The Impact of Substance Abuse: A Snapshot of Arizona

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The Governor's Office for Children, Youth and Families

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Executive Summary

This Profile examines the prevalence of substance abuse and the burden it places on Arizonans. The topics covered include underage drinking; adult and juvenile alcohol-related arrests, deaths and injuries related to driving under the influence of alcohol; and the prevention, treatment, and enforcement efforts related to methamphetamine use in Arizona. It also provides a look at emerging substance abuse issues in Arizona that threaten the health and safety of youth in Arizona, including the misuse of prescription drug and over-the-counter medications to get high. Some of the most notable findings are presented below.

Intervention / Enforcement

- The amount of heroin seized in Arizona between 2008 and 2010 increased approximately 25 percent.
- There was an almost three-fold increase in methamphetamine seizures between 2008 and 2010 (571 pounds vs. 1660 pounds, respectively).

Substance Abuse Prevention and Treatment Priorities

- Of adult respondents who indicated that they drank alcohol in the past 30 days, 46 percent reported drinking five or more drinks in one day during the past year.
- In 2010, approximately 1-in-5 8th graders, over one-in-three 10th grade youth and nearly one-in-two high school seniors reported drinking in the past 30 days.
- Almost 1-in-5 8th, 10th and 12th grade youth reported binge drinking.
- Five percent of 8th graders; nearly eight percent of those in 10th grade; and over 14 percent of high school seniors reported driving after drinking; high figures, but reductions from previous years.
- In 2010, approximately 30 percent of 8th and 10th graders and 14 percent of 12th graders rode in a car with someone who had been drinking.
- The number of drivers involved in alcohol-related crashes resulting in injury has decreased steadily over a ten-year period. Similarly, the number of drivers involved in alcohol-related crashes causing property damage (PDO) has decreased sharply (since 2007).
- More than 1-in-10 youth in 10th and 12th grade indicated misuse of any prescription drugs between 2006 and 2010. When compared with their peers across the nation, a higher percentage of Arizona 8th, 10th and 12th graders reported use of sedatives and prescription pain relievers.
- Since 2008, there has been a slight increase in over-the-counter drug use among 12th graders. Older students were more likely to indicate over-the-counter drug use (6.3% for 10th and 12th graders compared to 5.4% for 8th graders).

- Stimulants were used by 2.1 percent of Arizona 8th, 10th, and 12th graders, while 4.2 percent of those youth reported using sedatives; and pain relievers were used by 7.7 percent of these students. At the national level, 2.8 percent of youth reported misusing pain relievers, indicating that pain relievers are a bigger problem in Arizona than nationally.

Substance Abuse Treatment: Hospitals, Emergency Departments and Behavioral Healthcare Service Providers

- In 2009, there were 13,367 hospital inpatient discharges and 10,764 Emergency Department (ED) visits in Arizona for alcohol dependence syndrome-related neuroses. The rate of hospital discharges has been relatively stable since 2003. In contrast, the rate of ED visits has steadily increased, indicating an increasing utilization of EDs for health concerns resulting from alcohol.
- Individuals who identified themselves as American Indian or Alaskan Native had the highest rates of alcohol-induced death in 2009 (62.1 per 100,000 population), a rate over six times higher than other racial/ethnic groups.
- The percentage of clients indicating alcohol as their primary substance at admission to treatment (37.5%) was greater than the percentage who reported marijuana (17.4%) and methamphetamine (17.2%) use combined. A high percentage of clients also reported using heroin as their primary substance (15.0%).
- The rates of hospital admissions for cocaine and amphetamines began to decrease after 2006, a trend that continues. In contrast, the rate of hospitalizations for heroin/opioids continues to increase and has been significantly higher than the rates of hospitalization for cocaine and amphetamines since 2007.

Critical Populations

- In 2010, 17.9 percent of juveniles assessed in Arizona's juvenile detention facilities were diagnosed as alcohol dependent and 52.7 percent as substance dependent. Approximately 4-in-10 (42.2%) were diagnosed as having symptoms of alcohol abuse and over half (51.0%) with substance abuse.
- Almost 3-in-10 (28.4%) recent arrestees were found to have both a substance abuse problem and a mental health issue.
- Alcohol (33.9%), methamphetamine (33.1%) and marijuana (22.6%) were the most commonly reported primary substances used by clients prior to their enrollment in Families F.I.R.S.T., a substance abuse treatment program for families involved in the child welfare system.

Executive Summary, cont.

This report is concerned with an examination of the most salient and timely findings of concern to policymakers, policy analysts, and other interested parties surrounding the prevention of substance abuse; the treatment services for those suffering from addiction; and the enforcement efforts aimed at combating the sale and use of illicit drugs.

Underage drinking is a pressing concern throughout the nation, and Arizona is no exception; not only are youth engaging in early alcohol use, they also reported driving after they had been drinking and riding in a car with someone who was under the influence of alcohol. Additionally, youth reported being drunk or high at school, an indication that the problem is felt not only at home, but also in our schools and in the communities in which we live and work. Further, binge drinking was reported by a large percentage of adults in Arizona, reminding us that underage alcohol use can continue into adulthood. Importantly, the rates of Emergency Department utilization for health concerns resulting from alcohol are on the rise and the percentage of clients reporting alcohol as their primary substance at admission to treatment was larger than the percentage receiving services for marijuana and methamphetamine combined.

Though issues surrounding alcohol are familiar to many policymakers, new epidemiological data point to emerging issues in substance abuse that must be addressed and critical populations in need of our attention. Of concern is the growing abuse of prescription and over-the-counter drugs. The use of such substances for reasons other than those prescribed by a doctor varies by grade level, gender, racial/ethnic background and county of residence, indicating the potential targets for curtailing this disturbing trend. Another related emerging trend that must be examined and monitored is the upsurge in the prevalence of heroin use. In fact, hospital discharges for heroin use have recently surpassed those for methamphetamine and seizures of heroin in Arizona and near its borders have increased.

Data gaps remain an issue in Arizona, but much has been done to alleviate some of the most pressing problems surrounding substance abuse consumption and consequence data in our State. The work of the Arizona Substance Abuse Partnership, its subcommittees and numerous state agencies can be credited with these successes. This report highlights those efforts, most notably the Community Data Project (http://www.bach-harrison.com/arizonadataproject) and the work that remains.

Indeed, data on the behaviors of youth and adults that put them at risk, such as the information collected by the AYS, provide us with a wealth of information, including community-, school-, individual/peer-, and family-level risk and protective factors should be taken into consideration when forming policies and programs aimed at reducing substance abuse in our communities. With continued, strong, coordinated efforts and decisions guided firmly by data, Arizona can make progress in its fight to reduce substance abuse and in so doing, improve the health and well-being of our populace and ensure a prosperous Arizona.

