

## Statewide Survey

## of California Students

in Grades 7, 9 and 11

California Attorney General's Office
Gregory Austin and Rodney Skager

## HIGHLIGHTS

# $12^{\text {th }}$ Biennial California Student Survey Drug, Alcohol and Tobacco Use 2007-2008 

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## Foreword

Welcome to the $12^{\text {th }}$ biennial California Student Survey (CSS) conducted during the 2007-08 school year by the California Attorney General's Office. 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 $12^{\text {th }}$ CSS. From the reported data, there are three major trends of the 2007-2008 CSS: (1) prescription drug use by California youth is occurring at an alarming rate; (2) first-time data collected on over-the-counter drugs indicate that many teens purchase them to get high; and (3) heavy users of illicit substances are still a significant group in California, a trend reported as early as the 1999 CSS.

According to the CSS researchers, the most significant, and disturbing, overall finding of the 2007-2008 survey is that the actual levels of youth substance use was previously underestimated because of the state's underassessment of recreational use of prescription and over-the-counter drugs.

The new data show that 37.5 percent of $9^{\text {th }}$ graders and 50 percent of $11^{\text {th }}$ 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 the use of cold/cough medicines to get high, lifetime AOD use by $9^{\text {th }}$ graders rose to 60 percent and $11^{\text {th }}$-grade use rose to 73.5 percent.

The 2007-2008 findings support a couple of conclusions previously reached in the 2005 CSS report: (1) prevention efforts may be "bottoming-out;" and (2) further reductions in overall prevalence may be more difficult to achieve. Also, specific intervention and assistance by schools, aimed at youth who are at risk of heavy and problematic substance use, need to be supported and expanded.

The Attorney General's Office wishes to acknowledge the California Department of Education and the Department of Alcohol and Drug Programs as co-sponsors of this survey. Our appreciation goes to these state agencies for their long-time support of statewide prevention efforts such as our biennial survey. Special thanks to all the school administrators, teachers, parents and students for their contributions to the $12^{\text {th }}$ CSS, a critical effort that benefits everyone in California.

California Attorney General's Office

## Preface and Acknowledgements

This report highlights the key findings on alcohol, tobacco and other drug (ATOD) use from the $12^{\text {th }}$ biennial California Student Survey (CSS). The current survey was conducted in the late fall and winter of the 2007-2008 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 $2005\left(11^{\text {th }} \mathrm{CSS}\right)$ and $2003\left(10^{\text {th }} \mathrm{CSS}\right)$. 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. ${ }^{1}$ For heavy-use measures, the results for high school students were summarized. 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 at www.wested.org/online pubs/hhdp/css 12th compendium.pdf. 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 pursuant to the Health and Safety Code section 11605 and prepared by WestEd under contract with 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 Office, we wish to acknowledge the contributions of Project Monitor Daphne Hom and Nancy Matson. 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 to contribution of Jerry Bailey who planned this survey and analyzed the results, and Michal Clingman and Zeta Heiter who prepared this report.

# Gregory Austin and Rodney Skager Project Directors, WestEd 

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## Abbreviations

| Surveys |  |
| :---: | :---: |
| CSS | The California Student Survey. Also known as the biennial Statewide Survey of Drug and Alcohol Use among California Students, the Attorney General's Survey, and the biennial Statewide California Healthy Kids Survey (see below) |
| CHKS | California Healthy Kids Survey, 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 www.wested.org/hks. |
| SAMHSA NOMs | National Outcome Measures 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, includes substances other than alcohol or tobacco (e.g., marijuana). |
| 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 or Percodan. |
| Polydrug Use | Use of two or more 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 within the 30 days prior to the survey.

Daily Use $\quad$ 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 times in the past 30 days.

## 1. Overview

TThe 2007-2008 California Student Survey (CSS) is the $12^{\text {th }}$ 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 California Department of Alcohol and Drug Programs (ADP) and Department of 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 2007-2008 results for substance use; the Compendium of Tables is available at www.wested.org/cs/we/view/pj/572 or www.adp.state.ca.us/Prevention/pdf/CSS 12th_Compendium_Tables.pdf.

