

Arizona Criminal Justice Commission



Arizona Youth Survey 2012 Inhalant Data Brief

Our mission is to sustain and enhance the coordination, cohesiveness, productivity and effectiveness of the criminal justice system in Arizona

December 2013

The Arizona Youth Survey (AYS)

This research brief summarizes the results from the 2006, 2008, 2010, and 2012 administrations of the Arizona Youth Survey (AYS) for youth inhalant use relative to county of residence, respondent demographics, and risk and protective factors. The brief also outlines some of the dangers associated with inhalant use. Every two years, the Arizona Criminal Justice Commission administers the AYS. The AYS is an anonymous school-based survey designed to collect information on the prevalence of drug use and other risky behaviors among Arizona 8th, 10th, and 12th grade youth and inquire about the circumstances in which they live. In the spring of 2012, the survey was successfully implemented in 349 schools from all 15 Arizona counties resulting in a final sample size of 62,817 youth. Among the data collected were reported self-measures of inhalant use.

Table 1. Percentage of Youth Who Reported Having Used Inhalants in Their Lifetime by County

County	2006	2008	2010	2012
Apache	12.7	15.8	11.1	12.2
Cochise	16.5	12.7	15.6	9.5
Coconino	14.3	12.6	13.5	9.4
Gila	14.8	16.7	12.9	13.9
Graham	17.1	15.3	13.8	9.1
Greenlee	17.7	21.0	15.3	17.3
La Paz	12.8	10.7	13.9	10.6
Maricopa	12.2	12.1	11.7	9.2
Mohave	13.5	13.6	15.6	11.9
Navajo	13.5	11.5	10.9	10.1
Pima	12.8	11.6	12.9	10.9
Pinal	18.0	16.2	16.9	11.1
Santa Cruz	12.1	9.6	11.0	8.6
Yavapai	13.6	14.4	11.8	10.3
Yuma	12.2	13.6	13.4	11.3
Arizona	12.9	12.6	12.3	9.8

Lifetime and 30-Day Inhalant Use by Arizona Youth

In 2012, 9.8 percent of youth reported having used inhalants in their lifetime (Table 1). The rate of lifetime inhalant use among youth has fallen in every Arizona county since 2006; however, youth in 10 of Arizona's 15 counties reported higher lifetime usage rates than the state rate in 2012. Greenlee and Gila counties reported the highest lifetime inhalant usage rates, which were approximately 80 percent and 40 percent higher than the state rate respectively. Apache and Mohave counties reported lifetime usage rates 20 percent higher than the state rate. Santa Cruz, Graham, and Maricopa counties had the lowest lifetime inhalant usage rates in 2012. The 2012 AYS also revealed that 2.8 percent of Arizona students reported having used inhalants during the 30 days prior to taking the survey (Table 2). Like the lifetime data, during the time period examined, 30-day inhalant use among Arizona youth was the highest in 2006 followed by consistent decreases through 2012. In 2012, youth in eight Arizona counties reported higher 30-day inhalant usage rates than the state rate. Greenlee and Yuma counties reported the highest rates of 30-day inhalant use. These counties' reported rates were 110 percent and 70 percent higher, respectively, than the overall state rate. Youth from Graham and Santa Cruz counties reported the lowest 30-day inhalant usage rates.

Table 2. Percentage of Youth Who Reported Having Used Inhalants in the Past 30 Days by County

County	2006	2008	2010	2012
Apache	3.3	4.1	3.7	3.2
Cochise	5.4	3.3	5.4	2.8
Coconino	3.8	2.8	4.6	2.5
Gila	4.6	6.2	3.9	3.7
Graham	4.1	5.1	3.0	2.2
Greenlee	5.4	7.0	5.6	5.8
La Paz	3.4	3.3	3.0	2.5
Maricopa	3.9	3.8	3.6	2.7
Mohave	3.6	3.5	5.4	3.0
Navajo	3.8	2.9	2.7	3.2
Pima	4.2	3.3	3.5	3.0
Pinal	6.4	5.4	4.5	3.0
Santa Cruz	4.2	3.6	3.0	2.2
Yavapai	4.4	3.6	3.0	2.7
Yuma	5.0	4.8	3.5	4.8
Arizona	4.1	3.8	3.7	2.8

Risk and Protective Factors

At the core of the Arizona Youth Survey are questions based on a risk and protective factor prevention model. This model is based on decades of research that has identified risk and protective factors for delinquency and substance use. The risk and protective factor data reveal that as the number of risk factors to which youth are exposed increases, so too does the percentage of youth who report using inhalants. Conversely, as the number of protective factors which youth are exposed increases, the percentage of youth who report inhalant use decreases (Chart 1).

