

# Twelfth BIENNIAL

Statewide Survey

of California Students

in Grades 7, 9 and 11

2007 - 08

California Attorney General's Office  
Gregory Austin and Rodney Skager

# HIGHLIGHTS

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## 12<sup>th</sup> Biennial California Student Survey Drug, Alcohol and Tobacco Use 2007-08

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Health and Human Development

Jointly sponsored by  
California Attorney General's Office  
California Department of Education  
Department of Alcohol and Drug Programs

Published by the California Attorney General's Office

Winter 2008

This survey and report are mandated by Health and Safety Code Section 11605 and prepared by WestEd under contract from the Department of Justice, Office of the Attorney General. For more information, please contact:

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The opinions, findings and conclusions in this publication are those of the authors and not necessarily of the state agencies.

Date of Publication: December 2008

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# Foreword

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Welcome to the 12<sup>th</sup> biennial *California Student Survey* (CSS) conducted during the 2007-08 school year by the California Attorney General's Office, Crime and Violence Prevention Center. Since 1985, the Attorney General's biennial research effort collected substance-use and risky-behavior data directly from the students, more than 13,900 students from 116 public middle and high schools participated in the 12<sup>th</sup> CSS. From the reported data, there are three major trends of the 2007-08 CSS: (1) prescription drug use by California youth is occurring at an alarming rate; (2) first-time data on over-the-counter drugs indicate many teens are purchasing them to get high; and (3) heavy users of illicit substances are still a significant group in California, a trend noted as early as the 1999 CSS.

According to the CSS researchers, the most significant but disturbing overall finding of the 2007-08 survey is that we have previously *underestimated actual levels of youth substance use* because of the state's underassessment of recreational use of prescription and over-the-counter drugs.

The new data showed that 37.5 percent of 9<sup>th</sup> and 50 percent of 11<sup>th</sup> graders used either an illicit/illegal drug or a diverted prescription drug to get high at least once in their lifetime. Taking this into consideration, total lifetime use of alcohol and other drugs (AOD) is estimated at 52 percent and 68.5 percent respectively. Including use of cold/cough medicines to get high, lifetime AOD 9<sup>th</sup>-grade use rose to 60 percent and 11<sup>th</sup>-grade use to 73.5 percent.

The 2007-08 findings support a couple of conclusions reached in our 2005 CSS report – prevention efforts may be “bottoming-out” and further reductions in overall prevalence may be more difficult to achieve; also, there should be specific intervention aimed at youth who are at risk of heavy and problematic substance use.

Joining the Attorney General's Office in sponsoring the CSS are the California Department of Education and the Department of Alcohol and Drug Programs. Our thanks go to these state agencies for their long-time support of statewide prevention efforts such as our biennial survey. Special thanks also go to all the school administrators, teachers, parents and students for their contribution to the 12<sup>th</sup> CSS, a critical effort that benefits everyone in California.

**California Attorney General's Office**

# Preface & Acknowledgements

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This report highlights the key findings on alcohol, tobacco and other drug (ATOD) use from the 12<sup>th</sup> biennial *California Student Survey* (CSS). The current survey was conducted in the late fall and winter of the 2007-08 school year. For the sake of convenience we refer to it as the 2007 CSS, because most students took the survey before the end of that year and the questionnaire asks about past behavior. Comparisons to the results from previous surveys are generally limited to the immediately two preceding CSS in 2005 (11<sup>th</sup> CSS) and 2003 (10<sup>th</sup> CSS). Comparisons to prior CSS results must be treated with caution due to changes in several questions that had to be made, in large part to align the survey with the Substance Abuse and Mental Health Services Administration's *National Outcome Measures* (as discussed in the report).

In this survey's *Highlights*, we round percentages to the nearest whole number.<sup>1</sup> For heavy-use measures, we only summarize the results for high school students. Unless otherwise specified, general discussions of substance use do not include tobacco. A list of abbreviations and definitions of key terms used in the report follows this preface. Complete results are posted in the *Compendium of Tables* on the web site of the Office of the Attorney General, [www.safestate.org/CSS](http://www.safestate.org/CSS). The table numbers cited in this *Highlights* refer to the tables in the *Compendium*.

We are indebted to Attorney General Edmund G. Brown Jr. for his support of this survey and recognition of the importance of ongoing monitoring of alcohol, tobacco and other drug use by California youth as a guide to prevention and intervention efforts. This project also would not have been possible without the cooperation of the school superintendents, principals and teachers. Their commitment and professionalism have made this survey a reality once again.

This survey and report were authorized by the Health and Safety Code section 11605 and prepared by WestEd under contract from the Department of Justice, Office of the Attorney General. Funding was also provided by the survey co-sponsors: Department of Alcohol and Drug Programs and the California Department of Education. From the Attorney General's Crime and Violence Prevention Center, we wish to acknowledge the contribution of Daphne Hom, Project Monitor, and Nancy Matson, Director. We also received invaluable advice and support from the Department of Alcohol and Drug Programs (Renee Zito, Director; Paul Bower, Maurilio Mendez and Jonathan Graham), and from the California Department of Education's Safe and Healthy Kids Program Office (Meredith Rolfe, Administrator; Robin Rutherford and Hilva Chan).

At WestEd, Kiku Annon, Brian McReynolds and Sean Slade supervised the survey administration. Special acknowledgment should be made to contribution of Jerry Bailey in planning this survey and analyzing the results. Michal Clingman and Zeta Heiter helped prepare this report.

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Project Directors, WestEd**

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<sup>1</sup> We apply a conservative standard to interpreting changes in statistical prevalence over time. A difference of three percentage points or more is noted without qualification. A difference of approximately two points, but less than three, may be noted, but with appropriate qualification. Smaller differences are generally disregarded unless reflecting a continuing a trend over more than two survey periods.

# Abbreviations

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## **Surveys**

CSS	The <i>California Student Survey</i> . Also known as the biennial <i>Statewide Survey of Drug and Alcohol Use among California Students</i> , the <i>Attorney General's Survey</i> , and the biennial <i>Statewide California Healthy Kids Survey</i> (see below).
CHKS	<i>California Healthy Kids Survey</i> , the companion survey to the CSS, sponsored by the California Department of Education (CDE). The CSS includes all the required CHKS questions that districts must administer and is often administered in schools at the same time as their local CHKS. CDE requires all districts that accept federal or state prevention funds to administer the CHKS biennially. For further information, see <a href="http://www.wested.org/hks">www.wested.org/hks</a> .
SAMHSA NOMs	<i>National Outcome Measures</i> selected by the Substance Abuse and Mental Health Services Administration and required to be reported by grantees.

## **Drugs and Drug-Related Behaviors**

AOD (ATOD)	Alcohol (tobacco) and other drugs.
Alcoholic Drink	One can/bottle of beer or wine cooler, glass of wine, mixed drink or short glass of distilled spirits (liquor).
Binge Drinking	Consuming 5 drinks or more in a row on the same occasion in the past 30 days.
Drugs	In this report, substances (e.g., marijuana) other than alcohol or tobacco.
Inhalants	Drugs that users “sniff” or “huff” to get high such as glue, gasoline, paint fumes, aerosol sprays and poppers.
Methamphetamine	Crystal meth, speed, ice, crank or any amphetamine.
Painkillers	Prescription painkillers such as OxyContin®, Vicodin® and Percodan®.
Polydrug Use	Use of two or more different drugs on the same occasion. Measured for the past six months.
Smokeless Tobacco	Chew, dip or snuff such as Redman, Beechnut, Skoal or Copenhagen.
Tobacco	Includes both smokeless tobacco and cigarettes.

## **Prevalence Measures**

Current Use	Any use in the 30 days prior to the survey.
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Daily Use	Once a day or more often; or for the past 30 days, using 20 or more days.
Lifetime Use	Any use over respondent's lifetime (i.e., ever use).
Recent Use	Any use in the past six months.
Weekly Use	Once a week or more often, based on the use in the past six months, or use on three or more of the past 30 days.

# 1. Overview

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The 2007-08 *California Student Survey* (CSS) is the 12<sup>th</sup> biennial statewide assessment of alcohol and other drug use among California secondary school students. The first CSS was conducted in 1985. In 1991, the state Legislature passed a law requiring the Attorney General to continue conducting the survey every two years. Since 1993, the state departments of Alcohol and Drug Programs (ADP) and Education (CDE) have partnered with the Attorney General to fund and co-sponsor the CSS. The survey's content over time expanded to provide a broader range of information on health-risk behaviors and resilience, in part to promote comparability with the local *California Healthy Kids Survey* (CHKS). This report summarizes the key 2007-08 results for substance use. All the survey results are available at [www.safestate.org/CSS](http://www.safestate.org/CSS).

The 12<sup>th</sup> CSS was administered between fall 2007 and winter 2008 to 13,930 students in grades 7, 9 and 11 from 116 schools, which were randomly-selected. The CSS is conducted under conditions of strict confidentiality and student anonymity. Participation by school districts, schools and students is voluntary; students must have parental consent. The survey methods were the same as in previous CSS surveys since 2001, except for the allowance of passive parental consent starting in 2005. Several changes and additions were made to the instrument in 2007, in large part to provide data required by the Substance Abuse and Mental Health Administration's (SAMHSA) *National Outcomes Measures* (NOMs). The implications of these changes, which affected several trend lines, are discussed in the Methods section.

## Summary of 1999 - 2005 Survey Results

**Period of decreasing use.** While the early to mid-1990s was generally a period of rising use of alcohol and other drugs (AOD) by California students, the long-term trends appeared to level off in 1997.<sup>2</sup> Comparing 1999 results to 1997 revealed two diverging patterns: (a) overall use was generally much lower, especially for the most commonly-used substances; and (b) most indicators of frequent and heavy use were about the same or changed in inconsistent directions. It appeared some of the decline may have been due to changes in the questions' wording. However, the 2001 survey confirmed the decline in overall prevalence: No meaningful increases in substance use occurred, and there were significant declines in key indicators, especially in overall alcohol use. Among 7<sup>th</sup> graders, declines in the use of marijuana, inhalants and other drugs were also noteworthy. Among the secondary students, the 1999 and 2001 data was about the same for marijuana or other drugs; likewise, patterns of regular and heavy use across all substances had not changed.