The $12^{\text {th }} \mathrm{CSS}$ was administered between fall 2007 and winter 2008 to 13,930 students in grades 7,9 and 11 from 116 randomly-selected schools. The CSS is conducted under conditions of strict confidentiality and student anonymity. Participation by school districts, schools and students is voluntary, and 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 survey 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 have leveled off in 1997. ${ }^{2}$ 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 wording of the questions. However, the 2001 survey confirmed the decline in the overall prevalence: No meaningful increases in substance use occurred, and there were significant declines in key indicators, especially in overall alcohol use. Among $7^{\text {th }}$ 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 and other drugs; likewise, patterns of regular and heavy use across all substances did 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 $11^{\text {th }}$ graders there were encouraging declines in the use of marijuana, LSD,

[^1]ecstasy, binge drinking, drunkenness and being high on drugs, and drinking and driving. There were no meaningful increases. A special report, the 2003 Heavy Substance Use Among California Students, was requested by the CSS co-sponsoring agencies, which focused on the need to direct more attention on the 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 occurred in several measures of alcohol and drug use among $7^{\text {th }}$ graders. Overall, as in 2003, data suggested that almost one-fifth of $11^{\text {th }}$ 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 percent of $11^{\text {th }}$ 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 2007-2008 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 $9^{\text {th }}$ graders and 50 percent of $11^{\text {th }}$-grade respondents reported using either an illicit/illegal drug or a diverted prescription drug such as painkillers, sedatives or diet pills to get high or stoned ("without a doctor's order") 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 percent for $9^{\text {th }}$ graders and 68.5 percent for $11^{\text {th }}$ 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 percent for $9^{\text {th }}$ graders and 57 percent for $11^{\text {th }}$ graders. Thus, a near majority of $9^{\text {th }}$ graders and almost six out of ten $11^{\text {th }}$ graders used a non-alcoholic drug to get high at least once in their lives. Total lifetime $A O D$ use including OTC rises to 60 percent in $9^{\text {th }}$ grade and 73.5 percent in $11^{\text {th }}$ grade.
- The prescription drugs used most frequently are painkillers such as OxyContin or Vicodin. Twelve percent of $9^{\text {th }}$ graders and 18 percent of $11^{\text {th }}$ 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 $9^{\text {th }}$ graders and $11^{\text {th }}$ 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 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 $11^{\text {th }}$ 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 $11^{\text {th }}$ 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 to 3 points) in both $9^{\text {th }}$ and $11^{\text {th }}$ grades, among the latter to 32 percent, 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 and Content

TThe 2007-2008 California Student Survey (CSS) is the $12^{\text {th }}$ 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. ${ }^{3}$ 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 percent) 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. ${ }^{4}$ 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 percent of schools in the 2007 survey adopted passive-consent procedures, compared to 56 percent in 2005, resulting in a mixed-consent survey; some schools using written consent; others, passive.

Although the data are incomplete, it appears about 78 percent of students in the targeted sample completed the survey in 2007 , the same rate as in 2005 , compared to 58 percent in 2001 and 62 percent 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. ${ }^{5}$ 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

[^2]required, although prevalence rates were slightly higher among $11^{\text {th }}$ graders, as would be expected. Thus, although 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 2007-2008 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 included 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 percent of the state enrollment, which do not have feeder middle schools. The students from these continuation schools were included in the $11^{\text {th }}-$ grade sample, so the results are representative of all students at that grade level in the state. In contrast, CHKS results from $11^{\text {th }}$ 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 $11^{\text {th }}$-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. ${ }^{6}$

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 $7^{\text {th }}$ and $9^{\text {th }}$ 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 to 29 percent) enrolled in schools and increase in Hispanics, at 34 to 42 percent, particularly in $7^{\text {th }}$ grade. The one exception was in $9^{\text {th }}$ grade, where the percentage of Hispanics dropped and whites increased. Other groups have remained fairly stable, although the percentages of African Americans in $11^{\text {th }}$ grade declined by two percentage points and of Asians in $7^{\text {th }}$ grade by three points.

## Content of the Instrument

In fulfillment of the legislative mandate and the survey's 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.

[^3]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 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 were made to substance-use questions on the survey to ensure compliance with the National Outcome Measures (NOMs) as required by the Substance Abuse and Mental Health Services Administration (SAMHSA). Some CSS questions were 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. ${ }^{7}$ The overall picture appears to be one of stability, with some increases in indicators of heavy or high-risk use.

