	.16	.14	.15	.12	.14	.15	.12	.10	.12
School Domain: Protective Factors											
School Opportunities for Positive Involvement	-.16	-.14	-.09	-.13	-.13	-.10	-.13	-.09	-.10	-.10	-.08
School Rewards for Positive Involvement	-.19	-.13	-.13	-.17	-.16	-.16	-.15	-.07	-.10	-.11	-.07
Peer-Individual Domain: Risk Factors											
Early Initiation of Problem Behaviors	.62	.43	.44	.57	.49	.52	.48	.32	.37	.36	.31
Favorable Attitudes Toward ATOD Use	.54	.39	.43	.53	.49	.49	.46	.19	.22	.34	.20
Low Perceived ATOD Use Risk	.16	.17	.10	.13	.13	.10	.12	.13	.11	.11	.10
Antisocial Behaviors (ASBs)	.51	.47	.36	.45	.51	.40	.76	.55	.64	.73	.59
Favorable Attitudes Toward ASB	.41	.32	.27	.39	.35	.36	.36	.21	.32	.28	.21
Friends' ATOD Use	.49	.32	.38	.48	.42	.44	.41	.19	.23	.29	.20
Interaction with Antisocial Peers	.47	.36	.34	.44	.42	.40	.47	.33	.35	.40	.33
Rewards for Antisocial Involvement	.48	.34	.35	.46	.41	.43	.41	.20	.28	.31	.20
Rebelliousness	.32	.24	.22	.31	.25	.27	.27	.18	.26	.21	.17
Sensation Seeking	.44	.32	.28	.42	.35	.38	.36	.21	.31	.29	.20
Gang Involvement	.26	.21	.17	.20	.15	.15	.20	.21	.27	.19	.19
Depression	.16	.11	.13	.14	.08	.14	.09	.09	.14	.06	.07
Peer-Individual Domain: Protective Factors											
Peer Disapproval of ATOD Use	-.29	-.25	-.19	-.24	-.22	-.21	-.21	-.16	-.16	-.17	-.14
Religiosity	-.10	-.07	-.07	-.08	-.10	-.09	-.07	-.02	-.03	-.05	-.03
Belief in the Moral Order	-.35	-.26	-.23	-.35	-.29	-.32	-.30	-.18	-.26	-.23	-.17
Educational Aspirations	-.09	-.10	-.10	-.09	-.12	-.07	-.12	-.13	-.11	-.10	-.11
Risk Index	.50	.37	.36	.48	.41	.46	.41	.27	.32	.29	.23
Protective Index	-.22	-.17	-.17	-.19	-.18	-.19	-.17	-.10	-.13	-.11	-.09

NOTES: *ATOD* refers to Alcohol, Tobacco, and Other Drug Use. *ASB* refers to Antisocial Behavior. All correlations in the table are significant at $p < .001$. Correlations not significant at $p < .001$ are indicated by NS. See Table 14 for explanation of predictor variables.

TABLE 16
Trends in Problematic Risk and Protective Factors in Hawaii, by County (Place of Residence) and Public School District:
Identification of High Risk Factors and Low Protective Factors in 2000 versus 2002

('00 and '02 indicate year in which risk/protective factor was problematic)

Risk/Protective Factors	County (Public & Private)				Public School District						
	C & C of Honolulu	Hawaii County	Kauai County	Maui County	Honolulu District	Central District	Leeward District	Windward District	Hawaii District	Kauai District	Maui District
Community Domain: Risk Factors											
Low Neighborhood Attachment	'00 & '02	'00 & '02		'00	'00 & '02	'00 & '02	'00 & '02		'00 & '02		
Community Disorganization	'00 & '02	'02			'00 & '02		'00 & '02		'02		
Transition & Mobility	'00 & '02	'00		'00		'00 & '02	'00 & '02	'00 & '02			
Exposure to Community ATOD Use		'00 & '02	'00 & '02	'00 & '02		'00	'00 & '02	'00 & '02	'00 & '02	'00 & '02	'00 & '02
Laws and Norms Favorable to ATOD Use		'00 & '02	'00 & '02	'00 & '02			'00 & '02	'00 & '02	'00 & '02	'00 & '02	'00 & '02
Perceived Availability of Drugs and Handguns		'00 & '02	'00 & '02	'02		'00		'00 & '02	'00 & '02	'00 & '02	'02
Ability to Purchase Alcohol or Tobacco	'02	'00 & '02			'02	'00		'00 & '02	'00		
Community Domain: Protective Factors											
Community Opportunities for Positive Involvement	'00 & '02				'00 & '02	'00 & '02	'00 & '02	'00			
Community Rewards for Positive Involvement	'00 & '02				'00 & '02	'00	'00 & '02				
Family Domain: Risk Factors											
Poor Family Supervision		'00 & '02	'00 & '02	'00 & '02	'00		'00	'02	'00 & '02	'00 & '02	'00 & '02
Family Conflict	'00 & '02	'02			'00		'00 & '02	'02	'02		'02
Lack of Parental Sanctions for ASBs		'00 & '02	'00 & '02	'00 & '02				'00 & '02	'00 & '02	'00 & '02	'00 & '02
Parental Attitudes Favorable Toward ATOD Use		'00 & '02	'00 & '02	'00 & '02				'00 & '02	'00 & '02	'00 & '02	'00 & '02
Exposure to Family ATOD Use		'00 & '02	'00 & '02	'00 & '02			'02	'00 & '02	'00 & '02	'00 & '02	'00 & '02
Parental Attitudes Favorable Toward ASB		'00 & '02	'00	'00 & '02		'00		'00 & '02	'00 & '02	'00	'02
Family (Sibling) History of ASB		'00 & '02	'00 & '02	'00 & '02			'02	'00 & '02	'00 & '02	'00 & '02	'00 & '02
Family Domain: Protective Factors											
Family Attachment	'00 & '02				'00 & '02	'00	'00 & '02	'02			
Family Opportunities for Prosocial Involvement	'00 & '02		'02		'00 & '02	'00	'00			'02	
Family Rewards for Prosocial Involvement	'00 & '02				'00 & '02	'00	'00 & '02	'02			'02