In 2003, further declines in overall use by young people continued for alcohol and extended to other drugs and heavy AOD use. Among 11<sup>th</sup> graders there were encouraging declines in the use of marijuana, LSD,

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<sup>2</sup> Regarding earlier trends, between 1985 and 1989, use of illegal drugs and cigarettes by California students declined steadily from the peak in 1985. In 1989, alcohol consumption declined as well. In 1991, signals were mixed. Use of cocaine and methamphetamine continued to decline, but use of alcohol and tobacco increased notably, and there were slight increases in the use of marijuana, LSD and inhalants. The 1993 survey was a wake-up call to the state: Major increases occurred in use of cigarettes, marijuana and several other drugs, especially among 9<sup>th</sup>-grade students. Rates of alcohol use were stable but at disturbingly high levels. Overall, substance-use prevalence levels approached the peaks recorded in the 1985 survey. While substance use generally stabilized in 1995, some small increases (such as in marijuana use, polydrug use and attending school high) continued pre-existing trends. Interpretation of these results was complicated by a shift from implied to written parental consent. In 1997, substance use was again generally stable but still at percentages as high as in 1985.

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ecstasy, binge drinking, drunkenness and being high on drugs, and drinking and driving. There were no meaningful increases. A special report requested by the CSS co-sponsoring agencies, the 2003 *Heavy Substance Use Among California Students*, focused on the need to direct more attention to the level of heavy AOD use that was occurring.

**Decline in AOD use bottoming out.** For 2005, the declining trend appeared to level off. Use by students, across grades and substances, changed little from the previous CSS. Differences for students' use of specific substances were few, small and often inconsistent in direction across grades. Marginal increases even occurred in several measures of alcohol and drug use among 7<sup>th</sup> graders. *Overall, as in 2003, data suggested that almost one-fifth of 11<sup>th</sup> graders were heavy users, likely in need of some intervention, and as many as one-tenth may be at risk of drug dependency.* The 2005 survey further provided the first data on the extent of illicit use of prescription painkillers, which was reported by 14% of 11<sup>th</sup> graders. The 2005 results, overall, sent out a warning against complacency about prevention efforts and reinforced the need to provide services to students who were heavy users of alcohol and other drugs.

### Summary of 2007-08 Results

**Current findings on the use of prescription drugs and over-the-counter drugs.** The most significant findings of the 2007 survey derive from the new questions on lifetime use of diverted prescription and over-the-counter (OTC) drugs. Taking these drugs into consideration, it appears that previously the CSS as well as other surveys such as the national *Monitoring the Future* and *Youth Risk Behavior Survey* have significantly underestimated actual levels of high school substance use by under-assessing the level of use of "medicinal" drugs. The following findings substantiate this assertion.

- Thirty-seven percent of 9<sup>th</sup>- and 50% of 11<sup>th</sup>-grade respondents reported using either an illicit/illegal drug or a diverted prescription drug such as painkillers, sedatives or diet pills to get high ("without a doctor's order to get high or stoned") at least once in their lifetime.
  - These percentages are significantly higher than those reported in earlier surveys for illicit/illegal drugs alone. When alcohol is added, the percentages for any AOD use (lifetime) rise to 52% for 9<sup>th</sup> and 68.5% for 11<sup>th</sup> graders. (Table 2.5)
  - When "recreational" use of OTC cold/cough medicines is added to this lifetime measure, the drug-use percentages rise to 45% for 9<sup>th</sup> and 57% for 11<sup>th</sup> grade. Thus, a near majority of 9<sup>th</sup> and almost six out of ten 11<sup>th</sup> graders used a non-alcoholic drug to get high at least once in their lives. *Total lifetime AOD use including OTC rises to 60% in 9<sup>th</sup> and 73.5% in 11<sup>th</sup> grade.*
- The prescription drugs used most frequently are prescription painkillers such as OxyContin® or Vicodin®. *Twelve percent of 9<sup>th</sup> and 18% of 11<sup>th</sup> graders reported using them at least once in their lifetime, making prescription painkillers by far the second most widely used category of drugs after marijuana.* One-quarter of both 9<sup>th</sup> and 11<sup>th</sup> graders had used over-the-counter cough/cold medicines in their lifetime, half of both groups on seven or more occasions.

Despite long-term efforts to reduce youth experimentation with psychoactive substances, the social climate among young people seems to at least tolerate experimentation. This is further evident in the percentages of respondents who perceived no or only slight harm in occasional use. An essential

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qualification is that these data include respondents who may have tried a given substance *only once* in their lives, as the great majority of youth are not regular drug users or careless risk-takers.

Assessment of AOD use trends was complicated by necessary changes in the survey. On questions that were not changed (e.g., drug use in the past six months), overall prevalence rates remained very stable. Most important, there was no unequivocal evidence of declines on any measure, with the exception among 11<sup>th</sup> graders of methamphetamine use in the past six months but not current or lifetime. It would, therefore, appear reasonable to conclude that the declining trend in overall use in the early decade has ended, but whether it is reversing is not clear.

**Heavy-use indicators – some are up.** Among indicators of heavy or high-risk use, on the other hand, there were several increases of note among an otherwise stable picture:

- Among 11<sup>th</sup> graders, there were three-point increases in the percentages reporting two or more indicators of risk of AOD use *dependency*, two or more *alcohol-related problems* and *weekly alcohol use* in past six months. All were reported by around one-sixth of high school juniors.
- Lifetime *drinking and driving involvement* by respondent or friend increased marginally (2-3 points) in both 9<sup>th</sup> and 11<sup>th</sup> grades, among the latter to 32%, the highest levels over the past six years.

In summary, despite the difficulties in interpreting some changes, this is the second survey in a row in which we issue a strong warning against complacency in substance-use prevention and intervention efforts. Any declining trend in overall use of the early decade is over. Indicators of problematic use were stable or increased marginally. New problems are emerging in prescription drug use and previously unrecognized recreational use of cold/cough medicine.

These findings support two conclusions reached in the 2005 report: (1) prevention efforts may be “bottoming-out” and that further reductions in overall prevalence may be more difficult to achieve; and (2) more attention should be paid to targeting intervention efforts at those youth at risk of heavy and problematic substance use. In addition, more attention needs to be focused on the dangers of students using prescription and OTC drugs.

## 2. Methods & Content

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The 2007-08 *California Student Survey* (CSS) is the 12<sup>th</sup> biennial statewide assessment of alcohol and other drug use among California secondary school students. The sampling and data collection procedures were the same as for previous surveys — with two exceptions. First, private or independent schools, added to the sampling frame in 1995, were excluded beginning in 2003.<sup>3</sup> Second, beginning in 2005, passive parental consent has been again allowed, whereas between 1995 and 2003 only written consent was permitted. The 2007 survey protocol was approved by the state Health and Welfare Agency’s Committee for the Protection of Human Subjects, ensuring that all rights of students and parents were observed. Participation was voluntary for the schools and students. No student took the survey whose parent(s) or guardian did not approve. All data are anonymous and confidential. WestEd randomly selected the statewide sample, contacted the schools and administered the survey. Since 1999, schools have been able to combine their CSS data collection with that of their own *California Healthy Kids Survey* (CHKS). As in 2005, four in ten (43%) of schools in the sample selected this combined-administration option.

### Parental Consent and the Student Participation Rate

Changes in state law allowed passive parental consent procedures in 2003 for the first time since 1995 for students in grades 7 or higher.<sup>4</sup> The new law applies only if the local school board formally adopts a passive-consent policy implementing federal and state regulations. Under passive consent, parents inform the school only if they do *not* want their child to participate in the survey. Schools are also required to undertake a series of notifications to ensure parents/guardians are informed of the survey and consent procedures. About 78% of schools in the 2007 survey adopted passive-consent procedures, compared to 56% in 2005, resulting in a mixed-consent survey; some schools using written consent, others, passive.

Although the data are incomplete, it appears about 78% of students in the targeted sample completed the survey in 2007, the same rate as in 2005, compared to 58% in 2001 and 62% in 2003. This increase was unquestionably due to the shift to passive consent in more than three-quarters of the schools. It is consistent with an analysis of 1995 CSS data revealing that the decline in response rates was due to non-return of consent forms rather than active parental refusal.<sup>5</sup> The percentages of non-return were most pronounced in schools serving students from economically disadvantaged communities. However, the effect of the disproportionate loss of such students on CSS results after 1995 was not associated with changes in long-term trends. Likewise, there were only small differences in the results for 2005 and 2007 for students at schools allowing passive consent versus those where written consent was required, although prevalence rates were slightly higher among 11<sup>th</sup> graders, as would be expected. Thus, although

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<sup>3</sup> Their participation had always been highly unsatisfactory: only two agreed in 2001. As a result, the findings could only be generalized to public school students. Therefore, the decision was made to not include them in the sampling frame.

<sup>4</sup> See Education Code 51938(b), which stipulates: “Notwithstanding Section 51513, anonymous, voluntary, and confidential research and evaluation tools to measure pupils’ health behaviors and risks, including tests, questionnaires, and surveys containing age appropriate questions about the pupil’s attitudes concerning or practices relating to sex may be administered to any pupil in grades 7 to 12, inclusive, if the parent or guardian is notified in writing that this test, questionnaire, or survey is to be administered and the pupil’s parent or guardian is given the opportunity to review the test, questionnaire, or survey and to request in writing that his or her child not participate.”

<sup>5</sup> Skager, R. & Austin, G. *Effects of active parental consent on response rates for a statewide secondary school substance use survey and relationships with school level measures of student ethnicity, poverty and educational advancement*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, March 27, 1997.

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the characteristics of students in passive-versus written-consent samples vary, these variations, to our surprise, seem to have no significant effect on overall self-reported substance use.