[^4]
## 3. Alcohol Use

Alcohol remains the most popular psychoactive substance among secondary students, with the majority of $11^{\text {th }}$ graders reporting recent drinking (past six months) and almost half of $9^{\text {th }}$ 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 $7^{\text {th }}, 9^{\text {th }}$ and $11^{\text {th }}$ graders was at 24,47 and 66 percent, respectively. Despite some yearly fluctuation, having tried at least one full drink seems to be the norm for about one-quarter of $7^{\text {th }}$ graders, close to half of $9^{\text {th }}$ graders and two-thirds of $11^{\text {th }}$ graders. (Table 2.1) ${ }^{8}$

## Past six months (Recent use)

Consumption of an alcoholic drink in the past six months was at 21,38 and 56 percent 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 $7^{\text {th }}$ graders, 27 percent of $9^{\text {th }}$ graders and 42 percent of $11^{\text {th }}$ graders reported having at least one alcoholic drink in the past 30 days. By the $11^{\text {th }}$ 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


[^5]Twelfth Biennial California Student Survey

## 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 $11^{\text {th }}$ 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 $7^{\text {th }}$ grade, but they are an especially high-risk group. Their numbers increase markedly between $9^{\text {th }}$ and $11^{\text {th }}$ 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 $7^{\text {th }}$ and $9^{\text {th }}$ graders remained level at 2 and 7 percent, respectively, as it has been since 2001. Moreover, this measure increased three percentage points to 17 percent for $11^{\text {th }}$ graders (reverting to 2001 levels and canceling the decline since then). Weekly drinkers accounted for only 11 percent of the drinking population in $7^{\text {th }}$ grade, but they were almost one-third (30 percent) of the drinkers in $11^{\text {th }}$ 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 percent in $7^{\text {th }}$ grade, 11 percent in $9^{\text {th }}$ and 18 percent in $11^{\text {th }}$. This measure also remained relatively stable, as did daily drinking at 2 percent of $9^{\text {th }}$ graders and 3 percent of $11^{\text {th }}$ 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 percent in $7^{\text {th }}$ grade, 16 percent in $9^{\text {th }}$ grade and 29 percent in $11^{\text {th }}$ grade. Students who binged at least once constituted 43 percent of the current drinking population in $7^{\text {th }}$ grade, 58 percent in $9^{\text {th }}$ grade and 69 percent in $11^{\text {th }}$ grade. In other words, if a $9^{\text {th }}$ or $11^{\text {th }}$ 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 percent of $9^{\text {th }}$ and 14 percent of $11^{\text {th }}$ graders - almost half the number who binged at all. (Table 2.14)

## Drunkenness

The percentages for ever very drunk or sick from alcohol were 11 percent of $7^{\text {th }}, 28$ percent of $9^{\text {th }}$ and 44.5 percent of $11^{\text {th }}$ graders. Moreover, 13 percent of $9^{\text {th }}$ graders and 23 percent of $11^{\text {th }}$ reported this experience on three or more occasions, and about half of these students ( 6 percent and 13 percent, respectively) on seven or more. In addition, 8 percent in $9^{\text {th }}$ grade and 18 percent in $11^{\text {th }}$ 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 percent in $9^{\text {th }}$ grade and 35 percent in $11^{\text {th }}$ grade. The majority were moderate drinkers; but 8 percent and 13 percent indicated that they drank to get drunk/feel it a lot. ${ }^{9}$ This is also consistent with the percentage reporting regular binge drinking (on three or more days). (Table 2.17)

[^6]
## Excessive Alcohol Use

Almost one-fifth of $9^{\text {th }}$ graders ( 18 percent) and 29 percent of $11^{\text {th }}$ 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 percent in $9^{\text {th }}$ grade and a marginal two points to 32 percent in $11^{\text {th }}$ 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 percent of $9^{\text {th }}$ grade and 15 percent of $11^{\text {th }}$ grade for the total sample). (Table 3.2)

