

Chapter 8

ATTITUDES AND BELIEFS ABOUT ALCOHOL, TOBACCO, AND OTHER DRUGS

Alcohol, tobacco, and drug intervention efforts aimed at adolescents are generally viewed as a means of bringing about changes in adolescents' attitudes and beliefs in order to affect their behavior. One of the primary goals of the present study is to explain why young people may choose to use various dangerous substances. This goal is the driving force behind Chapters 8 through 11, which all attempt to address variables associated with adolescent substance use.

In this chapter, two sets of attitudes and beliefs about alcohol and drugs are examined. One set concerns the perceived harmfulness of using alcohol, tobacco, and other drugs; the second concerns the perceived availability of different substances. The relationship between the two sets of beliefs and substance use is also examined. Chapter 9 will focus more on attitudes and behaviors of others, as seen by students, and how the "social milieu," or social environment, impacts adolescents' attitudes, beliefs, and behaviors in regards to alcohol, tobacco, and other drugs.

Researchers generally agree that perceptions of harm influence approach and avoidance decisions regarding alcohol and drug experimentation and the extent of substance use. Substances associated with low risk or low harm are more frequently used, whereas substances associated with great harm are generally avoided (Johnston et al., 2004). Experimenting with and using dangerous and addicting substances may also occur when an adolescent is uncertain of the harm associated with alcohol and drugs. Early research efforts have focused solely on students' perceptions of how much people harm themselves when engaging in various alcohol and drug use activities. The present survey included the response *I don't know* as an answer alternative to see if students in some grade levels are unaware, or uncertain, of the dangers associated with alcohol and drug use.

Perceptions of availability should influence perceptions of harm such that less available substances are seen as more harmful for the user. Supply and demand factors make the relationship between substance availability and use more difficult to speculate. Although more available substances should be easier to obtain for use, less available substances may be perceived as more interesting with which to experiment.

The first section of this chapter addresses students' perceptions of harm associated with different substances; the second section of this chapter addresses students' perceptions of substance availability. Perceptions of harm associated with illicit drugs are presented first, followed by perceptions of harm associated with alcohol and tobacco. Trend data are presented, and comparisons to the *2003 Monitoring the Future Study* are made where applicable. Uncertainty of harm is also addressed. The perception of harm section ends by discussing the relationship between the perceived harmfulness associated with using certain substances and the actual use of those substances.

The second section of this chapter details perceived availability of illicit drugs, alcohol, and tobacco, and is organized in a manner similar to the perception of harmfulness section. The final section of this chapter looks at the relationship, over time, between perceived availability of substances, perceived harmfulness associated with using substances, and reported substance use.

PERCEIVED HARMFULNESS OF SUBSTANCES

Beliefs about harmfulness associated with various substances were assessed by asking students how much they think people harm themselves if they engage in various alcohol, tobacco, and other drug use behaviors. Students were asked to respond to questions that dealt with the occasional use of illicit drugs and the regular use of alcohol and cigarettes on a four-item scale (e.g., *no harm, some harm, a lot of harm, I don't know*). The proportion of students responding “a lot of harm” versus “I don't know” are discussed below. Grade-level differences are also noted.

Table 40 displays the percentage of students at each grade reporting “a lot of harm” when they were asked how much people harm or hurt themselves when using various substances. Figure 46 illustrates perceptions of harm associated with occasionally using various illicit drugs, and Figure 48 illustrates perceptions of harm associated with using alcohol or tobacco.

Table 41 and Figures 47 and 49 display the percentage of students at each grade reporting that they are uncertain of the amount of harm associated with various drugs (e.g., students responding “I don't know” to the perception of harm questions). Figure 47 illustrates the percentage of students uncertain of the harm associated with occasionally using various drugs, and Figure 49 illustrates the percentage of students uncertain of the harm associated with using alcohol or tobacco.

Nationwide comparison data from the *2003 Monitoring the Future Study* are provided in Table 40 and Figure 50. Nationwide, students are asked how much people risk harming themselves if they use various substances, with the answer alternatives of *no risk, slight risk, moderate risk, great risk, and can't say, drug unfamiliar*. Over the years, students in Hawaii have consistently had difficulty understanding the concept of “risk,” so the question was changed in 2002 to the current response choices of *no harm, some harm, a lot of harm, and I don't know*. The percentages saying “a lot of harm” on the Hawaii survey and “great risk” on the nationwide survey are listed in Table 40 and are compared to one another in Figure 50. The major findings shown in the tables and figures are discussed below.

Beliefs about Harmfulness Associated with Various Illicit Drugs

Overview of Key Findings. The majority of students, in all grades, view the occasional use of each illicit drug assessed in the survey as causing a lot of harm to the user. By comparison to other illicit drugs, marijuana use is seen by far fewer students in the upper grades as causing a lot of harm to the user. There are clear grade-level differences such that perceived harm increases and perceived uncertainty of harm decreases at each grade level for all illicit drugs, except marijuana. For marijuana, more 6th and 8th graders associate harm with occasional marijuana use than with the occasional use of many other illicit drugs, and fewer 12th graders associate harm with occasional marijuana use than with the occasional use of other illicit drugs. A greater proportion of students associate harm with occasional cocaine and methamphetamine use than with occasional hallucinogen, club drug, and inhalant use. A smaller proportion of 6th graders associate a lot of harm with occasional inhalant use than with the occasional use of all other illicit drugs. On the other hand, students in grades 10 and 12 associate more harm with occasional inhalant use than occasional marijuana use. A much greater proportion of Hawaii students than students nationwide indicated “a lot of harm” associated with the occasional use of illicit drugs.

TABLE 40
Perceived Harmfulness of Various Substances as Perceived by
Sixth, Eighth, Tenth, and Twelfth Graders, Nationwide versus Hawaii, 2003

% 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 2003 | Nationwide 2003 | Hawaii 2003 | Nationwide 2003 | Hawaii 2003 | Nationwide 2003 | Hawaii 2003 | |
| Use marijuana (hash, pakalolo, pot, weed) occasionally? | 70.1 | 48.6 | 67.9 | 34.9 | 56.5 | 26.6 | 52.3 | |
| Use inhalants (glue, paint, sprays) occasionally? | 61.6 | 40.3 | 65.8 | 47.7 | 71.3 | — | 75.8 | |
| Use cocaine (crack, coke, blow, freebase) occasionally? | 71.8 | 70.3 | 76.5 | 76.4 | 78.9 | 69.1 | 81.8 | |
| Use methamphetamine (crystal meth, speed, ice, batu, crank) occasionally? ^c | 72.3 | — | 76.1 | — | 80.0 | 51.2 | 82.5 | |
| Use hallucinogens (LSD/PCP, shrooms, acid) occasionally? ^d | 64.5 | 27.9 | 71.6 | 40.8 | 75.1 | 36.2 | 77.8 | |
| Use ecstasy or other " club drugs " (E, XTC, GHB, liquid ecstasy, liquid X, Rohypnol, roofies, ketamine, special K) occasionally? ^e | 64.0 | 65.8 | 71.6 | 71.7 | 76.1 | 56.3 | 78.5 | |
| Have five or more drinks of alcohol once or twice each weekend? | 60.4 | 56.5 | 56.4 | 51.6 | 51.5 | 43.5 | 51.6 | |
| Smoke one or more packs of cigarettes a day? | 65.0 | 57.7 | 69.2 | 65.7 | 71.9 | 72.1 | 76.7 | |

NOTES: ' — ' indicates data not available. *Nationwide* refers to results from the 2003 *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 methamphetamine once or twice, rather than using methamphetamine occasionally. Thus, the nationwide data may not be comparable to the Hawaii data.

^d 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.

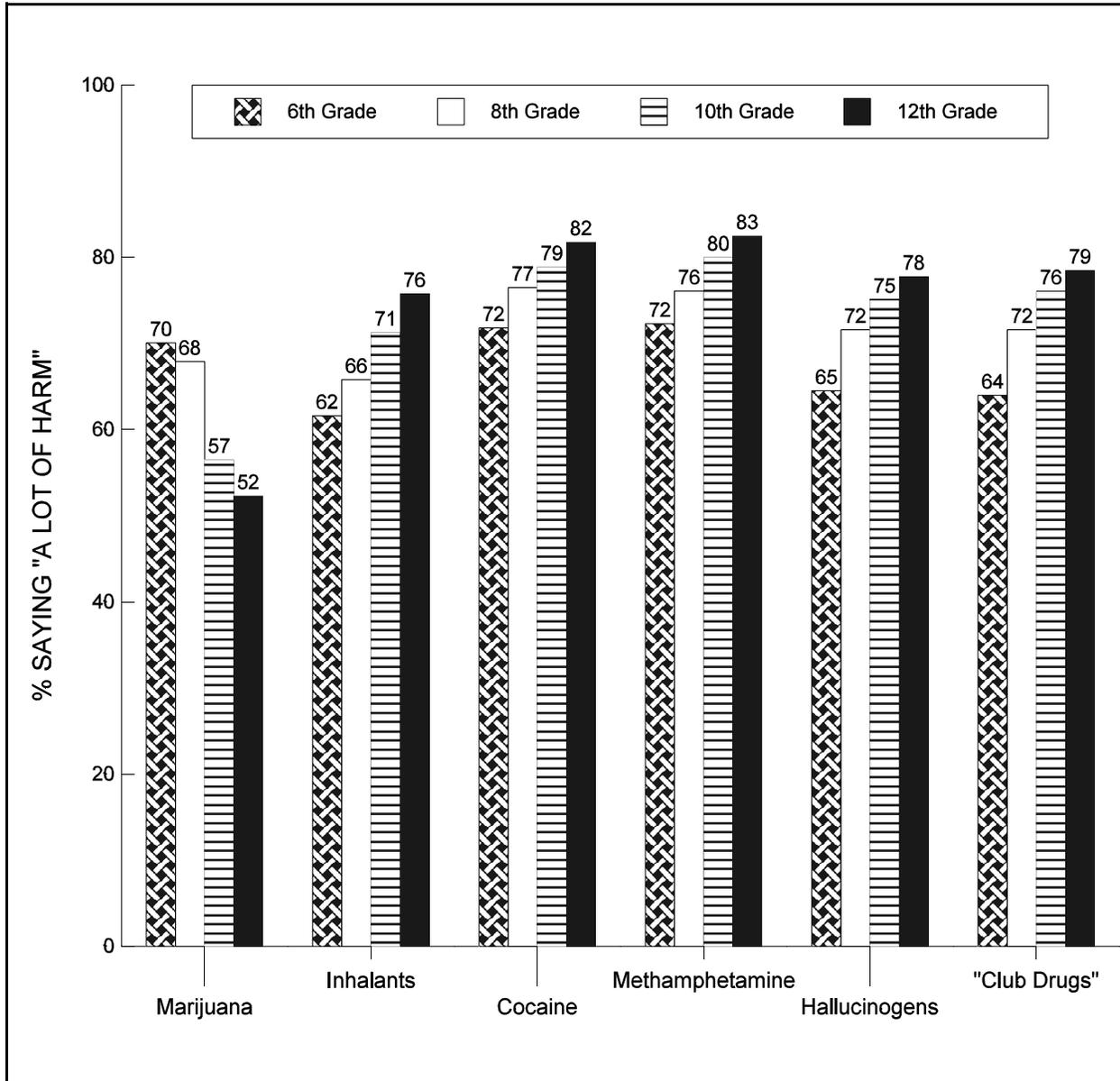
^e MTF asks only about using ecstasy occasionally, rather than about using any club drugs occasionally.

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- Figure 46 on the next page illustrates that the majority of students (50% or greater), in all grades, view the occasional use of all illicit drugs assessed in the survey as causing a lot of harm to the user. The proportion of students associating a lot of harm with the occasional use of various drugs increases at each grade level for all substances except marijuana. The increase in perceived harm associated with illicit drugs among older students is largely a function of fewer students in the upper grades reporting that they are unaware or uncertain of the harm associated with various illicit drugs (see Figure 47 on page 339).
- The occasional use of *marijuana* is viewed as less harmful than the occasional use of other illicit drugs by students in grades 8, 10, and 12. More than half of the 10th (57%) and 12th graders (52%), and over two thirds of the 6th (70%) and 8th graders (68%) responded that they associate a lot of harm with the occasional use of marijuana. On the other hand, over 70% of the students in grades 8, 10, and 12 associate a lot of harm with other illicit drug use.
- More students in grade 6 associate a lot of harm with occasionally using marijuana (70%) than with occasionally using hallucinogens (65%) or ecstasy and other club drugs (64%). As mentioned earlier, this grade-level difference in harm perceptions is the result of more students in grade 6 uncertain of the harm associated with using various drugs. Figure 47 shows that more 6th graders are uncertain about the harm associated with cocaine (20%), methamphetamine (21%), hallucinogens (28%) and club drugs (29%) than are uncertain about the harm associated with marijuana (19%).
- As seen in Figure 46, the occasional use of *inhalants* is viewed as harmful by the majority of the students in grades 6 (62%), 8 (66%), 10 (71%), and 12 (76%). More students in grades 10 and 12 reported a lot of harm associated with using inhalants occasionally than with using marijuana occasionally. A smaller proportion of 6th-grade students, on the other hand, reported a lot of harm associated with using inhalants occasionally (62%), compared with using marijuana occasionally (70%). As addressed in Chapter 4, inhalants are the most popular drugs among students in grade 6, whereas marijuana is the most popular drug among students in grades 8, 10, and 12.
- The occasional use of *cocaine* is viewed by a greater proportion of students in all grades as entailing a lot of harm for the user than the occasional use of all other illicit drugs, except methamphetamine. Figure 46 shows that 72% of 6th graders, 77% of 8th graders, 79% of 10th graders, and 82% of 12th graders reported a lot of harm associated with using cocaine occasionally. The occasional use of *methamphetamine* is associated with a lot of harm by 72% of 6th graders, 76% of 8th graders, 80% of 10th graders, and 83% of 12th graders – similar to the proportions associating a lot of harm with cocaine use.
- Figure 46 illustrates that although *hallucinogens* and *club drugs* are viewed by the majority of students as entailing a lot of harm for the occasional user, fewer students associated a lot of harm with using these substances than with using cocaine or methamphetamine. Hallucinogens and club drugs are also slightly more prevalent among students than cocaine and methamphetamine (refer to Chapter 4).

FIGURE 46
Perceived Harmfulness Associated With Occasionally Using Various Drugs:
Percentage of Students Who Indicated “A Lot of Harm” Associated With the
Occasional Use of Various Drugs, by Grade, 2003

(Entries are percentages %)



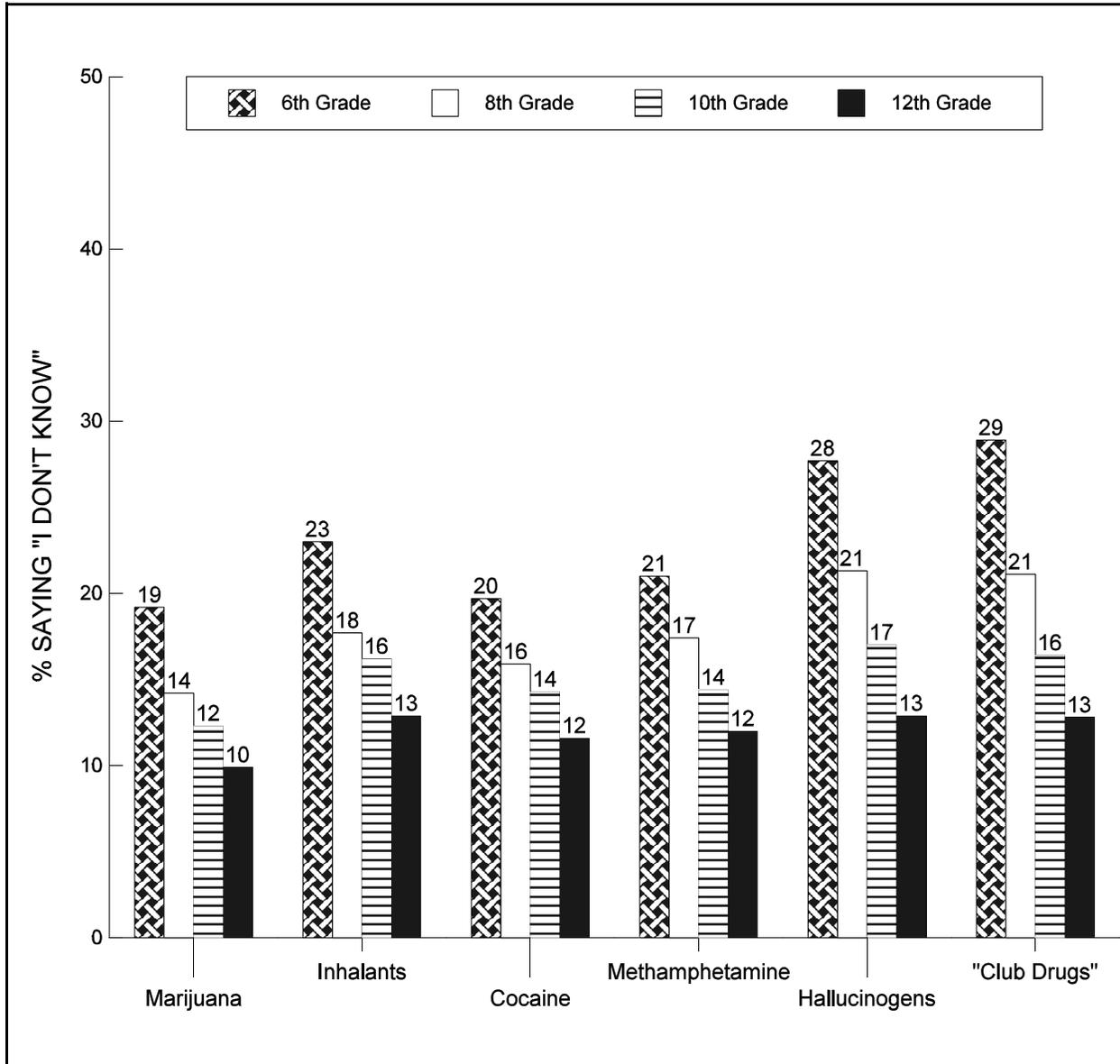
NOTES: Entries reflect the percentage of students who responded “A lot of harm” to each perception of harm question. Answer alternatives were (1) No harm, (2) Some harm, (3) A lot of harm, and (4) I don’t know. *Club Drugs* include the occasional use of ecstasy or other club drugs such as GHB, Rohypnol, and ketamine.

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- In regards to *uncertainty of harm*, Figure 47 and Table 41 clearly illustrate that students from the lower grade levels are more uncertain of the harm associated with using each of the illicit drugs than are students from the upper grade levels. Approximately 1 out of 5 students in grade 6 is uncertain of how much harm each illicit drug causes the user.
- Comparisons across substances in Figure 47 shows that students in grade 6 are most uncertain about the harm associated with hallucinogens and club drugs – two of the most prevalent substances in grades 8, 10, and 12. Age of onset for hallucinogens and club drugs typically begins shortly after the 6th grade, highlighting the importance in early education efforts more clearly addressing the dangers of these illicit drugs. Fewer 6th graders are uncertain of the harm associated with marijuana use (19%) than with the use of other illicit drugs (more than 20%).
- By the 10th and 12th grade, students should have received drug education related to the dangers of all common illicit drugs. However, at least 1 out of 10 students in the upper grades is uncertain of the harm associated with occasionally using marijuana, inhalants, cocaine, methamphetamine, hallucinogens, or club drugs. Education efforts related to various illicit drugs need to have occurred by grade 8 because illicit drug onset begins during this time (see Chapter 7). A large proportion of students in grade 8 remain unaware of the dangers associated with illicit drugs, given that nearly 1 out of 5 students in grade 8 reported that they were uncertain of the harm associated with occasionally using various substances.
- Table 41 shows that the proportion of students uncertain about the harm associated with drug use increased in 2003 for students in grades 10 and 12, but decreased or stabilized for students in grades 6 and 8. The grade-level trend differences could reflect drug education efforts improving over the years in the lower grades. Trends in the proportion of students associating harm with illicit drugs are discussed later in this chapter and support the belief that education efforts are improving. As a quick preview, Table 42 on pages 349 and 350 illustrates that a greater proportion of students are associating harm with various illicit drugs in 2003. The decrease in uncertainty among students in the lower grades, combined with an increase in harm perceptions associated with illicit drugs, supports the notion that lower-grade students are becoming more aware of the dangers with using illicit drugs. The increase in uncertainty among upper grade students shown in Table 41 may also reflect improved education efforts, rather than a decline in drug education efforts. Specifically the increase in uncertainty perceptions in the upper grades may be a function of more upper-grade students currently questioning the dangers of various illicit drugs. In support, Table 42 shows an increase in the proportion of 10th graders associating harm with various illicit drugs. However, the noted decrease in the proportion of upper-grade students stating they are uncertain of how harmful various illicit drugs are, indicates a need to better incorporate drug education into the high school curriculum.