### Sample

The 2007-08 grade-level samples consisted of 13,930 randomly-selected students, more than 4,000 per grade, from 48 middle schools and 68 high schools. This was two more middle schools and seven more high schools than were targeted, with the differences being adjusted by weighting. By region, northern California middle schools were the most underrepresented. The larger number of high schools reflects the inclusion of ten continuation schools, representing 5% of the state enrollment, which do not have feeder middle schools. The students from these continuation schools were included in the 11<sup>th</sup>-grade sample, so the results are representative of all students at that grade level in the state. In contrast, CHKS results from 11<sup>th</sup> graders in comprehensive (traditional) high schools are reported separately from students in continuation and other nontraditional schools. This provides districts with data relevant to the needs of students in both types of schools. As continuation and other nontraditional-school students report significantly higher rates of substance use than their 11<sup>th</sup>-grade peers, this difference between the CSS and CHKS samples should be taken into consideration in making any comparison between the results of the two surveys.<sup>6</sup>

**Gender.** There have been slightly higher proportions of females in the sample in all grades since written parental consent began. Under current mixed consent this difference has narrowed, although females still slightly exceed males in participation rates in 7<sup>th</sup> and 9<sup>th</sup> grades. Possible gender bias was controlled by statistical weighting to compensate for over-representation of females.

**Race/Ethnicity.** The racial/ethnic composition of the grade-level samples are consistent with earlier surveys and reflect the ongoing decline in the relative percentages of white students (range by grade, 19-29%) enrolled in schools and increase in Hispanics, at 34-42%, particularly in 7<sup>th</sup> grade. The one exception was in 9<sup>th</sup> grade, where the percentage of Hispanics dropped and whites increased. Other groups have remained fairly stable, although the percentages of African Americans in 11<sup>th</sup> grade declined by two percentage points and of Asians in 7<sup>th</sup> grade by three points.

### Content of the Instrument

In fulfillment of its legislative mandate and original purpose, the CSS mainly focuses on substance use. The survey assesses the overall prevalence, meaning any use, and frequency of use of alcohol, tobacco and a wide range of drugs (the latter significantly extended in the current survey) as well as forms of risky and abusive use including binge drinking, drinking and driving, and substance use at school. It also assesses perceived harm and other attitudes relevant to substance use; personal problems associated with alcohol and other drug use; social influences such as availability as well as perceived use among peers and adults known to the student. Since 1985, the main series of questions assess AOD use in the *six months* prior to survey administration.

**Expansion.** Over time, the information needed by the co-sponsoring agencies led to an expansion in coverage — particularly in regard to school violence, victimization and safety — and to changes in

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<sup>6</sup> For data on substance use among continuation school students, see: Austin, G., & Abe, Y. (2002). *Continuation schools report: Findings on the use of alcohol, tobacco, and other drugs from the 8<sup>th</sup> Biennial Survey in grades 7, 9, and 11* (Sacramento: Office of the Attorney General); and Austin, G., Dixon, D., Bailey, J., and Berliner, B. (2008). *Continuation high schools and their students: What the data tell us* (San Francisco: WestEd).

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questions. Most notably, in 1999, the CSS and CHKS were integrated to enable state and local data comparability across a broader range of health-related behaviors. Many CSS questions on substance use and violence were included in the CHKS from the beginning. However, full integration of the two instruments required modification of some CSS questions and the addition of new questions on school climate, physical health, and youth resilience or developmental assets. Questions on substance use in the *past 30 days* (current use) and *lifetime* (ever used) have been expanded to promote comparability with the CHKS and national surveys.

In 2003, several new items were added in order to: (a) meet the requirements of the federal *No Child Left Behind Act of 2001* for student assessment; and (b) expand the value of the CSS for understanding the scope and nature of heavy AOD use. A few questions were also modified to address remaining comparability issues with the CHKS.

**Addition of NOMs.** In 2007, important changes again had to be made to substance-use questions to bring the survey in compliance with the National Outcome Measures (NOMs) required by the Substance Abuse and Mental Health Services Administration (SAMHSA). Some existing CSS questions had to be modified and others replaced by NOMs items that assessed the same variable in a different way. In addition, response options assessing the frequency of 30-day and lifetime use (the number of times respondents could identify they used) were expanded to improve identification of experimenters and heavy users. A new series of questions about lifetime use of diverted prescription medications and over-the-counter cold/cough/congestion medications was added in response to developing concerns over their recreational use.

### Interpreting Survey Findings

**New baseline.** As a result of the item changes in 2007, many of the current survey results for substance use, especially the lifetime and 30-day measures, should be considered a new baseline for making future comparisons. In interpreting differences in results over time from any survey, it is important to look carefully at whether there were changes in the questions that might affect the results. If an item was changed, extreme caution should be used in comparing the 2007 results with those of previous surveys.

It should not be assumed that differences between 2005 and 2007 results on such questions reflect a change in actual behavior. For example, lifetime and current (30-day) prevalence rates tended to be marginally higher in 2007 than 2005, and six-month alcohol and overall AOD use rates were lower. However, these questions also had increases and decreases, respectively, in the number of response options that students could select. Questions that were the same on both the 2005 and 2007 surveys (e.g., six-month drug-use indicators) tended to show little change. Of necessity, as a result, this report focuses more on the implications of the current data than on whether use has increased or decreased compared to 2005. Trend comparisons are made only for those measures that remained the same in 2007 or to note possible influence of changes in the measures.<sup>7</sup> The overall picture appears to be one of stability, with some increases in indicators of heavy or high-risk use.

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<sup>7</sup> The survey *Compendium* notes every change that occurred in an item's wording for 2007 compared to 2005.

# 3. Alcohol Use

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Alcohol remains the most popular psychoactive substance among secondary students, with the majority of 11<sup>th</sup> graders reporting recent drinking (past six months) and almost half of 9<sup>th</sup> graders having consumed at least one drink. Because of item changes (see below), assessing trends is especially problematic for alcohol, but the evidence would suggest that the current survey is best seen as substantiating 2005 results — the earlier declines in the decade have ended. Heavy or problematic drinking remains a cause for concern, and drinking and driving involvement is rising.

## Overall Use

Figure 1 illustrates current results across all the three time-frames (lifetime, six-months and 30-days) and grades (7, 9 and 11) assessed by the survey.

### Lifetime (Ever)

Lifetime consumption of a *full drink* among 7<sup>th</sup>, 9<sup>th</sup> and 11<sup>th</sup> graders was at 24%, 47% and 66%, respectively. Despite some yearly fluctuation, having tried at least one full drink seems to be the norm for about one-quarter of 7<sup>th</sup> graders, close to half of 9<sup>th</sup> and two-thirds of 11<sup>th</sup>. (Table 2.1)<sup>8</sup>

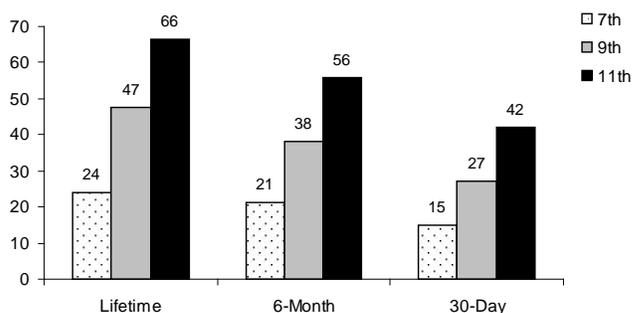
### Past six months (Recent use)

Consumption of *an alcoholic drink* in the past six months was at 21%, 38% and 56% across ascending grades. As a measure of any alcohol use, these percentages are lower than in 2005 or previously, but this appears due to the use of a single generic category (“an alcoholic drink”) in the current survey, compared to specific beverage categories (“beer,” “wine” and “spirits”) in previous surveys, from which a total alcohol rate was calculated. The switch to a single generic category was due to previous results (percentages for six-month alcohol use) being illogically higher than for lifetime consumption of an alcoholic drink. Current results are now slightly lower, as would be expected. (Tables 2.6-2.9)

### Past thirty days (Current use)

Fifteen percent of 7<sup>th</sup>, 27% of 9<sup>th</sup> and 42% of 11<sup>th</sup> graders reported having at least one alcoholic *drink* in the past 30 days. By the 11<sup>th</sup> grade, almost two-thirds of students who ever had a full drink of alcohol were current drinkers, a slightly higher proportion than in 2005. (Tables 2.13, 2.14)

**Figure 1**  
**Any Alcohol Use (Full Drink) in Lifetime, Past Six Months, and Past 30 Days**



<sup>8</sup> Table references are to the table numbers in the survey’s *Compendium* ([www.safe.state.org/CSS](http://www.safe.state.org/CSS)).

## Level of Involvement (Heavy Use Indicators)

Measures of frequent or heavy drinking that generally were unchanged in 2005 seem to be also stable in the current survey. As shown in Figure 2, about one-fifth of 11<sup>th</sup> graders still appear to be frequent or heavy drinkers based on measures of regular binge drinking (3 or more days per month), weekly drinking and having been drunk/sick on three or more occasions. The findings support previous CSS and national studies indicating, while adolescents do not drink as frequently as adults, a larger proportion may drink heavily *when they do drink*. Heavy drinkers are rare in 7<sup>th</sup> grade, but they are an especially high-risk group. Their numbers increase markedly between 9<sup>th</sup> and 11<sup>th</sup> grades, whereas measures of occasional use remain relatively constant.

### **Weekly and Daily Use**

Although the overall level of six-month alcohol use decreased because the question was changed, weekly drinking (once a week or more often) among 7<sup>th</sup> and 9<sup>th</sup> graders remained level at 2% and 7%, respectively, as it has been since 2001. Moreover, this measure increased three percentage points to 17% for 11<sup>th</sup> graders (reverting to 2001 levels and canceling the decline since then). Weekly drinkers accounted for only 11% of the drinking population in 7<sup>th</sup> grade, but they were almost one-third (30%) of the drinkers in 11<sup>th</sup> grade.

Only slightly higher percentages were reported for drinking on three or more of the past 30 days (a rough equivalent to weekly use), at 4% in 7<sup>th</sup> grade, 11% in 9<sup>th</sup> and 18% in 11<sup>th</sup>. This measure also remained relatively stable, as did daily drinking at 2% of 9<sup>th</sup> and 3% of 11<sup>th</sup> graders.

