

## **Know The Facts: Staying the Course of Data-Driven Prevention Planning**

By Paul Nolfo

A major accomplishment in the field of substance abuse prevention has been the professionalization of the field through the effective use of data. With some surveys spanning nearly 40 years, prevention specialists can now design plans that more accurately assess not only the magnitude of substance abuse problems, but also the risk and protective factors related to those problems. In addition, the data can be used for program development and evaluation. Yet even with this rich source of information, data-driven prevention planning can still be undermined by speculative media coverage of unsubstantiated “trends”. Moreover, prevention programs that have long histories in a community, sustained popularity, or powerful champions can persist in the absence of data showing effectiveness.

With such scarce resources for prevention, it’s vital that planning efforts be focused on those substances and risk/protective factors that are impacting the greatest number of youth in our communities. Today’s data on substance use can better focus our efforts to achieve this goal. The objectives of this tactic are three-fold: 1) to examine common misperceptions about youth substance use; 2) to provide data about substance use trends; and, 3) to support the use of data in prevention planning.



### **Emergence of Strategic Planning as a Tool for Prevention of Youth Substance Abuse**

SAMHSA has promoted the use of the Strategic Prevention Framework (SPF) as a means to create plans that can reduce the incidence of substance use. The idea behind the SPF is to ensure that resources are dedicated to priorities that are dictated by data, and build capacity within states/tribes/territories and the prevention field. This in turn will promote resilience and decrease risk factors in individuals, families, and communities (“Strategic Prevention Framework,” n.d.). At the heart of the SPF is the collection and analysis of data to support the selection of prevention interventions.

### **Current Data for Youth Substance Use**

For this prevention tactic, three national and one California study are utilized to frame the youth substance use problem. As expected, there are variations from one survey to the next, although key findings of the studies are generally in agreement. These studies include:

Monitoring the Future (2012) (MTF)

Youth Risk Behavior Study (2011) (YRBS)

National Survey on Drug Use and Health (2011) (NSDUH)

California Healthy Kids Survey (2003 – 2011) (CHKS)

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**Tactics** (Tak'tiks) n. 1. a plan for promoting a desired end. 2. the art of the possible.

When reviewing these studies, it's important to note that it can take up to a decade before statistically significant changes can be measured in prevalence rates. This fact underscores the premise that the benefits from prevention efforts can take years to impact social and economic indicators. Also, except where specifically noted, data is for 11th grade students.

**Data Finding: All studies depict alcohol as the substance most widely used by today's teenagers, although California figures are below national averages.** According to the California Healthy Kids Survey, 11th graders in California have lifetime use rates of 61%<sup>1</sup> and 30-day use rates of 33%.<sup>2</sup> These rates have been on a steady decline for many years. Nationally, since 1991, the YRBS 30 day-use rates for 11th graders have declined from 55% to 43%. So while prevalence rates are decreasing, alcohol still remains a priority problem. Binge drinking<sup>3</sup> has also been on decline. The YRBS, from 1991 to 2011, depicts rates that have declined from 31% to 22%. However, YRBS findings show that age of onset for alcohol<sup>4</sup> reached an all-time low, with 18% of those surveyed reporting their first drink before the age of 13.

Even though some of these rates are at historically low levels, alcohol use remains at rates that result in unacceptable social and economic consequences, and the earlier age of onset is particularly disturbing. In fact, research has demonstrated that the early onset of alcohol use,

1 At least one drink of alcohol on at least 1 day, during their lifetime

2 At least one drink of alcohol on at least 1 day, 30 days before the survey

3 Five or more drinks in a row at least once in past 30 days before the survey

4 Drank alcohol for the first time before age 13 years (other than a few sips)



frequency of drinking, and intensity of drinking among youth are predictors of later substance abuse and other risky behaviors and harmful consequences. ("Core Outcomes," 2012). In general, early and well-established patterns of alcohol use among youth is a significant health concern ("Underage Drinking," 2006). Many young people are experiencing the consequences of drinking too much, too often, and at too early an age. As a result, underage drinking is a leading public health problem in this country. Each year, approximately 5,000 young people under the age of 21 die as a result of underage drinking; this includes about 1,900 deaths from motor vehicle crashes, 1,600 as a result of homicides, 300 from suicide, as well as hundreds from other injuries such as falls, burns, and drownings (Johnston et al., 2013).