FIGURE 47
Uncertainty of Harm Associated With Occasionally Using Various Drugs:
Percentage of Students Who Indicated They “Don’t Know” How Much Harm Is
Associated With the Occasional Use of Various Drugs, by Grade, 2003

(Entries are percentages %)



NOTES: Entries reflect the percentage of students who responded “I don’t know” to each perception of harm question. Answer alternatives were (1) No harm, (2) Some harm, (3) A lot of harm, and (4) I don’t know. *Club Drugs* include the occasional use of ecstasy or other club drugs such as GHB, Rohypnol, and ketamine.

TABLE 41
Trends in Uncertainty of Harm Associated With Various Substances as Perceived
by Sixth, Eighth, Tenth, and Twelfth Graders, 1996-2003

| | % saying "I don't know" ^a | | | | | |
|---|--------------------------------------|------|------|------|------|----------------|
| <i>Q: How much do you think people harm or hurt themselves (physically or in other ways) if they:</i> | 1996 | 1998 | 2000 | 2002 | 2003 | '02-'03 change |
| Use marijuana (hash, pakalolo, pot, weed) occasionally? | | | | | | |
| <i>6th Grade</i> | 12.6 | 15.4 | 15.1 | 19.9 | 19.2 | -0.7 |
| <i>8th Grade</i> | 6.9 | 12.6 | 12.3 | 15.8 | 14.2 | -1.6 |
| <i>10th Grade</i> | 3.9 | 6.1 | 6.9 | 9.8 | 12.3 | +2.5 |
| <i>12th Grade</i> | 3.8 | 4.5 | 4.9 | 7.4 | 9.9 | +2.5 |
| Use inhalants (glue, paint, sprays) to get high occasionally? ^b | | | | | | |
| <i>6th Grade</i> | 14.9 | 18.1 | 16.3 | 23.2 | 23.0 | -0.2 |
| <i>8th Grade</i> | 9.6 | 15.5 | 14.0 | 18.7 | 17.7 | -1.0 |
| <i>10th Grade</i> | 6.4 | 11.0 | 9.4 | 13.2 | 16.2 | +3.0 |
| <i>12th Grade</i> | 6.5 | 9.2 | 6.8 | 10.7 | 12.9 | +2.2 |
| Use cocaine (crack, coke, blow, freebase) occasionally? | | | | | | |
| <i>6th Grade</i> | 13.1 | 16.0 | 15.5 | 21.3 | 19.7 | -1.6 |
| <i>8th Grade</i> | 7.6 | 13.8 | 13.3 | 18.4 | 15.9 | -2.5 |
| <i>10th Grade</i> | 3.8 | 8.2 | 8.2 | 12.2 | 14.3 | +2.1 |
| <i>12th Grade</i> | 3.5 | 6.4 | 5.6 | 9.7 | 11.6 | +1.9 |
| Use methamphetamine (crystal meth, speed, ice, batu, crank) occasionally? ^c | | | | | | |
| <i>6th Grade</i> | 16.4 | 19.2 | 17.5 | 25.3 | 21.0 | -4.3 |
| <i>8th Grade</i> | 9.4 | 16.4 | 13.8 | 19.9 | 17.4 | -2.5 |
| <i>10th Grade</i> | 5.2 | 10.3 | 8.5 | 12.8 | 14.4 | +1.6 |
| <i>12th Grade</i> | 5.0 | 8.3 | 6.2 | 9.9 | 12.0 | +2.1 |
| Use hallucinogens (LSD/PCP, shrooms, acid) occasionally? | | | | | | |
| <i>6th Grade</i> | 24.1 | 24.9 | 20.3 | 27.8 | 27.7 | -0.1 |
| <i>8th Grade</i> | 12.0 | 19.3 | 14.5 | 21.4 | 21.3 | -0.1 |
| <i>10th Grade</i> | 6.1 | 11.7 | 8.9 | 14.0 | 17.0 | +3.0 |
| <i>12th Grade</i> | 4.7 | 9.7 | 5.9 | 10.4 | 12.9 | +2.5 |

(Table continued on next page)

TABLE 41 (continued)
Trends in Uncertainty of Harm Associated With Various Substances as Perceived
by Sixth, Eighth, Tenth, and Twelfth Graders, 1996-2003

| <i>Q: How much do you think people harm or hurt themselves (physically or in other ways) if they:</i> | % saying "I don't know" ^a | | | | | |
|---|--------------------------------------|------|------|------|------|----------------|
| | 1996 | 1998 | 2000 | 2002 | 2003 | '02-'03 change |
| Use ecstasy or other " club drugs " (E, XTC, GHB, liquid ecstasy, liquid X, Rohypnol, roofies, ketamine, special K) occasionally? | | | | | | |
| <i>6th Grade</i> | — | — | — | 28.5 | 28.9 | +0.4 |
| <i>8th Grade</i> | — | — | — | 21.2 | 21.1 | -0.1 |
| <i>10th Grade</i> | — | — | — | 13.7 | 16.4 | +2.7 |
| <i>12th Grade</i> | — | — | — | 10.0 | 12.8 | +2.8 |
| Have five or more drinks of alcohol once or twice each | | | | | | |
| <i>6th Grade</i> | 13.5 | 15.6 | 14.8 | 18.3 | 18.0 | -0.3 |
| <i>8th Grade</i> | 9.1 | 12.9 | 12.1 | 15.2 | 13.7 | -1.5 |
| <i>10th Grade</i> | 4.2 | 5.9 | 7.3 | 9.8 | 12.3 | +2.5 |
| <i>12th Grade</i> | 3.5 | 4.7 | 5.6 | 6.9 | 9.5 | +2.6 |
| Smoke one or more packs of cigarettes a day? | | | | | | |
| <i>6th Grade</i> | 10.2 | 11.8 | 14.0 | 17.5 | 17.7 | +0.2 |
| <i>8th Grade</i> | 5.4 | 8.9 | 10.6 | 13.9 | 12.6 | -1.3 |
| <i>10th Grade</i> | 2.2 | 4.0 | 5.6 | 8.3 | 11.0 | +2.7 |
| <i>12th Grade</i> | 2.2 | 2.9 | 3.8 | 5.7 | 8.0 | +2.3 |

NOTES: ' — ' indicates data not available.

^a Answer alternatives on the Hawaii Student Alcohol, Tobacco, and Other Drug Use Survey from 1996-2000 were (1) No risk, (2) Some risk, (3) A lot of risk, and (4) I don't know. Answer alternatives on the survey from 2002-2003 were (1) No harm, (2) Some harm, (3) A lot of harm, and (4) I don't know. The wording of the question was changed because students consistently had problems with understanding the word "risk."

^b In 2002 and 2003, the question text was changed from "use inhalants once or twice" to "use inhalants occasionally."

^c In 2002 and 2003, the question text was changed from "use methamphetamine once or twice" to "use methamphetamine occasionally."

Beliefs about Harmfulness of Alcohol and Tobacco

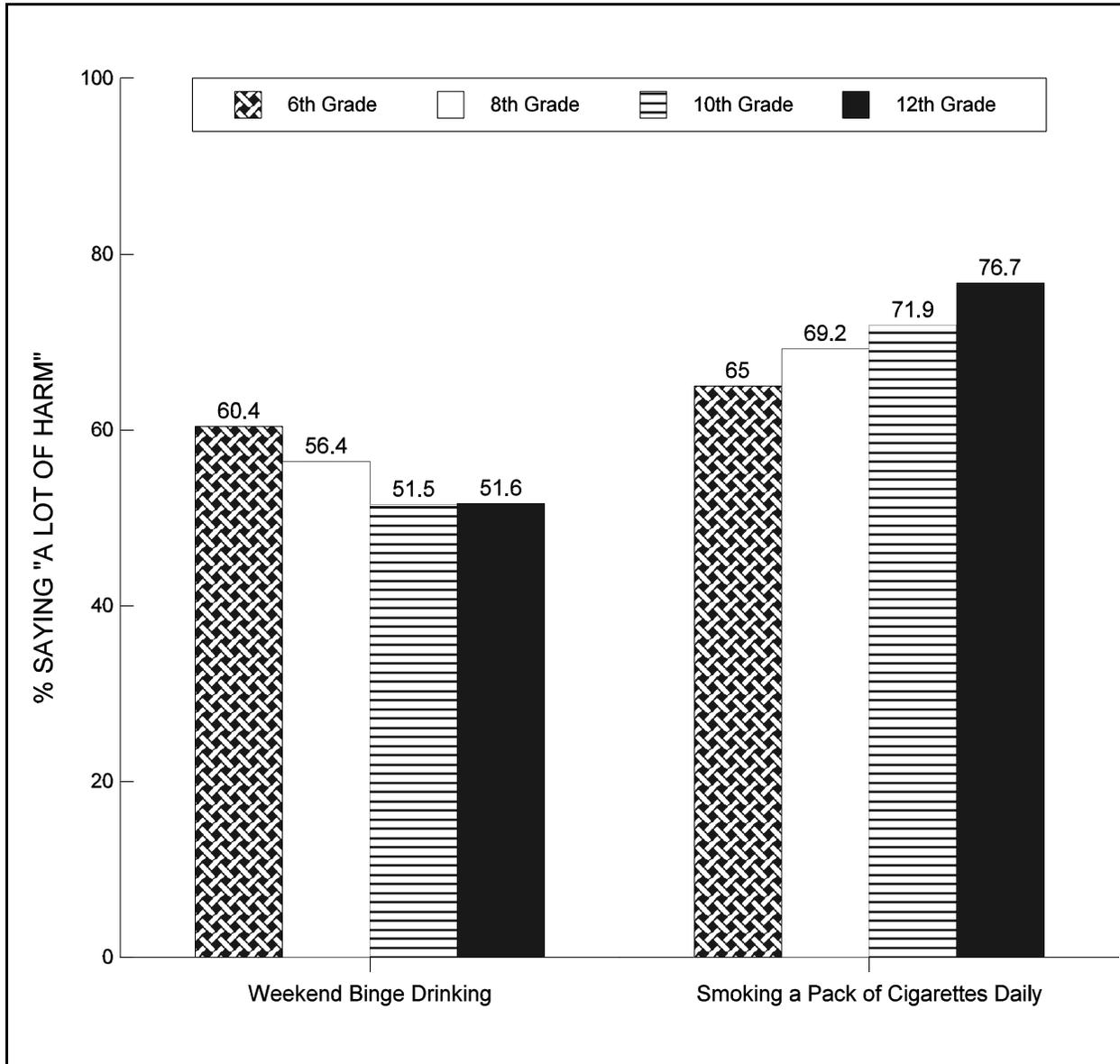
Overview of Key Findings. More than half of the students in all grades reported a lot of harm associated with weekend binge drinking (drinking five or more alcoholic drinks once or twice each weekend). A much larger proportion of students reported a lot of harm associated with smoking one or more packs of cigarettes per day. Perceptions of harm associated with weekend binge drinking are highest in grade 6 and are similar across grades 10 and 12; perceptions of harm associated with smoking one or more packs of cigarettes per day increases as students get older. More students in the lower grades, than in the upper grades, are uncertain of the harm associated with drinking and smoking. Nearly 1 out of 5 students in grade 6 reported that they are uncertain of how much harm is associated with weekend binge drinking or smoking one or more packs of cigarettes a day.

Refer back to Table 40 for the percentages of students at each grade level reporting “a lot of harm” associated with using alcohol and tobacco, and refer back to Table 41 for the percentage of students at each grade level who indicated they are uncertain of the harm associated with alcohol and tobacco use. Figures 48 and 49 on the next pages graphically display the findings discussed below.

- The majority of students in all grades associate a lot of harm with ***weekend binge drinking*** (see Figure 48). The differences across grades 10 and 12 were minimal, with 52% of 10th and 12th graders associating a lot of harm with having five or more drinks of alcohol once or twice each weekend. Compared to the upper-grade students, a larger proportion of students in grades 6 (60%) and 8 (56%) report a lot of harm associated with weekend binge drinking.
- ***Smoking a pack of cigarettes daily*** is judged by more students as entailing a lot of harm for the user than ***weekend binge drinking of alcohol*** (see Figure 48).
- Perceptions of harm associated with ***smoking a pack of cigarettes daily*** increase by grade and are rank ordered as follows: 65% of 6th graders, 69% of 8th graders, 72% of 10th graders, and 77% of 12th graders.
- A substantial proportion of 6th and 8th graders are uncertain of the risks associated with weekend binge drinking or smoking a pack of cigarettes daily (see Figure 49). Nearly 1 out of 5 students in grade 6 is uncertain of the harm associated with weekend binge drinking (18%) and smoking a pack of cigarettes daily (18%). This is particularly troublesome given that tobacco and alcohol use onset is prior to 9 years of age (see Chapter 7).
- Very few 12th graders were unaware of the dangers associated with weekend binge drinking (10%) and smoking a pack of cigarettes daily (8%).
- Comparing Figure 47 (page 339) to Figure 49 (page 344) shows that fewer students are uncertain of the dangers associated with alcohol and cigarettes than they are with illicit drugs other than marijuana. Uncertainty of harm percentages for weekend binge drinking are very similar to uncertainty of harm percentages for occasional marijuana use.

FIGURE 48
Perceived Harmfulness Associated With Alcohol and Cigarettes:
Percentage of Students Who Indicated “A Lot of Harm”
Associated With Alcohol and Cigarette Use, by Grade, 2003

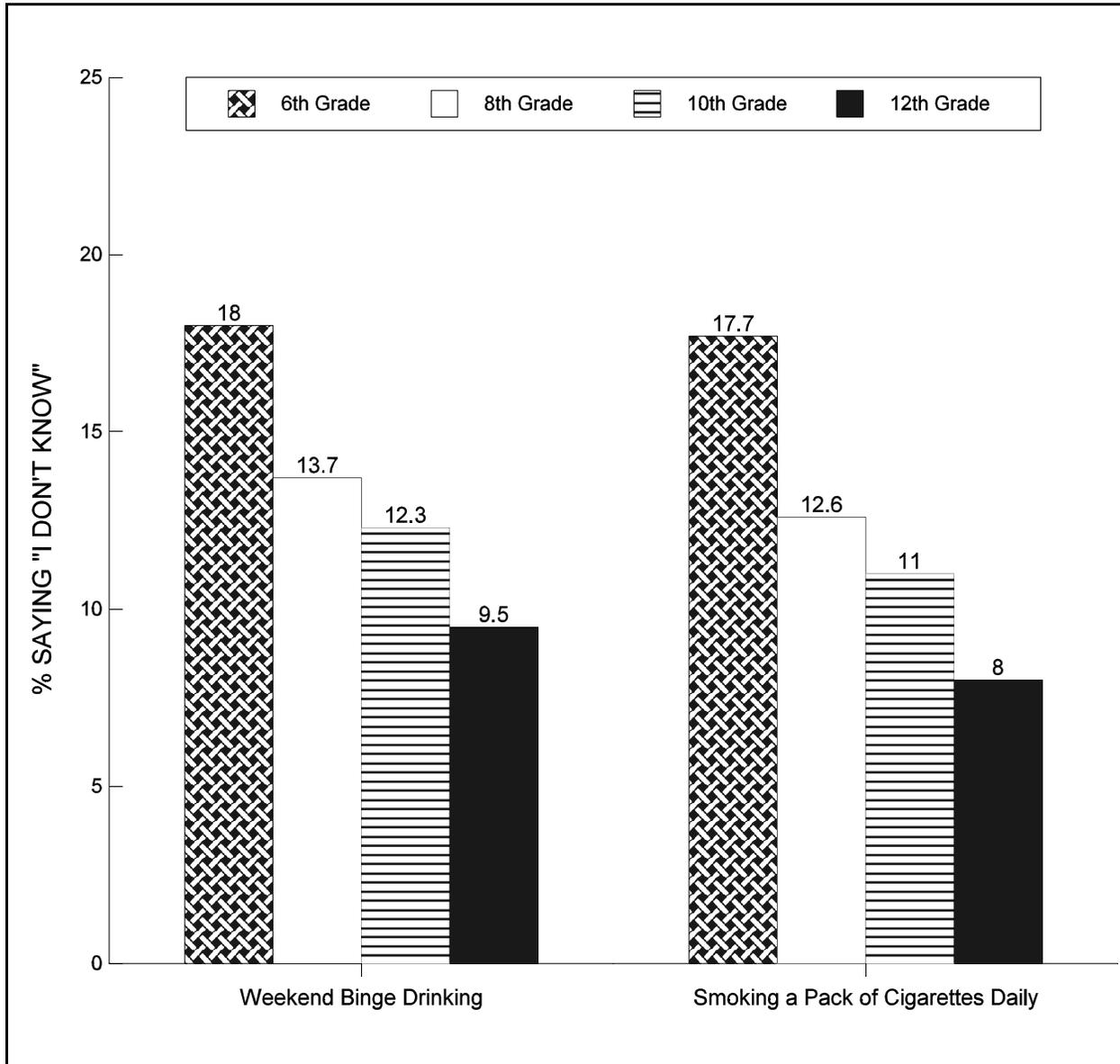
(Entries are percentages %)



NOTE: *Weekend Binge Drinking* refers to students who responded that there was “a lot of harm” associated with having five or more drinks of alcohol once or twice each weekend. *Smoking a Pack of Cigarettes Daily* refers to students who responded that there was “a lot of harm” associated with smoking one or more packs of cigarettes per day. Answer alternatives were (1) No harm, (2) Some harm, (3) A lot of harm, and (4) I don’t know.

FIGURE 49
Uncertainty of Harm Associated With Alcohol and Cigarettes:
Percentage of Students Who Indicated They “Don’t Know” How Much Harm Is
Associated With Alcohol and Cigarette Use, by Grade, 2003

(Entries are percentages %)



NOTE: *Weekend Binge Drinking* refers to students who responded “I don’t know” when asked how much people harm or hurt themselves when having five or more drinks of alcohol once or twice each weekend. *Smoking a Pack of Cigarettes Daily* refers to students who responded “I don’t know” when asked how much people harm or hurt themselves if they smoke one or more packs of cigarettes per day. Answer alternatives were (1) No harm, (2) Some harm, (3) A lot of harm, and (4) I don’t know.

Nationwide Comparisons Regarding Perceived Harmfulness of Substances

Overview of Key Findings. As in previous years, a greater proportion of students in Hawaii, compared to those in the same grades nationwide, associated a lot of harm with the occasional use of illicit drugs and with smoking one or more packs of cigarettes a day. The differences are quite pronounced for perceptions of harm associated with the use of marijuana, inhalants, and hallucinogens. Similar to previous years, the proportions of Hawaii students and students nationwide associating a lot of harm with weekend binge drinking are fairly similar to one another; a slightly greater proportion of 12th graders in Hawaii versus 12th graders nationwide associate harm with weekend binge drinking, equal proportions of 8th and 10th graders in Hawaii and nationwide associated harm with weekend binge drinking.