Introduction

Introduction

This report examines the prevalence of substance abuse and the burden it places on Arizonans. The topics covered include underage drinking; adult and juvenile alcohol-related arrests, deaths and injuries related to driving under the influence of alcohol; and the prevention, treatment, and enforcement efforts related to methamphetamine use in Arizona. This report also provides a look at emerging substance abuse issues that threaten the health and safety of youth in Arizona, including the use of prescription drug and over-the-counter medications to get high. The conclusion presents recommendations regarding data that should be examined to predict changes and measure the impact of strategies at both a State and community level.

Arizona Demographics

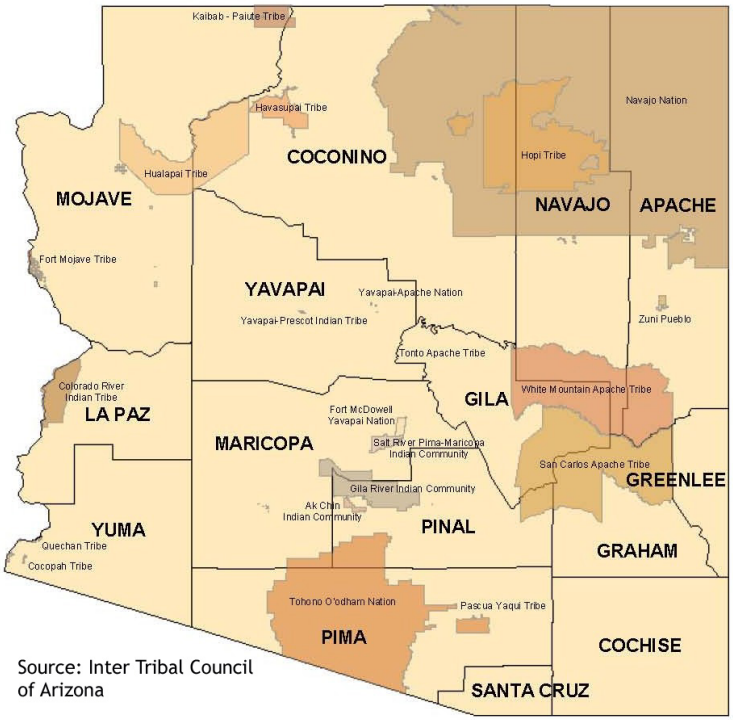
Arizona's diverse population spans more than 113,000 square miles, much of which borders Mexico. The State is comprised of 15 counties and is home to 21 federally-recognized tribes (Inter Tribal Council of Arizona, http://www.itcaonline.com).

As of 2010, Arizona had an estimated population of 6,392,017 (United States Census Bureau, State & County Quick Facts, 2010). In 2009, Pinal County was among the nation's top 100 fastest-growing counties according to the Population Division of the United States Census Bureau (Table 5: Housing Unit Estimates for the 100 Fastest Growing Counties with 5,000 or More Housing Units in 2009; April 1, 2000 to July 1, 2009).

The majority of Arizona's residents live in urban areas within Maricopa County, which is home to almost four million people (3,817,117), and in Pima County, where almost one million people reside (980,263). The remainder of Arizona's residents lives in the 13 other counties (see Figure 1), which are considered rural areas (United States Census Bureau, State & County Quick Facts, 2010).

The median Arizona household income in 2009 inflation-adjusted dollars was $46,789, slightly less than the national median income of $50,046. In Arizona, 17.4 percent of citizens live below the poverty line, slightly higher than the 15.3 percent national average (United States Census Bureau, American Community Survey, 2010).

Figure 1: Map of Arizona Counties and Tribal Homelands



Source: Inter Tribal Council of Arizona

The overwhelming majority of Arizonans indicated only one race (97.4%). All told, White was the most commonly indicated race (79.4%), followed by American Indian or Alaskan Native (4.5%), Black/African American (4.1%), Asian (2.7%), and Native Hawaiian/Pacific Islander (.2%). Approximately, 6.4 percent indicated some other race, and 2.6% indicated "two or more races." In regards to ethnicity, 29.8 percent of the population indicated they were Hispanic (United States Census Bureau, American Community Survey, 2010).

Statewide Coordination

The Governor's Office for Children, Youth & Families (GOCYF) provides resources, promotes citizen engagement and leads innovative projects to strengthen and empower families and communities. To achieve the Governor's vision for healthy communities, the office is organized into several areas: Children; Community and Youth Development; Substance Abuse Policy; and Women.

The GOCYF convenes numerous commissions, councils and task forces that advise and monitor policy initiatives and grant programs. To achieve its goal of community participation and inclusiveness, the commissions and councils are composed of diverse people representing a variety of geographic areas, ethnicities, interests, and professions.