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TABLE 16 (continued)
Trends in Problematic Risk and Protective Factors in Hawaii, by County (Place of Residence) and Public School District:
Identification of High Risk Factors and Low Protective Factors in 2000 versus 2002

('00 and '02 indicate year in which risk/protective factor was problematic)

Risk/Protective Factors	County (Public & Private)				Public School District						
	C & C of Honolulu	Hawaii County	Kauai County	Maui County	Honolulu District	Central District	Leeward District	Windward District	Hawaii District	Kauai District	Maui District
School Domain: Risk Factors											
Low School Commitment		'00 & '02	'00 & '02	'00 & '02		'00		'00 & '02	'00 & '02	'00 & '02	'00 & '02
Poor Academic Performance	'00 & '02		'02		'00 & '02		'00 & '02	'00 & '02		'02	'00 & '02
School Domain: Protective Factors											
School Opportunities for Positive Involvement		'00 & '02	'00 & '02	'00 & '02	'00 & '02	'00		'00 & '02	'00 & '02	'00 & '02	'00 & '02
School Rewards for Positive Involvement			'02	'00 & '02	'00 & '02	'00 & '02	'00 & '02	'02	'00 & '02	'00 & '02	'00 & '02
Peer-Individual Domain: Risk Factors											
Early Initiation of Problem Behaviors		'00 & '02	'00 & '02	'00 & '02			'00 & '02	'00 & '02	'00 & '02	'00 & '02	'00 & '02
Favorable Attitudes Toward ATOD Use		'00 & '02	'00 & '02	'00 & '02		'00		'00 & '02	'00 & '02	'00 & '02	'00 & '02
Low Perceived ATOD Use Risk		'00 & '02	'00 & '02	'00 & '02			'02	'02	'00 & '02	'00 & '02	'00 & '02
Antisocial Behaviors (ASBs)		'00 & '02	'00 & '02	'00 & '02		'00	'00 & '02	'00 & '02	'00 & '02	'00 & '02	'00 & '02
Favorable Attitudes Toward ASB		'00 & '02	'00 & '02	'00 & '02		'00		'00 & '02	'00 & '02	'00	'00 & '02
Friends' ATOD Use		'00 & '02	'00 & '02	'00 & '02			'02	'00 & '02	'00 & '02	'00 & '02	'00 & '02
Interaction with Antisocial Peers		'00 & '02	'02	'00 & '02		'00	'00 & '02	'00 & '02	'00 & '02	'02	'00 & '02
Rewards for Antisocial Involvement		'00 & '02	'00 & '02	'00 & '02		'00	'02	'00 & '02	'00 & '02	'00 & '02	'00 & '02
Rebelliousness		'00 & '02	'00	'02		'00	'00 & '02	'00 & '02	'00 & '02	'00	'02
Sensation Seeking		'00 & '02	'00 & '02	'00 & '02		'00		'00 & '02	'00 & '02	'00 & '02	'00 & '02
Gang Involvement	'00	'02		'02	'00 & '02	'00	'00 & '02		'02		'02
Depression	'00 & '02			'00 & '02	'00 & '02		'00 & '02				'00 & '02
Peer-Individual Domain: Protective Factors											
Peer Disapproval of ATOD Use		'00 & '02	'00 & '02	'00 & '02				'00 & '02	'00 & '02	'00 & '02	'00 & '02
Religiosity		'00 & '02	'02		'00 & '02	'00		'00 & '02	'00 & '02	'02	
Belief in the Moral Order		'00 & '02	'00 & '02	'00 & '02		'00 & '02		'00 & '02	'00 & '02	'00 & '02	'00 & '02
Educational Aspirations		'00 & '02	'00 & '02	'00 & '02	'00 & '02	'00	'00 & '02	'00 & '02	'00 & '02	'00 & '02	'00 & '02

NOTES: Dates ('00=2000 & '02=2002) indicate risk factors that are higher than or equal to statewide percentages, and protective factors that are lower than or equal to statewide percentages. Prevention efforts need to focus on those factors that remain problematic in 2002 or that have become problematic in 2002.