- A greater proportion of Hawaii students than students nationwide reported a lot of harm/risk associated with the occasional use of *marijuana*, *inhalants*, and *hallucinogens* (see Figure 50). Chapter 4 showed that Hawaii students are also less likely to have tried these illicit drugs than students nationwide. Although the nationwide risk perception questions are slightly different than the 2003 Hawaii harm perception questions, the extreme differences noted in 2003 between students in Hawaii and students nationwide are similar to those reported in previous years when the question format on the Hawaii survey was identical to the nationwide format (see Klinge, 2001).
- Hawaii reports for perceived harm associated with cocaine and club drugs are only slightly higher than national reports in grades 8 and 10; Hawaii reports for perceived harm associated with these drugs in grade 12 are substantially higher than nationwide reports (see Figures 50c and 50e). Only 56% of the seniors nationwide reported a lot of risk associated with using ecstasy or other club drugs occasionally, compared to 79% of the seniors in Hawaii; only 69% of the seniors nationwide reported a lot of risk associated with using cocaine occasionally, compared to 82% of the seniors in Hawaii. As addressed in Chapter 4, seniors in Hawaii are also less likely to report having tried cocaine (5%) than seniors nationwide (8%). Seniors in Hawaii, are also less likely to report having tried ecstasy (6%) than seniors nationwide (8% each).
- The percentages of Hawaii students associating a lot of harm with *binge drinking on the weekends* are fairly similar to those reported nationally – particularly in grades 8 and 10 (see Figure 50f). Differences in perception of harm associated with weekend binge drinking by 8th graders in Hawaii (56.4%) and 8th graders nationwide (56.5%) are nonexistent. The same is true at the 10th-grade level (52% each). In 12th grade, a greater proportion of students in Hawaii (52%) reported harm associated with weekend binge drinking than students nationwide (44%). The differences, however, are much smaller than those found for many of the illicit drugs.
- Perceptions of harm associated with *smoking a pack or more of cigarettes* are higher among 8th, 10th, and 12th graders in Hawaii (69%, 72%, and 77%, respectively) than students in the same grade nationwide (58%, 66%, and 72%, respectively).

FIGURE 50
Perceived Harmfulness Associated With Substances (Nationwide versus Hawaii):
Percentage of Students Who Indicated “A Lot of Harm/Great Risk”
Associated With Using Various Substances, by Grade, 2003

(Entries are percentages %)

Figure 50a: “A Lot of Harm” Associated With Using Marijuana Occasionally

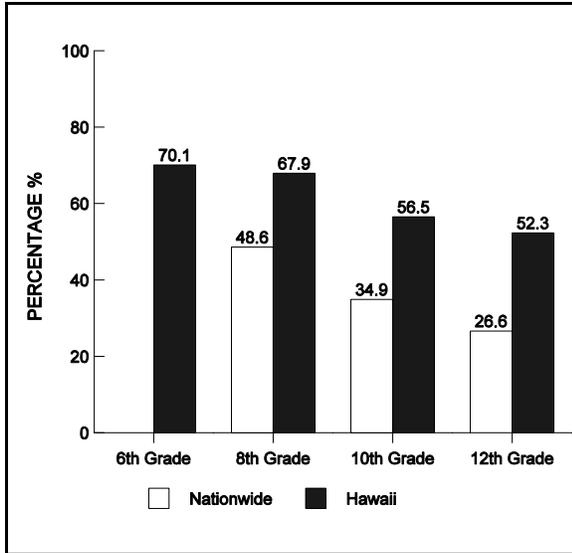


Figure 50b: “A Lot of Harm” Associated With Using Inhalants Occasionally

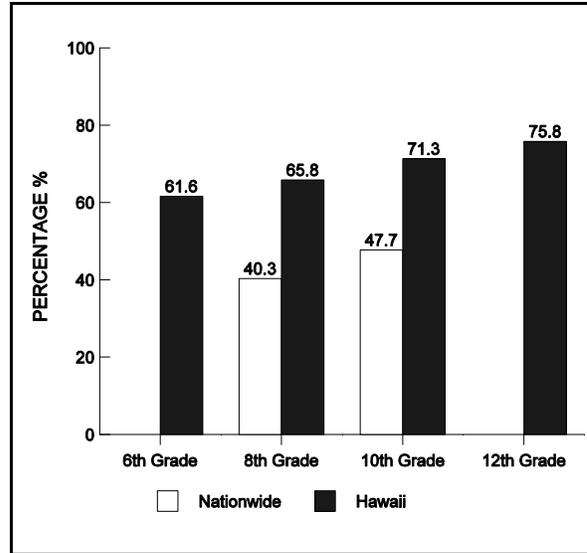


Figure 50c: “A Lot of Harm” Associated With Using Cocaine Occasionally

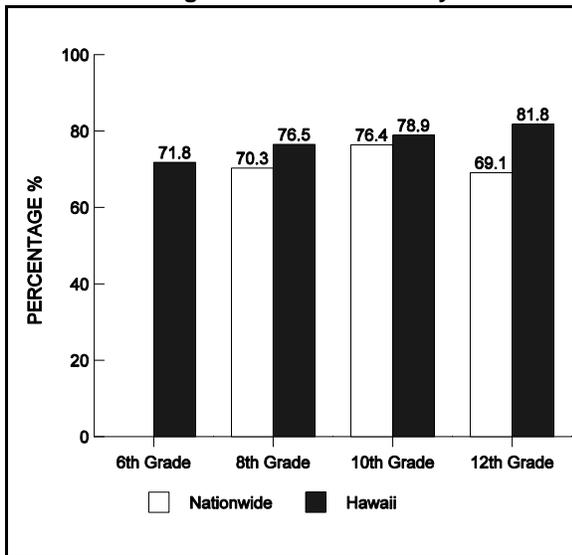
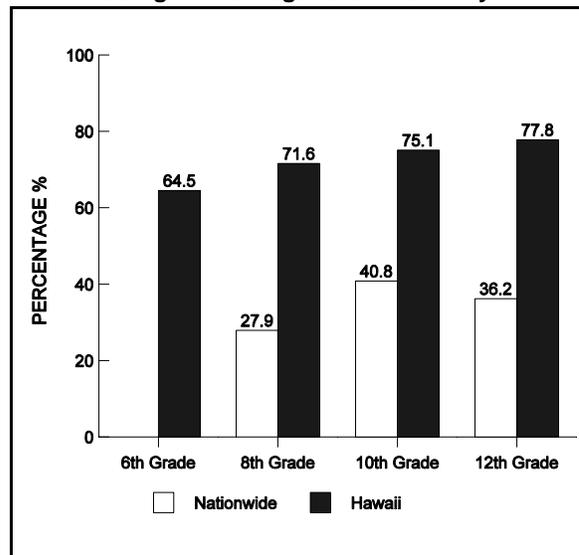


Figure 50d: “A Lot of Harm” Associated With Using Hallucinogens Occasionally



(Figures continued on next page)

FIGURE 50 (continued)
Perceived Harmfulness Associated With Substances (Nationwide versus Hawaii):
Percentage of Students Who Indicated “A Lot of Harm/Great Risk”
Associated With Using Various Substances, by Grade, 2003
 (Entries are percentages %)

Figure 50e: “A Lot of Harm” Associated With Using “Club Drugs” Occasionally

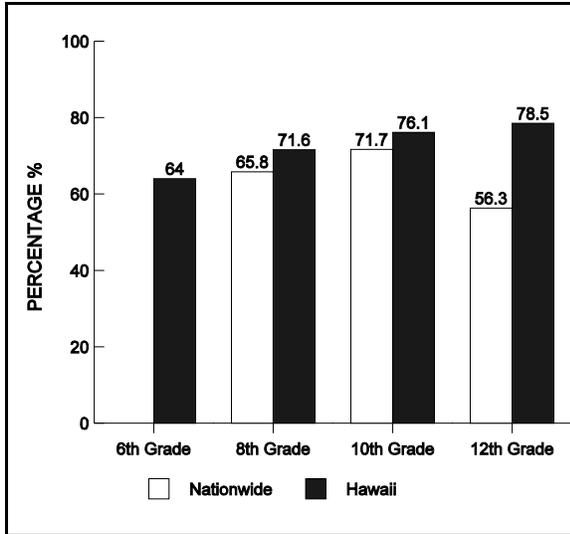


Figure 50f: “A Lot of Harm” Associated With 5 or More Drinks on the Weekends

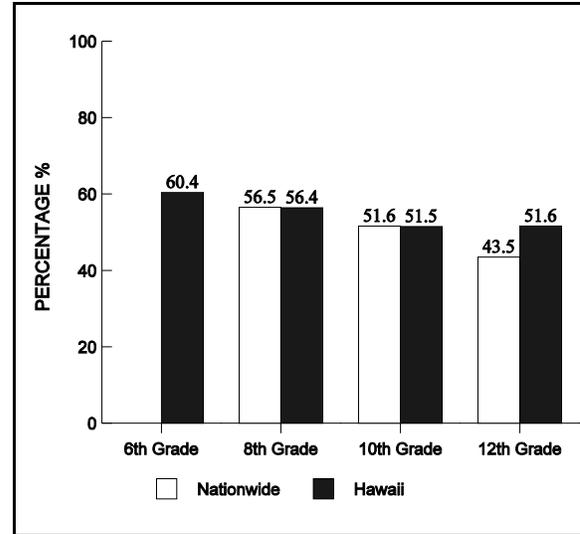
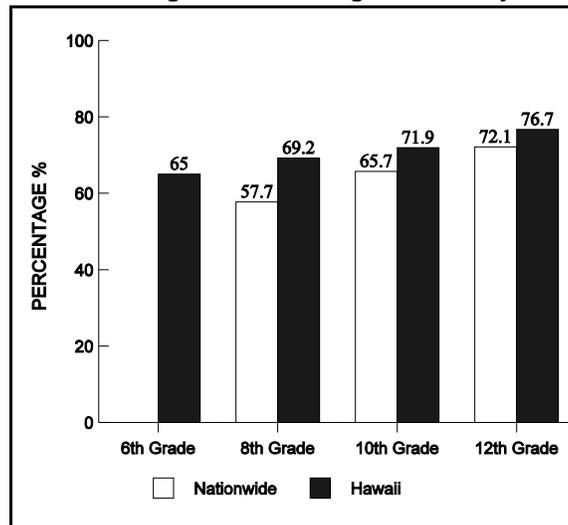


Figure 50g: “A Lot of Harm” Associated With Smoking 1+ Packs of Cigarettes a Day



NOTES: Answer alternatives for the Hawaii survey were (1) No harm, (2) Some harm, (3) A lot of harm, and (4) I don’t know. Answer alternatives for the nationwide survey were (1) No risk, (2) Slight risk, (3) Moderate risk, (4) Great risk, and (5) Can’t say, drug unfamiliar. Entries reflect the percentage of students who responded “A lot of harm” or “Great risk.” Nationwide data is only available for grades 8, 10, and 12. Club Drugs refers to use of ecstasy, GHB, Rohypnol, and/or ketamine.

Trends in Perceived Harmfulness of Substances, 1987-2003

Table 42 displays the trend data in students' perceptions of harm associated with various substances. In 2002 and 2003, students were asked, "How much do you think people harm or hurt themselves if they use various substances," with answer alternatives being (1) *No harm*, (2) *Some harm*, (3) *A lot of harm*, and (4) *I don't know*. In 1987-2000, students were asked, "How much do you think people risk harming themselves if they use various substances," with answer choices being (1) *No risk*, (2) *Some risk*, (3) *A lot of risk*, and (4) *I don't know*. The wording of the question was changed because students have consistently had problems with understanding the word "risk." Table 42 and Figure 51 display the percentage of students from 1987 to 2003 who reported "a lot of risk" or "a lot of harm" associated with using illicit drugs, alcohol, and tobacco (note: risk perceptions were not assessed in 1989 and 1991).

Overview of Key Findings. Perceived harmfulness perceptions associated with various illicit drugs have basically been on an upward trajectory. In 2003, perceived harmfulness perceptions associated with illicit drugs continued to climb in the lower grades, but tapered off or dropped slightly in the upper grades for several of the illicit drugs. The exceptions were for marijuana and ecstasy risk perceptions where increases were noted across all grade levels in 2003. Perceptions of harm associated with weekend binge drinking and cigarette use were on the rise from 1987 until 1998, but started on a downward trajectory in 2000 and have continued to drop among the students in upper grades. In grade 6, perceptions of harm associated with alcohol and cigarettes were on the rise from 1987 until 1998, dropped in 2000, but have been climbing back up since. In grade 8, perceptions of harm associated with alcohol have basically stabilized, but perceptions of harm associated with cigarette smoking have increased since 2002.

- The proportions of 6th graders indicating "a lot of risk/harm" associated with the occasional use of *marijuana* has been on a consistent upward trajectory, with a 6 percentage point increase occurring in 2003 (see Table 42 and Figure 51a). For 8th graders, perceptions of harm related to marijuana use have also climbed over the years, with a 7 percentage point increase occurring in 2003. For 10th and 12th graders, perceptions of harm related to marijuana use have fluctuated over the years. In 2003, the proportion of students associating "a lot of risk/harm" increased by 3 percentage points for 10th graders and 2 percentage points for 12th graders. Marijuana is one of two illicit drugs showing an increase in perceptions of harm across all four grade levels in 2003.
- Perceptions of harm associated with the occasional use of *inhalants* (see Figure 51b) and the occasional use of *methamphetamine* (see Figure 51d) have been basically increasing since 1998. In 2003, perceptions of harm associated with the occasional use of inhalants continued to rise in grades 6 and 8, but dropped slightly in grades 10 and 12. Perceptions of harm associated with the occasional use of methamphetamine continued on an upward trajectory in 2003, with a 9 percentage point increase in grade 6, a 6 percentage point increase in grade 8, and a 1 percentage point increase in grade 10. In grade 12, methamphetamine risk perceptions tapered off at 83%.

TABLE 42
Trends in Perceived Harmfulness of Illicit Drugs, Alcohol, and Cigarettes as Perceived
by Sixth, Eighth, Tenth, and Twelfth Graders, 1987-2003

| | % saying "A lot of harm/risk" ^a | | | | | | | |
|---|--|------|------|------|------|------|------|----------------|
| <i>Q: How much do you think people harm or hurt themselves (physically or in other ways) if they:</i> | 1987 | 1993 | 1996 | 1998 | 2000 | 2002 | 2003 | '02-'03 change |
| Use marijuana (hash, pakalolo, pot, weed) occasionally? occasionally | | | | | | | | |
| <i>6th Grade</i> | 19.0 | 39.0 | 52.6 | 56.5 | 55.5 | 64.6 | 70.1 | +5.5 |
| <i>8th Grade</i> | 46.0 | 44.0 | 57.4 | 57.4 | 60.5 | 61.3 | 67.9 | +6.6 |
| <i>10th Grade</i> | 48.0 | 47.0 | 54.0 | 47.7 | 55.0 | 53.7 | 56.5 | +2.8 |
| <i>12th Grade</i> | 49.0 | 50.0 | 51.8 | 44.6 | 50.4 | 50.3 | 52.3 | +2.0 |
| Use inhalants (glue, paint, sprays) occasionally? ^b | | | | | | | | |
| <i>6th Grade</i> | — | — | 35.8 | 38.0 | 49.0 | 57.6 | 61.6 | +4.0 |
| <i>8th Grade</i> | — | — | 49.1 | 43.6 | 58.5 | 64.8 | 65.8 | +1.0 |
| <i>10th Grade</i> | — | — | 54.4 | 45.6 | 65.5 | 71.9 | 71.3 | -0.6 |
| <i>12th Grade</i> | — | — | 58.2 | 48.5 | 73.1 | 76.8 | 75.8 | -1.0 |
| Use cocaine (crack, coke, blow, freebase) occasionally? ^c | | | | | | | | |
| <i>6th Grade</i> | 26.0 | — | 58.0 | 60.0 | 58.4 | 65.8 | 71.8 | +6.0 |
| <i>8th Grade</i> | 46.0 | 37.0 | 74.4 | 68.6 | 69.3 | 70.3 | 76.5 | +6.3 |
| <i>10th Grade</i> | 55.0 | 50.0 | 83.6 | 78.1 | 80.6 | 78.7 | 78.9 | +0.2 |
| <i>12th Grade</i> | 57.0 | 60.0 | 84.9 | 82.1 | 86.8 | 82.7 | 81.8 | -0.9 |
| Use methamphetamine (crystal meth, speed, ice, batu, crank) occasionally? ^d | | | | | | | | |
| <i>6th Grade</i> | — | — | 49.6 | 49.5 | 53.9 | 62.9 | 72.3 | +9.4 |
| <i>8th Grade</i> | — | — | 63.1 | 56.2 | 65.4 | 69.9 | 76.1 | +6.2 |
| <i>10th Grade</i> | — | — | 70.1 | 61.7 | 75.1 | 78.8 | 80.0 | +1.2 |
| <i>12th Grade</i> | — | — | 74.2 | 66.5 | 81.2 | 83.1 | 82.5 | -0.6 |
| Use hallucinogens (LSD/PCP, shrooms, acid) occasionally? | | | | | | | | |
| <i>6th Grade</i> | — | — | 49.8 | 52.4 | 55.2 | 60.1 | 64.5 | +4.4 |
| <i>8th Grade</i> | — | — | 69.4 | 61.6 | 68.6 | 67.8 | 71.6 | +3.8 |
| <i>10th Grade</i> | — | — | 74.8 | 67.2 | 77.4 | 74.9 | 75.1 | +0.2 |
| <i>12th Grade</i> | — | — | 77.0 | 69.2 | 82.8 | 78.5 | 77.8 | -0.7 |

(Table continued on next page)

TABLE 42 (continued)
**Trends in Perceived Harmfulness of Illicit Drugs, Alcohol, and Cigarettes as Perceived
 by Sixth, Eighth, Tenth, and Twelfth Graders, 1993-2003**

% saying “a lot of risk/harm”^a

| <i>Q: How much do you think people harm or hurt themselves (physically or in other ways) if they:</i> | 1987 | 1993 | 1996 | 1998 | 2000 | 2002 | 2003 | '02-'03 change |
|---|------|------|------|------|------|------|------|----------------|
| Use ecstasy or other “ club drugs ” (E, XTC, GHB, liquid ecstasy, liquid X, Rohypnol, roofies, ketamine, special K) occasionally? | | | | | | | | |
| <i>6th Grade</i> | — | — | — | — | — | 59.9 | 64.0 | +4.1 |
| <i>8th Grade</i> | — | — | — | — | — | 67.2 | 71.6 | +4.4 |
| <i>10th Grade</i> | — | — | — | — | — | 73.4 | 76.1 | +2.7 |
| <i>12th Grade</i> | — | — | — | — | — | 76.7 | 78.5 | +1.8 |
| Have five or more drinks of alcohol once or twice each weekend? | | | | | | | | |
| <i>6th Grade</i> | 7.0 | — | 50.0 | 56.6 | 52.6 | 54.0 | 60.4 | +6.4 |
| <i>8th Grade</i> | 26.0 | 26.0 | 58.0 | 60.6 | 57.7 | 54.0 | 56.4 | +2.4 |
| <i>10th Grade</i> | 28.0 | 31.0 | 62.0 | 64.5 | 58.5 | 52.3 | 51.5 | -0.8 |
| <i>12th Grade</i> | 28.0 | 37.0 | 59.7 | 61.5 | 56.7 | 51.1 | 51.6 | +0.5 |
| Smoke one or more packs of cigarettes a day? | | | | | | | | |
| <i>6th Grade</i> | 26.0 | 33.0 | 55.6 | 70.0 | 57.4 | 60.8 | 65.0 | +4.2 |
| <i>8th Grade</i> | 34.0 | 39.0 | 68.0 | 77.6 | 67.1 | 65.0 | 69.2 | +4.2 |
| <i>10th Grade</i> | 45.0 | 52.0 | 77.6 | 87.6 | 79.1 | 74.0 | 71.9 | -2.1 |
| <i>12th Grade</i> | 55.0 | 63.0 | 79.3 | 89.9 | 83.2 | 77.7 | 76.7 | -1.0 |

NOTES: ‘—’ indicates data not available. Perception of harm data was not reported in 1989 and 1991.