Figure 2
Heavy Alcohol Measures, Grades 9 \& 11


## 4. Other Drug Use

TThe 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 $11^{\text {th }}$ graders reporting use in the previous 6 months and 42 percent 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 percent of $9^{\text {th }}$ graders and 35 percent of $11^{\text {th }}$ 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 $7^{\text {th }}$-grade students there is relatively little difference between lifetime use at 9 percent and six-month and 30 -day prevalence of marijuana use, both at 7 percent, reflecting that many 12 - and 13 -year-olds had tried marijuana only recently. Predictably, lifetime use increases dramatically to 25 percent in $9^{\text {th }}$ grade and 42 percent in $11^{\text {th }}$ grade while differences between lifetime and current use rates widen. Current rates, in past 30 days, were 15 percent in $9^{\text {th }}$ grade and 24 percent in $11^{\text {th }}$ grade, about 60 percent of lifetime use in both grades. Since 2003, use in the past six months has remained stable at 7 percent in $7^{\text {th }}$ grade, 20 percent in $9^{\text {th }}$ grade and 31 percent in $11^{\text {th }}$ grade. (Tables 2.2, 2.6-2.9, 2.13)

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


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## Painkillers and Other Prescription Drugs

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

Ranking next, at 9 percent of $9^{\text {th }}$ graders and 8 percent of $11^{\text {th }}$ graders were diet pills or stimulants, with the majority of users using more than three times ( 5 percent in both grades). Moreover, in $11^{\text {th }}$ grade, half of users reported using 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 to 6 percent and barbiturates such as Seconal, by 2 to 3 percent. Two medications for attention deficit disorder (ADD), Ritalin and Adderall, were reported by 4 to 6 percent. 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 $9^{\text {th }}$ and $11^{\text {th }}$ 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. ${ }^{10}$ Drinking an alcoholic beverage before or after ingestion of critical amounts of these drugs increases the danger of fatal overdose.

## Inhalants

Among $7^{\text {th }}$ 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 percent, six-month at 7 percent and current use at 5 percent. Lifetime use of inhalants was reported by 14 percent in $9^{\text {th }}$ grade and 15 percent in $11^{\text {th }}$ grade; and current use by 7 percent in both upper grades. Use in the previous six months was 7 percent to 8 percent 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 mid1990s and earlier. Whether this is due to increased awareness of dangers from inhalation of hydrocarbonbased substances or replacement with other alternatives, especially OTC medications, is not clear.

## Ecstasy (MDMA), LSD and Psychedelics

Lifetime use of ecstasy was reported by 6 percent of $9^{\text {th }}$ and 10 percent of $11^{\text {th }}$ graders; for LSD/psychedelics, it was 5 percent and 8 percent. Their use in the past six months has remained stable

[^7]since 2005, at 4 percent and 3 percent, respectively, in $9^{\text {th }}$ grade, and at 4 percent and 6 percent in $11^{\text {th }}$ grade.

## Methamphetamine

Lifetime use of methamphetamine and amphetamine was reported by 5 percent of $9^{\text {th }}$ graders and 7 percent of $11^{\text {th }}$ graders, with current use only somewhat lower at 4 percent and 5 percent. Six-month use of methamphetamines was stable at 4 percent in $9^{\text {th }}$ grade but in $11^{\text {th }}$ grade it decreased by two points to 4 percent. 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 $11^{\text {th }}$ 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. ${ }^{11}$

## Cocaine

Use of cocaine was similar to methamphetamine, with six-month prevalence stable at 3 percent for $9^{\text {th }}$ grade and 5 percent for $11^{\text {th }}$ grade. Lifetime rates were at 5 percent and 10 percent, and current use at 3 percent and 4 percent.

## Any Drug Use

Lifetime use of any of the traditional illicit drugs, excluding the new specific questions on prescription and OTC drugs, was 17 percent in $7^{\text {th }}$ grade, 31 percent in $9^{\text {th }}$ grade and 46 percent in $11^{\text {th }}$ grade. Current use was 9 percent, 18 percent and 26 percent, 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 percent in $9^{\text {th }}$ grade and 50 percent in $11^{\text {th }}$ grade. About three-quarters of these students reported using a drug other than marijuana, 29 percent and 36 percent, respectively, although they may also have used marijuana. Including cold/cough medicine causes the percentages for any drug use to rise further to 45 percent and 57 percent. 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