TABLE 17
Trends in Problematic Risk and Protective Factors in Hawaii, by Sex and Ethnicity:
Identification of High Risk Factors and Low Protective Factors in 2000 versus 2002

('00 and '02 indicate year in which risk/protective factor was problematic)

Risk/Protective Factors	Sex		Ethnic Background				
	Male	Female	Chinese	Filipino	Japanese	Hawaiian	White
Community Domain: Risk Factors							
Low Neighborhood Attachment		'00 & '02	'00	'00 & '02			'00
Community Disorganization	'00 & '02			'00 & '02		'00 & '02	
Transition & Mobility		'00 & '02				'00 & '02	'00 & '02
Exposure to Community ATOD Use		'00 & '02				'00 & '02	'00 & '02
Laws and Norms Favorable to ATOD Use	'00 & '02					'00 & '02	'00 & '02
Perceived Availability of Drugs and Handguns	'00 & '02					'02	'00 & '02
Ability to Purchase Alcohol or Tobacco	'00 & '02					'00 & '02	'00 & '02
Community Domain: Protective Factors							
Community Opportunities for Positive Involvement	'00 & '02		'00 & '02	'00 & '02			
Community Rewards for Positive Involvement	'02		'00 & '02	'00 & '02	'00		'02
Family Domain: Risk Factors							
Poor Family Supervision	'00 & '02		'00 & '02	'00 & '02			
Family Conflict		'00 & '02		'02		'00 & '02	
Lack of Parental Sanctions for ASBs	'00 & '02			'00		'00 & '02	'00 & '02
Parental Attitudes Favorable Toward ATOD Use	'00 & '02					'00 & '02	'00 & '02
Exposure to Family ATOD Use		'00 & '02				'00 & '02	'00 & '02
Parental Attitudes Favorable Toward ASB	'00 & '02					'00 & '02	'00 & '02
Family (Sibling) History of ASB		'00 & '02				'00 & '02	'00 & '02
Family Domain: Protective Factors							
Family Attachment		'00 & '02	'00 & '02	'00 & '02			
Family Opportunities for Prosocial Involvement	'00 & '02		'00 & '02	'00 & '02	'00 & '02		
Family Rewards for Prosocial Involvement	'00 & '02		'00 & '02	'00 & '02	'00		

(Table continued on next page)

TABLE 17 (continued)
Trends in Problematic Risk and Protective Factors in Hawaii, by Sex and Ethnicity:
Identification of High Risk Factors and Low Protective Factors in 2000 versus 2002

('00 and '02 indicate year in which risk/protective factor was problematic)

Risk/Protective Factors	Sex		Ethnic Background				
	Male	Female	Chinese	Filipino	Japanese	Hawaiian	White
School Domain: Risk Factors							
Low School Commitment	'00 & '02				'00 & '02	'00 & '02	'00 & '02
Poor Academic Performance	'00 & '02			'00 & '02		'00 & '02	
School Domain: Protective Factors							
School Opportunities for Positive Involvement	'00 & '02				'00 & '02		'00 & '02
School Rewards for Positive Involvement	'00 & '02		'02		'00 & '02		'00 & '02
Peer-Individual Domain: Risk Factors							
Early Initiation of Problem Behaviors	'00 & '02					'00 & '02	'00 & '02
Favorable Attitudes Toward ATOD Use	'00	'02				'00 & '02	'00 & '02
Low Perceived ATOD Use Risk	'00 & '02					'00 & '02	'00 & '02
Antisocial Behaviors (ASBs)	'00 & '02					'00 & '02	'00 & '02
Favorable Attitudes Toward ASB	'00 & '02					'02	'00 & '02
Friends' ATOD Use		'00 & '02		'02		'00 & '02	'00 & '02
Interaction with Antisocial Peers	'00 & '02					'00 & '02	'00 & '02
Rewards for Antisocial Involvement	'00 & '02					'00 & '02	'00 & '02
Rebelliousness	'00 & '02					'00 & '02	'00 & '02
Sensation Seeking	'00 & '02					'00 & '02	'00 & '02
Gang Involvement	'00 & '02			'00 & '02		'00 & '02	
Depression		'00 & '02	'02	'00 & '02		'00 & '02	
Peer-Individual Domain: Protective Factors							
Peer Disapproval of ATOD Use & ASB	'00 & '02					'00 & '02	'00 & '02
Religiosity	'00 & '02		'00 & '02		'00 & '02	'00	'00 & '02
Belief in the Moral Order	'00 & '02					'00 & '02	'00 & '02
Educational Aspirations	'00 & '02			'00 & '02		'00 & '02	

NOTES: Dates ('00=2000; '02=2002) indicate risk factors that are higher than or equal to statewide percentages, and protective factors that are lower than or equal to statewide percentages in that particular year. Prevention efforts have worked if a risk or protective factor was marked as problematic in '00, but was not marked as problematic in '02. Prevention efforts need to focus on those factors that remain problematic in 2002 or that have become problematic in 2002.

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