^a In 2002 and 2003, answer alternatives were (1) No harm, (2) Some harm, (3) A lot of harm, and (4) I don’t know. In 1996-2000, students were asked “How much do you think people risk harming themselves,” with answer choices being (1) No risk, (2) Some risk, (3) A lot of risk, and (4) I don’t know. The wording of the question was changed in 2002 because students have consistently had problems with understanding the word “risk.”

^b In 1996-2000, students were asked how much risk was associated with using inhalants “once or twice.” In 2002-2003, students were asked how much harm was associated with using inhalants “occasionally.”

^c In 1987 and 1993, students were asked how much risk was associated with using cocaine “once or twice.” In 2002-2003, students were asked how much harm was associated with using cocaine “occasionally.”

^d In 1996-2000, students were asked how much risk was associated with using methamphetamine “once or twice.” In 2002-2003, students were asked how much harm was associated with using methamphetamine “occasionally.”

FIGURE 51
Trends in Perceived Harmfulness Associated With Various Substances:
Percentage of Students Who Indicated “A Lot of Harm”
Associated With Substance Use, by Grade, 1987-2003

Figure 51a: “A Lot of Harm” Associated With Using Marijuana Occasionally

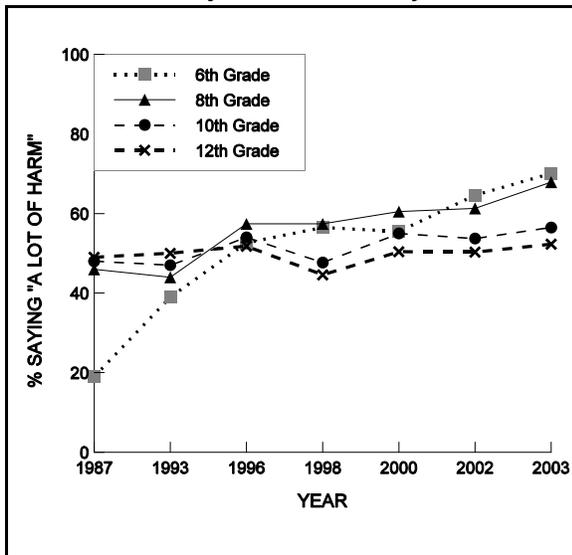


Figure 51b: “A Lot of Harm” Associated With Using Inhalants Occasionally/Once or Twice

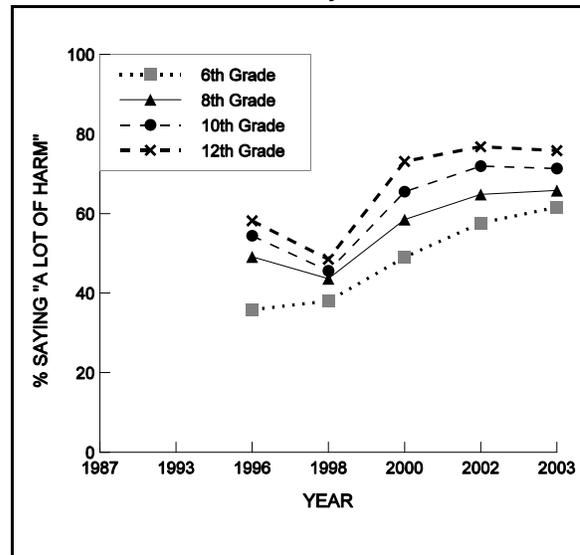


Figure 51c: “A Lot of Harm” Associated With Using Cocaine Occasionally

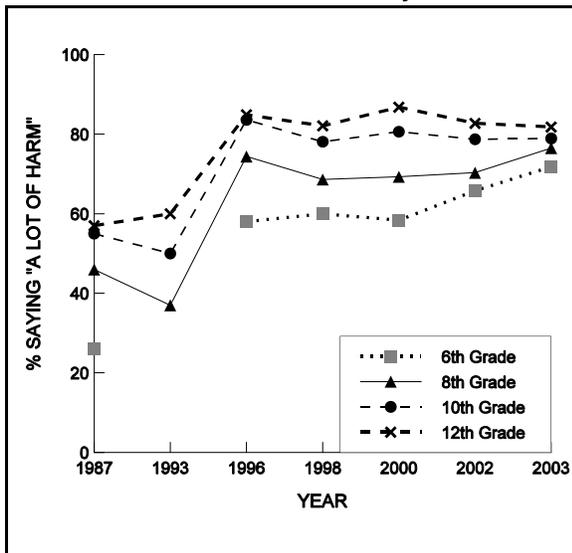
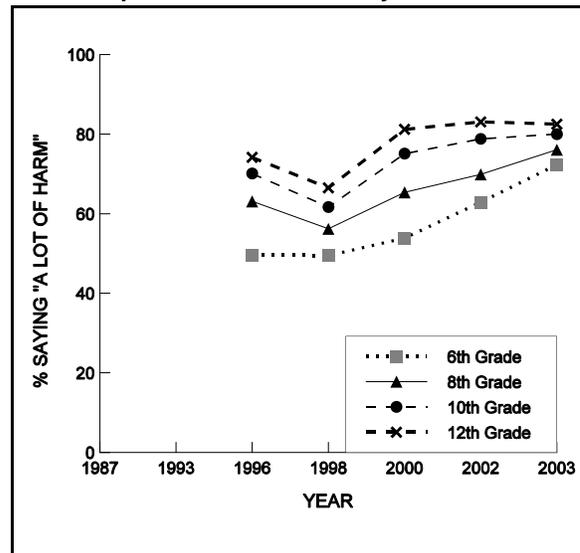


Figure 51d: “A Lot of Harm” Associated With Using Methamphetamine Occasionally/Once or Twice



(Figures continued on next page)

FIGURE 51 (continued)
Trends in Perceived Harmfulness Associated With Various Substances:
Percentage of Students Who Indicated “A Lot of Harm”
Associated With Substance Use, by Grade, 1987-2003

Figure 51e: “A Lot of Harm” Associated With Using Hallucinogens Occasionally

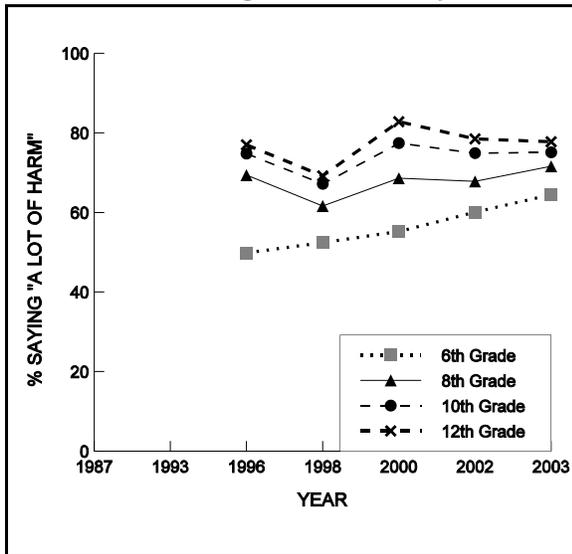


Figure 51f: “A Lot of Harm” Associated With Having 5+ Alcohol Drinks Once or Twice Each Weekend

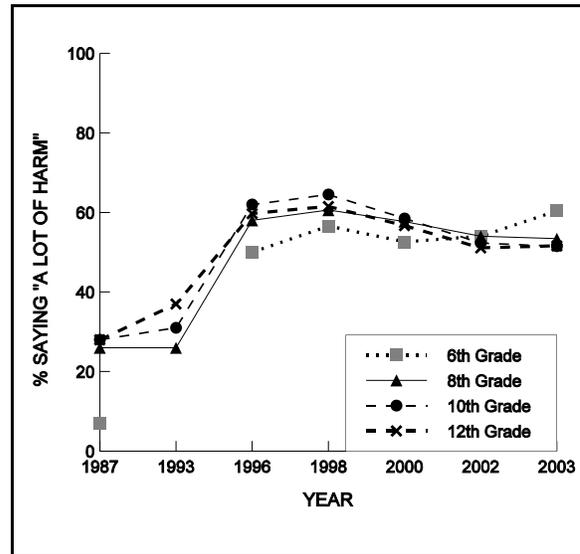
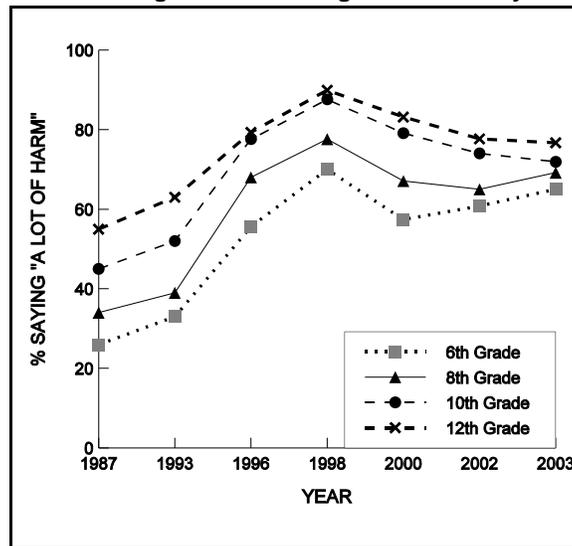


Figure 51g: “A Lot of Harm” Associated With Smoking 1+ Packs of Cigarettes Per Day



NOTES: Entries reflect the percentage of students who responded “a lot of risk” in 1987-2000 or “a lot of harm” in 2002-2003. In 1996-2000, students were asked how much risk was associated with using methamphetamine and inhalants “once or twice,” rather than “occasionally.” In 1987 and 1993, students were asked how much risk was associated with using cocaine “once or twice,” rather than “occasionally.”

- From 1993 to 1996, perceptions of harm associated with the occasional use of *cocaine* increased drastically for 8th, 10th, and 12th graders. In 2003, perceptions of harm associated with the occasional use of cocaine increased in grades 6 and 8, stabilized in grade 10, and decreased slightly in grade 12 (see Figure 51c).
- Figure 51e demonstrates that perceptions of harm associated with *hallucinogens* have been gradually increasing for 6th graders since 1996 and are up 4 percentage points in 2003. For 8th, 10th, and 12th graders, the trends have been more volatile, with decreases occurring from 1996 to 1998, increases occurring from 1998 to 2000, and slight decreases occurring again from 2000 to 2002. In 2003, perceptions of harm associated with hallucinogens have stabilized in grade 10 and continue to drop slightly in grade 12.
- The proportion of students indicating “a lot of harm/risk” associated with *binge drinking on the weekends* and *smoking one or more packs of cigarettes a day* had been increasing from 1987 to 1998, but started to decline in 2000 and basically have continued on that course in the upper grades (see Figures 51f and 51g). In 2003, more 6th graders associated a lot of harm with weekend binge drinking (60%) than in 2002 (54%). Similarly, more 6th graders associated a lot of harm with smoking one or more packs of cigarettes per day in 2003 (65%) than in 2002 (61%). Perceptions of harm associated with cigarette smoking and weekend binge drinking have also increased in grade 8 by at least 2 percentage points.

Relationship Between Perceived Harmfulness and Use of Various Substances

Perceived harmfulness of alcohol, tobacco, and other drugs is generally believed to be associated with substance use such that more dangerous substances are used by fewer students. The proposed relationship between perceptions of harm and substance use were examined by correlating the perceived risk/harmfulness associated with alcohol, tobacco, and illicit drugs with corresponding alcohol, tobacco, and illicit drug use. Correlations are listed in Table 43.

Predictor Variables. Four risk perception scales were created using the questions that asked how much students harmed themselves if they engaged in certain drug use activity. Response choices for all scales were (1) *no harm*, (2) *some harm*, (3) *a lot of harm*, and (4) *I don't know*. Students answering “I don't know” were excluded from the analyses. The cigarette risk scale was a 1-item, 3-point scale that asked how much students think people harm themselves if they smoke one or more packs of cigarettes per day. The alcohol risk scale was a 1-item, 3 point scale that asked how much students think people harm themselves if they have five or more drinks once or twice each weekend. The marijuana risk scale was a 1-item, 3-point scale that asked how much students think people harm themselves if they use marijuana occasionally. The drug use risk scale was a 5-item, 3-point scale that addressed how much harm was associated with using a variety of illicit drugs. The five items assessed harm associated with using marijuana occasionally, using cocaine occasionally, using methamphetamine occasionally, using hallucinogens occasionally, and using ecstasy or other club drugs occasionally ($\alpha=.92$).

TABLE 43
Correlations Between Perceived Harmfulness and Substance Use, by Grade, 2003

(Entries are correlations)

| | 6th Grade | | 8th Grade | | 10th Grade | | 12th Grade | |
|-------------------------------|----------------|--------------------|----------------|--------------------|----------------|--------------------|----------------|--------------------|
| Perceptions of Cigarette Risk | Try Cigarettes | Monthly Cigarettes |
| | | -.06 | -.07 | -.12 | -.15 | -.08 | -.11 | NS |

| | 6th Grade | | | 8th Grade | | | 10th Grade | | | 12th Grade | | |
|-----------------------------|-------------|------------|-----------------|-------------|------------|-----------------|-------------|------------|-----------------|-------------|------------|-----------------|
| Perceptions of Alcohol Risk | Try Alcohol | Been Drunk | Monthly Alcohol | Try Alcohol | Been Drunk | Monthly Alcohol | Try Alcohol | Been Drunk | Monthly Alcohol | Try Alcohol | Been Drunk | Monthly Alcohol |
| | | -.08 | NS | -.07 | -.20 | -.17 | -.15 | -.17 | -.19 | -.21 | -.17 | -.20 |

| | 6th Grade | | 8th Grade | | 10th Grade | | 12th Grade | |
|-------------------------------|---------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|-------------------|
| Perceptions of Marijuana Risk | Try Marijuana | Monthly Marijuana |
| | | -.08 | -.08 | -.28 | -.23 | -.28 | -.24 | -.25 |

| | 6th Grade | | 8th Grade | | 10th Grade | | 12th Grade | |
|------------------------------|----------------------------------|---------------------------------|----------------------------------|---------------------------------|----------------------------------|---------------------------------|----------------------------------|---------------------------------|
| Perceptions of Drug Use Risk | Number of Drugs Used in Lifetime | Number of Drugs Used Last Month | Number of Drugs Used in Lifetime | Number of Drugs Used Last Month | Number of Drugs Used in Lifetime | Number of Drugs Used Last Month | Number of Drugs Used in Lifetime | Number of Drugs Used Last Month |
| | | -.08 | -.07 | -.13 | -.12 | -.15 | -.15 | -.14 |

NOTES: *Cigarette Risk* is a 1-item, 3-point scale that asked how much students think people harm themselves if they smoke one or more packs of cigarettes per day. *Alcohol Risk* is a 1-item, 3-point scale that asked how much students think people harm themselves if they have five or more drinks once or twice each weekend. *Marijuana Risk* is a 1-item, 3-point scale that asked how much students think people risk harming themselves if they use marijuana occasionally. *Drug Use Risk* is a 5-item, 3-point scale ($\alpha=.92$) that asked how much students think people risk harming themselves if they use marijuana occasionally, use cocaine occasionally, use methamphetamine occasionally, use hallucinogens occasionally, and use ecstasy or other "club drugs" occasionally. All risk scales included the following answer alternatives (1) no harm, (2) some harm, (3) a lot of harm, and (4) I don't know. Students answering "I don't know" are excluded in the above analyses. *Try Cigarettes* and *Try Marijuana* are both 1-item, dichotomous scales that asked the students if they ever used the substance. *Monthly Cigarette* is a 1-item, 6-point scale that asked how many days the students have used cigarettes. *Monthly Alcohol* is a 1-item, 6-point scale that asked how many days the students have used beer/wine or hard liquor. *Monthly Marijuana* is a 1-item, 6-point scale that asked how many days the students have used marijuana. Answer alternatives were (1) none, (2) 1-2 days, (3) 3-5 days, (4) 6-9 days, (5) 10-19 days, and (6) 20 or more days. *Number of Drugs Used in Lifetime* and *Number of Drugs Used Last Month* both ranged from 0 drugs to 12 drugs (marijuana, inhalants, cocaine, methamphetamine, heroin or other opiates, sedatives or tranquilizers, hallucinogens, steroids, ecstasy/MDMA, GHB, Rohypnol, ketamine). Unless otherwise noted, all correlations in the table are significant, $p < .001$.

Outcome Variables. Outcome variables included lifetime use, frequency of monthly use, number of drugs used in lifetime, and number of drugs used in the last month. Each outcome corresponded with the drug risk being assessed. For instance, cigarette risk was correlated with trying cigarettes and frequency of smoking in the past month. A dichotomous dependent variable was created for each substance that corresponded to lifetime use (i.e., trying cigarettes, trying alcohol, being drunk, and trying marijuana). Amount of monthly cigarette use, amount of monthly alcohol use, and amount of monthly marijuana use were each 1-item, 6-point scales that asked how many days in the past 30 days did the student use the substance. Response choices were (1) *0 days*, (2) *1-2 days*, (3) *3-5 days*, (4) *6-9 days*, (5) *10-19 days*, and (6) *20 or more days*. The number of drugs used in one's lifetime and the number of drugs used in the past 30 days ranged from 0 drugs to 12 drugs (marijuana, inhalants, cocaine, methamphetamine, heroin or other opiates, sedatives or tranquilizers, hallucinogens, steroids, ecstasy/MDMA, GHB, Rohypnol, and ketamine).

Key Findings. Table 43 shows that risk perceptions are negatively associated with substance use ($p < .001$ for all correlations). Thus, as students associate greater harm with certain substances, their chances of trying substances and their amount of use decreases. However, several of the correlations are quite small; thus, other things are accounting for adolescent substance use in addition to risk perceptions. Correlations are typically higher among the upper grades than the lower grades. For instance, the correlation between marijuana risk perceptions and monthly marijuana use are lower for 6th graders ($r = -.08$) than for 8th ($r = -.23$), 10th, ($r = -.24$) and 12th graders ($r = -.25$). The largest correlations are between marijuana risk perceptions and marijuana use; the smallest correlations are between cigarette risk perceptions and cigarette use. See Table 43 for correlations.

PERCEIVED AVAILABILITY OF SUBSTANCES

A set of questions asked students to indicate how easy they thought it would be for them to get various illicit drugs, alcohol, and cigarettes, if they wanted some. The option choices included (1) *very easy*, (2) *fairly easy*, (3) *fairly difficult*, and (4) *very difficult*. The proportions of students saying that it is "fairly easy" or "very easy" to get access to each substance are discussed below. Comparisons to nationwide results and trend data are made where data is available. The relationship between availability perceptions and drug use are discussed last.

Table 44 provides the percentage of Hawaii students and students nationwide indicating that various illicit drugs, alcohol, and cigarettes are fairly easy to obtain (e.g., "very easy" or "fairly easy"). Figure 52 displays the percentage of students indicating that various illicit drugs, alcohol, and cigarettes are easy to obtain. Figure 53 compares the illicit drug, alcohol, and cigarette availability perceptions of Hawaii students to students nationwide. Trend data can be found in Table 45 and Figure 54. The relationship between availability perceptions and substance use are noted in Table 46. The major findings shown in the tables and figures are discussed next.