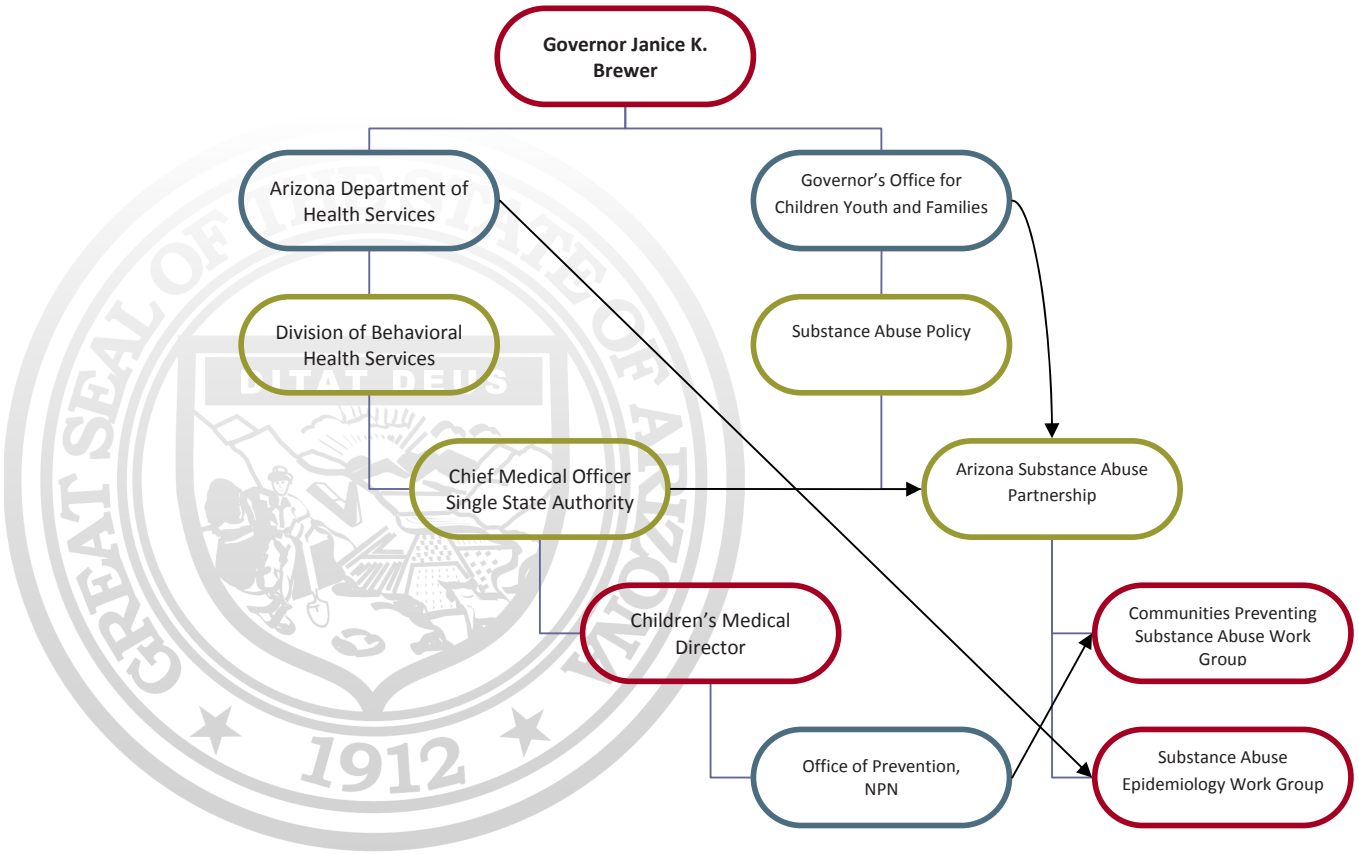
One such commission, the Arizona Substance Abuse Partnership (ASAP), serves as the single statewide council on substance abuse prevention, enforcement, treatment, and recovery efforts. It is the ASAP's mission to ensure community-driven, agency-supported outcomes to prevent and reduce the negative effects of alcohol, tobacco, and drugs by building and sustaining partnerships between prevention, treatment, recovery, and enforcement professionals. The ASAP is composed of Director-level representatives from State, Federal and community organizations as well as individuals in recovery. For more information on ASAP, please visit http://gocyf.az.gov/CYFBoardsComm.asp?Show=DSAP.

The Substance Abuse Epidemiology Work Group (Epi Work Group) of the ASAP is composed of a diverse team of statisticians; data analysts; academics; holders of key datasets, and other stakeholders from various state and federal agencies, including the Arizona Department of Health Services, Division of Behavioral Health Services (ADHS, DBHS); tribal entities; and universities. The Epi Work Group's mission is to provide communities, policymakers and local, state and tribal officials with data on the use of alcohol and illicit, over-the-counter, and prescription drugs to inform their substance abuse prevention and intervention strategies.

Current projects of the Epi Work Group and its member agencies include:

- The Arizona Criminal Justice Commission's (ACJC) Community Data Project (CDP) drug data clearinghouse (http://www.bach-harrison.com/arizonadataproject) serves as a central repository for data on substance abuse consequences, consumption and context
- An assessment of Arizona's substance abuse treatment capacity and a gap analysis of its prevention resources
- Community Data Books that can be used to inform the selection of prevention and intervention strategies based upon the needs and strengths of the community
- A Facebook page provides information on upcoming free webinars and trainings
- Epi Update!, the Epi Work Group newsletter
- *Arizona Behavioral Health Epidemiology Profile* highlighting hospital admissions and emergency department visits for depression, anxiety and alcohol and drug-related psychoses

Figure 2: Coordination Between State Agencies and Community-Level Organizations to Address Substance Abuse



The Epi Work Group's sister body, the Communities Preventing Substance Abuse Work Group (CPSAWG), is an interagency committee that focuses on utilizing statewide epidemiological data, available resources, and relationships with tribes, youth, law enforcement, government and non-profit agencies, and community coalitions to reduce underage drinking and other substance abuse concerns. Partners on the work group include state agency decision-makers and community representatives from advocacy agencies and substance abuse prevention coalitions. Bringing together state agency personnel and the communities they serve allows a bidirectional conversation that avoids duplication of efforts and breaks down silos.

The CPSAWG is dedicated to preventing the onset of and reducing the progression of substance abuse, including underage drinking, and reducing substance abuse-related consequences in communities across Arizona through awareness activities that utilize social media and focus on building and improving Arizona's prevention capacity and infrastructure at the state and community levels.

Figure 2 indicates the coordination of activities through the committees and work groups discussed herein.

Prevention

Due to concern about high rates of substance abuse, including underage alcohol use, many community coalitions were funded by the GOCYF through the Strategic Prevention Framework Stage Incentive Grant (SPF SIG) to implement the five-step SPF model: 1) conduct a community needs assessment using epidemiological data; 2) build the capacity of the community to address its substance abuse concerns; 3) strategize to address the needs identified during the assessment phase; 4) implement selected strategies that target the identified needs; and 5) evaluate the efficacy of the coalition's efforts. For example, numerous coalitions utilized the Draw the Line social norms campaign to change adult perceptions and behaviors related to underage drinking. For more information on the campaign, please visit http://www.drawyourline.com.

Behavioral health services in Arizona are administered through Regional Behavioral Health Authorities (RBHAs) and Tribal Regional Behavioral Health Authorities (RBHAs) funded by the ADHS, DBHS. Previously program-driven, the DBHS is transitioning to a coalition-led prevention system and is currently funding 45 community and tribal coalitions. During this transition process, behavioral health service providers and RBHAs are working together to identify high-need, low-resource communities within their geographic service area (GSA) and behavioral health service providers in these areas are joining and supporting coalitions that exist and developing coalitions in areas without them.

Drug Trafficking

Arizona shares approximately 350 miles of border with Mexico, making it susceptible to transnational drug trafficking. According to the Drug Enforcement Administration (DEA), in recent years, an increasing number of smugglers have traversed the sparse desert separating Arizona and Mexico to traffic drugs throughout the United States (Drug Enforcement Administration, personal communication). Smugglers typically use passenger vehicles as a means of transporting illicit drugs into Arizona, as well as using them to traffic bulk currency resulting from drug sales back into Mexico. Agents often capture smugglers at one of the three Arizona principal ports of entry—Nogales, Douglas and San Luis.