### **Binge/Heavy Drinking (Past 30 Days)**

Binge drinking, defined as consuming five drinks in a row at least once in the past 30 days, was reported by 6% in 7<sup>th</sup> grade, 16% in 9<sup>th</sup> and 29% in 11<sup>th</sup>. Students who binged at least once constituted 43% of the current drinking population in 7<sup>th</sup> grade, 58% in 9<sup>th</sup> and 69% in 11<sup>th</sup>. *In other words, if a 9<sup>th</sup> or 11<sup>th</sup> grader is currently drinking, it is more likely than not that he/she will have binged.* Binge drinking on three or more of the last 30 days was reported by 7% of 9<sup>th</sup> and 14% of 11<sup>th</sup> graders — almost half the number who binged at all. (Table 2.14)

### **Drunkness**

The percentages for *ever very drunk or sick* from alcohol were 11% of 7<sup>th</sup>, 28% of 9<sup>th</sup> and 44.5% of 11<sup>th</sup> graders. Moreover, 13% of 9<sup>th</sup> graders and 23% of 11<sup>th</sup> reported this experience on three or more occasions, and about half of these students (6% and 13%, respectively) on seven or more. In addition, 8% in 9<sup>th</sup> and 18% in 11<sup>th</sup> grade reported *forgetting something or passing out* from alcohol use on at least one occasion. (Tables 2.19, 3.5)

### **Drinking Style**

The combined percentage reporting that they like to drink enough to *feel it moderately* or *get really drunk/feel it a lot* was 18% in 9<sup>th</sup> grade and 35% in 11<sup>th</sup>. The majority were moderate drinkers; but 8% and 13% indicated that they drank to get drunk/feel it a lot.<sup>9</sup> This is also consistent with the percentage reporting regular binge drinking (on three or more days). (Table 2.17)

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<sup>9</sup> These are considerably lower percentage than found in 2005 when getting drunk and feeling it a lot were two separate categories and adding them together produced rates of 11% and 21%. In 2007, these two options were combined and a new option of drinking “enough to feel it moderately” was added to better align this question with the marijuana-use style question and eliminate the large gulf between drinking a little vs. drinking a lot on earlier CSS questionnaires.

## HIGHLIGHTS

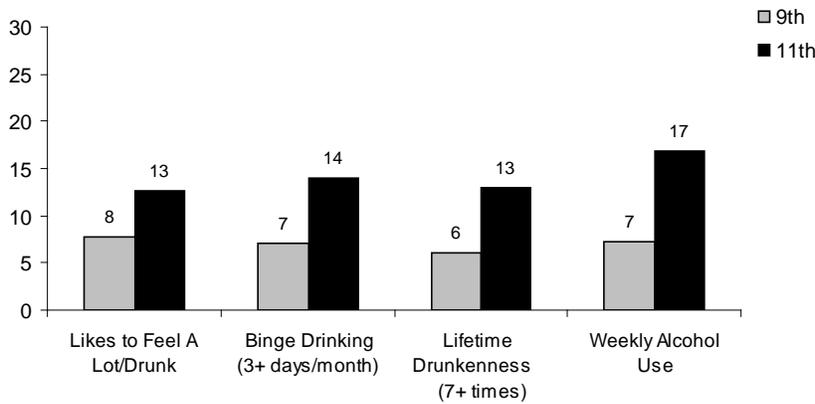
### **Excessive Alcohol Use**

Almost one-fifth of 9<sup>th</sup> graders (18%) and 29% of 11<sup>th</sup> graders were classified as Excessive Alcohol Users (EAU). This classification is based on three measures: current binge drinking on three or more days, being drunk/sick three or more times, or liking to get drunk/feel alcohol a lot. (Table 2.20; Figure 2)

### **Drinking and Driving**

Among high school students, drinking and driving, or being driven by a friend who had been drinking, has risen steadily since 2003. Compared to 2005, this statistic rose three points to 23% in 9<sup>th</sup> and a marginal two points to 32% in 11<sup>th</sup> grade. For most students, if they drank and drove once, they probably did it at least once again. Just under half of these students in both grades reported three or more episodes (10% of 9<sup>th</sup> and 15% of 11<sup>th</sup> for the total sample). (Table 3.2)

**Figure 2**  
**Heavy Alcohol Measures, Grades 9 & 11**



# 4. Other Drug Use

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The use of marijuana and other illegal drugs, which generally declined in 2003 and leveled off in 2005, remained mostly level in 2007 on the six-month measures — the best trend indicator because of the stability in the questions. Marijuana remains the most commonly used substance after alcohol, with almost one-third of 11<sup>th</sup> graders reporting use in the previous 6 months and 42% having tried it at least once. Most significantly, however, new questions assessing the recreational use of prescription and over-the-counter (OTC) drugs — i.e., “without a doctor’s order to get high or stoned” — in the non-clinical adolescent population, reveal more fully than before the extent of the use of “medicinal” substances among young people.

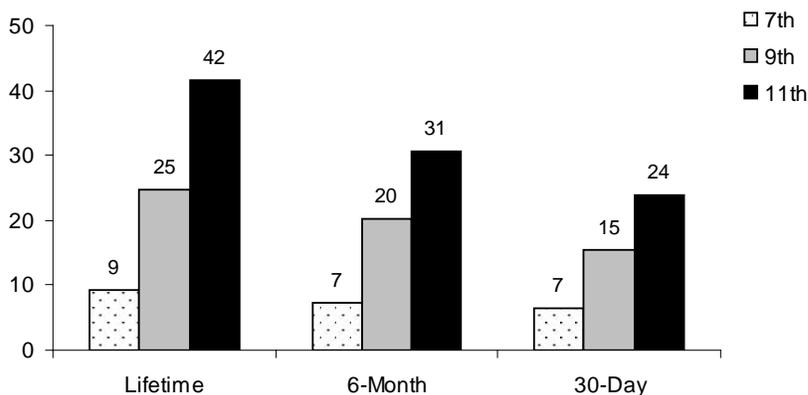
The questions covered a full spectrum of prescription drugs — painkillers and anti-anxiety drugs, prescription diet medications, and attention deficit disorder (ADD) medications — as well as OTC cold/cough/congestion medicines. These “medicinal” drugs are substantial components of any complete picture of substance use among young people, as shown in Figure 4. A total of 31% of 9<sup>th</sup> graders and 35% of 11<sup>th</sup> had used either a prescription drug or cold/cough medicine. As is the case with alcohol, these findings suggest that the boundary between “licit” and “illicit” is indeed murky when the same substances can be used both legitimately as prescriptions, illegitimately for “recreational” purposes and intentionally for functional reasons such as remaining alert to study.

## Overall Use of Specific Substances

### Marijuana

As shown in Figure 3, among 7<sup>th</sup>-grade students there is relatively little difference between lifetime, six-month and 30-day prevalence of marijuana use (9%, 7% and 7%, respectively), reflecting that many 12- and 13-year-olds had tried marijuana only recently. Predictably, lifetime use increases dramatically to 25% in 9<sup>th</sup> grade and 42% in 11<sup>th</sup>, while differences between lifetime and current use rates widen. Current rates, in past 30 days, were 15% in 9<sup>th</sup> and 24% in 11<sup>th</sup>, about 60% of lifetime use in both grades. Since 2003, use in the past six months has remained stable at 7% in 7<sup>th</sup> grade, 20% in 9<sup>th</sup> and 31% in 11<sup>th</sup>. (Tables 2.2, 2.6-2.9, 2.13)

**Figure 3**  
Any Marijuana Use in Lifetime, Past Six Months, and Past 30 Days



### **Painkillers and Other Prescription Drugs**

Lifetime use of *prescription painkillers* such as Vicodin®, OxyContin® and Percodan® was reported by 12% of 9<sup>th</sup> and 18% of 11<sup>th</sup> graders, making these substances the most popular class of illegal drugs after marijuana in these two age groups (Figure 4). Moreover, 3% and 7%, respectively, reported they used seven or more times. These frequent users amounted to more than one-fourth of lifetime users of prescription painkillers in 9<sup>th</sup> and 4 out of 10 in 11<sup>th</sup> grade. *This is the most significant finding in the 2007 survey with respect to a single drug.*

Ranking next, at 9% of 9<sup>th</sup> and 8% of 11<sup>th</sup> graders were *diet pills* or stimulants, with the majority of users using more than three times (5% in both grades). Moreover, in 11<sup>th</sup> grade, half of users reported seven or more times. Use of other categories was much lower, with relatively small differences between grades. Tranquilizers or sedatives, anti-anxiety benzodiazepines such as Xanax® or Valium®, were reported by 4-6% and barbiturates such as Seconal, by 2-3%. Two medications for *attention deficit disorder* (ADD), Ritalin® and Adderall®, were reported by 4-6%. Although often prescribed for children and youth, when taken in sufficient quantity by users who do not suffer from ADD they can produce a high similar to that from methamphetamine or other “upper” drugs. (Table 2.3)

### **Over-the-counter Cough and Cold Medicines**

As shown in Figure 4, one-quarter of 9<sup>th</sup> and 11<sup>th</sup> graders reported using over-the-counter *cold/cough/congestion medicine* often called “triple Cs” on the street to get high or stoned. That these percentages are identical for the two grade levels suggest that virtually all use of these substances occurred by grade nine after which older students “graduated” to use of other “real” drugs including alcohol. Not usually considered as psychoactive drugs, cough/cold medicines are potentially dangerous in greater than recommended dosages because they contain dextromethorphan (DMX). Consumed in significant amounts these presumably benign symptom relievers may produce hallucinations and dissociative, out-of-body experiences.<sup>10</sup> Drinking an alcoholic beverage before or after ingestion of critical amounts of these drugs increases the danger of fatal overdose.

### **Inhalants**

Among 7<sup>th</sup> graders, the use of hydrocarbon-based inhalants (glue, paint, gasoline, poppers or household cleaning fluids) is equivalent to or higher than marijuana, depending on measure, and accounts for most remaining illegal drug use; this age group was not asked about prescription drugs or OTC medications. This has been the case throughout the history of the CSS. Lifetime use was 12%, six-month at 7% and current use at 5%. Lifetime use of inhalants was reported by 14% in 9<sup>th</sup> and 15% in 11<sup>th</sup>; and current use by 7% in both upper grades. Use in the previous six months was 7% to 8% across grades, about the same as in 2005. Perhaps the most significant observation is that inhalant use has gradually and significantly declined at all grade levels since the mid-1990s and earlier. Whether this is due to increased awareness of dangers from inhalation of hydrocarbon-based substances or replacement with other alternatives, especially OTC medications, is not clear.