TABLE 44
Perceived Availability of Illicit Drugs, Alcohol, and Cigarettes as Perceived by
Sixth, Eighth, Tenth, and Twelfth Graders, Nationwide versus Hawaii, 2003

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

| | 6th Grade ^b | 8th Grade | | 10th Grade | | 12th Grade | |
|---|------------------------|-----------------|-------------|-----------------|-------------|-----------------|-------------|
| <i>Q: If you wanted some, how easy would it be for you to get:</i> | Hawaii 2003 | Nationwide 2003 | Hawaii 2003 | Nationwide 2003 | Hawaii 2003 | Nationwide 2003 | Hawaii 2003 |
| Marijuana (hash, pakalolo, pot, weed)? | 7.8 | 44.8 | 25.5 | 73.9 | 55.6 | 87.1 | 69.8 |
| Cocaine (crack, coke, blow, freebase)? ^c | 6.0 | 22.5 | 9.7 | 29.6 | 19.5 | 43.3 | 27.7 |
| Methamphetamine (crystal meth, ice, speed, batu, crank)? | 5.6 | 14.1 | 9.0 | 19.0 | 19.2 | 26.1 | 27.0 |
| Hallucinogens (LSD/PCP, shrooms, acid)? ^d | 4.9 | 14.0 | 8.0 | 23.1 | 17.4 | 47.2 | 25.0 |
| Ecstasy or other “ club drugs ” (E, XTC, G, GHB, liquid ecstasy, Rohypnol, roofies, ketamine, special K)? | 5.1 | 21.6 | 8.5 | 36.3 | 19.7 | 57.5 | 32.1 |
| Alcohol (beer, wine, or hard liquor)? | 19.5 | 67.0 | 47.4 | 83.4 | 72.3 | 94.2 | 81.7 |
| Cigarettes? | 18.0 | 63.1 | 43.0 | 80.7 | 67.8 | — | 80.4 |

NOTES: ‘ — ’ indicates data not available. *Nationwide* refers to results from the 2003 *Monitoring the Future Study (MTF)*.

^a Answer alternatives were: (1) Very easy, (2) Fairly easy, (3) Fairly difficult, and (4) Very difficult.

^b *MTF* does not survey 6th graders.

^c *MTF* survey measured Crack and Cocaine Powder separately. The number reported in the table is the higher of the two.

^d *MTF* survey measured LSD and PCP separately. The number reported in the table is the higher of the two.

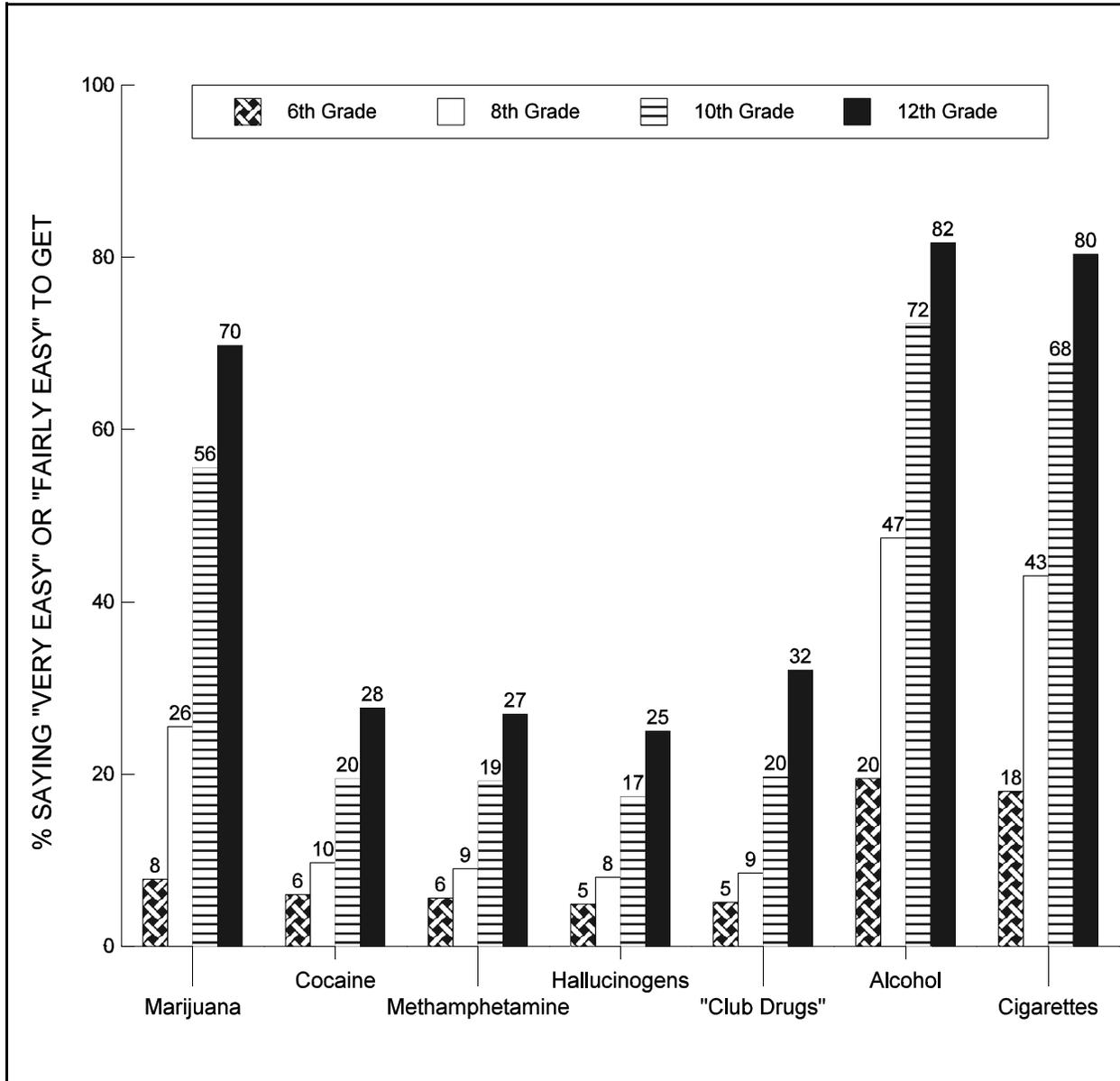
Beliefs about Availability of Illicit Drugs, Alcohol, and Cigarettes

Overview of Key Findings. In general, the more widely used drugs are seen as more available than drugs with lower prevalence rates. Marijuana, as opposed to other illicit drugs, is viewed by more students as fairly easy to obtain: More than half of the 10th graders and two-thirds of the 12th graders reported that it is fairly easy to obtain marijuana. Ecstasy is the next most available illicit drug for 12th graders, with approximately one third saying that ecstasy is fairly easy to obtain. Hallucinogens are perceived by the fewest students as fairly easy to obtain. Alcohol and tobacco are viewed as much easier to obtain than illicit drugs, with the majority of 10th and 12th graders reporting easy access to alcohol and cigarettes. Just less than half of the 8th graders and approximately one fifth of the 6th graders viewed alcohol and cigarettes as fairly easy to get. Illicit drugs, alcohol, and cigarettes are perceived as more available to older students than to younger students. Alcohol, cigarettes, and most illicit drugs are viewed by fewer Hawaii students as available than students nationwide in the same grades. In grades 10 and 12, reports regarding methamphetamine availability are very similar between Hawaii students and students nationwide.

- In general, the more widely used drugs, such as marijuana and ecstasy, are seen as more available (see Figure 52 on the next page). *Marijuana* is viewed by more students, in all grades, as fairly easy to obtain, compared to all other illicit drugs. Eight percent of 6th graders, 26% of 8th graders, 56% of 10th graders, and 70% of 12th graders indicated that marijuana is fairly easy to obtain. These percentages are at least 17 percentage points lower than nationwide results (see Figure 53a). Nationwide, 45% of 8th graders, 74% of 10th graders, and 87% of 12th graders reported that marijuana is fairly easy to obtain.
- A larger proportion of 12th graders viewed *ecstasy and other club drugs* as fairly easy to obtain compared to cocaine, methamphetamine, and hallucinogens (see Figure 52). Differences in perceived availability of various illicit drugs, other than marijuana, are minimal for students in grades 6, 8, and 10. Although nearly one third of 12th graders (32%) indicated that ecstasy and other club drugs are fairly easy to obtain, only 5% of 6th graders, 9% of 8th graders, and 20% of 10th graders reported that ecstasy or other club drugs are easily accessible.
- Following ecstasy, *cocaine* is viewed by 12th graders as the next most available illicit drug, and is viewed by 12th graders as more accessible than *hallucinogens*: 28% of 12th graders view cocaine as easily accessible, whereas 25% of 12th graders view hallucinogens as easily accessible. For the past decade, 12th graders in Hawaii have always reported hallucinogens as more accessible than cocaine (see Table 45 on page 363), which coincided with higher prevalence reports for hallucinogens compared to cocaine in years prior to 2003. In 2003, cocaine prevalence rates have become nearly equivalent to hallucinogen prevalence rates in most of the grades (see Chapter 5). The percentages of students in grades 6, 8, and 10 viewing cocaine as easily accessible (6%, 10%, and 20%, respectively) are currently slightly higher than the percentages of students in the same grades viewing hallucinogens as easily accessible (5%, 8%, and 17%).

FIGURE 52
Perceived Availability of Illicit Drugs, Alcohol, and Cigarettes:
Percentage of Students Who Indicated “Very Easy” or “Fairly Easy” to
Obtain Various Illicit Drugs, Alcohol, and Cigarettes, by Grade, 2003

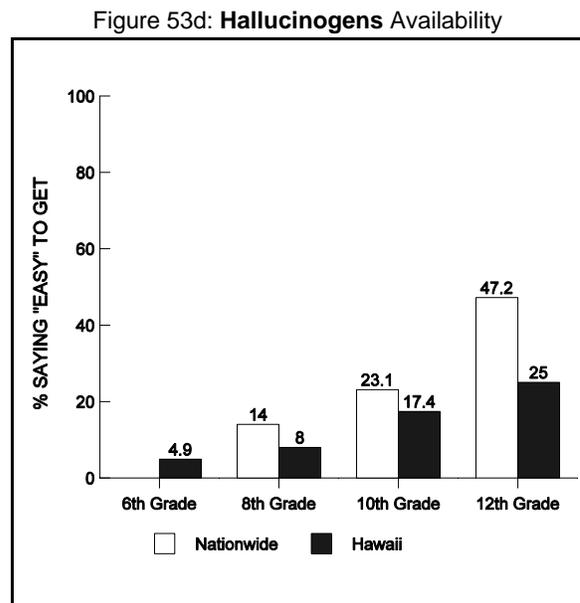
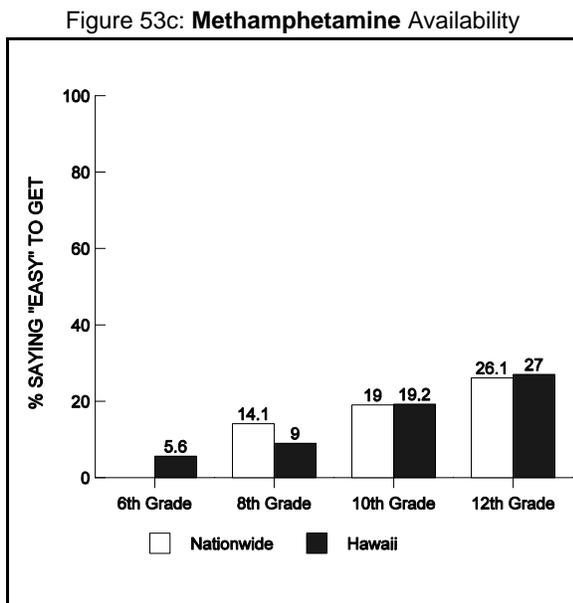
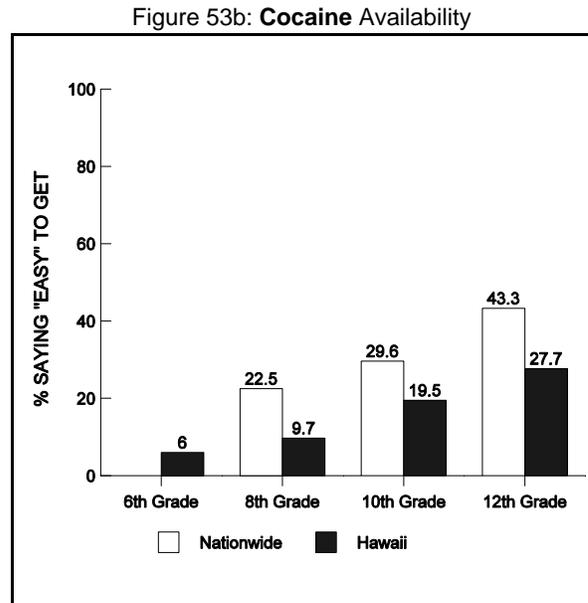
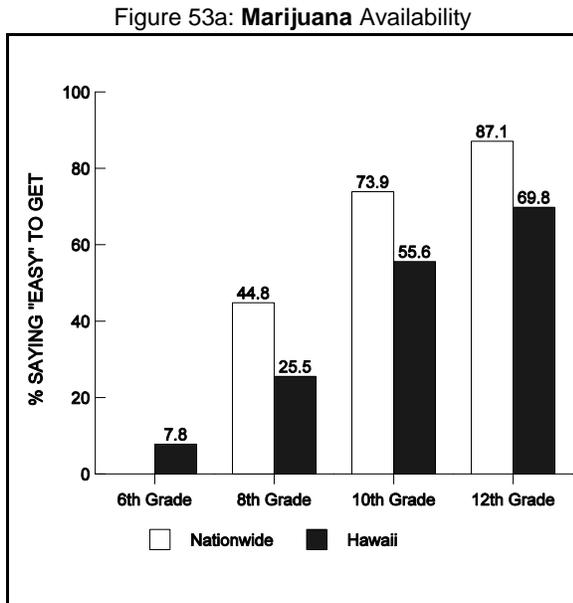
(Entries are percentages %)



NOTES: Entries reflect the percentage of students who answered either “very easy” or “fairly easy” to get various substances. Answer alternatives were (1) Very easy, (2) Fairly easy, (3) Fairly difficult, and (4) Very difficult. *Club Drugs* include the availability of ecstasy or other club drugs such as GHB, Rohypnol, and ketamine.

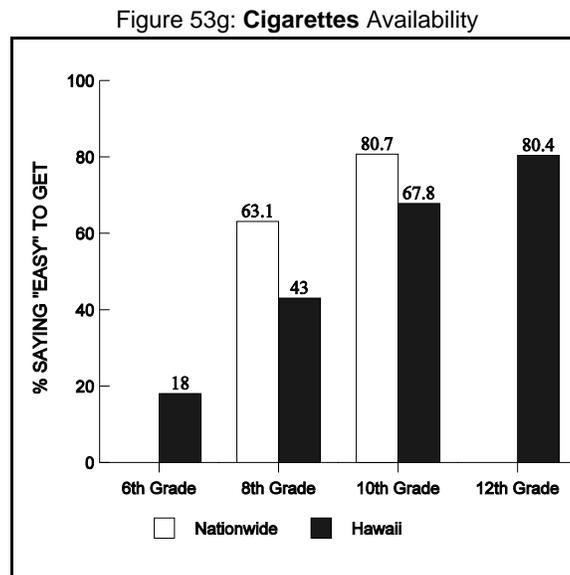
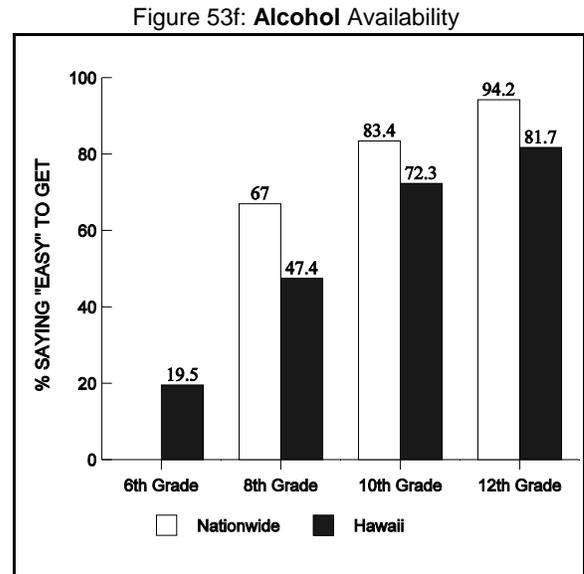
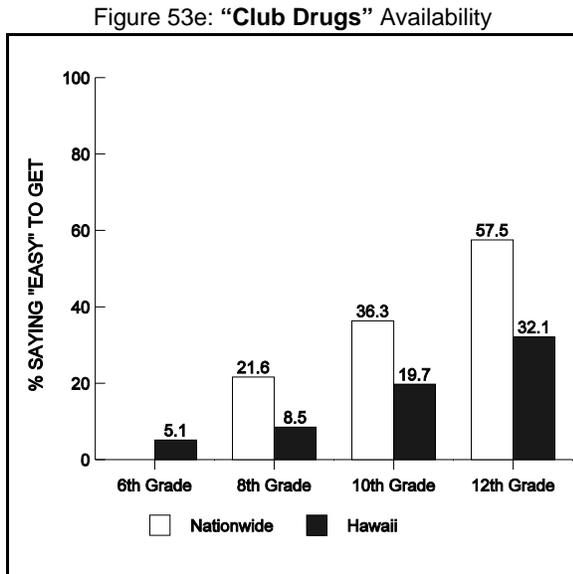
- Reports of *methamphetamine* availability are approximately 1 percentage point below reports of cocaine availability in grades 8, 10, and 12. The proportion of students viewing methamphetamine as fairly easy to obtain are 6% in grade 6, 9% in grade 8, 19% in grade 10, and 27% on grade 12. In comparison, the proportion of students viewing cocaine as fairly easy to obtain are 6% in grade 6, 10% in grade 8, 20% in grade 10, and 28% in grade 12.
- Figure 52 illustrates that *alcohol* and *cigarettes* are seen as readily available by the majority of 10th and 12th graders, and are viewed as easier to obtain than illicit drugs. Although these substances are perceived as less accessible by 6th and 8th graders, compared to 10th and 12th graders, the percentages are still quite high. Approximately 1 out of 5 students in grade 6 view alcohol (20%) and cigarettes (18%) as fairly easy to obtain. Alcohol is viewed as fairly easy to obtain by 47% of 8th graders, 72% of 10th graders, and 82% of 12th graders. Cigarettes are viewed as slightly less obtainable than alcohol with 43% of 8th graders, 68% of 10th graders, and 80% of 12th graders reporting that cigarettes are fairly easy to obtain.
- Figure 52 illustrates that illicit drugs, alcohol, and cigarettes are more available to older students than younger students. For instance, nearly twice as many 10th graders reported easy access to marijuana (56%), compared to 8th graders (26%).
- Figure 53 illustrates that *illicit drugs* are typically viewed as more accessible by students nationwide than by students in Hawaii. A larger proportion of nationwide students in grades 8, 10, and 12, than Hawaii students in the same grades, viewed *marijuana*, *cocaine*, *hallucinogens*, and *club drugs* as fairly easy to obtain. A larger proportion of 8th graders nationwide, than in Hawaii, also viewed *methamphetamine* as fairly easy to obtain (14% nationwide versus 9% in Hawaii). However, fairly equal proportions of Hawaii 10th (19%) and 12th graders (27%), compared to nationwide 10th (19%) and 12th graders (26%), viewed methamphetamine as easy to obtain.
- Similar to illicit drugs, Hawaii students' availability perceptions for alcohol and cigarettes are substantially less than those reported by students nationwide – more than 10 percentage points lower (see Figures 53f and 53g). In Hawaii, 47% of 8th graders, 72% of 10th graders, and 82% of 12th graders viewed *alcohol* as fairly easy to obtain, compared to nationwide reports of 67%, 83%, and 94% in the same grades. Similarly, *cigarettes* are perceived as harder to obtain by Hawaii 8th (43%) and 10th graders (68%) than nationwide 8th (63%) and 10th graders (81%). Nationwide, seniors were not asked if cigarettes are easy to obtain.