The majority of the production of the methamphetamine found in Arizona occurs in Mexico, and Arizona serves as a distribution hub through which the drug is transported throughout the United States. Federal authorities seized 1660 pounds of methamphetamine in Arizona during calendar year (CY) 2010 as well as 1,370,621 pounds of marijuana, and 432 pounds of heroin. The DEA reports an increase of approximately 25 percent in the amount of heroin seized in Arizona between CY 2008 and CY 2010. There has also been a sharp increase in Arizona in methamphetamine seizures between 2008 and 2010 (from 571 pounds to 1660 pounds) and a slight decrease in marijuana seizures between 2009 and 2010 (from approximately 1.7 million pounds to less than 1.4 million pounds) (Drug Enforcement Administration, personal communication).

Figure 3: Arizona-Mexico Border

Alcohol

Underage Drinking: A National and Statewide Crisis

Underage drinking has received significant attention at both the state and national level. The Surgeon General's Call to Action to Prevent and Reduce Underage Drinking, released in March 2007, emphasized that underage drinking puts our youth at greater risk for academic problems, criminal behavior, poor decision-making, risky sexual activity, perpetration of physical and sexual assaults, victimization through physical and sexual assaults, damage to their developing brains, and an increased likelihood of death.

Underage drinking also imposes an extraordinary financial burden on society. According to the Underage Drinking Enforcement Training Center (UDETC) project of the Pacific Institute for Research and Evaluation (PIRE), in 2007 alone, underage drinking cost Arizona approximately $1.4 billion dollars in violence, traffic crashes, high-risk sex, property crime, injury, poisonings/psychoses, babies born with fetal alcohol syndrome to underage mothers and substance abuse treatment (Pacific Institute for Research and Evaluation, 2009).

Alcohol continues to be the number one substance used by youth and adults in Arizona. The effects of alcohol can be seen in the public health arena, the justice system and within our families and communities. The study of alcohol use is vital to an understanding of health consequences, as some consumption patterns, such as heavy/binge drinking and driving under the influence, provide crucial predictive information regarding the future health of our State. According to the Adult Substance Use in Arizona 2010 (Wolfersteig, et al, 2010), overall, more than 50 percent of adults in all age categories reported alcohol use in the past 30 days; this figure increases to over 60 percent for those between the ages of 29 and 39 (See Figure 1).

Heavy alcohol use was also noted in a large segment of the surveyed population; 46 percent of adults in Arizona reported drinking five or more drinks in one day in the past 12 months (Arizona Health Survey on Substance Abuse, 2010). National estimates from the National Survey on Drug Use and Health (2009), administered by the Department of Health and Human Services (HHS), are available for comparison of past 30-day binge drinking (as opposed to the past 12 months as it was measured by the Arizona Health Survey). These data indicate that almost 1-in-4 Arizonans aged 12 and older (23.2%) reported drinking five or more drinks in the past 30 days, similar to the 23.5 percent of the U.S. population. For individuals 18 and older, 24.8 percent of Arizonans and 25.1 percent of the U.S. population reported binge drinking.

Of particular concern is the percentage of Arizona youth who drink alcohol and engage in dangerous behaviors such as drinking and driving or riding with a drinking driver. These young people are potentially damaging their bodies and/or subjecting themselves to greater risks to injury or death. While alcohol use by adults continues to be a concern, the issue of alcohol consumption among youth has become one of the leading public health problems in this country. Research indicates that underage drinkers are more likely to engage in risky behaviors that harm themselves and others, including using other drugs, drinking and driving, suicide, sexual assault and high-risk sex (United States Surgeon General, 2007).

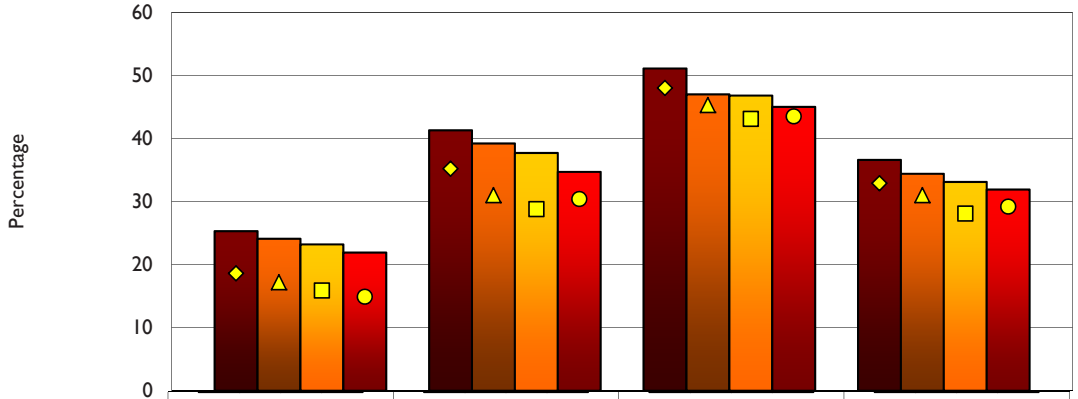
Underage Drinking: A National and Statewide Crisis, Cont.

The reduction of underage drinking remains a priority in the State due to the high percentage of youth who report drinking (see Figure 4); In 2010, 21.9 percent of 8th graders, 34.7 percent of 10th grade youth and 45.0 percent of high school seniors reported drinking alcohol during the past 30 days. This translates to approximately 1-in-5 8th graders, over 1-in-3 10th grade youth and nearly 1-in-2 high school seniors who are drinking, which may distract them from academic activities such as college preparation. Further, higher percentages of females engaged in alcohol use in the 30 days preceding the Arizona Youth Survey (AYS) (2010) (32.9% vs. 30.8%). The AYS also finds that youth get their alcohol from a variety of sources, including parents and other family members and friends who buy it for them (Arizona Criminal Justice Commission, 2010c).

For these reasons, the main focus of this report is on underage alcohol consumption patterns among Arizona's 8th, 10th and 12th grade youth. However, the report also provides information about the consequences of driving under the influence for both youth and adults.

Figure 4: Past 30-Day Youth Alcohol Use by Grade

Percentage of Youth Indicating Alcohol Use in the Past 30 Days by Grade, AZ vs. U.S. (2004-2010)



	Grade 8	Grade 10	Grade 12	Combined Grades
AZ 2004	25.3	41.3	51.1	36.6
AZ 2006	24.1	39.2	47.0	34.4
AZ 2008	23.2	37.7	46.8	33.1
AZ 2010	21.9	34.7	45.0	31.9
MTF 2004	18.6	35.2	48.0	32.9
MTF 2006	17.2	33.8	45.3	31.0
MTF 2008	15.9	28.8	43.1	28.1
MTF 2010	14.9	30.4	43.5	29.2

Source: Arizona Youth Survey, Arizona Criminal Justice Commission; Monitoring the Future, National Institute on Drug Abuse

Underage Drinking: A National and Statewide Crisis, Cont.