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## HIGHLIGHTS

## 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 percent, 22 percent and 37 percent, across grades 7 to 11 , consistent with results since 2001. Although fewer $9^{\text {th }}$ graders and $11^{\text {th }}$ 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 percent of $9^{\text {th }}$ graders and 22 percent of $11^{\text {th }}$ graders were high on drugs seven or more times; these percentages were much higher than for alcohol at 6 percent and 13 percent. (Tables 2.18, 2.19)

## Intensity of Use

Fourteen percent of $9^{\text {th }}$ graders and 24 percent of $11^{\text {th }}$ graders reported that they used drugs to get "moderately high" or "very high." About half of them, 7 percent and 11 percent, endorsed "very high," a pattern unchanged since 2003. The percentage for very high on drugs among $11^{\text {th }}$ 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 percent in $9^{\text {th }}$ grade and increased slightly in $11^{\text {th }}$ grade to 12 percent. Although these rates are lower than for alcohol, greater proportions of the marijuana-using population are weekly users ( 35 percent in $9^{\text {th }}$ and 38 percent in $11^{\text {th }}$ ) 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 percent in $9^{\text {th }}$ grade and 13 percent in $11^{\text {th }}$ 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 percent in $11^{\text {th }}$ grade 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 percent in $9^{\text {th }}$ grade and 19 percent in $11^{\text {th }}$ grade. Polydrug use in the past 30 days, assessed for the first time in the current survey, was only moderately lower, at 8 percent and 13 percent. Over half of these current polydrug users ( 5 percent in $9^{\text {th }}$ grade and 9 percent in $11^{\text {th }}$ grade) reported doing it on more than one of the past 30 days. (Tables 2.13, 2.15)

## High-Risk Drug Use

Eight percent of $9^{\text {th }}$ graders and 17 percent of $11^{\text {th }}$ engaged in a high level of illicit drug use in the past six months and were classified as High-Risk Drug Users (HRU). Among $11^{\text {th }}$ 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 percent in $9^{\text {th }}$ grade and 43 percent in $11^{\text {th }}$ grade.
(Table 2.20)

Figure 5
Heavy Drug Use Indicators


## 5. Patterns of AOD Use \& Abuse

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 by over half across grades: from 71 percent in $7^{\text {th }}$ grade to 32 percent in $11^{\text {th }}$ grade. Adjusting for the use of prescription drugs reduces the lifetime abstinence rate to 46 percent in $9^{\text {th }}$ grade and 30 percent in $11^{\text {th }}$. Adding cold/cough medicines lowers it further to only 40 percent and 26 percent 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 percent of $9^{\text {th }}$ graders and almost three-quarters ( 74 percent) of $11^{\text {th }}$ graders have at least tried alcohol or another substance including cold/cough medicine for the purpose of getting high. ${ }^{12}$ (Tables 2.2, 2.5)

## Lifetime

Although abstinence rates in the past 30 days are much higher, one-third of $9^{\text {th }}$ graders and almost half (46 percent) of $11^{\text {th }}$ graders reported some current AOD use. (Table 2.13)

Figure 6
Abstinence from Use of Any Alcohol or Other Drugs


[^9]
## 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 percent of $7^{\text {th }}$ graders, 34 percent of $9^{\text {th }}$ graders and 51 percent of $11^{\text {th }}$ graders 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 percent in $9^{\text {th }}$ grade and 33 percent in $11^{\text {th }}$ grade. (Tables $2.18,2.20$ )

## Problems Related to Use

Ninth- and $11^{\text {th }}$-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 percent in $9^{\text {th }}$ and 21 percent in $11^{\text {th }}$ grade, a marginal two-point increase over 2005. Consistent with previous surveys, 8 percent of $9^{\text {th }}$ graders reported two or more problems due to alcohol and 5 percent due to drugs. The $11^{\text {th }}$ grade percentages were 17 percent for alcohol, a three-point increase, and 8 percent for drugs. The slightly higher percentages for alcohol, rather 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 $11^{\text {th }}$ graders for alcohol or drugs was the combined alternative "passing out /forgetting what happened/have a bad trip" at 19 percent; followed by problems with emotions, nerves or mental health, 12 percent. On average, roughly 8 percent of $11^{\text {th }}$ graders reported trouble with the police, missing school and physically hurting one's self. About 6-7 percent had problems with school-work, fighting, damaging a friendship and engaging in unwanted/unprotected sex.
(Tables 3.5-3.7)