FIGURE 53
Perceived Availability of Illicit Drugs, Alcohol, and Cigarettes (Nationwide versus Hawaii):
Percentage of Students Who Indicated “Very Easy” or “Fairly Easy” to
Obtain Various Illicit Drugs, Alcohol, or Cigarettes, by Grade, 2003
 (Entries are percentages %)



(Figure continued on next page)

FIGURE 53 (continued)
Perceived Availability of Illicit Drugs, Alcohol, and Cigarettes (Nationwide versus Hawaii):
Percentage of Students Who Indicated “Very Easy” or “Fairly Easy” to
Obtain Various Illicit Drugs, Alcohol, or Cigarettes, by Grade, 2003
 (Entries are percentages %)



NOTES: Entries reflect the percentage of students who responded “Very easy” or “Fairly easy” to get various substances. Answer alternatives were (1) Very easy, (2) Fairly easy, (3) Fairly difficult, and (4) Very difficult. *Club Drugs* include the availability of ecstasy, GHB, Rohypnol, and/or ketamine. Nationwide data is not available for grade 6 for any substances; nationwide data is not available for grade 12 for cigarette availability perceptions.

Trends in Perceived Availability of Substances, 1993-2003

Overview of Key Findings. Availability perceptions for illicit drugs, alcohol, and cigarettes had been declining since 1993. Availability perceptions fluctuated in 2000 and 2002 with several increases in 2000, followed by some decreases in 2002, and a couple of stabilization patterns. In 2003, availability perceptions for all drugs, except marijuana, remained relatively stable in grade 6. Availability perceptions for each of the illicit drugs dropped drastically in 2003 among students in grades 8 and 10; and dropped for marijuana, hallucinogens, and ecstasy in grade 12. Perceived availability of alcohol and cigarettes has been basically declining over the years and dropped substantially in all grades in 2003.

The trend data are found in Table 45 and are illustrated in Figure 54.

- Availability perceptions for *marijuana* remained level from 1993 to 1996, dropped in 1998, remained stable in most grades in 2000, and increased in most grades in 2002 (see Figure 54a). In 2003, availability perceptions for marijuana decreased in all grades and are currently at record low levels in grades 8 (26%) and 10 (56%).
- The proportion of students seeing *cocaine* as fairly easy to obtain had been decreasing from 1993 to 1998. However, during the last few years cocaine availability perceptions increased in some of the grades. In 2003, availability perceptions decreased by at least 3 percentage points in grades 8 and 10, but remain higher than those noted in 1998. Cocaine availability perceptions seem to have stabilized in grades 6 and 12, but are also higher than those noted in the same grades in 1998 (see Figure 54b).
- Perceived availability of *methamphetamine* was also decreasing over the years for all grades until 2000. The proportion of students who reported that methamphetamine was fairly easy to obtain increased among all grades, except grade 6, in 2000. In 2002, methamphetamine availability perceptions climbed modestly in grade 6, became stable in grades 8 and 10, and dropped in grade 12. Methamphetamine availability perceptions are currently down in grades 8 and 10, but remain fairly stable in grades 6 and 12.
- From 1998 to 2002, availability perceptions for *hallucinogens* remained the most unchanged among illicit drugs, across all grades (see Figure 54d). In 2003, availability perceptions for hallucinogens dropped by 4 percentage points in grade 8, by 6 percentage points in grade 10, and by 5 percentage points in grade 12 (see Table 45). These drops in 2003 for availability perceptions for hallucinogens coincide with substantial decreases in hallucinogen prevalence rates noted in Chapter 5.
- Perceived availability of *ecstasy or other club drugs* had been on the rise over the last few years. Figure 54e shows that availability perceptions for ecstasy or other club drugs are currently on their way down with substantial decreases noted in grades 8, 10, and 12.
- Similar to illicit drugs, availability perceptions for *alcohol* decreased from 1996 to 1998 at all grade levels. In 2000 and 2002, some increases were noted, but none of them brought them near 1996 levels. In 2003, availability perceptions for alcohol decreased across all grades.

TABLE 45
Trends in Perceived Availability of Illicit Drugs, Alcohol, and Cigarettes as Perceived
by Sixth, Eighth, Tenth, and Twelfth Graders, 1993-2003

% 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 | 2003 | '02-'03 change |
|--|------|------|------|------|------|------|----------------|
| Marijuana (hash, pakalolo, pot, weed)? | | | | | | | |
| 6th Grade | 11.0 | 10.7 | 6.5 | 6.0 | 9.5 | 7.8 | -1.7 |
| 8th Grade | 39.0 | 39.1 | 26.5 | 26.8 | 34.5 | 25.5 | -9.0 |
| 10th Grade | 63.0 | 64.1 | 57.2 | 57.3 | 62.7 | 55.6 | -7.1 |
| 12th Grade | 71.0 | 71.8 | 66.6 | 71.0 | 71.8 | 69.8 | -2.0 |
| Cocaine (crack, coke, blow, freebase)? | | | | | | | |
| 6th Grade | — | 7.1 | 4.4 | 4.2 | 5.9 | 6.0 | +0.1 |
| 8th Grade | 14.0 | 14.6 | 8.4 | 11.5 | 13.3 | 9.7 | -3.6 |
| 10th Grade | 27.0 | 23.6 | 15.0 | 21.7 | 22.3 | 19.5 | -2.8 |
| 12th Grade | 32.0 | 30.1 | 18.5 | 28.8 | 27.4 | 27.7 | +0.3 |
| Methamphetamine (crystal meth., ice, speed, batu, crank)? | | | | | | | |
| 6th Grade | — | 5.4 | 4.0 | 3.8 | 5.1 | 5.6 | +0.5 |
| 8th Grade | 15.0 | 11.3 | 8.2 | 10.6 | 11.2 | 9.0 | -2.2 |
| 10th Grade | 28.0 | 21.5 | 17.4 | 20.5 | 21.3 | 19.2 | -2.1 |
| 12th Grade | 35.0 | 29.4 | 22.2 | 28.8 | 26.3 | 27.0 | +0.7 |
| Hallucinogens (LSD/PCP, shrooms, acid)? | | | | | | | |
| 6th Grade | — | 8.8 | 5.8 | 4.3 | 5.0 | 4.9 | -0.1 |
| 8th Grade | — | 18.4 | 10.9 | 11.6 | 11.5 | 8.0 | -3.5 |
| 10th Grade | — | 33.3 | 25.2 | 24.0 | 23.8 | 17.4 | -6.4 |
| 12th Grade | — | 39.9 | 30.1 | 32.5 | 30.1 | 25.0 | -5.1 |
| Ecstasy or other “club drugs” (E, XTC, G, GHB, liquid ecstasy, Rohypnol, roofies, ketamine, special K)? | | | | | | | |
| 6th Grade | — | — | 3.4 | 3.6 | 5.2 | 5.1 | -0.1 |
| 8th Grade | — | — | 6.2 | 10.4 | 14.8 | 8.5 | -6.3 |
| 10th Grade | — | — | 14.9 | 25.9 | 33.7 | 19.7 | -14.0 |
| 12th Grade | — | — | 22.4 | 39.0 | 44.2 | 32.1 | -12.1 |
| Alcohol (beer, wine, or hard liquor)? | | | | | | | |
| 6th Grade | — | 40.9 | 23.0 | 17.4 | 22.5 | 19.5 | -3.0 |
| 8th Grade | — | 74.4 | 51.3 | 47.6 | 53.4 | 47.4 | -6.0 |
| 10th Grade | — | 87.4 | 72.1 | 73.8 | 76.0 | 72.3 | -3.7 |
| 12th Grade | — | 92.2 | 77.4 | 83.7 | 83.3 | 81.7 | -1.6 |
| Cigarettes? | | | | | | | |
| 6th Grade | — | 32.3 | 19.7 | 14.3 | 22.3 | 18.0 | -4.3 |
| 8th Grade | — | 66.7 | 48.3 | 42.6 | 51.8 | 43.0 | -8.8 |
| 10th Grade | — | 83.1 | 72.6 | 69.8 | 73.4 | 67.8 | -5.6 |
| 12th Grade | — | 89.8 | 86.1 | 86.0 | 86.5 | 80.4 | -6.1 |

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.

FIGURE 54
Trends in Perceived Availability of Illicit Drugs, Alcohol, and Cigarettes:
Percentage of Students Who Indicated “Very Easy” or “Fairly Easy” to
Obtain Illicit Drugs, Alcohol, or Cigarettes, by Grade, 1987-2003

Figure 54a: Trends in **Marijuana** Availability

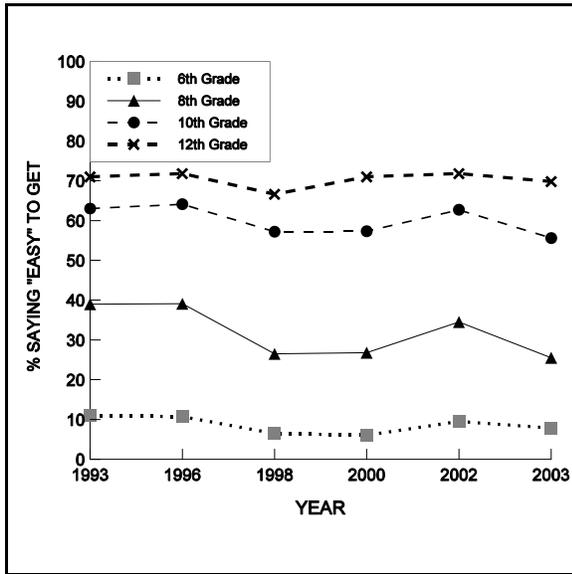


Figure 54b: Trends in **Cocaine** Availability

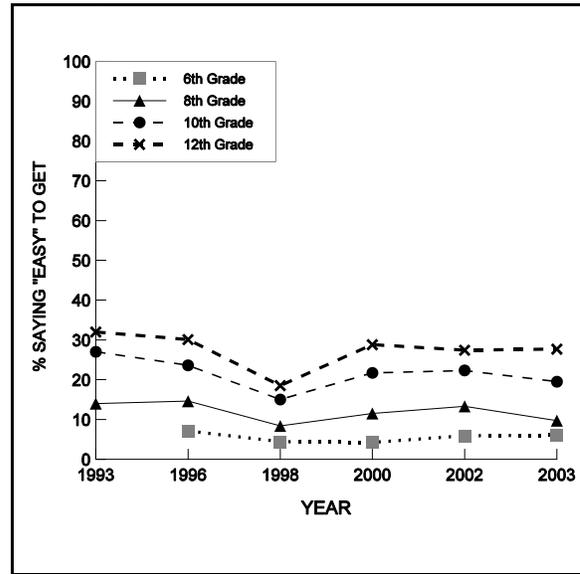


Figure 54c: Trends in **Methamphetamine** Availability

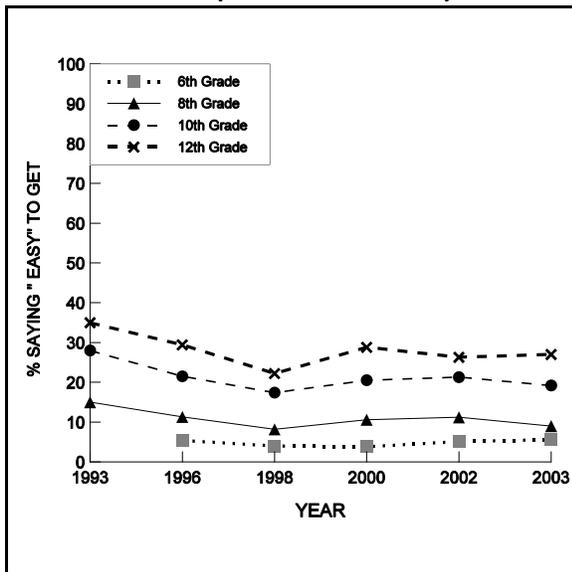
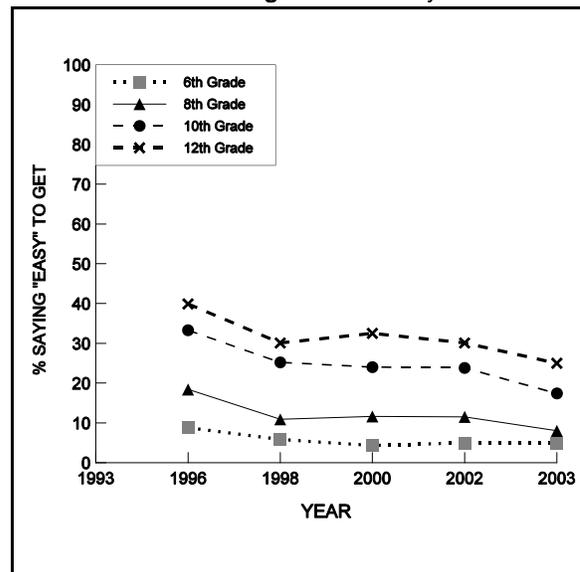


Figure 54d: Trends in **Hallucinogens** Availability



(Figures continued on next page)

FIGURE 54 (continued)
Trends in Perceived Availability of Illicit Drugs, Alcohol, and Cigarettes:
Percentage of Students Who Indicated “Very Easy” or “Fairly Easy” to
Obtain Illicit Drugs, Alcohol, or Cigarettes, by Grade, 1987-2003

Figure 54e: Trends in “Club Drugs” Availability

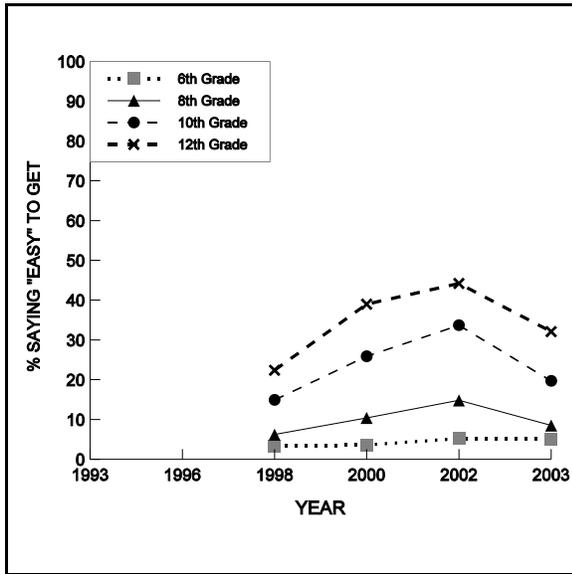


Figure 54f: Trends in Alcohol Availability

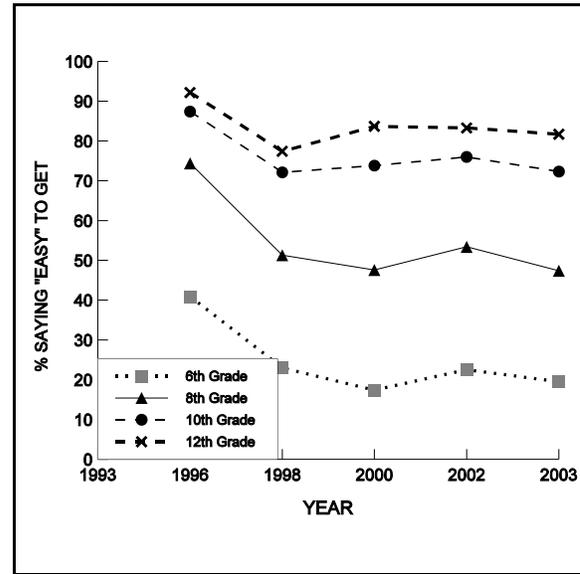
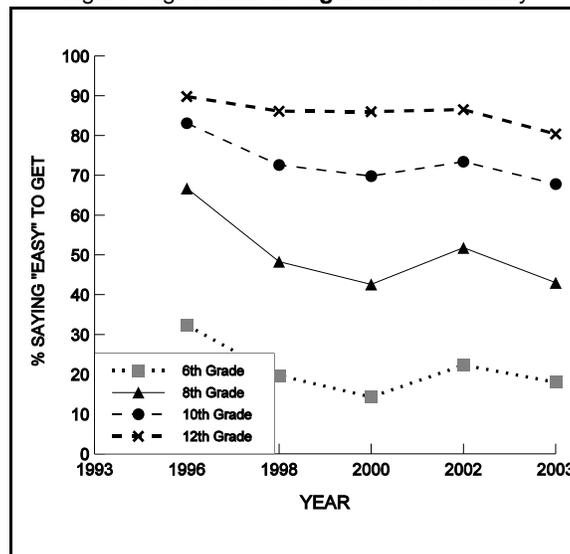


Figure 54g: Trends in Cigarettes Availability



NOTES: Entries reflect the percentage of students who responded “Very easy” or “Fairly easy” to obtain various substances. Answer alternatives were (1) Very easy, (2) Fairly easy, (3) Fairly difficult, and (4) Very difficult. *Club Drugs* include the availability of ecstasy or other club drugs such as GHB, Rohypnol, or ketamine.

- **Cigarette** availability perceptions were on a clear downward trajectory after 1996, until 2002 when cigarette availability perceptions increased among students in the lower grades. In 2003, cigarette availability perceptions decreased across the board, resulting in near or all-time record lows in grades 8, 10, and 12.

Relationship Between Perceived Availability and Use of Various Substances

Alcohol, tobacco, and other drug prevention efforts are often focused on decreasing the availability of substances. For instance, serious efforts were first undertaken in 1997 by the Department of Health, Alcohol and Drug Abuse Division, to reduce the sale of cigarette to minors, and efforts were begun in 2000 to reduce sales of alcohol to minors. The proposed relationships between availability perceptions and substance use are examined by correlating availability perceptions associated with various substances with students' use of the substances. Table 46 displays the correlations between perceived availability and use of various substances by grade.

Predictor Variables. Four predictor variables related to availability perceptions were used in the analyses. The scales were based on questions that asked students how easy it would be for them to get various substances if they wanted some. Response choices were (1) *very easy*, (2) *fairly easy*, (3) *fairly difficult*, and (4) *very difficult*. The marijuana availability scale was a 1-item, 4-point scale that asked how easy students think it would be for them to get marijuana. The other illicit drug availability scale was a 4-item, 4-point scale that asked how easy students think it would be for them to get each of the following: (1) cocaine; (2) methamphetamine; (3) hallucinogens, and (4) ecstasy or other club drugs ($\alpha=.96$). The alcohol availability scale was a 1-item, 4-point scale that asked how easy students think it would be for them to get beer, wine, or hard liquor. The cigarette availability scale was a 1-item, 4-point scale that asked how easy students think it would be for them to get cigarettes if they wanted some. Each scale was recoded so that higher numbers reflected greater availability.

Outcome Variables. Outcome variables included lifetime use, frequency of monthly use, number of drugs used in lifetime, and number of drugs used in the last month. Each outcome corresponded with the availability of the drug in question. For instance, marijuana availability was correlated with trying marijuana and frequency of monthly marijuana use. A dichotomous dependent variable was created for each substance that corresponded to lifetime use (i.e., trying marijuana, trying alcohol, being drunk, and trying cigarettes). Amount of monthly marijuana, alcohol, and cigarette use were each 1-item, 6-point scales that asked how many days in the last 30 days they had used the substance. Response choices were (1) *0 days*, (2) *1-2 days*, (3) *3-5 days*, (4) *6-9 days*, (5) *10-19 days*, and (6) *20 or more days*. The number of drugs used in one's lifetime and the number of drugs used in the past 30 days ranged from 0 drugs to 12 drugs (marijuana, inhalants, cocaine, methamphetamine, heroin or other opiates, sedatives or tranquilizers, hallucinogens, steroids, ecstasy/MDMA, GHB, Rohypnol, and ketamine).

Key Findings. Table 46 on the next page shows that availability perceptions are positively associated with drug use ($p<.001$ for all correlations), with variance accounted for as high as .20 for some of the relationships. Thus, greater ease in obtaining substances is associated with a greater likelihood of trying substances and a higher level of use. Comparisons between Table 43 and Table 46 illustrate that the correlations between availability perceptions and substance use are larger than the correlations between perceived harm and use.