While these statistics are cause for concern, we can celebrate that underage drinking has been on the decline since 2004. Figure 4 provides 30-day alcohol use rates from 2004-2010 for Arizona youth and compared to such rates at the national level. National data are provided by the Monitoring the Future (MTF) survey of the National Institute of Drug Abuse (NIDA). Monitoring the Future (http://monitoringthefuture.org) is an annual, national study of approximately 50,000 8th, 10th and 12 grade students. The MTF assesses attitudes and behaviors regarding substance abuse, including alcohol.

In looking at data from the Arizona Youth Survey, there are clear differences in reported 30-day alcohol use by county of residence (Figure 6), which speaks to the need to utilize data at the lowest geographic level whenever possible to determine differing community needs. For information on how to access community-level data, please refer to the Data Gaps section in this report, which provides information on the Community Data Project's interactive data website hosted by the Arizona Criminal Justice Commission's Statistical Analysis Center. The Community Data Project website can be found at http://www.bach-harrison.com/arizonadataproject.

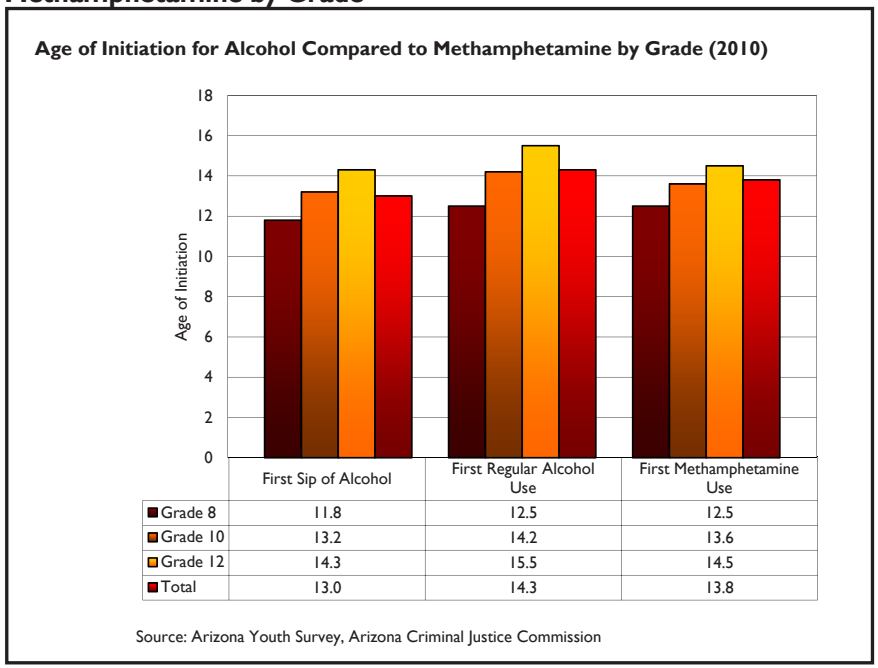
From 2004-2010, underage drinking decreased in Arizona from 36.6 percent of 8th, 10th and 12th grade youth to 31.9 percent (Arizona Criminal Justice Commission, 2008; 2010). While this downward trend is very encouraging, the news is not all positive. According to Figure 4, a higher percentage of Arizona youth at all grade levels reported past 30-day alcohol use than did their peers across the nation (Monitoring the Future, 2010). In 2010, the greatest discrepancy between Arizona youth and the nation existed among 8th grade students; 7.0 percent more students in Arizona indicated using alcohol in the past 30 days compared to the nation. Arizona must continue to reduce these rates and to accelerate the general downward trend.

Youth Alcohol Use: Age of Initiation

Figure 5 illustrates age of initiation by grade level for alcohol and methamphetamineaccording to the 2010 AYS (of those who reported using alcohol and/or methamphetamine). The average age for experimenting with alcohol (i.e., first sip) was 13, while the average age of first regular alcohol use was approximately 14.

Of youth who reported using methamphetamine, the average age across all grades was less than 14, lower than for regular alcohol use. However, it is important to remember that methamphetamine use occurs at a much lower frequency than alcohol use.

Figure 5: Age of Youth Initiation for Alcohol Compared to Methamphetamine by Grade

