

Summary of Results from the 2014 Dayton, Ohio, Area Drug Survey

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Results from the 2014 Dayton Area Drug Survey (DADS) show declines in the lifetime and current prevalence of use of many drugs when compared with results from the 2012 DADS. There was an increase in prevalence of some drugs, such as hallucinogens, while others, such as crack, cocaine HCL, steroids, stimulants, ecstasy, and DXM, remained at 2012 levels. Alcohol still remains the most widely abused drug at all grade levels despite a decrease in use, followed by marijuana and tobacco cigarette use (see Tables).

DADS is a biennial, cross-sectional study that provides estimates of non-medical drug use by school-aged teenagers in the Dayton, Ohio area. First administered in 1990, the DADS is a collaborative effort between the Center for Interventions, Treatment, and Addictions Research at Wright State University's Boonshoft School of Medicine and area school districts, who participate in the survey at no charge and choose which grades between 7 and 12 they wish to survey. Students respond anonymously and on a voluntary basis, following a protocol approved by the Wright State University Institutional Review Board. In early 2014, 9,653 students from 15 Miami Valley area schools provided usable data. The majority of the sample was white and the sample was nearly evenly split between boys and girls.

Alcohol was used by more school-aged teenagers than any other drug. Among 12th graders (n=1,833), 62% reported drinking alcohol at least once in their lifetime (down from 67.4% in 2012). Among the 44.8% who reported drinking to the point of drunkenness at least once (down from 50.3% in 2012), 38.7% said they had done so 10 or more times (down from 41.7 percent in 2012). In the two weeks before the survey, 18.9% of the 12th graders reported having had five or more drinks in a row on at least one occasion, down from 23.6% in 2012. Among 9th graders (n=1,895), 32.9% reported lifetime experience with alcohol (down from 41.2% in 2012), 16.6% reported having been drunk at least once (down from 22.3% in 2012), and 15.9% of these reported doing so 10 or more times (down from 19.8% in 2012). Having five or more drinks in a row in the two weeks before the survey was reported by 4.7% (down from 8.0 percent in 2012). The corresponding percentages for 7th graders (n=2,518) are 13.5%, 3.3%, 15.9%, and 1.2%, respectively. (Data for 8th (n=1704), 10th (n=655), and 11th (n=736) graders are not reported in this summary but fit well within the data reported by 7th, 9th, and 12th graders).

Marijuana remains the second most widely used drug by school-aged students. Among 12th grade students, 41.4% reported having used marijuana at least once in their lifetime (down from 43.9% in 2012). The percentage of 12th graders reporting daily use, defined as having used a drug 20 or more times in the 30 days prior to the survey, decreased from 6.9% in 2012 to 5.3% in 2014. About 17% of 9th graders and 4.7 percent of 7th graders reported lifetime marijuana use.

Tobacco cigarettes remain the third most widely used drug, with 29.1% of 12th graders reporting having smoked at least once, down from 37.1% in 2012. 12th graders reporting smoking at least one cigarette a day or more decreased from 8.3% in 2012 to 5.1% in 2014. Among 9th graders, 14.8% reported having smoked at least once in their lifetime, down from 19.8% in 2012. Similarly, 6.1% of 7th graders reported having smoked at least once in their lifetime, down from 9.5% in 2012.

Among 12th graders, in addition to decreases with alcohol, cigarettes, and marijuana, decreases in the lifetime prevalence of use occurred with smokeless tobacco, inhalants, nitrous oxide, opiates, tranquilizers, methamphetamine, over-the-counter stay awake/weight loss agents, synthetic cannabinoids, and salvia divinorum. Rates remained essentially unchanged for crack cocaine, cocaine HCl, steroids, heroin, stimulants, ecstasy, dextromethorphan (DXM), and “bath salts.” Slight increases were reported for hallucinogens and Ritalin (methylphenidate). The directions of the 9th and 7th grade prevalence rates are virtually the same as those for the 12th grade, with the use of most drugs declining or remaining essentially the same as in 2012.

In 2012, DADS described the use of synthetic cannabinoids, salvia divinorum, and “bath salts” for the first time. In 2014, the lifetime prevalence of synthetic cannabinoid use among 12th graders was 8.0%, down from 15.5% in 2012. The lifetime prevalence of salvia divinorum use was 2.3%, down from 4.6% in 2012. The lifetime prevalence use of “bath salts” remained essentially unchanged at 1.8% in 2014, compared to 1.5 percent in 2012.