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<sup>10</sup> Hospital emergency-room patients aged 12 to 20 accounted for almost half (48%) of all the emergency visits resulting from recreational consumption of dextromethorphan (DMX) usually associated with cough and cold medicines. *Emergency Department Visits Involving Dextromethorphan*. (2006) The DAWN Report. Drug Abuse Warning Network. SAMHSA. <https://dawninfo.samhsa.gov/files/TNDR10DXMforHTML.pdf>

## HIGHLIGHTS

### ***Ecstasy (MDMA), LSD and Psychedelics***

Lifetime use of ecstasy was reported by 6% of 9<sup>th</sup> and 10% of 11<sup>th</sup> graders; for LSD/psychedelics, it was 5% and 8%. Their use in the past six months has remained stable since 2005, at 4% and 3%, respectively, in 9<sup>th</sup> grade, and at 4% and 6% in 11<sup>th</sup> grade.

### ***Methamphetamine***

Lifetime use of methamphetamine and amphetamine was reported by 5% of 9<sup>th</sup> and 7% of 11<sup>th</sup> graders, with current use only somewhat lower at 4% and 5%. Six-month use of methamphetamines was stable at 4% in 9<sup>th</sup> but in 11<sup>th</sup> grade it decreased by two points to 4%. This is one of the few clear declines in the survey. Most indicators have shown little change in methamphetamine use since 2003 when there was a decline of 3.5 points in the 11<sup>th</sup> graders' six-month use in 2001. This drug has never been a major factor in the general youth population, although in localized groups of heavy and abusive users it may be used heavily. Generalizations from the latter rarely apply to most young people.<sup>11</sup>

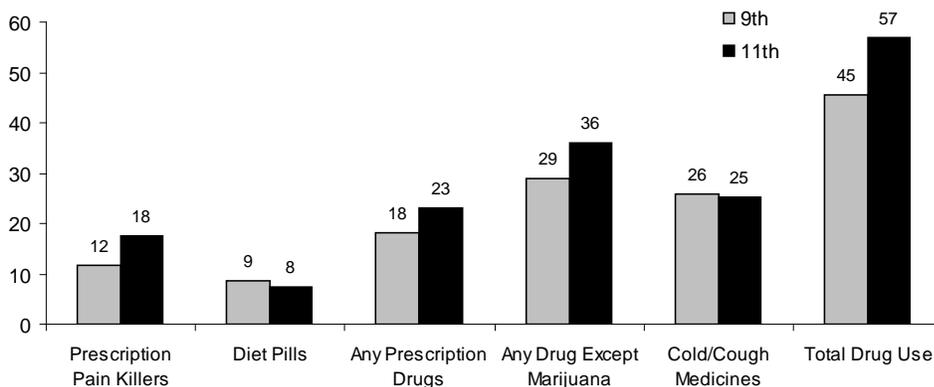
### ***Cocaine***

Use of cocaine was similar to methamphetamine, with six-month prevalence stable at 3% for 9<sup>th</sup> and 5% for 11<sup>th</sup> grade. Lifetime rates were at 5% and 10%, and current use at 3% and 4%.

## **Any Drug Use**

Lifetime use of any of the traditional illicit drugs, excluding the new specific questions on prescription and OTC drugs, was 17% in 7<sup>th</sup> grade, 31% in 9<sup>th</sup> and 46% in 11<sup>th</sup>. Current use was 9%, 18% and 26%, respectively, over half the lifetime rates in the upper grades. As shown in Figure 4, if we take into consideration the data from the prescription drug questions asked of high school students, lifetime drug use rises to 37% in 9<sup>th</sup> grade and 50% in 11<sup>th</sup>. About three-quarters of these students reported using a drug other than marijuana, 29% and 36%, respectively, although they may also have used marijuana. Including cold/cough medicine causes the percentages for any drug use to rise further to 45% and 57%. This is an increase of 14 and 11 percentage points, respectively, over the original estimate without adjusting for the prescription and OTC drugs. (Tables 2.2, 2.4)

**Figure 4**  
**Lifetime Recreational Use of Prescription Drugs & Medicines, and Total Drug Use, Grades 9 & 11**



<sup>11</sup> While some adolescent treatment agencies report a surge in admissions for methamphetamine abuse, self-report evidence do not necessarily corroborate an increase — let alone an epidemic — among the general in-school population. However, self-report trends should be examined for various demographic groups to better investigate this issue.

## Level of Use

Figure 5 summarizes the results for several indicators of heavy drug use as described below.

### **Intoxication**

The lifetime percentages for ever being high or loaded on drugs were at 8%, 22% and 37%, across grades 7 to 11, consistent with results since 2001. Although fewer 9<sup>th</sup> and 11<sup>th</sup> graders use drugs than alcohol, the prevalence rates for being high/loaded on drugs were only slightly lower than for being very drunk/sick on alcohol. Furthermore, 9% of 9<sup>th</sup> graders and 22% of 11<sup>th</sup> were high on drugs seven or more times; these percentages were much higher than for alcohol at 6% and 13%. (Tables 2.18, 2.19)

### **Intensity of Use**

Fourteen percent of 9<sup>th</sup> and 24% of 11<sup>th</sup> graders reported that they used drugs to get “moderately high” or “very high.” About half of them, 7% and 11%, endorsed “very high,” a pattern unchanged since 2003. The percentage for very high on drugs among 11<sup>th</sup> graders is slightly lower than drinking to “feel it a lot/get really drunk.” However, this represents a higher proportion of the user population than for alcohol, indicating drug users are more focused on feeling the effects of substance use. Supportive of this, there is also a striking difference between the two substances in regard to preferences for moderate versus intense effects. For drugs, moderate use was only slightly larger, but for alcohol it was almost twice as large. (Table 2.17)

### **Weekly and Daily Marijuana Use**

Use of marijuana *at least once a week* during the past six months was stable at 7% in 9<sup>th</sup> grade and increased slightly in 11<sup>th</sup> grade to 12%. Although these rates are lower than for alcohol, greater proportions of the marijuana-using population are weekly users (35% in 9<sup>th</sup> and 38% in 11<sup>th</sup>) than was the case for alcohol. The percentage of students reporting use of marijuana in *three or more* of the past 30 days was 8% in 9<sup>th</sup> and 13% in 11<sup>th</sup> grade – *this group accounts for the great majority of current/past 30 day users*. Daily marijuana use was negligible in grade 9 and barely significant statistically at 4% in 11<sup>th</sup> for use during the past six months and thirty days. But even this close-to-marginal figure exceeded daily alcohol use, which was effectively zero. (Tables 2.7, 2.8, 2.14)

### **Polydrug Use**

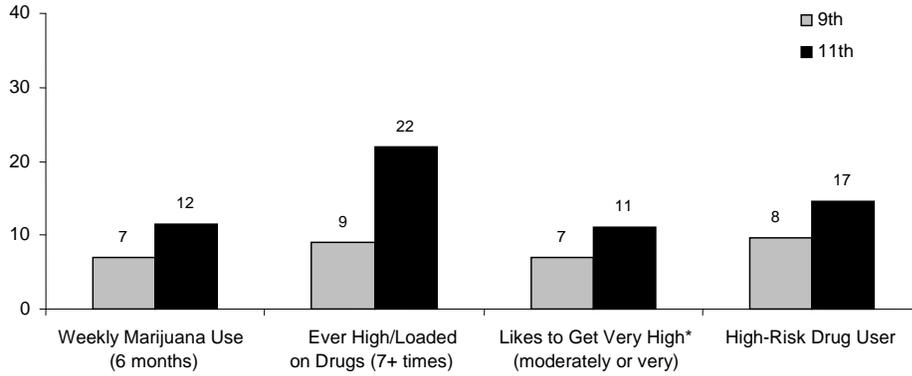
Simultaneous use of more than one substance, e.g., alcohol and marijuana is especially dangerous because of potential adverse drug interactions. It is also a sign of more intense involvement with psychoactive substances. Polydrug use over the past six months was level at 10% in 9<sup>th</sup> and 19% in 11<sup>th</sup>. Polydrug use in the past 30 days, assessed for the first time in the current survey, was only moderately lower, at 8% and 13%. Over half of these current polydrug users (5% in 9<sup>th</sup> and 9% in 11<sup>th</sup>) reported doing it on more than one of the past 30 days. (Tables 2.13, 2.15)

### **High-Risk Drug Use**

Eight percent of 9<sup>th</sup> graders and 17% of 11<sup>th</sup> engaged in a high level of illicit drug use in the past six months and were classified as High-Risk Drug Users (HRU). Among 11<sup>th</sup> graders, this percentage has been stable since 2003. The percentage of Conventional Users, those who reported some use in the past six months but did not meet the HRU criteria was 36% in 9<sup>th</sup> and 43% in 11<sup>th</sup> grade. (Table 2.20)

# HIGHLIGHTS

**Figure 5**  
**Heavy Drug Use Indicators**



# 5. Patterns of AOD Use & Abuse

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This section summarizes measures of the overall level of alcohol or other drugs (AOD) involvement. These include abstinence or no AOD use, indices of AOD abuse such as related problems and dependency indicators, and cessation attempts and perceived need for help, which are indirect measures of problematic use.