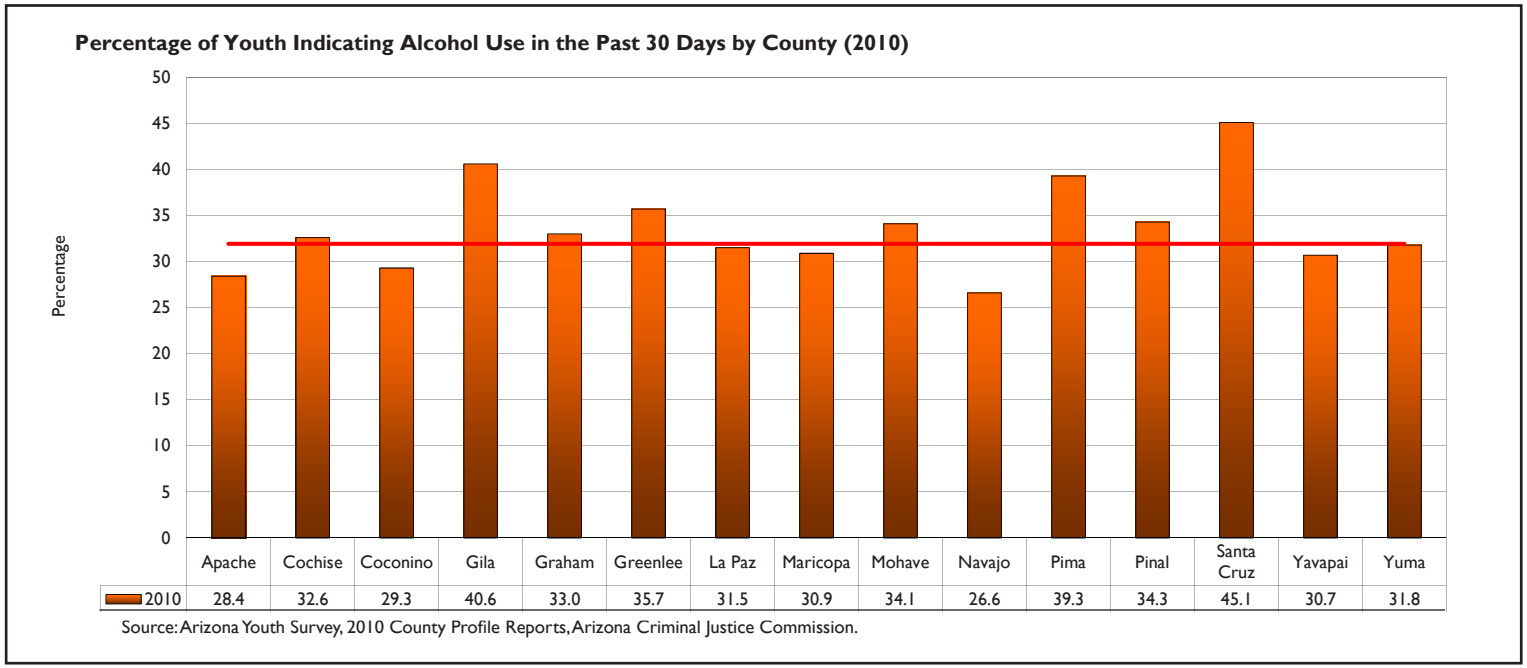


Source: Arizona Youth Survey, Arizona Criminal Justice Commission

Youth Alcohol Use by County

There are clear differences in reported 30-day alcohol use by county of residence as seen in Figure 6. (Note: The red line in the figure below indicates the state average.) These data speak to the need to utilize data at the lowest geographic level whenever possible to determine differing community needs. For information on how to access community-level data, please refer to the Data Gaps section in this report, which provides information on the Community Data Project's interactive data website hosted by the Arizona Criminal Justice Commission's Statistical Analysis Center. The Community Data Project website can be found at http://www.bach-harrison.com/arizonadataproject.

Figure 6: Past 30-Day Youth Alcohol Use by County



	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz	Maricopa	Mohave	Navajo	Pima	Pinal	Santa Cruz	Yavapai	Yuma
2010	28.4	32.6	29.3	40.6	33.0	35.7	31.5	30.9	34.1	26.6	39.3	34.3	45.1	30.7	31.8

Source: Arizona Youth Survey, 2010 County Profile Reports, Arizona Criminal Justice Commission.

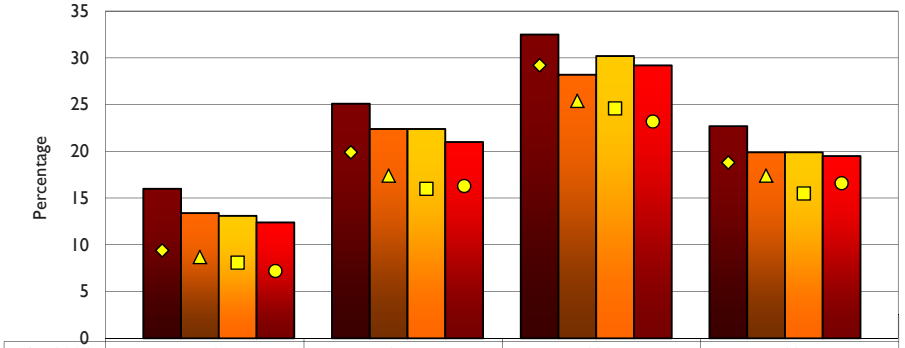
Youth Binge Drinking by Grade Level

While there are serious harms associated with any alcohol use by youth, the consequences associated with underage drinking may be exacerbated with heavy alcohol use. Binge drinking, defined as the consumption of five or more drinks in one sitting on at least one day with the past two weeks preceding the survey, may be associated with a greater likelihood of negative consequences such as injury, unwanted sexual activity, etc. Binge drinking may also be a better marker for alcohol abuse or dependence in youth or later in adulthood than 30-day alcohol use. Figures 7, 8 and 9 illustrate the percentage of Arizona youth who reported engaging in this risk-taking behavior.

Overall, almost 1-in-5 Arizona 8th, 10th and 12th graders reported binge drinking in all years in which the survey was administered (see Figure 7). The percentage of high school seniors (approximately 3-in-10) who reported drinking heavily between 2004 and 2010 is especially troubling. Moreover, a higher percentage of Arizona youth at all grade levels reported heavy drinking compared to students across the nation. Notably, however, similar to past 30-day alcohol use, past two-week binge drinking by Arizona youth has declined for all grades since 2004.

Figure 7: Past 2-Week Binge Drinking by Grade

Percentage of Youth Indicating Binge Drinking in the Past Two Weeks by Grade, AZ vs. U.S. (2004-2010)



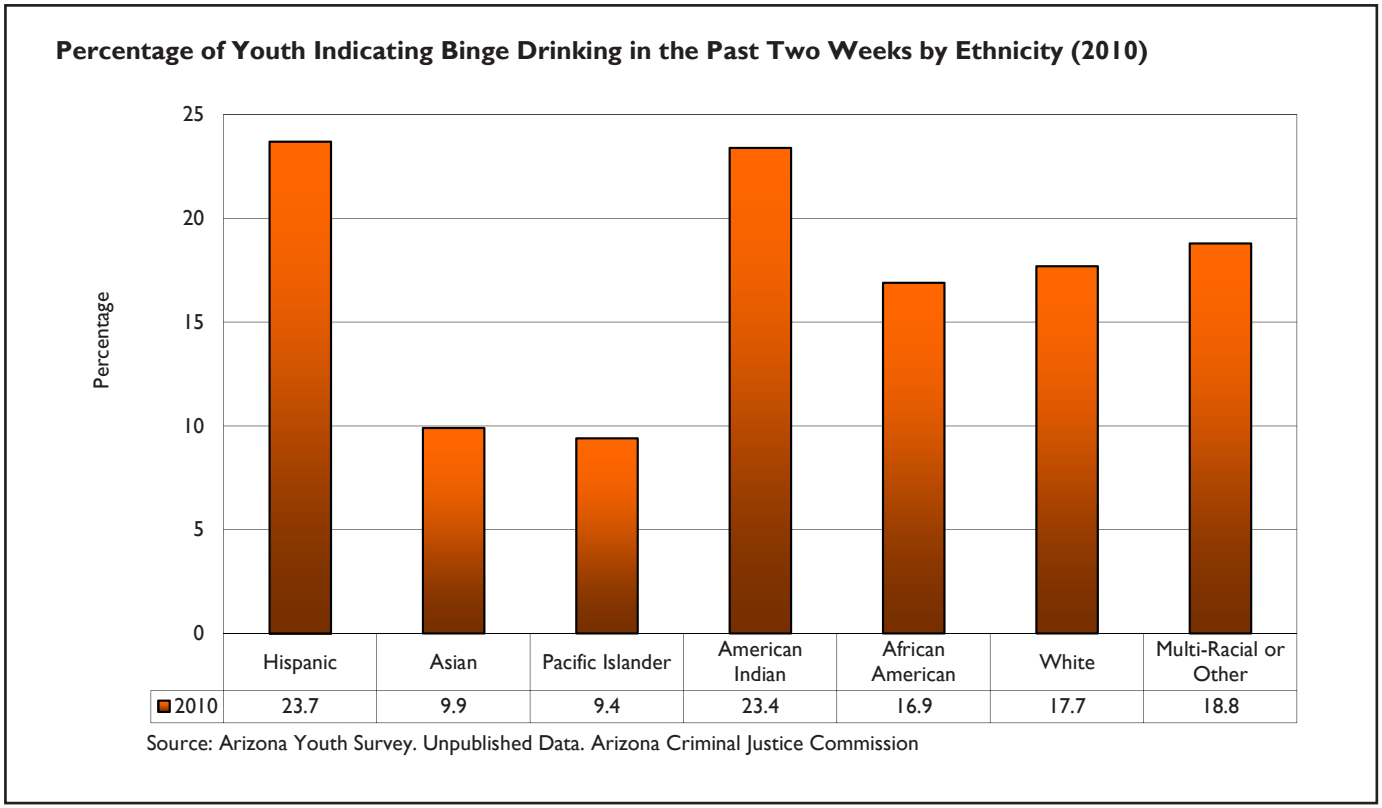
AZ 2004	16.0	25.1	32.5	22.7
AZ 2006	13.4	22.4	28.2	19.9
AZ 2008	13.1	22.4	30.2	19.9
AZ 2010	12.4	21.0	29.2	19.5
MTF 2004	9.4	19.9	29.2	18.8
MTF 2006	8.7	19.9	25.4	17.4
MTF 2008	8.1	16.0	24.6	15.5
MTF 2010	7.2	16.3	23.2	16.6