## Dependency Indicators

Among all $9^{\text {th }}$ graders and $11^{\text {th }}$ graders, 6 percent and 15 percent, respectively, reported experiencing two or more of seven experiences associated with AOD dependency or abuse, a two-point increase over 2005 in $11^{\text {th }}$ grade. Just over one-tenth of $11^{\text {th }}$ 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 $9^{\text {th }}$ graders were about half as much for each. Four percent of $9^{\text {th }}$ graders and 6 percent of $11^{\text {th }}$ graders "spent a lot of time getting, using, or being 'hung over'." (Table 3.3)

## Cessation Efforts

Eighteen percent of $11^{\text {th }}$ graders made at least one attempt to stop drinking and 16 percent to stop smoking marijuana. (Table 5.1) The cessation-attempt percentages were 12 percent and 10 percent, respectively, among $9^{\text {th }}$ graders. About half of this cessation sample at each grade made more than one attempt (5 percent in $9^{\text {th }}$ and 7 percent in $11^{\text {th }}$ ). At both grades, 2007 is the first year when cessation attempts for marijuana were less frequent than for alcohol. However, among current users/drinkers (within the last 30 days), 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 percent for marijuana and 31 percent for alcohol in $11^{\text {th }}$ grade, and 46 percent and 31 percent, respectively, in $9^{\text {th }}$ grade.

Students are more likely to consider stopping than they are to take definite action. Whereas 13 percent of $11^{\text {th }}$ graders reported they had thought about reducing or stopping their AOD use, only 6 percent had talked to someone about stopping, 4 percent realized that they needed professional assistance, and fewer still, just 2 percent, actually attended a counseling or support group. Percentages for $9^{\text {th }}$ graders on each measure were again about half as high except for realizing they needed professional assistance; both grades were 4 percent. (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, $4^{\text {th }}$ edition) to clinically diagnosis substance abuse and dependency. By applying these criteria to the 2007 CSS results, we estimate that 4.5 percent of $9^{\text {th }}$ graders and 11 percent of $11^{\text {th }}$ graders may be at risk of dependency, and another 8 percent and 10.5 percent, respectively, may be abusers. This indicates that a total of 12.5 percent of $9^{\text {th }}$ and 21.5 percent of $11^{\text {th }}$ graders 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 $11^{\text {th }}$ graders. (Table 3.8)

## 6. Tobacco Use

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 percent in $7^{\text {th }}$ grade, 20 percent in $9^{\text {th }}$ grade and 34 percent in $11^{\text {th }}$ grade. Smoking a whole cigarette seven times or more times was reported by 7 percent of $9^{\text {th }}$ graders and 16 percent of $11^{\text {th }}$ graders, almost half of the $11^{\text {th }}$ graders who reported ever smoking. (Table 2.1)

## Current Smoking

Smoking in the past 30 days in $9^{\text {th }}$ and $11^{\text {th }}$ grades was at 11 percent and 17 percent, respectively. Current daily smoking, on 20 or more of the past 30 days, was reported by only 2 percent in the $9^{\text {th }}$ grade and 4 percent in $11^{\text {th }}$ grade. Even in grade 11 , daily smoking is barely significant. (Table 2.13)

## Cessation Efforts

In $9^{\text {th }}$ grade, 10 percent reported at least one smoking-cessation attempt, unchanged since 2003.
However, 16 percent did in $11^{\text {th }}$ grade, a statistically marginal increase since 2005. Among smokers, the percentages attempting cessation dropped two points from 2005 in $9^{\text {th }}$ grade to 46 percent, but increased four points to 48.5 percent in $11^{\text {th }}$ grade. 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 percent in $7^{\text {th }}$ grade to 10 percent in $11^{\text {th }}$ grade. Current use was reported by only about 3 percent in $7^{\text {th }}$ grade, 5 percent in $9^{\text {th }}$ grade and 6 percent in $11^{\text {th }}$ grade (Table 2.13).