## Lifetime AOD Use and Abstinence

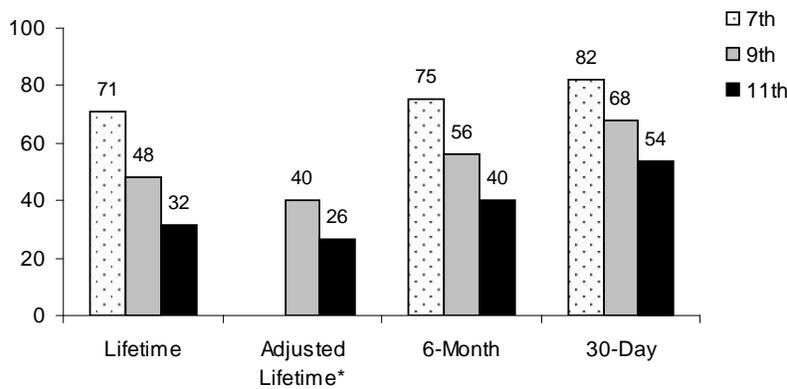
### Lifetime

Figure 6 shows the proportion of students who reported no use of alcohol or other drugs in each of the three time periods assessed by the survey. The main series of questions on lifetime substance use, excluding specific prescription drugs, yielded rates for total abstinence or no use of alcohol or other drugs that dropped across grades by over half: from 71% in 7<sup>th</sup> to 32% in 11<sup>th</sup>. Adjusting for the use of prescription drugs reduces the lifetime abstinence rate to 46% in 9<sup>th</sup> grade and 30% in 11<sup>th</sup>. Adding cold/cough medicines lowers it further to only 40% and 26% abstinence, as shown in the second set of bars in Figure 6. Thus, despite abstinence being the sole goal of all past and current prevention efforts, 60% of 9<sup>th</sup> graders and almost three-quarters (74%) of 11<sup>th</sup> graders have at least tried alcohol or another substance including cold/cough medicine for the purpose of getting high.<sup>12</sup> (Tables 2.2, 2.5)

### Lifetime

Although abstinence rates in the *past 30 days* are much higher, one-third of 9<sup>th</sup> graders and almost half (46%) of 11<sup>th</sup> reported some current AOD use. (Table 2.13)

**Figure 6**  
**Abstinence from Use of Any Alcohol or Other Drugs**



\*Adjusted to include prescription and OTC drugs

<sup>12</sup> Note that the addition of prescription and OTC drugs affects the rate of lifetime use of AOD less than the rate of total lifetime drug use because of the higher percentage of students who drank alcohol.

## Overall Heavy Use

Combining the data from the two individual questions on the prevalence of being very drunk/sick from alcohol or high/loaded on drugs, it appears that 13.5% of 7<sup>th</sup> graders, 34% of 9<sup>th</sup> and 51% of 11<sup>th</sup> had been intoxicated from AOD use at least once in their life. Combining the percentages of students who were classified either Excessive Alcohol User and/or High-Risk User of drugs resulted in percentages of 19% in 9<sup>th</sup> and 33% in 11<sup>th</sup>. (Tables 2.18, 2.20)

## Problems Related to Use

Ninth- and 11<sup>th</sup>-grade students were asked to identify any of 12 pharmacological, personal, school and social problems they had experienced from using alcohol or drugs. The percentages reporting experiencing two or more use-related problems from *either* alcohol *or* drugs was 12% in 9<sup>th</sup> and 21% in 11<sup>th</sup> grade, a marginal two-point increase over 2005. Consistent with previous surveys, 8% of 9<sup>th</sup> graders reported *two or more problems* due to alcohol and 5% due to drugs. The 11<sup>th</sup>-grade percentages were 17% for alcohol, a three-point increase, and 8% for drugs. The slightly higher percentages for alcohol than for drugs reflect the higher prevalence of alcohol use. However, looking at just the user population, the percentage of drug users who reported two or more problems was about the same as for alcohol users.

The most frequently-reported specific problem among 11<sup>th</sup> graders for *alcohol or drugs* was the combined alternative “passing out /forgetting what happened/have a bad trip” at 19%; followed by problems with emotions, nerves or mental health, 12%. On average, roughly 8% percent of 11<sup>th</sup> graders reported trouble with the police, missing school and physically hurting one’s self. About 6-7% had problems with school-work, fighting, damaging a friendship and engaging in unwanted/unprotected sex. (Tables 3.5-3.7)

## Dependency Indicators

Among all 9<sup>th</sup> and 11<sup>th</sup> graders, 6% and 15%, respectively, reported experiencing *two or more* of seven experiences associated with AOD dependency or abuse, a two-point increase over 2005 in 11<sup>th</sup> grade. Just over one-tenth of 11<sup>th</sup> graders reported each of four indicators: (a) increasing the amount they drank/used in order to achieve the original effect; (b) drinking/using alone; (c) using after deciding they wouldn’t; and (d) using a lot more than intended. Percentages for 9<sup>th</sup> graders were about half as much for each. Four percent of 9<sup>th</sup> and 6% of 11<sup>th</sup> graders “spent a lot of time getting, using, or being ‘hung over’.” (Table 3.3)

## Cessation Efforts

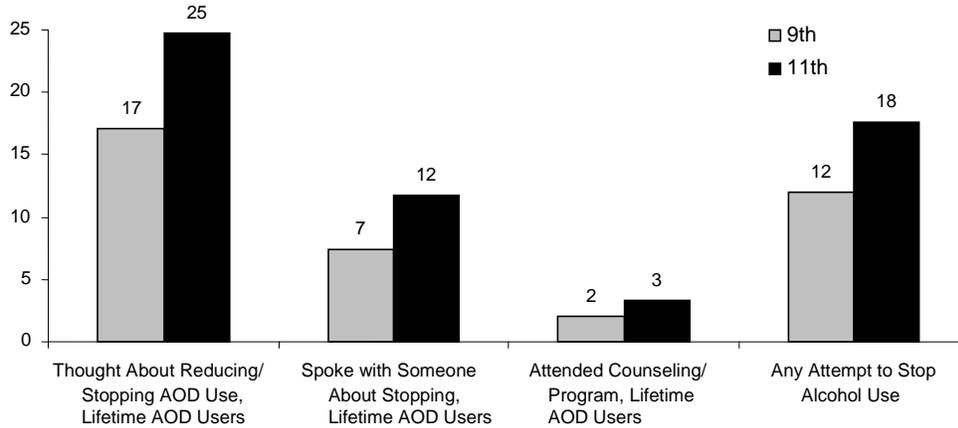
Eighteen percent of 11<sup>th</sup> graders made at least one attempt to stop drinking and 16% to stop smoking marijuana. (Table 5.1) The cessation-attempt percentages were 12% and 10%, respectively, among 9<sup>th</sup> graders. About half of this cessation sample at each grade made more than one attempt (5% in 9<sup>th</sup> and 7% in 11<sup>th</sup>). At both grades, 2007 is the first year when cessation attempts for marijuana were less frequent than for alcohol. However, among *current users/drinkers* (last 30 days) only, respondents were still more likely to try quitting marijuana than they were for alcohol. The percentages of users/drinkers making one cessation attempt were 43% for marijuana and 31% for alcohol in 11<sup>th</sup> grade, and 46% and 31%, respectively, in 9<sup>th</sup> grade.

Students are more likely to *consider* stopping than they are to take definite action. Whereas 13% of 11<sup>th</sup> graders reported they had *thought about* reducing or stopping their AOD use, only 6% had *talked to*

## HIGHLIGHTS

someone about stopping, 4% realized that they *needed* professional assistance, and fewer still, just 2%, actually attended a counseling or support group. Percentages for 9<sup>th</sup> graders on each measure were again about half as high except for realizing they needed professional assistance; both grades were 4%. (Tables 5.1, 5.3, 5.4)

**Figure 7**  
**Cessation Attempt Efforts**



## Estimated Size of the Intervention Population

The CSS questions on dependency, problems associated with use and cessation are reasonably consistent with criteria used by the American Psychiatric Association (*Diagnostic and Statistical Manual of Mental Disorders*, 4<sup>th</sup> edition) to clinically diagnosis substance abuse and dependency. By applying these criteria to the 2007 CSS results, we estimate that 4.5% of 9<sup>th</sup> graders and 11% of 11<sup>th</sup> may be at risk of dependency, and another 8% and 10.5%, respectively, may be abusers. This indicates that a total of 12.5% of 9<sup>th</sup> and 21.5% of 11<sup>th</sup> may need some form of targeted intervention to help them stop or reduce their use. These estimates are very similar to those determined in 2003 and 2005, although slightly higher among 11<sup>th</sup> graders. (Table 3.8)

# 6. Tobacco Use

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Steady reductions in tobacco smoking among students have been a long-term success story for prevention and/or regulation in California. Lifetime and current use rates are up slightly for 2007, but as discussed this may be related to the change in these questions.

## Cigarette Smoking

### Lifetime Smoking

Ever smoking a *whole cigarette* was reported by 7% in 7<sup>th</sup> grade, 20% in 9<sup>th</sup> and 34% in 11<sup>th</sup>. Smoking a whole cigarette seven times or more times was reported by 7% of 9<sup>th</sup> and 16% of 11<sup>th</sup> graders, almost half of the 11<sup>th</sup> graders who reported ever smoking. (Table 2.1)

### Current Smoking

Smoking in the past 30 days in 9<sup>th</sup> and 11<sup>th</sup> grades was at 11% and 17%, respectively. Current daily smoking, on 20 or more of the past 30 days, was reported by only 2% in the 9<sup>th</sup> grade and 4% in 11<sup>th</sup> grade. Even in grade 11, daily smoking is thus barely significant. (Table 2.13)

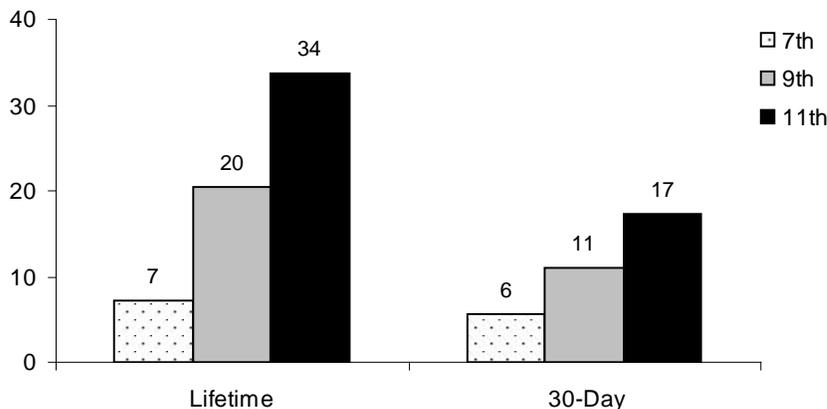
### Cessation Efforts

In 9<sup>th</sup> grade, 10% reported at least one smoking-cessation attempt, unchanged since 2003. However, 16% did in 11<sup>th</sup> grade, a statistically marginal increase since 2005. Among smokers, the percentages attempting cessation dropped two points from 2005 in 9<sup>th</sup> to 46%, but increased four points to 48.5% in 11<sup>th</sup>. Among users, cessation percentages for smoking are similar to those for marijuana use in grade 9 and higher in grade 11, and much higher than for alcohol. (Table 5.1)

## Smokeless Tobacco

Lifetime use of smokeless tobacco, chewing tobacco and snuff at least once escalated from 4% in 7<sup>th</sup> grade to 10% in 11<sup>th</sup>. Current use was reported by only about 3% in 7<sup>th</sup>, 5% in 9<sup>th</sup> and 6% in 11<sup>th</sup> grade (Table 2.13).