Source: Arizona Youth Survey, Arizona Criminal Justice Commission; Monitoring the Future, National Institute on Drug Abuse

Youth Binge Drinking by Ethnicity/Race

Differences in binge drinking are noted by race/ethnicity. Figure 8 indicates that Hispanic and American Indian youth (23.7% and 23.4%, respectively) were the most likely to report binge-drinking behavior, while Pacific Islander and Asian students appeared to be the least likely to do so (9.4% and 9.9%, respectively). African American and White youth were almost equally as likely, on average, to report drinking heavily (17.7% and 16.9%, respectively).

Figure 8: Past 2-Week Binge Drinking by Ethnicity/Race

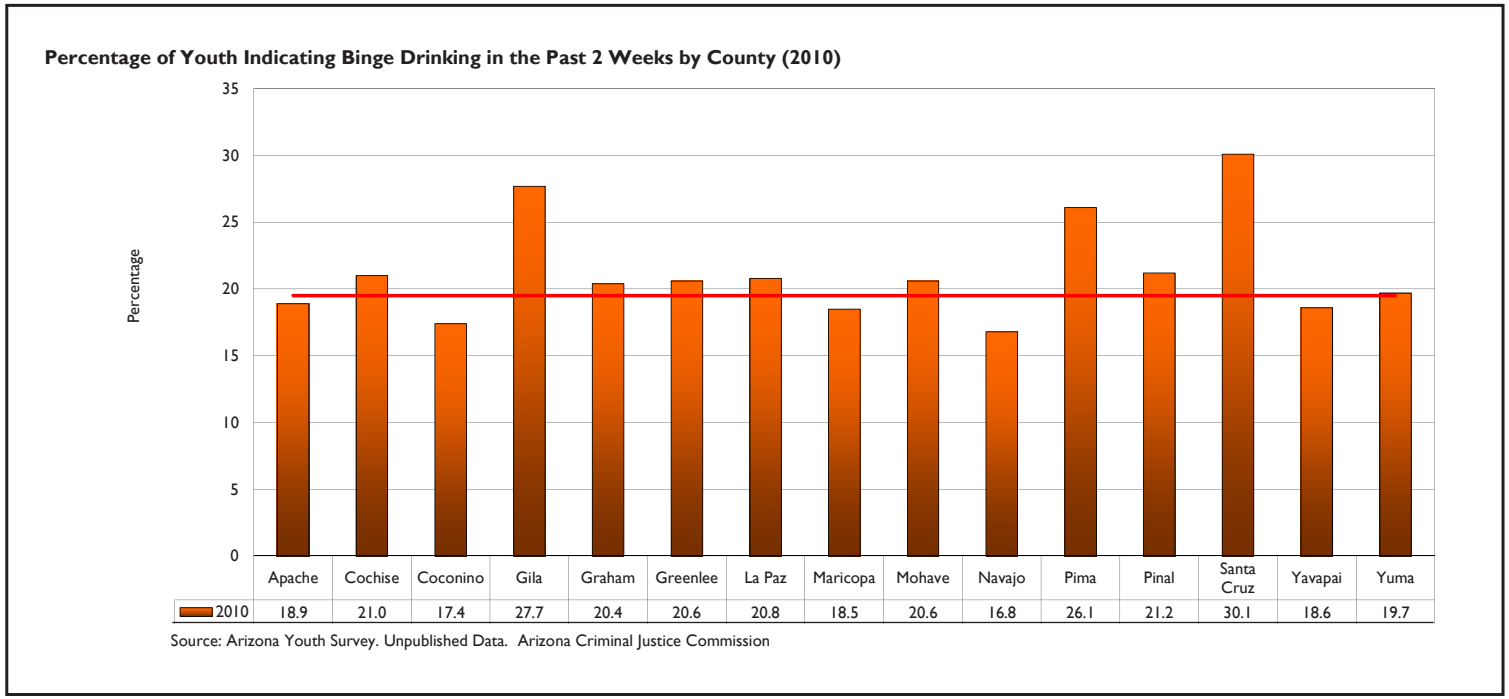


Source: Arizona Youth Survey. Unpublished Data. Arizona Criminal Justice Commission

Youth Binge Drinking by County

Figure 9 indicates differences in youth binge drinking by county. (Note: The red line in the figure below indicates the state average.) Lower percentages of youth appear to be binging in some counties (six counties had binge drinking rates of less than 20%), while 25-30 percent of youth indicated binge drinking in other counties.