Figure 8
Cigarette Smoking, Lifetime and Past 30 Days


## 7. Influences on Use

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 regarding the 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 percent of $9^{\text {th }}$ graders and 53 percent of $11^{\text {th }}$ graders. For marijuana, it is 33 percent of $9^{\text {th }}$ graders and 44 percent of $11^{\text {th }}$ graders. Cigarettes are least acceptable, at 37 percent and 39 percent. 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 percent in $9^{\text {th }}$ grade and 32 percent in $11^{\text {th }}$ grade. Cigarettes are second at 30 percent in $9^{\text {th }}$ grade and 29 percent in $11^{\text {th }}$ grade. But alcohol is still rated the lowest, at 25 percent and 22 percent for great harm. Whereas the percentages for alcohol and cigarettes remain relatively similar across grades, for marijuana it drops markedly by $11^{\text {th }}$ 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 $7^{\text {th }}$ and $9^{\text {th }}$ grades, marijuana-harm is higher than alcohol, but the order is reversed in $11^{\text {th }}$ grade. (Table 4.1)

- Cigarettes. The percentages rating frequent smoking ( 1 to 2 packs of cigarettes per day) as posing great harm rose by grade from 64 percent in $7^{\text {th }}$ to 78 percent in $11^{\text {th }}$ grade.
- Marijuana. Unlike cigarettes, the percentages rating frequent marijuana smoking (once or twice a week) as posing great harm declined across grades, from 56 percent in $7^{\text {th }}$ grade to 54 percent in $9^{\text {th }}$ grade and 44 percent in $11^{\text {th }}$ grade. 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 or more drinks of alcohol once or twice a week) as posing great harm varied the least and were highest at 51 percent in $9^{\text {th }}$ grade, followed by 48 percent in the $11^{\text {th }}$ grade and then 46 percent in $7^{\text {th }}$ grade.


## HIGHLIGHTS

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 percent 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 $9^{\text {th }}$ and $11^{\text {th }}$ 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 $7^{\text {th }}$ graders, perceived prevalence ratings for marijuana and alcohol also increased over 2005 levels. (Table 4.7)

- Alcohol. Seventeen percent of $7^{\text {th }}$ 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 $7^{\text {th }}$ graders estimated that half or more of their peers had smoked marijuana, an increase since 2003. Among $9^{\text {th }}$ and $11^{\text {th }}$ graders, the percentages were much higher, at 43 percent and 58.5 percent, respectively, and higher than in 2005.
- Cigarettes. Estimated percentages of monthly smokers were level at 12 percent for $7^{\text {th }}$ grade, 30.5 percent for $9^{\text {th }}$ grade and 38 percent for $11^{\text {th }}$ grade. These values have been more or less stable since 2003 for $7^{\text {th }}$ grade 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 two 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)

About two-thirds of $7^{\text {th }}$ graders strongly disapproved of each of the four indicators. However, there was a considerable differentiation at the higher grades. In $11^{\text {th }}$ grade, 57.5 percent strongly disapproved of a peer smoking a pack of cigarettes per day; and 48 percent having one to two drinks of alcohol per day. In contrast, only 34.5 percent strongly disapproved of trying marijuana once or twice, and 37 percent 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 percent) to a little over one-third ( 34.5 percent). Ratings of indifference, "neither approve nor disapprove," increased very little for alcohol and cigarettes in all grades, all under 30 percent. In contrast, indifference ratings increased much more over grade level for both marijuana questions, from low 20s to over 40 percent. 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 $7^{\text {th }}$ grade, the percentages reporting that cigarettes, alcohol and marijuana are very or fairly easy to obtain increase dramatically and group differences decline. By $11^{\text {th }}$ grade relatively similar percentages rated each substance as "easy" or "fairly easy" to obtain: 70 percent for cigarettes, 71 percent for alcohol and 67 percent for marijuana. This compares to 32 percent, 37 percent and 23 percent for $7^{\text {th }}$ 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 percent versus only 12 percent. (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 percent, 45.5 percent and 57 percent). This was followed by friends ( 27 percent, 37 percent and 47 percent), the home ( 27 percent, 31 percent and 36 percent) and then getting adults to buy for them ( 10 percent, 20 percent and 31 percent). There were only small variations in the results and no consistent trend compared to the last survey. It is also worth noting that 17 percent of $11^{\text {th }}$ 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