Figure 8  
Cigarette Smoking, Lifetime and Past 30 Days



# 7. Influences on Use

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The CSS assesses attitudinal, environmental and social measures related to substance use, including perceived harm, use by adults, marijuana use by peers and availability.

## Perceived Harm

### **Occasional Use**

The new NOMs questions on harmfulness of cigarettes, alcohol and marijuana revealed an interesting anomaly. For *occasional* use, the combined percentages perceiving *no* harm or *slight* harm reveal that substantial proportions at each grade level consider experimentation with all three substances as, at worst, only slightly harmful. For alcohol, this amounts to 49% of 9<sup>th</sup> and 53% of 11<sup>th</sup> graders. For marijuana, it is 33% of 9<sup>th</sup> and 44% of 11<sup>th</sup>. Cigarettes are least acceptable, at 37% and 39%. The older the students, the less they perceive occasional use of marijuana and, especially, alcohol as harmful or slightly harmful. Regardless of grade level, only one-third of respondents viewed occasional use of cigarettes as relatively harmless.

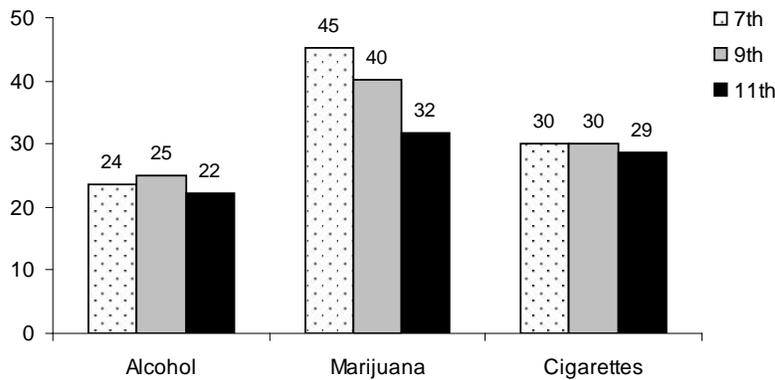
For the single rating of “great harm,” the marijuana-cigarette order shifts. As shown in Figure 9, marijuana is viewed by the most respondents as likely to cause great harm with occasional use, at 40% in 9<sup>th</sup> and 32% in 11<sup>th</sup>. Cigarettes are second at 30% in 9<sup>th</sup> and 29% in 11<sup>th</sup>. But alcohol is still rated the lowest, at 25% and 22% for great harm. Whereas the percentages for alcohol and cigarettes remain relatively similar across grades, for marijuana it drops markedly by 11<sup>th</sup> grade. (Table 4.1)

### **Heavy/Frequent Use**

For perceived harm of heavy or frequent use, students were asked about very different or nonequivalent patterns for each of the same three substances, making comparison with ratings of occasional use dubious. The responses do reveal that students perceive greatest harm from frequent cigarette use. In 7<sup>th</sup> and 9<sup>th</sup> grades, marijuana-harm is higher than alcohol, but the order is reversed in 11<sup>th</sup> grade. (Table 4.1)

- **Cigarettes.** The percentages rating frequent smoking (*1-2 packs of cigarettes per day*) as posing great harm rose by grade from 64% in 7<sup>th</sup> to 78% in 11<sup>th</sup> grade.
- **Marijuana.** Unlike cigarettes, the percentages rating frequent marijuana smoking (*once or twice a week*) as posing great harm declined across grades, from 56% in 7<sup>th</sup> to 54% in 9<sup>th</sup> and 44% in 11<sup>th</sup>. The percentages rating frequent marijuana use as not harmful were also higher than for cigarettes and alcohol in all grades, but they declined less across grades than for the use of the other substances.
- **Alcohol.** The percentages who rated frequent drinking (*5+ drinks of alcohol once or twice a week*) as posing great harm varied the least and was highest in 9<sup>th</sup> grade at 51%, followed by 11<sup>th</sup> at 48% and then 7<sup>th</sup> at 46%.

**Figure 9**  
**Perception of Occasional Use as Great Harm**



### Perceived Use by Peers

All respondents were asked to estimate the percentage of their same-age peers who had (1) tried marijuana at least once and/or (2) used cigarettes once a month or more. Seventh graders were also asked about monthly use of alcohol. The percentage estimating 50% or more provides a benchmark for perceived “normalcy” of use. Perception, rather than objective reality, is the basis for social norms. As in the past, this perception exceeds reported use by a substantial margin. The current survey showed declines among 9<sup>th</sup> and 11<sup>th</sup> graders for perceived prevalence of marijuana use among peers. In contrast, perceived prevalence of cigarette smoking increased among upper graders, reversing steady declines since 2001. Among 7<sup>th</sup> graders, perceived prevalence ratings for marijuana and alcohol also increased over 2005 levels. (Table 4.7)

- **Alcohol.** Seventeen percent of 7<sup>th</sup> graders estimated that half or more of their peers drank alcohol at least once a month. Not surprisingly, this estimate is higher than for cigarettes and marijuana.
- **Marijuana.** Fifteen percent of 7<sup>th</sup> graders estimated that half or more of their peers had smoked marijuana, an increase since 2003. Among 9<sup>th</sup> and 11<sup>th</sup> graders, the percentages were much higher, at 43% and 58.5%, respectively, and higher than in 2005.
- **Cigarettes.** Estimated percentages of monthly smokers were level at 12% for 7<sup>th</sup>, 30.5% for 9<sup>th</sup> and 38% for 11<sup>th</sup>. These values have been more or less stable since 2003 for 7<sup>th</sup> but they declined from 2001 to 2005 in the upper grades. Older students currently estimate that peers are more likely to have tried marijuana than smoked cigarettes regularly.

### Disapproval of Use

Respondents are asked how much they would disapprove (neither approve/disapprove, somewhat disapprove, strongly disapprove) of someone their age: (a) smoking one or more packs of cigarettes a day; (b) having one or 2 drinks of alcohol every day; (c) trying marijuana or hashish once or twice; and (d) using marijuana once a month or more. Thus, only for marijuana does this new federally-mandated NOMs question assess peer disapproval of both infrequent and frequent use indicators. (Table 4.10)

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About two-thirds of 7<sup>th</sup> graders strongly disapproved of each of the four indicators. However, there was a considerable differentiation at the higher grades. In 11<sup>th</sup> grade, 57.5% strongly disapproved of a peer smoking a pack of cigarettes per day; and 48% having 1-2 drinks of alcohol per day. In contrast, only 34.5% strongly disapproved of trying marijuana once or twice, and 37% using it once per month or more.

Perhaps the most significant finding is that strong disapproval dropped only about ten percentage points for regular use of cigarettes and alcohol between grades 7 and 11. In stark contrast, for marijuana once a month or more the same ratings dropped almost by half, from nearly two-thirds (61%) to a little over one-third (34.5%). Ratings of indifference, “neither approve nor disapprove,” increased very little for alcohol and cigarettes in all grades, all under 30%. In contrast, indifference ratings increased much more over grade level for both marijuana questions, from low 20s to over 40%. Part of the reason is this NOMs item contrasts daily use of cigarettes and alcohol with monthly use of marijuana, which is likely to be perceived by young people as a less intensive involvement. Acceptance of *experimentation* with marijuana was, thus, fairly common among older students. (Table 4.10)

### Perceived Availability (Difficulty)

After 7<sup>th</sup> grade, the percentages reporting that cigarettes, alcohol and marijuana are very or fairly easy to obtain increase dramatically and group differences decline. By 11<sup>th</sup> grade relatively similar percentages rated each substance as “easy” or “fairly easy” to obtain: 70% for cigarettes, 71% for alcohol and 67% for marijuana. This compares to 32%, 37% and 23% for 7<sup>th</sup> graders. *Older adolescents see very little difference between the availability of substances that are, for adults, legal (alcohol) versus illegal (marijuana)*. Clearly, access to each of these three substances is not a problem for older students who want to obtain them. This assertion is also reflected by the decline in the percentages of respondents who mark “don’t know,” which, by grade 11, considerably exceed the percentage marking “fairly” or “very difficult” at 21% versus only 12%. (Table 4.2)

### Sources of Alcohol

When asked where students obtain alcohol, the most frequently selected source in each grade was parties or social events (29%, 45.5% and 57%). This was followed by friends (27%, 37% and 47%), the home (27%, 31% and 36%) and then *getting adults to buy* for them (10%, 20% and 31%). There were only small variations in the results and no consistent trend compared to the last survey. It is also worth noting that 17% of 11<sup>th</sup> graders checked “other” source, raising the interesting question of just what that other source or sources might be? (Table 4.5)

# 8. Findings Related to School

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One of the major public concerns about adolescent substance use is its effects on students' ability to learn and the school environment. While the CSS does not address this issue directly, it does assess the use and availability of substances on school property as well as self-perceptions of the effects of use on personal behavior and performance.

## Substance Use at School

Figure 10 summarizes the results for AOD use on school property in the past 30 days and whether students were ever high/drank at school. Substance use before or at school has troubling implications for school improvement and raising the level of academic achievement. Drinking alcohol or using drugs at school once or twice may reflect motives such as achieving bragging rights or just tweaking a system of control that many students may resent. More frequent drug use or drinking is more likely to reflect drug dependency and a willingness to take risks, as well as disengagement from school. For at least some students, it may reflect oppositional behavior in response to school climate and disciplinary policies.