TABLE 46
Correlations Between Perceived Availability and Substance Use, by Grade, 2003

(Entries are correlations)

| Table 46a: Marijuana Availability | | | | | | | | |
|-----------------------------------|---------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|-------------------|
| | 6th Grade | | 8th Grade | | 10th Grade | | 12th Grade | |
| Marijuana Availability | Try Marijuana | Monthly Marijuana |
| | | -.24 | -.19 | -.46 | -.33 | -.45 | -.31 | -.41 |

NOTES: *Try Marijuana* is a 1-item, 2-point scale (yes/no). *Monthly Marijuana* is a 1-item, 6-point scale that asked how many days the students have used marijuana. Answer alternatives were (1) none, (2) 1-2 days, (3) 3-5 days, (4) 6-9 days, (5) 10-19 days, and (6) 20 or more days. *Marijuana Availability* is a 1-item, 4-point scale that asked how easy students think it would be for them to get marijuana. Answer alternatives were (1) very easy, (2) fairly easy, (3) fairly difficult, and (4) very difficult. The scale was recoded so that higher numbers reflect greater availability. Thus, the positive correlations indicate that as perceived availability increases, the likelihood of substance use or amount of substance use increases. All correlations in the table are significant, $p < .001$.

| Table 46b: Illicit Drug Availability (Other Than Marijuana) | | | | | | | | |
|---|----------------------------------|---------------------------------|----------------------------------|---------------------------------|----------------------------------|---------------------------------|----------------------------------|---------------------------------|
| | 6th Grade | | 8th Grade | | 10th Grade | | 12th Grade | |
| Illicit Drug Availability | Number of Drugs Used in Lifetime | Number of Drugs Used Last Month | Number of Drugs Used in Lifetime | Number of Drugs Used Last Month | Number of Drugs Used in Lifetime | Number of Drugs Used Last Month | Number of Drugs Used in Lifetime | Number of Drugs Used Last Month |
| | | -.13 | -.12 | -.26 | -.22 | -.32 | -.22 | -.37 |

NOTES: *Number of Drugs Used in Lifetime* and *Number of Drugs Used Last Month* both ranged from 0 drugs to 12 drugs (marijuana, inhalants, cocaine, methamphetamine, heroin or other opiates, sedatives or tranquilizers, hallucinogens, steroids, ecstasy/MDMA, GHB, Rohypnol, and ketamine). *Other Illicit Drug Availability* is a 4-item, 4-point scale ($\alpha=.96$) that asked how easy students think it would be for them to get (a) cocaine, (b) methamphetamine, (c) hallucinogens, and (d) ecstasy or other "club drugs. Answer alternatives were (1) very easy, (2) fairly easy, (3) fairly difficult, and (4) very difficult. The scale was recoded so that higher numbers reflect greater availability. Thus, the positive correlations indicate that as perceived availability increases, the amount of drugs used increases. All correlations in the table are significant, $p < .001$.

(Table continued on next page)

TABLE 46 (continued)
Correlations Between Perceived Availability and Substance Use, by Grade, 2003

(Entries are correlations)

| Table 46c: Alcohol Availability | | | | | | | | | | | | |
|--|-------------------------|-------------------|------------------------|-------------------------|-------------------|------------------------|-------------------------|-------------------|------------------------|-------------------------|-------------------|------------------------|
| | 6th Grade | | | 8th Grade | | | 10th Grade | | | 12th Grade | | |
| Alcohol Availability | Try Beer or Wine | Been Drunk | Monthly Alcohol | Try Beer or Wine | Been Drunk | Monthly Alcohol | Try Beer or Wine | Been Drunk | Monthly Alcohol | Try Beer or Wine | Been Drunk | Monthly Alcohol |
| | | -.30 | -.17 | -.19 | -.40 | -.30 | -.29 | -.35 | -.31 | -.27 | -.30 | -.27 |

NOTES: *Try Beer or Wine* and *Been Drunk* are both 1-item, 2-point scales (yes/no). *Monthly Alcohol* is a 1-item, 6-point scale that asked how many days the students have used beer, wine, or hard liquor. Answer alternatives were (1) none, (2) 1-2 days, (3) 3-5 days, (4) 6-9 days, (5) 10-19 days, and (6) 20 or more days. *Alcohol Availability* is a 1-item, 4-point scale that asked how easy students think it would be for them to get beer, wine, or hard liquor. Answer alternatives were (1) very easy, (2) fairly easy, (3) fairly difficult, and (4) very difficult. The scale was recoded so that higher numbers reflect greater availability. Thus, the positive correlations indicate that as perceived availability increases, the likelihood of alcohol use and the amount of alcohol use increases. All correlations in the table are significant, $p < .001$.

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| Table 46d: Cigarette Availability | | | | | | | | |
|--|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|---------------------------|
| | 6th Grade | | 8th Grade | | 10th Grade | | 12th Grade | |
| Cigarette Availability | Try Cigarettes | Monthly Cigarettes |
| | | -.24 | -.17 | -.35 | -.26 | -.31 | -.20 | -.28 |

NOTES: *Try Cigarettes* was a 1-item, 2-point scale (yes/no). *Monthly Cigarettes* is a 1-item, 6-point scale that asked how many days the students have used cigarettes. Answer alternatives were (1) none, (2) 1-2 days, (3) 3-5 days, (4) 6-9 days, (5) 10-19 days, and (6) 20 or more days. *Cigarette Availability* is a 1-item, 4-point scale that asked how easy students think it would be for them to get cigarettes. Answer alternatives were (1) very easy, (2) fairly easy, (3) fairly difficult, and (4) very difficult. The scale was recoded so that higher numbers reflect greater availability. Thus, the positive correlations indicate that as perceived availability increases, the likelihood of cigarette use and the frequency of smoking increases. All correlations in the table are significant, $p < .001$.

RELATIONSHIP BETWEEN PERCEIVED HARMFULNESS, AVAILABILITY, AND SUBSTANCE USE

In the previous two sections, the relationships between perceived harmfulness and availability and corresponding substance use were examined by looking at correlations among variables that were measured at the same point in time (i.e., assessed simultaneously on the survey). Although harm and availability perceptions were used as the predictor variables, and the relationships observed were statistically significant, the relationships noted in the correlation tables do not necessarily *prove* that increased perception of harm decreases substance use and decreased availability decreases substance use. Simple correlations show that two variables are related to one another, but the correlations cannot establish cause and effect relationships. Although the presumption is made that increased perceptions of harm lead to decreased substance use, the other possibility is that continued use of a substance leads to beliefs that the substance isn't harmful. Another way to look at the relationship between the variables is to examine the trend data for each and see if as one goes up over time, the other goes down, or vice versa.

Figures 55 through 60 display the relationships, as they relate to trend data, between perceived harm, perceived availability, and either lifetime or monthly use for each of the various substances. Lifetime use was used for drugs with lower prevalence rates (e.g., cocaine, methamphetamine, hallucinogens) and monthly use was used for all others (e.g., marijuana, alcohol, and cigarettes).

Overview of Key Findings. The graphs suggest the possibility that stabilization patterns and decreases in illicit drug use, alcohol use, and cigarette use may be related to both decreases in availability and increases in risk. However, the impact of availability and risk perceptions may not occur immediately. That is, two years after harm perceptions climb and availability perceptions decline, substance use starts to stabilize or decline. The lag suggests that availability and harm perceptions influence decisions to use substances, rather than vice versa.

- ***Marijuana:*** Examination of Figure 55 suggests that marijuana use is influenced by both harm and availability perceptions and the pattern is most obvious in 2003 where there are sharp increases in marijuana harm perceptions, and sharp decreases in marijuana availability perceptions, which coincide with decreases in 30-day prevalence rates for marijuana use.
- ***Cocaine and Methamphetamine:*** Looking at Figures 56 through 57 provides further evidence that availability and harm perceptions may be impacting substance use. The figures suggest that two years after availability perceptions dropped, lifetime prevalence reports dropped or started to stabilize. For instance, in 1998, there was a large decrease in availability perceptions for cocaine at all grade levels. In 2000, cocaine use dropped at all grade levels (see Figure 56). A similar pattern can be seen for methamphetamine use (see Figure 57). The changes in lifetime prevalence reports seem very minor, but given that few students use these substances, small decreases often reflect large percentage point decreases. The figures also suggest that as harm goes up, lifetime prevalence reports start to stabilize and then, in the years after, start to drop. The relationship between increases in harm and decreases in methamphetamine use are clearly illustrated in Figures 57b and 57c.

Chapter 8

- ***Hallucinogens:*** Less data has been collected for hallucinogens than for cocaine and methamphetamine. Figure 58 shows that as perceptions of harm increased and then stabilized at a relatively high point, use decreased slightly. In 2003, drops in availability perceptions in grades 8, 10, and 12, coincide with decreases in prevalence rates in those grades.
- ***Alcohol and Cigarettes:*** Cigarette and alcohol trends seem closely associated with both perceptions of harm and availability trends. As seen in Figure 59, the proportion of students indicating “a lot of harm” related to weekend binge drinking went up in 1996 and, two years later, alcohol use dropped or leveled. Similarly, availability perceptions dropped in 1998, and alcohol use dropped in that same year and continued to drop in years that followed. In 2003, decreases in alcohol and cigarette availability and increases in alcohol and cigarette risk perceptions coincided with decreases in alcohol and cigarette prevalence rates.

FIGURE 55
Marijuana Trends in Perceived Harmfulness, Perceived Availability,
and Prevalence of Use in Past 30 Days, by Grade, 1987-2003

Figure 55a: **Sixth Grade** Marijuana Trends

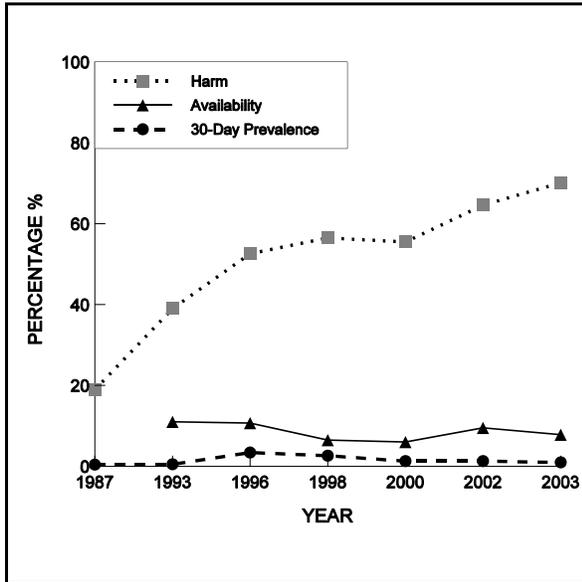


Figure 55b: **Eighth Grade** Marijuana Trends

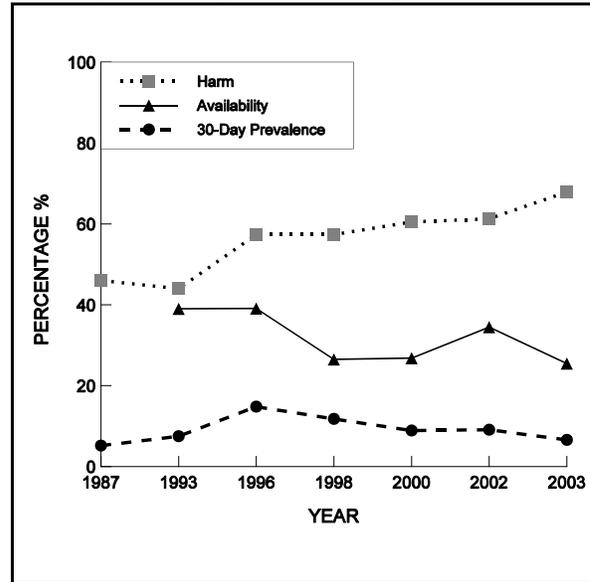


Figure 55c: **Tenth Grade** Marijuana Trends

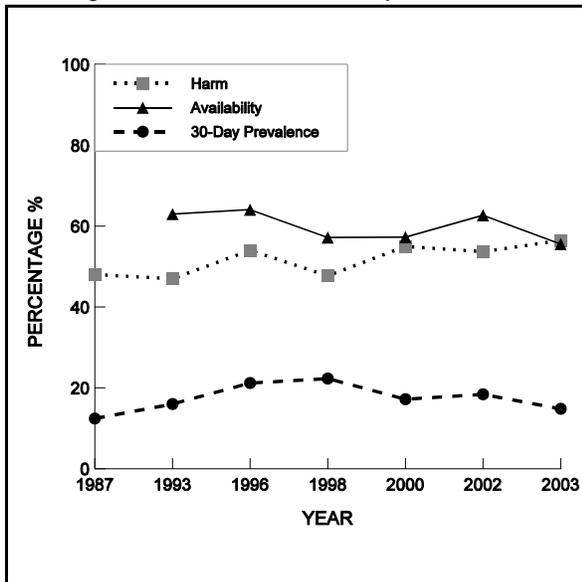
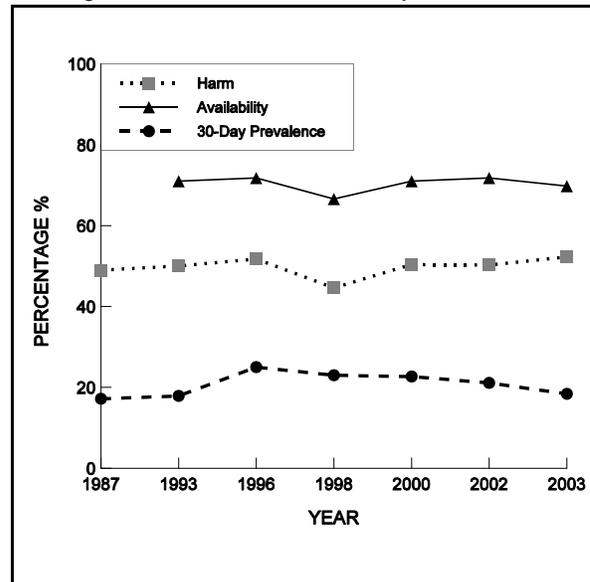


Figure 55d: **Twelfth Grade** Marijuana Trends



NOTES: *Harm* refers to the percentage of students who indicated “a lot of harm” with using marijuana occasionally. *Availability* refers to the percentages of students who indicated marijuana was “fairly easy” or “very easy” to obtain. *30-Day Prevalence* refers to the percentage of students who indicated they used marijuana at least once in the past 30 days.

FIGURE 56
Cocaine Trends in Perceived Harmfulness,
Perceived Availability, and Lifetime Prevalence, by Grade, 1987-2003

Figure 56a: **Sixth Grade** Cocaine Trends

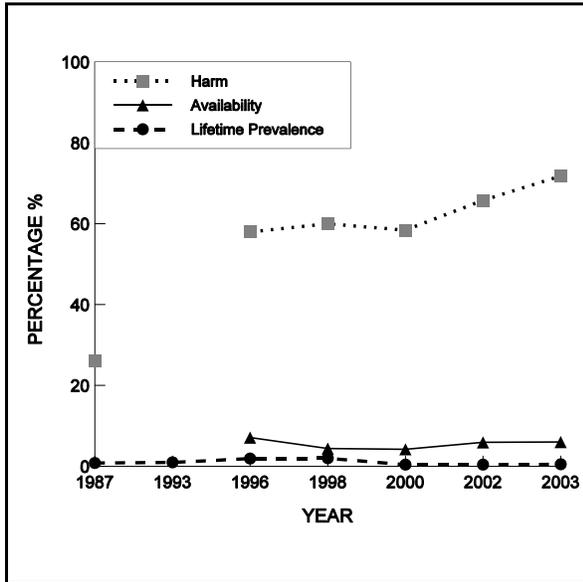


Figure 56b: **Eighth Grade** Cocaine Trends

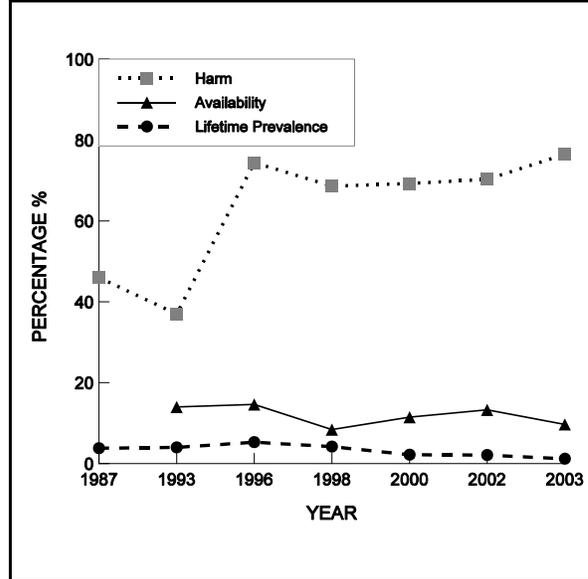


Figure 56c: **Tenth Grade** Cocaine Trends

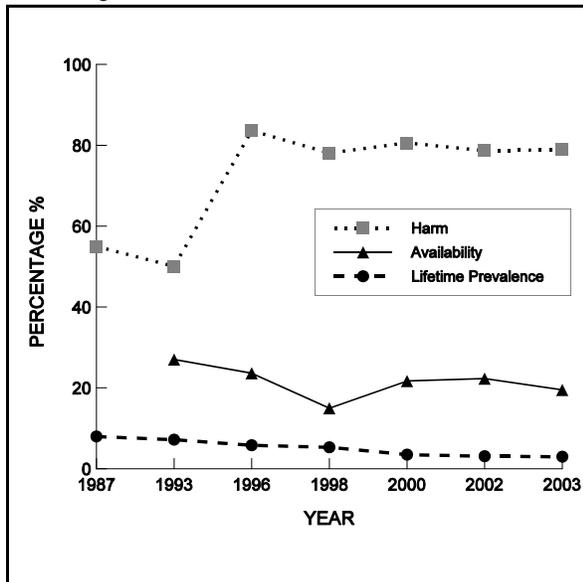
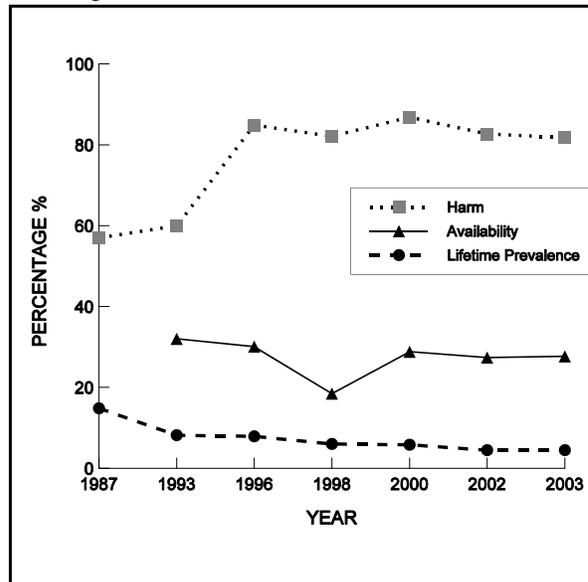


Figure 56d: **Twelfth Grade** Cocaine Trends



NOTES: *Harm* refers to the percentage of students who indicated “a lot of harm” with using cocaine occasionally. *Availability* refers to the percentages of students who indicated cocaine was “fairly easy” or “very easy” to obtain. *Lifetime Prevalence* refers to the percentage of students who indicated they used cocaine at least once in their lifetimes.