Motor vehicle behaviors. High school seniors were queried about drug use and motor vehicle behaviors. When asked if they had ridden in a motor vehicle when they believed the driver was under the influence of alcohol or other non-medical drugs (other than caffeine or tobacco), 35.3% said they had. This is a significant decrease from 2012 when 42.7% said they had. When asked if they had driven a motor vehicle while under the influence, 17.7% reported they had; this is also a decrease from 24.2% reported in 2012. Of those who reported having driven under the influence, 56% said that had done so more than once or twice, about the same as 2012 (55.7%).

The 2014 DADS included CRAFFT, a 6-item screening test for clinically-defined problematic drug use. Data from 12th grade students responding to CRAFFT suggests that 15.9% of them have had, or currently engage in, substance use practices indicative of drug dependence. This is a promising result that represents a slight decrease from the prevalence of 17.5% in 2012. (More information about CRAFFT scores and the DADS is available at: www.ncbi.nlm.nih.gov/pubmed/22494092).

The DADS also covered non-drug issues. Some results reveal:

- **Bullying.** In 2014, 24.4% of 7th graders, 22.3% of 9th graders, and 14.9% of 12th graders felt bullied or harassed by other teens in the 30 days before the survey. In 2012, 28.4% of seventh graders, 24.2% of ninth graders, and 16% of 12th graders felt bullied by other teens in the 30 days before the survey.
- **Physical Fights.** In 2014, 11.0% of 7th graders, 7.5% of 9th graders, and 6.7% of 12th graders got into a physical fight with someone in the 30 days before the survey. These

percents are quite similar to those in 2012 results with 12.6% of seventh graders, 10.5% of ninth graders, and 7.1% of 12th graders got into a physical fight with someone in the 30 days before the survey.

- **Missed School.** 4.5% of seventh graders, 3.8% of ninth graders, and 10.8% of 12th graders missed school without permission of a parent or guardian in the 30 days before the survey. Again, the results are similar to those in 2012 where 4.5% of seventh graders, 4.6% of ninth graders, and 11.4% of 12th graders missed school without the permission of a parent or guardian in the 30 days before the survey.
- **Employment.** 52.1% of 12th graders reported being employed outside of the home or school in 2014, compared to 55.4% in 2012.
- **Happiness.** About 85% of seventh graders, 85% of ninth graders, and 87% of 12th graders considered themselves to be happy or very happy with their lives, while the remainder considered themselves to be unhappy or very unhappy. These results are largely consistent with findings from 2012, during which about 84 percent of seventh graders, 86 percent of ninth graders and 89 percent of 12th graders considered themselves to be happy or very happy with their lives, while the remainder considered themselves to be unhappy or very unhappy.

It is important to note that the DADS was administered in late winter and early spring of 2014, so the prevalence data may have changed by the end of the school year in June. It is also important to note that the schools participating in the DADS were not randomly selected, since they selected themselves. This limits the generalizability of the results. Nevertheless, given the level of student participation, the number of school districts participating, and the geographic distribution of the participating districts, there is good reason to think the DADS results are reasonable reflections of drug use practices among suburban young people in the Dayton area. Lastly, aside from tobacco, alcohol, marijuana and some pills and products, i.e., those pills whose identity is readily apparent, such as brand name DXM or methylphenidate or products that come in labeled packages, students' self-reports of use of less easily identifiable drugs, like cocaine and heroin, should be viewed with at least some skepticism, since young people may well not know what they actually used.

Since the DADS was first administered in 1990, several trends can be identified. First, alcohol and tobacco use have decreased dramatically. Second, even though marijuana use has increased and decreased and increased, its lifetime use prevalence is essentially the same now as it was in 1990. Third, the non-prescribed use of tranquilizers increased dramatically from about 10% in 1990 nearly doubling to 19% in 2000, but has decreased its 1990 levels of 11.3% in 2014. A remarkably similar pattern is found with illicit use of prescription opiates which jumped from 3% in 1990 to about 18% in 2000. Like tranquilizer use, its lifetime use among 12th graders as steadily declined over the past 14 years to 12% in 2014. All things considered (see some of our previous relevant research at:

www.ncbi.nlm.nih.gov/pubmed/12357910?dopt=Abstract), the data suggest that efforts to prevent teen drug use have met with mixed success. ***Thus, we again point out the need to implement on-going drug abuse prevention programs in the schools that extend beyond the ninth grade, when such efforts often end. The rationale for such a recommendation is based on the fact that school is the place where large numbers of young people congregate and the strong evidence that initiation of drug use continues throughout the high school years.*** DADS

data have repeatedly shown that the percentage of teens who will get drunk for the first time will double between the ninth and 12th grades. Marijuana use also doubles. Implementing and sustaining evidence-based, public health-oriented prevention programs can help reduce the rate of erosion of abstinence as well as decrease drug-related problems among young people.