**Misperception: More young people are smoking cigarettes today than in the past.** According to the YRBS, the 30-day cigarette use rate for 11th grade students has declined 12% since 1991 and 4% since 2003. Cigarette smoking remains a leading cause of preventable illness and death, and anti-smoking efforts aimed at youth remain an important part of prevention work. Smoking is usually initiated in adolescence. That makes what happens in adolescence particularly important. Differences in smoking rates between various school classes tend to stay with those cohorts throughout the life cycle. This means that it is critical to prevent smoking very early (Johnston et al., 2013). However, results from the CHKS show that in California use rates for 11th graders have leveled off since 2003. Use rates have leveled off at 13%, compared to a national YRBS rate of 19%.

**Data Finding: Marijuana has been the most widely used illicit drug throughout MTF's 38 year history.** It can be taken orally, mixed with food, and smoked in a concentrated form as hashish—the use of which is much more common in Europe (Johnston et al., 2013). The great majority of consumption in the U.S. involves smoking it in rolled cigarettes ("joints"), in pipes or water pipes, or in hollowed-out cigars ("blunts") (Johnston et



al., 2013). The MTF data on the 30-day marijuana use rate has increased from 13.8%, in 1991, to 22.9%, in 2012. California specific data also shows an increase in 30-day use rates, from 16% in 2003-2005 to 21% in 2009-2011.

It is relevant that perceived risk for marijuana has been falling nationally for the past six years. In California, the CHKS began measuring perceived risk in 2003-2005, and perceived risk has fallen from 88% to 56% in 2009-2011. Personal disapproval also declined for the past three years, both nationally and in California. These changes would normally portend a further increase in use. Of particular importance, daily marijuana use in the MTF increased significantly in all three grades in 2010, rising further in all three grades in 2011, and leveled in 2012. Daily use now stands at 1.1%, 3.5%, and 6.5% in eighth grades, ninth grades, and tenth grades, respectively; in other words, roughly one in fifteen high school seniors today is a current daily, or near-daily, marijuana user (Johnston et al., 2013).

This raises the issue of dependence and related harms. It is estimated that 9 percent of people who use marijuana will become dependent on it (Warner et al., 1994). The number goes up to about 1 in 6 in those who start using young (in their teens) and to 25-50 percent among daily users (Warner et al., 1994; Hall, 2009). The nature of the teenage brain makes marijuana users amongst this population particularly at risk of developing addictive behaviors and suffering other long-term negative effects, according to researchers at the University of Montreal and New York's Icahn School

of Medicine at Mount Sinai (Science Daily, 2013). In California, those under 21 represent 62% of all the marijuana primary treatment episodes (Johnston et al., 2013).

These findings recognize that this is not a benign substance. According to Dr. Nora Volkow, the director of the National Institute on Drug Abuse, marijuana smoke, like cigarette smoke, can harm the lungs. Its use can impair short-term memory, verbal skills, judgment and perception (National Institute of Drug Abuse [NIDA], 2012). It also may weaken the immune system and possibly increase a user's potential of developing cancer (NIDA, 2012.). Especially for young teens, it can interfere with their emotional and cognitive development—causing or exacerbating numerous mental health conditions and hindering their ability to succeed in school (NIDA, 2012).

**Misperception: Declining cocaine prices have led to increased usage among young people.**

While it is true that the price of cocaine has declined over the last two decades, so too has its use among youth (Johnston et al., 2013). From 1980 through 1986 cocaine (including “crack cocaine”) was at its highest rates of use (Johnston et al., 2013). For much of that time period, the percentage of 12th graders who used in the past twelve months exceeded 12% (Johnston et al., 2013). Many of today's adults, who experienced this time period as youth, have an appreciation for the proliferation and harms of cocaine (Johnston et al., 2013). Today, cocaine, while very dangerous, is at historically low use rates. In fact, the use rate for 12th graders stands at 2.7% (Johnston et al., 2005). While a person's experiences can help them understand the dangers of substance use, it should be tempered by the use of data that depicts the real issues in the community.

**Data Finding: The use of “club drugs” is increasing in California.**

“Club drugs” are so called because they have been popular at night clubs and raves. They include Ecstasy (MDMA), GHB (gammahydroxybutyrate), ketamine (special K), and Rohypnol. Rohypnol and GHB are labeled date rape drugs because they can have amnesiac effects and can be added to food or drink without



a victim's knowledge (National Survey on Drug Use and Health, 2012). Lifetime use rates in the YRBS for Ecstasy decreased slightly from 11% in 2003, to 9% in 2011. Yet, in California, lifetime rates increased from 5% in 2003, to 14% in 2011. California's higher rate and opposite upward trend in use make ecstasy an important drug for local communities to assess. Some of the short-term effects of ecstasy include: sharp increases in body temperature, including hyperthermia and heatstroke; blood pressure increases; blurred vision; dehydration; seizures; and death. Long-term consequences can include: dramatic increase in heart rate, leading to serious complications for people with cardiovascular disease; dehydration leading to liver and kidney failure; and brain damage, which is directly related to the amount and frequency of usage ("Short and Long Term Effects of Ecstasy," n.d.).