Chart 1. Relationship Between the Percentage of Youth Who Used Inhalants in the Past 30 Days and Accumulated Risk and Protective Factors

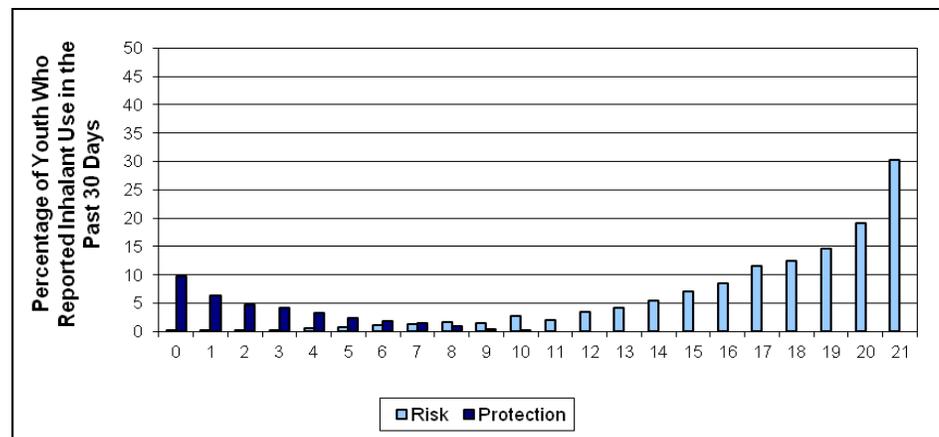


Table 3. Percentage of Youth Who Reported Having Used Inhalants in the Past 30 Days by Demographic Characteristics

	2006	2008	2010	2012
Overall	4.1	3.8	3.7	2.8
Grade				
8th Grade	6.2	5.4	5.6	4.2
10th Grade	3.1	3.0	3.0	2.0
12th Grade	1.7	1.6	1.5	1.3
Gender				
Male	3.7	3.0	2.8	2.1
Female	4.5	4.6	4.6	3.5
Race				
Asian	3.2	1.8	2.9	0.5
Pacific Islander	5.4	4.4	3.4	2.6
Native American	4.7	5.0	5.2	3.6
Black	2.6	2.5	3.2	3.2
White	3.8	3.3	2.9	2.2
Multi-Racial	n/a	4.5	4.3	3.1
Ethnicity				
Hispanic	4.5	4.5	4.5	3.7
Non-Hispanic	n/a	3.4	3.2	2.3

Note: n/a indicates that the question was not asked in that particular administration of the survey.

30-Day Inhalant Use by Respondent Demographics

In 2012, 2.8 percent of Arizona youth overall reported using inhalants during the 30 days preceding their taking the survey (Table 3). As seen in Chart 2, the rates of youth who reported using alcohol, tobacco, and other drugs increase with grade-level; however, usage rates for inhalants decrease with grade-level. In other words, a larger proportion of 8th graders reported using inhalants than their 10th and 12th grade counterparts, 110 percent and 220 percent higher, respectively, in 2012.