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

A new question further revealed that 3 percent of $7^{\text {th }}$ graders and 6 percent 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 percent of $7^{\text {th }}$ graders, 13 percent of $9^{\text {th }}$ graders and 15 percent of $11^{\text {th }}$ graders. Although the percentage in $7^{\text {th }}$ grade is half of that in $11^{\text {th }}$, that almost one-tenth of $7^{\text {th }}$ 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 percent to 13 percent and 24.5 percent across grades. Although the percentage for $7^{\text {th }}$ 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 $11^{\text {th }}$ graders, being high at school seven or more times occurred among 8 percent; and 19 percent 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 $9^{\text {th }}$ graders and 5 percent of $11^{\text {th }}$ graders had missed school due to use of alcohol, and similar percentages ( 3 percent and 3.5 percent) reported it had harmed their schoolwork. For marijuana,
these percentages were virtually the same: 2 percent and 5 percent, respectively, had missed school, and 3 percent and 4 percent thought their school work had been affected negatively. ${ }^{13}$ In addition, 7 percent of $9^{\text {th }}$ graders and 8 percent of $11^{\text {th }}$ 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 percent in $7^{\text {th }}$ grade, rising to 30 percent in $9^{\text {th }}$ grade and 38 percent in $11^{\text {th }}$ grade. These rates were approximately the same as the 2005 levels. Among $9^{\text {th }}$ and $11^{\text {th }}$ graders, four or more instances were reported by 10 percent and 14 percent, respectively. On a different question, only 8 to 13 percent 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 students with help to stop or reduce AOD use. The results were somewhat mixed. On the positive side, reports by $9^{\text {th }}$ graders that it is likely or very likely that the school would provide help have increased four percentage points since 2005 to 38 percent, and there was a marginal two-point increase for $11^{\text {th }}$ graders to 37 percent.

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

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


[^10]
## 9. Conclusions

Changes to the $12^{\text {th }} \mathrm{CSS}$ 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 percent of $9^{\text {th }}$ graders and 26 percent of $11^{\text {th }}$ graders remained totally abstinent in their lifetimes.
- One of the most disturbing finding 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 to 23 percent 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 dextromethorpham, 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 of the true success stories of prevention. Unfortunately, its prevalence increased 2 to 3 points to 23 percent in grade 9 - canceling the reduction since 2001 - and 32 percent 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 $11^{\text {th }}$ graders, half of them engaging in this type of drinking regularly. Moreover, there were increases in the percentages of $11^{\text {th }}$-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 $11^{\text {th }}$ 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 $11^{\text {th }}$ 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 $11^{\text {th }}$ grade - which is a promising trend.


[^0]:    ${ }^{1}$ A conservative standard is applied 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 trend over more than two survey periods.

[^1]:    ${ }^{2}$ Regarding earlier trends, between 1985 and 1989, use of illegal drugs and cigarettes by California students declined steadily from a 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 $9^{\text {th }}$-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.

[^2]:    ${ }^{3}$ 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.
    ${ }^{4}$ See Education Code section 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."
    ${ }^{5}$ 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.

[^3]:    ${ }^{6}$ 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 $8^{\text {th }}$ Biennial Survey in grades 7, 9, and 11 (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).

[^4]:    ${ }^{7}$ The survey Compendium notes every change that occurred in an item's wording for 2007 compared to 2005.

[^5]:    ${ }^{8}$ Table references are to the table numbers in the survey's Compendium (www.wested.org/cs/we/view/pj/572).

[^6]:    ${ }^{9}$ These are considerably lower percentages than found in 2005 when getting drunk and feeling it a lot were two separate categories and adding them together produced rates of 11 percent and 21 percent. 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 versus drinking a lot on earlier CSS questionnaires.

[^7]:    ${ }^{10}$ Hospital emergency-room patients between the ages of 12 to 20 accounted for almost half ( 48 percent) 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. http://dawninfo.samhsa.gov/files/TNDR/2006-32R/TNDR32DXMHTML.pdf

[^8]:    ${ }^{11}$ 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.

[^9]:    ${ }^{12}$ 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.

[^10]:    ${ }^{13}$ As shown in 2003-2004 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.