**Misperception: "Bath salts" are widely used by teens.** The media has had a tendency to sensationalize certain substances being used and abused by youth. While these substances may be dangerous, actual teen use rates can tell another story. Recently, "bath salts" have been given much media attention. The MTF survey provided the first national survey on their use. The annual prevalence rates in 2012 were extremely low: 0.8%, 0.6%, and 1.3% in grades 8, 10, and 12, respectively. Data on calls to the national poison control centers relating to bath salts suggest that use may have risen rapidly after 2010, peaked in the first half of 2011 (with 3,500 calls about them), but declined by half in the first half of 2012 (1,700 calls), and continued to decline since then (Johnston et al., 2013). This decrease, as suggested by the MTF, may be attributed to two factors - one is that the Drug Enforcement Administration classified the most commonly used chemicals in bath salts as controlled

substances (cathinones) effective October 2011; the other is that the media widely disseminated how dangerous their use can be, likely driving up perceived risk. In this case, keeping up with the latest data on bath salts can help a community properly assess where to allocate resources when addressing youth substance use.

**Data Finding: Misuse of prescription drugs is on the rise among youth.** In 2011, the YRBS began tracking youth who take prescription drugs one or more times without a doctor's prescription. The YRBS lifetime rate for 11th graders is 23%. In California, the CHKS depicts a lifetime use rate of 18%. It should be noted that the YRBS includes various prescription drugs such as Oxycontin™, Vicodin™, Adderall™, Ritalin™, Percocet™, Codeine™, and Xanax™. CHKS specifically asks about painkillers; other prescription drugs such as Adderall™ and Ritalin™ are included in a separate question. Therefore, it's safe to assume the California rate is probably comparable to the national rate.

Past year nonmedical users of prescription drugs were asked how they obtained the drugs they most recently used. Rates averaged across 2010 and 2011 show that over one half of the nonmedical users of pain relievers, tranquilizers, stimulants, and sedatives aged 12 or older got the prescription drugs "from a friend or relative for free." About 4 in 5 of these users who obtained prescription drugs from a friend or relative for free indicated that their friend or relative had obtained the drugs from a doctor. The next highest answer was 16.6% who said they bought/took from a friend/relative (National Survey on Drug Use and Health, 2012).

There are serious health risks related to abuse of prescription drugs. A single large dose of prescription or over-the-counter (OTC) painkillers or depressants can cause breathing difficulty that can lead to death. Stimulant abuse can lead to hostility or paranoia, or the potential for heart system failure or fatal seizures. Even in small doses, depressants and painkillers have subtle effects on motor skills, judgment, and ability to learn ("Prescription Drugs," n.d.).



**Misperception: Young people commonly take prescription drugs at “pharm parties.”** At times, certain aspects of drug use can be sensationalized, and erroneously influence the prevention strategy for a community. “Pharm parties” received much media attention in the early 2000’s. Pharm parties have been defined as tossing various pills into a bowl or bag, and then indiscriminately taking a handful of these pills and ingesting them. *There is little evidence showing extensive participation in pharm parties by teens.* In fact, motivations for prescription drug misuse tend to contradict traditional ideas about adolescent drug use (Boyd et al. 2006). The literature indicates that teens choose to misuse a prescription drug to obtain a specific pharmacological purpose—to treat pain, to relax or to perform better (Twombly and Holtz, 2008). Unlike other forms of adolescent drug use, the diffuse desire to feel good or get high ranks much lower as a motivation for prescription drug misuse (Twombly and Holtz, 2008). Prescription drug use among youths aged 12 to 17, and young adults aged 18 to 25, is the second most prevalent illicit drug use category (National Survey on Drug Use and Health, 2012). A community’s focus on eliminating pharm parties may distract from addressing more substantive issues such as a youth’s “perception of harm” of prescriptive medications.

### **Prioritizing the Prevention Effort and Staying on Course**

In an interview with Former U.S. Deputy Secretary of State, Robert Zoellick, he was asked “How does a

Secretary of State get things done?” To paraphrase his answer, he replied, “don’t be distracted from the long-term goal and ‘tend the garden.’” Many professionals in the prevention field can empathize with this situation, especially when working with community leaders, organizations, and the general public to move a prevention agenda forward.