### ***Current (Last 30 Days) Alcohol and Marijuana use at School***

Among 9<sup>th</sup> graders, use on school property in the past 30 days at least once was 10% for alcohol and 8% for marijuana. In grade 11, it was similar at 10% and 10%. Use of either substance at school remained uncommon in 7<sup>th</sup> grade at 4-5%. Among high-school seniors, current marijuana use at school on three days or more was double that of alcohol, at 5% compared to about 2.5%. (Table 2.16)

A new question further revealed that 3% of 7<sup>th</sup> graders and 6% of high-school students in both grades reported use of ***any other (besides marijuana) illegal drug or pill***. Combining all the data indicates that ***total AOD use at school*** in the past 30 days occurred among 7% of 7<sup>th</sup>, 13% of 9<sup>th</sup> and 15% of 11<sup>th</sup> graders. Although the percentage in 7<sup>th</sup> grade is half of that in 11<sup>th</sup>, that almost one-tenth of 7<sup>th</sup> graders have used alcohol or another drug at school is a troubling finding. (Table 2.16)

### ***Ever Drunk or High at School***

Attending school at least once while drunk on alcohol or high on a drug essentially doubled in each grade level, rising from 6% to 13% and 24.5% across grades. Although the percentage for 7<sup>th</sup> graders is relatively low, it is also similar to that for the overall prevalence of current AOD use at school. This suggests youth who use at school at this young age are especially prone to being drunk/high there and should be targeted with interventions. (Tables 2.16, 2.18)

Among 11<sup>th</sup> graders, being high at school seven or more times occurred among 8%; and 19% reported two or more instances (about three-quarters of the total). Thus, if a high-school junior has been to school drunk/high once, he or she will likely have done so multiple times. (Table 2.19)

## School-related Problems

Three percent of 9<sup>th</sup> and 5% of 11<sup>th</sup> graders had missed school due to use of alcohol, and similar percentages (3% and 3.5%) reported it had harmed their schoolwork. For marijuana, these percentages were virtually the same: 2% and 5%, respectively, had missed school, and 3% and 4% thought their

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school work had been affected negatively.<sup>13</sup> In addition, 7% of 9<sup>th</sup> and 8% of 11<sup>th</sup> graders reported that alcohol or other drug use had kept them from doing “normal” activities such as school, work, recreation or hobbies. (Tables 3.4, 3.5, 3.6)

### Availability at School

Being offered drugs at school, given or sold, in the past 12 months was reported by 14% in 7<sup>th</sup> grade, rising to 30% in 9<sup>th</sup> and 38% in 11<sup>th</sup>. These rates were approximately the same as the 2005 levels. Among 9<sup>th</sup> and 11<sup>th</sup> graders, four or more instances were reported by 10% and 14%, respectively. On a different question, only 8-13% across grades reported that school was the source for obtaining alcohol. (Tables 4.4, 4.5)

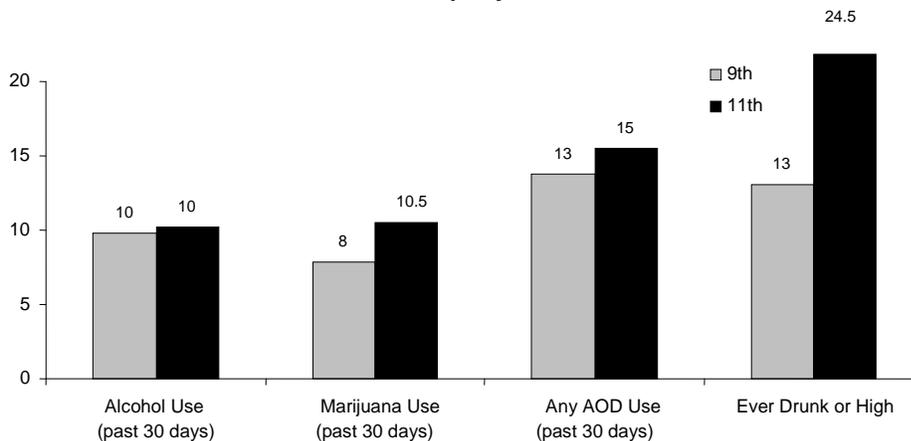
### School Support for Cessation Efforts

Problems with academic achievement and school behavior are common among young people who have developed an unhealthy involvement with psychoactive substances. Schools should be alert to such problems and respond appropriately with intervention and assistance, as in student assistance programs.

Respondents were asked to rate how likely it was that their school would provide help to students for stopping or reducing AOD use. The results were somewhat mixed. On the positive side, reports by 9<sup>th</sup> graders that it is *likely* or *very likely* that the school would provide help have increased four percentage points since 2005 to 38%, and there was a marginal two-point increase for 11<sup>th</sup> graders to 37%.

The percentage selecting *not likely* also declined four points in 11<sup>th</sup> grade and very slightly in 9<sup>th</sup>. On the negative side, *not likely* was still selected by slightly higher percentages than likely/very likely, 40% of 9<sup>th</sup> graders and 42% of 11<sup>th</sup>. A good cessation program should also be known to users, but about one-fifth selected *don't know*. Thus, 62-63% of high-school respondents selected either not likely or don't know, versus less than 40% for likely/very likely. (Table 5.2)

**Figure 10**  
**AOD Use and Intoxication on School Property, Grades 9 & 11**



<sup>13</sup> As shown in 2003-04 CSS Brief #1, students reporting current AOD use at school also report use-related school problems two-to-three times more frequently than other current users.

## 9. Conclusions

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Changes to the 12<sup>th</sup> CSS survey items make assessment of some trends since 2005 problematic, particularly for alcohol and tobacco. The most accurate measures for assessing two-year trends, (i.e., students' use in the past six months) were very stable. If little can be concluded with certainty until the next survey, minimally, the current results appear to confirm the 2005 CSS findings that the promising declines in students' use, reported earlier in the decade, have ended.

California students still report much lower rates of substance use than in 1991. But the lack of progress in the last four years to further reduce students' use is troubling. Moreover, new data on a wide spectrum of diverted prescription and OTC drugs used by young people has changed the picture radically.

- After incorporating diverted prescriptions and OTC drugs, the true lifetime levels of use turn out to be much higher than those identified in previous surveys. With these measures added, only 40% of 9<sup>th</sup> and 26% of 11<sup>th</sup> graders remained totally abstinent in their lifetimes.
- One of the most disturbing findings of the current survey is, among older students, recreational use of diverted (not prescribed by physicians) *prescription painkillers* ranks highest in illegal drug use behind marijuana at 18-23% lifetime.
- In a similar new finding of concern, one-quarter of secondary students used over-the-counter *cough/cold medicines* to get high, with half of this group in each grade using them seven or more times. As these presumably non-psychoactive symptom relievers are readily available, discussions of the potential dangers of their active ingredients, notably *dextromethorphan*, need to be incorporated into all prevention efforts. Treatment agency staff report that many, if not most, youth — especially heavy-substance users — are aware that drinking the entire bottle of cough/cold medicine produces a high that can be enhanced by drinking beer or other alcohol. Combining these substances is a dangerous practice.

This raises questions about the difference among adolescents between “street” drugs and these widely prescribed modern medications. That is, the latter apparently can be used for non-medical “recreational” purposes. This issue is not the subject of this report, but their apparent availability and growing popularity as recreational drugs is certainly a major finding and yet another red flag.

Growing recognition of the prevalence of medicinal drug misuse among all ages led the Department of Alcohol and Drug Programs in 2008 to form the *California State Prescription Drug Task Force*. These CSS findings support the need for a coordinated statewide effort to raise awareness of the extent and danger of this problem and to expand and improve prevention efforts targeting them.

Nevertheless, this CSS information is offered with considerable trepidation. Over-reaction to this new reality of the true spectrum of psychoactive AOD use among youth could result in increased punitive, intrusive or otherwise dysfunctional policies that research shows have not worked. An open dialog with youth about the dangers of these substances, however, is clearly needed. To our knowledge, conventional prevention education fails to warn young people about them.

### ***Drinking and Driving***

Also of concern is the rise in reports of *drinking and driving* among high school students. This measure, unchanged in wording from previous surveys, dropped 11 percentage points between 1997 and 2003, one

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of the true success stories of prevention. Unfortunately, its prevalence increased 2-3 points to 23% in grade 9 — canceling the reduction since 2001— and 32% in grade 11, the highest since 1999.

### *Heavy Use*

We again point to the persistence of *heavy AOD use* among the older teen population, as emphasized in the 2003 report and supported by the 2005 data. This is especially true in regard to binge drinking, now reported by three-in-ten 11<sup>th</sup> graders, half of them engaging in this type of drinking regularly. Moreover, there were increases in the percentages of 11<sup>th</sup>-grade students reporting weekly drinking, two or more alcohol-related problems, two or more dependency indicators and several of the individual problem and dependency indicators, which is consistent with the rise in driving and driving involvement.

For example, among 11<sup>th</sup> graders:

- About one-sixth to one-fifth were current weekly drinkers, had been involved in more than one drinking and driving experience, had recently used a drug other than marijuana or engaged in polydrug use, had been high on drugs seven or more times, were classified as High-Risk Drug Users and had experienced two or more AOD-use problems and/or dependency indicators.
- About one-tenth had been drunk/sick seven or more times, had passed out or lost control from drinking, engaged in weekly binge drinking and/or weekly marijuana use, used alcohol or marijuana at school, had been drunk/high at school three or more times, or had experienced two or more problems from their AOD use.

Intervention and assistance efforts in schools need to be supported and expanded. Identifying and assisting high-risk students as soon as possible, rather than merely punishing them, is essential if we want to effectively address substance use and related problems in our state.

### *Promising Findings*

Finally, amidst these concerns, two findings were more promising. First, despite worries about a spread of methamphetamine use among our youth, students' use of *methamphetamines* was well behind diverted pharmaceuticals in the in-school population; the past six-month use of the substance decreased slightly among 11<sup>th</sup> graders.

Second, the percentages of respondents increased for *attempting to stop drinking* and for believing that it was likely or very likely that the *school would provide help* for a student to stop AOD use. The percentage selecting “not likely” also declined four percentage points in 11<sup>th</sup> grade — which is a promising trend.