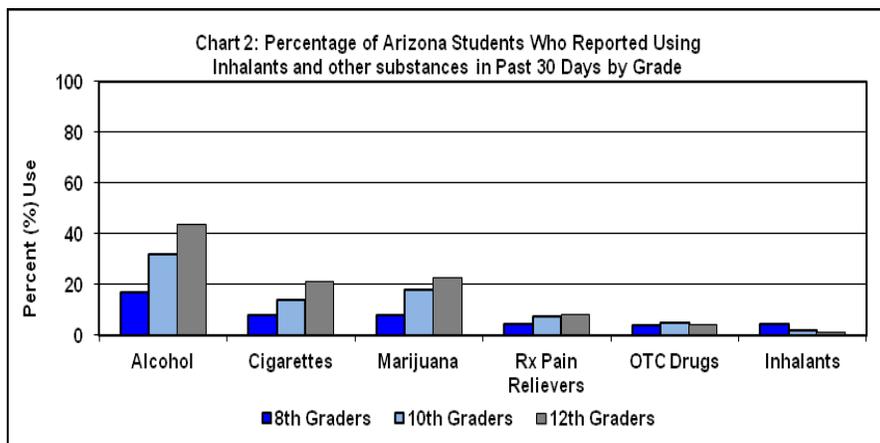
While there have been consistently higher rates of self-reported inhalant use by 8th grade students than 10th and 12th grade students, the largest reduction in reported inhalant use by grade from 2006 to 2012 was for the 8th grade students. Between 2006 and 2012 the number of 8th grade students reporting inhalant use fell by 2.0 percentage points, the 10th grade figure fell by 1.1 percentage points, and the 12th grade figure fell by 0.4 percent points. The period from 2010 to 2012 saw the largest declines in youth inhalant use by grade during the 2006 to 2012 period. The data also show that females consistently reported a higher rate of inhalant use than males. In 2012, the rate of females reporting inhalant use was 70 percent higher than the rate of males reporting inhalant use. While the rate of males reporting inhalant use has been falling consistently from 2006 to 2012, the rate of females reporting inhalant use only fell from 2010 to 2012.

Native American youth reported the highest rate of inhalant use compared to youth of any other racial category in 2012. Asian youth reported the lowest rate of inhalant use in 2012. The reported rate of inhalant use by Asian youth was substantially lower than youth of any other racial group; the rate of Asian youth reporting use of inhalants in 2012 was less than one-fourth the rate of White youth reporting inhalant use (0.5 and 2.2 percent respectively). In 2012, the rate of Hispanic youth reporting inhalant use was 60 percent higher than Non-Hispanics. The highest reported rates of inhalant use among the demographics included in this brief were among 8th grade students (4.2 percent), Hispanics (3.7 percent), Native Americans (3.6 percent), and Females (3.5 percent).

Dangers of Inhalant Use

Raising awareness about the dangers of inhalants is important because the products are easily accessible, inexpensive, legal, and potentially lethal. Some of the slang terms for the use of inhalants are huffing, sniffing, dusting, bagging, whippets, and glading. Common items used as inhalants may include, but are not limited to: computer duster, contents of aerosol spray cans, various types of glue, gas, paint, cans of whipped cream, and nail polish remover. Inhalants.org reports that more than 1,400 products can be used as inhalants for the purpose of “getting high.” A more extensive list of inhalants may be found on the Inhalants.org web site listed below.

In 2012, 1,665 of Arizona youth overall reported using inhalants during the 30 days preceding their taking the survey and 5,823 reported having used inhalants at some point in their life. The repeated misuse of these everyday items for the purposes of “getting high” may lead to serious health consequences. Inhalants have the potential to cause vision disturbances, mood swings, hearing loss, seizures, severe damage to the kidneys, liver, or brain, and even death. Death can occur anytime a child uses inhalants, even the first time. A single use of inhalants can prevent oxygen from reaching the lungs causing suffocation or alter normal heart rhythms, causing cardiac arrest resulting in death¹. The Substance Abuse and Mental Health Services Administration (SAMHSA) urges that efforts be directed toward educating parents, teachers, physicians, service providers, and policy makers about the dangers of inhalant use. However, SAMHSA (2010) also warns that “all prevention efforts directed to adolescents must balance warning against the dangers of inhalant use with not inadvertently introducing adolescents to available substances that have abuse potential.”



Footnotes

¹ Volkow, N. (2005). *Inhalant abuse is an emerging public health problem*. National Institute on Drug Abuse. Retrieved from <http://www.drugabuse.gov/about/welcome/messageInhalants105.html>

Substance Abuse and Mental Health Services Administration. (2010). *Adolescent inhalant use and selected respiratory conditions*. Retrieved from <http://www.oas.samhsa.gov/2k10/175/175RespiratoryCond.htm>

Resources:

For more information on products used as inhalants, the warning signs, and the dangers, please visit Inhalant.org at <http://www.inhalant.org/inhalant/> or the Mayo Clinic, *Inhalant abuse: Is your child at risk?* at <http://www.mayoclinic.com/health/inhalant-abuse/HQ00923>

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