When using the SPF for prevention planning, long-term goals should identify those substances that are most responsible for negatively impacting youth in the community. Often, the higher the percentage of consumption, the greater the individual, societal, and economic impact. Utilizing the survey data that we discussed previously can assist in framing the substance use problem in a community. Further, other local, archival data and qualitative information derived from focus groups or individual interviews can triangulate the survey data and help to explain local conditions that may be impacting risk and protective factors for substance use or other issues in a community.

The process used to collect and analyze data is best undertaken with the community. In this way, you can “tend the garden” by engaging and educating the community about what should be the focus of the community prevention effort. An engaged community will assess and utilize substance use data in determining their prevention strategies; they will also be less likely to lose sight of their plan in the aftermath of a crisis involving a rarely abused substance. Communities who are familiar with data are able to help respectfully frame the crisis in the context of the overall substance use problem. This “framing” should be supported by those members of the community who have already been engaged in the planning effort. In this way, crises can support data driven planning by providing an opportunity to both address the crisis in the short-term, and educate the community about the long-term goals.



# References

Boyd, C., McCabe, S., Cranford, J.A., & Young, A. (2006). Adolescents' Motivations to Abuse Prescription Medications. *Pediatrics*, 118 (6), 2472-2480.

Core Outcomes for Substance Abuse Prevention Recommendation Report. (2012). CADPAAC Executive Committee.

Hall W. (2009) The Adverse Health Effects of Cannabis Use: What Are They, and What Are Their Implications for Policy? *International Journal of Drug Policy*, 20:458–466.

Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2013). Monitoring the Future National Results on Drug Use: 2012 Overview, Key Findings on Adolescent Drug Use. Ann Arbor: Institute for Social Research, The University of Michigan. Retrieved December 5, 2013 from <http://www.monitoringthefuture.org/pubs/monographs/mtf-overview2012.pdf>.

National Institute of Drug Abuse. (2012). Research Report Series: Marijuana Abuse. Retrieved November 15, 2013 from <http://www.drugabuse.gov/sites/default/files/rrmarijuana.pdf>.

Prescription Drugs. California Alcohol and Drug Programs. Retrieved December 11, 2013 from <http://www.adp.ca.gov/youth/prescriptiondrugs.shtml>

Results from the 2011 National Survey on Drug Use and Health: Summary of National Findings. (2012). Substance Abuse and Mental Health Services Administration. NSDUH Series H-44, HHS Publication No. (SMA) 12-4713. Retrieved December 10, 2013 from [http://www.samhsa.gov/data/NSDUH/2k11MH\\_FindingSandDetTables/2K11MHFR/NSDUHmhfr2011.pdf](http://www.samhsa.gov/data/NSDUH/2k11MH_FindingSandDetTables/2K11MHFR/NSDUHmhfr2011.pdf)

Science Daily. (2013). Perception of Marijuana as a 'Safe Drug' Is Scientifically Inaccurate, Finds Review of Teen Brain Studies. Retrieved October 11, 2013 from <http://www.sciencedaily.com/releases/2013/08/130827091401.htm>.

Short and Long Term Effects of Ecstasy. (n.d.). Administration Office of the Courts. Retrieved June 10, 2013 from <http://www2.courtinfo.ca.gov/stopteendui/teens/resources/substances/ecstasy/short-and-long-term-effects.cfm>

Strategic Prevention Framework. (n.d.). Substance Abuse and Mental Health Services Administration. Retrieved July 10, 2013 from <http://www.samhsa.gov/prevention/spf.aspx>

Twombly, E.C., & Holtz, K.D. (2008). Teens and the Misuse of Prescription Drugs: Evidence-Based Recommendations to Curb a Growing Societal Problem. *The Journal of Primary Prevention*, 29 (6). Retrieved June 5, 2013 from [http://www.medscape.com/viewarticle/585095\\_3](http://www.medscape.com/viewarticle/585095_3)

Underage Drinking: Why Do Adolescents Drink, What Are The Risks, and How Can Underage Drinking Be Prevented? (2006). National Institution on Alcohol Abuse and Alcoholism, Alcohol Alert, Number 67. Retrieved June 25, 2013 from <http://pubs.niaaa.nih.gov/publications/aa67/aa67.htm>

Warner, R., Taylor, D., Wright, J., Sloat, A., Springett, G., Arnold, S., & Weinberg, H. (1994). Substance Use Among the Mentally Ill: Prevalence, Reasons for Use, and Effects on Illness. *The American Journal of Orthopsychiatry*, 64, 30-9.





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Author: Paul Nolfo

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**877-568-4227**  
**[cpiinfo@cars-rp.org](mailto:cpiinfo@cars-rp.org)**

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