FIGURE 57
Methamphetamine Trends in Perceived Harmfulness,
Perceived Availability, and Lifetime Prevalence, by Grade, 1993-2003

Figure 57a: **Sixth Grade**
 Methamphetamine Trends

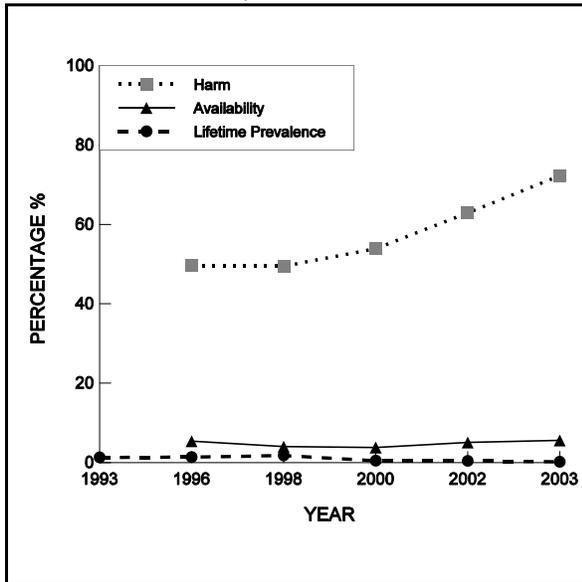


Figure 57b: **Eighth Grade**
 Methamphetamine Trends

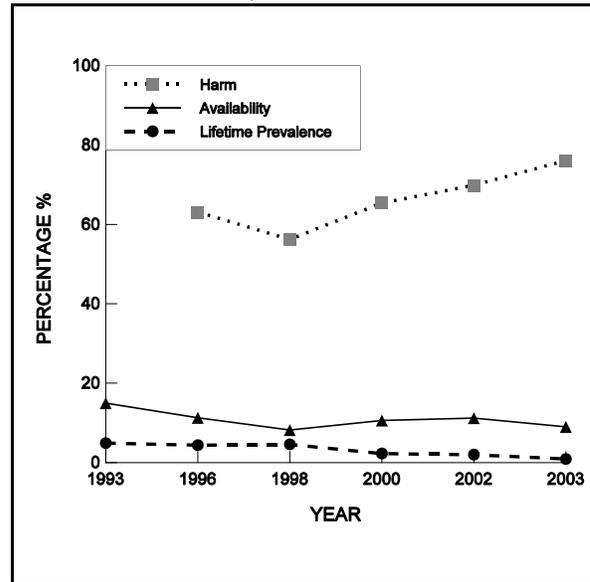


Figure 57c: **Tenth Grade**
 Methamphetamine Trends

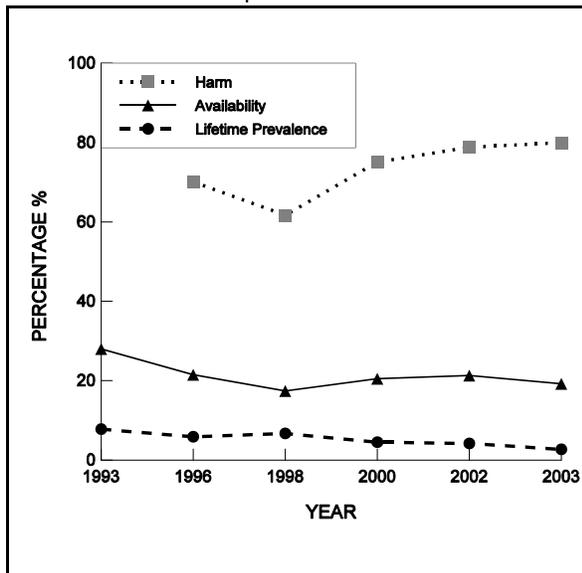
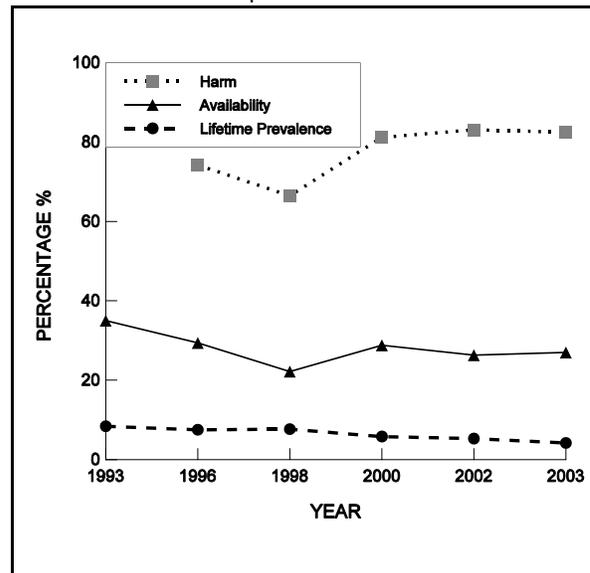


Figure 57d: **Twelfth Grade**
 Methamphetamine Trends



NOTES: *Harm* refers to the percentage of students who indicated “a lot of harm” with using methamphetamine occasionally. *Availability* refers to the percentages of students who indicated methamphetamine was “fairly easy” or “very easy” to obtain. *Lifetime Prevalence* refers to the percentage of students who indicated they used methamphetamine at least once in their lifetimes.

Figure 58
Hallucinogens Trends in Perceived Harmfulness,
Perceived Availability, and Lifetime Prevalence, by Grade, 1996-2003

Figure 58a: **Sixth Grade** Hallucinogens Trends

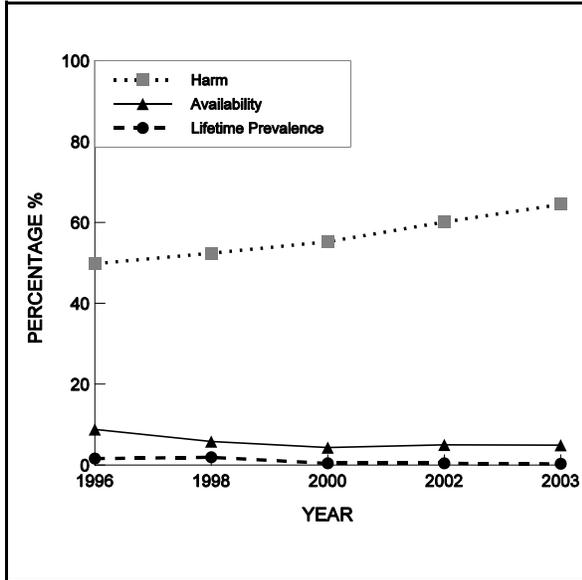


Figure 58b: **Eighth Grade** Hallucinogens Trends

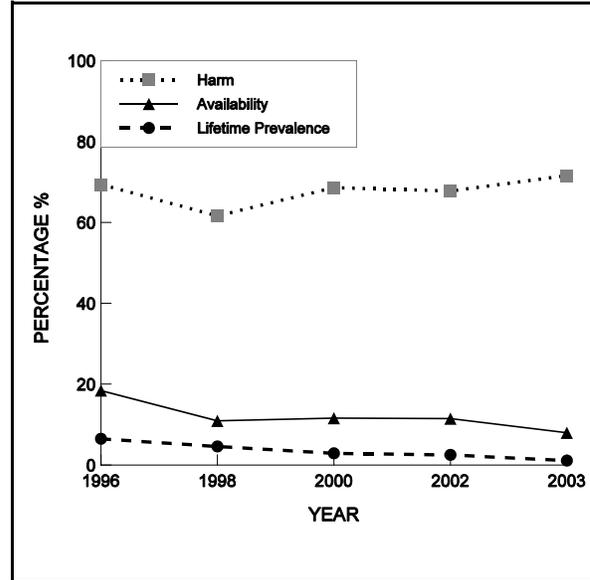


Figure 58c: **Tenth Grade** Hallucinogens Trends

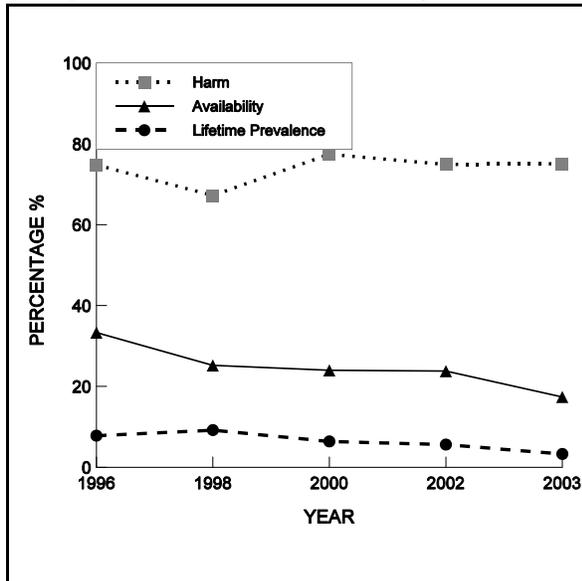
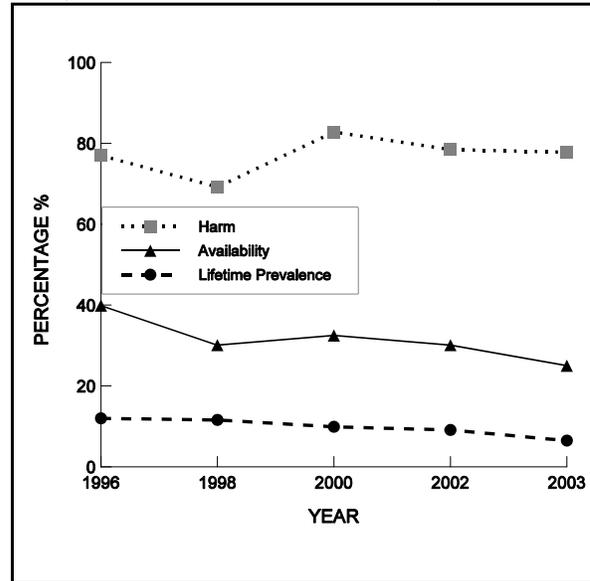


Figure 58d: **Twelfth Grade** Hallucinogens Trends



NOTES: *Harm* refers to the percentage of students who indicated “a lot of harm” with using hallucinogens occasionally. *Availability* refers to the percentages of students who indicated hallucinogens were “fairly easy” or “very easy” to obtain. *Lifetime Prevalence* refers to the percentage of students who indicated they used hallucinogens at least once in their lifetimes.

FIGURE 59
Alcohol Trends in Perceived Harmfulness, Perceived Availability,
and Monthly (30-Day) Prevalence, by Grade, 1987-2003

Figure 59a: **Sixth Grade** Alcohol Trends

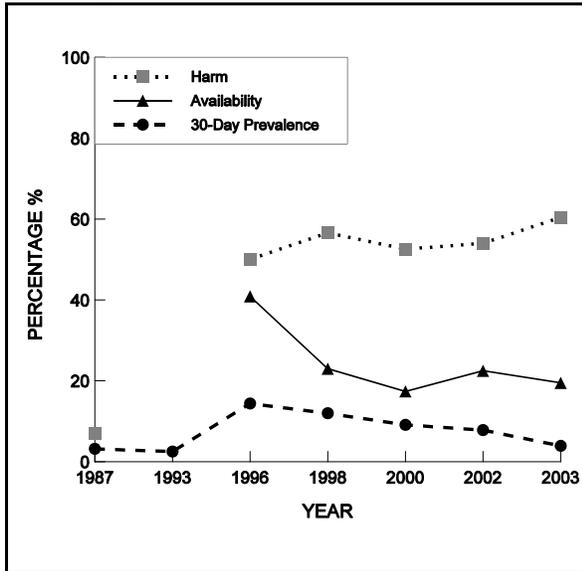


Figure 59b: **Eighth Grade** Alcohol Trends

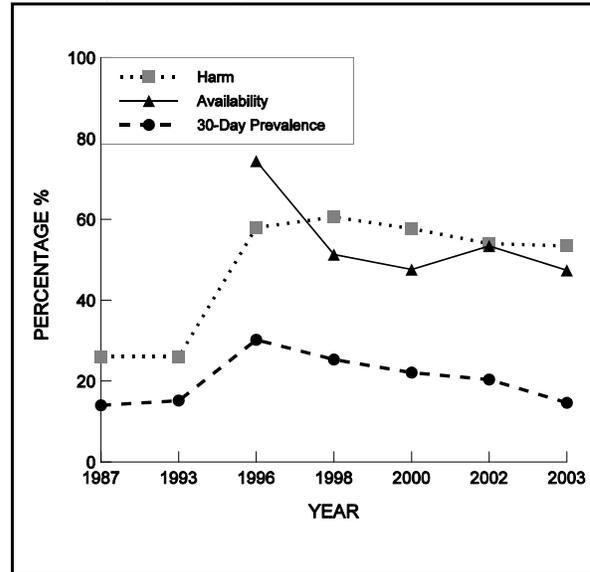


Figure 59c: **Tenth Grade** Alcohol Trends

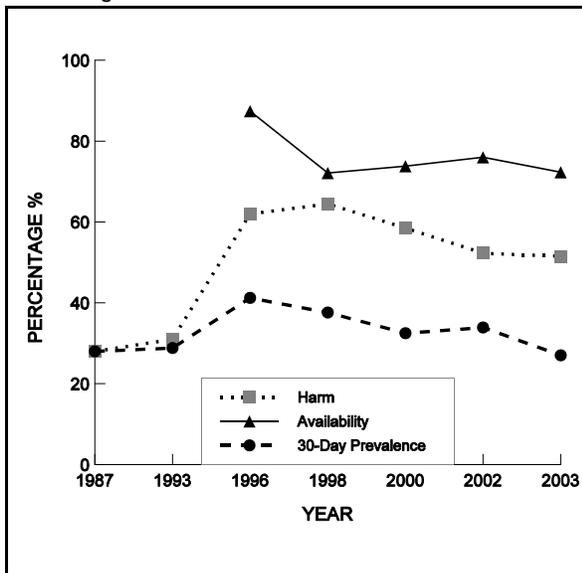
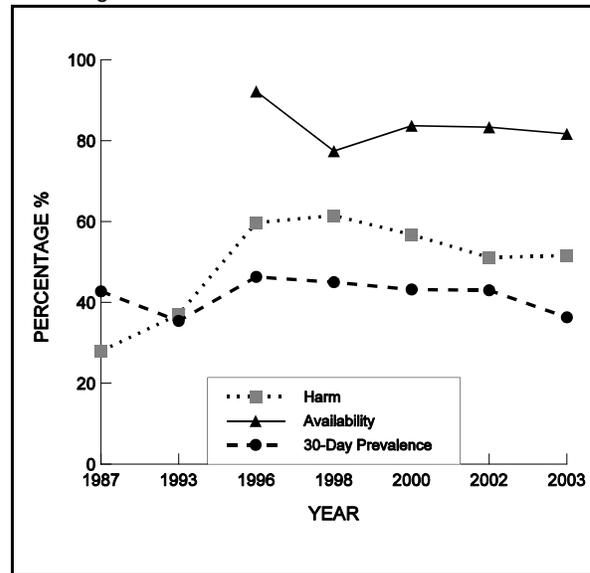


Figure 59d: **Twelfth Grade** Alcohol Trends



NOTES: *Harm* refers to the percentage of students who indicated “a lot of harm” associated with having five or more alcoholic drinks once or twice each weekend. *Availability* refers to the percentages of students who indicated alcohol was “fairly easy” or “very easy” to obtain. *30-Day Prevalence* refers to the percentage of students who indicated they used alcohol at least once in the past 30 days.

Figure 60
Cigarettes Trends in Perceived Harmfulness, Perceived Availability,
and Monthly (30-Day) Prevalence, by Grade, 1987-2003

Figure 60a: **Sixth Grade** Cigarettes Trends

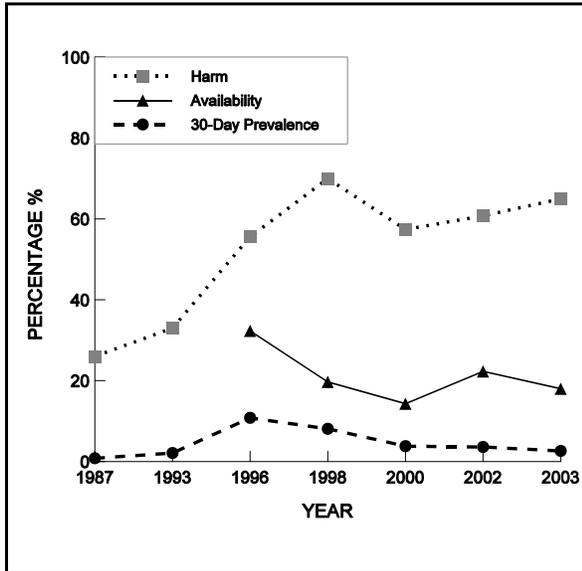


Figure 60b: **Eighth Grade** Cigarettes Trends

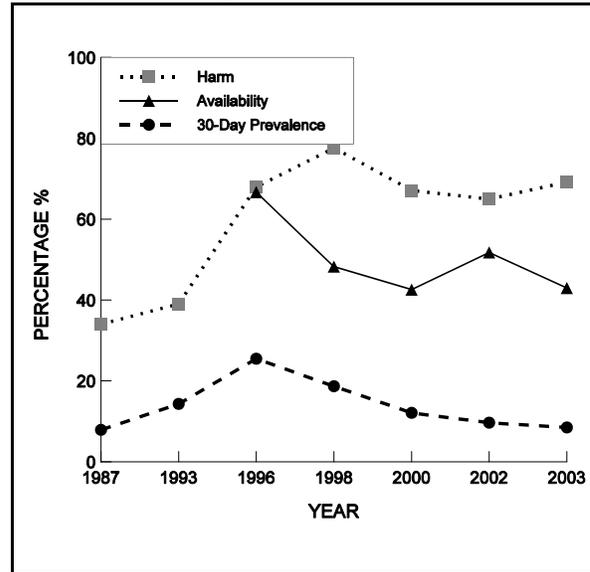


Figure 60c: **Tenth Grade** Cigarettes Trends

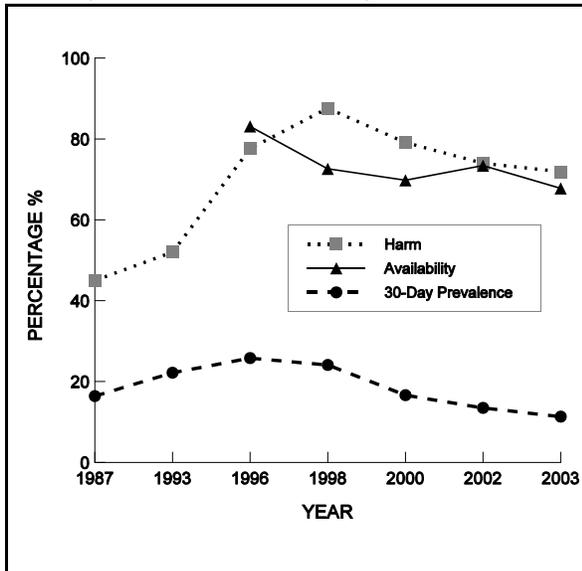
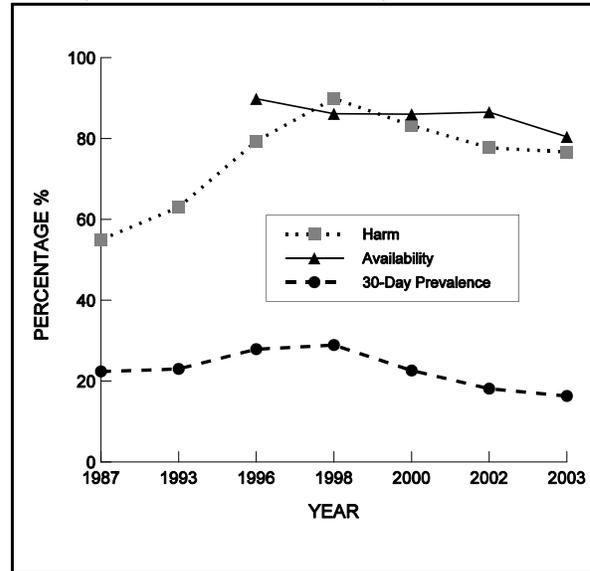


Figure 60d: **Twelfth Grade** Cigarettes Trends



NOTES: *Harm* refers to the percentage of students who indicated “a lot of harm” associated with smoking one or more packs of cigarettes per day. *Availability* refers to the percentages of students who indicated cigarettes were “fairly easy” or “very easy” to obtain. *30-Day Prevalence* refers to the percentage of students who indicated they used cigarettes at least once in the past 30 days.