Figure 9: Youth Past Two-Week Binge Drinking by County

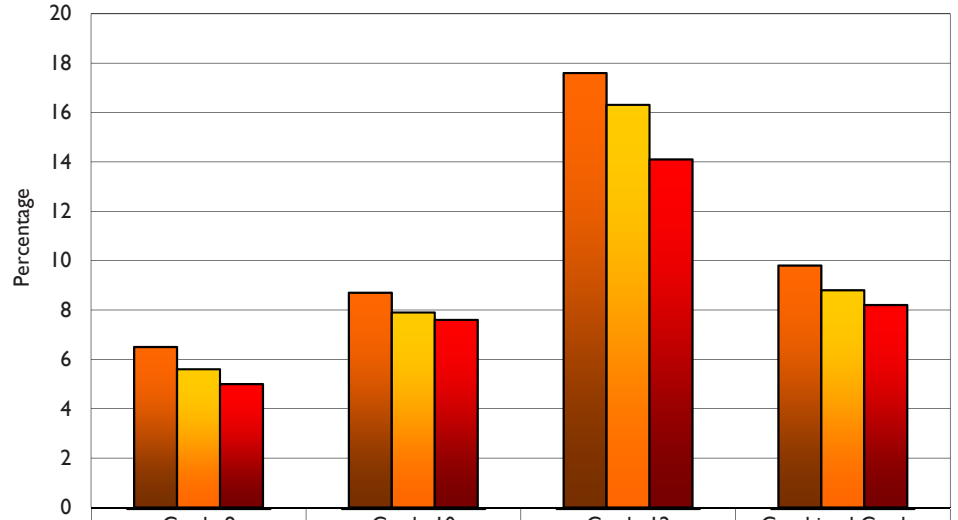


Youth Driving Under the Influence by Grade Level

Driving after drinking is a dangerous activity that is detrimental to Arizona and its communities. The high percentage of youth who report such behavior should be a cause for concern and immediate action. According to the 2010 Arizona Youth Survey, five percent of 8th graders indicated that they had driven after drinking. (Note: the Arizona Youth Survey asks whether students have driven after they have been drinking, not whether they have driven when they were drunk.) This is especially troubling since the vast majority of them are not even yet licensed to drive (see Figure 10). Nearly eight percent of those in 10th grade and over 14 percent of high school seniors reported such behavior. Fortunately, the rates for all grades have been declining since 2006. Overall, 8.2 percent of youth reported driving after drinking alcohol in 2010, compared to 9.8 percent in 2006 (Arizona Criminal Justice Commission, 2010c). Driving under the influence appears to be a risk-taking behavior boys engage in more than girls; 9.0 percent of 8th, 10th and 12th grade male youth and 7.4 percent of their female counterparts indicated that they had driven after drinking (Arizona Criminal Justice Commission, 2010c).

Figure 10:Youth Past 30-Day Drinking and Driving by Grade

Percentage of Students Indicating Drinking and Driving in the Past 30 Days by Grade, AZ (2006-2010)



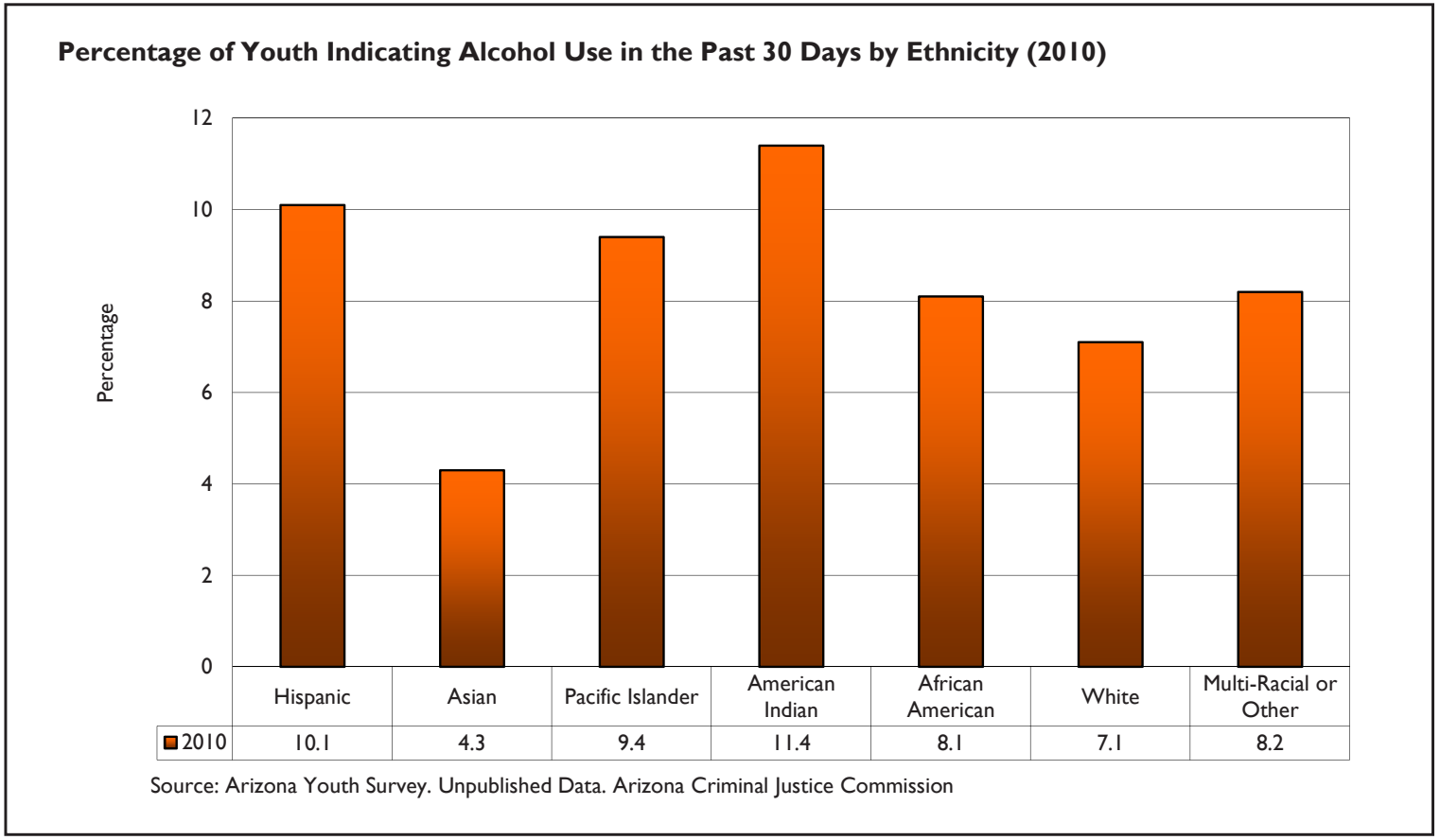
	Grade 8	Grade 10	Grade 12	Combined Grades
AZ 2006	6.5	8.7	17.6	9.8
AZ 2008	5.6	7.9	16.3	8.8
AZ 2010	5.0	7.6	14.1	8.2

Source: Arizona Youth Survey, Arizona Criminal Justice Commission

Youth Driving Under the Influence by Ethnicity/Race

Examining the percentages of youth who drove after drinking by race/ethnicity reveals that higher percentages of Hispanic, American Indian and Pacific Islander youth reported this behavior (see Figure 11). Higher percentages of youth in these same racial/ethnic groups (with the exception of Pacific Islander youth) also reported binge drinking, indicating that, rather than being prone to just one type of risky behavior, these youth may be engaging in a number of such activities, putting them at even great risk of harm.

Figure 11:Youth Past 30-Day Drinking and Driving by Ethnicity/Race



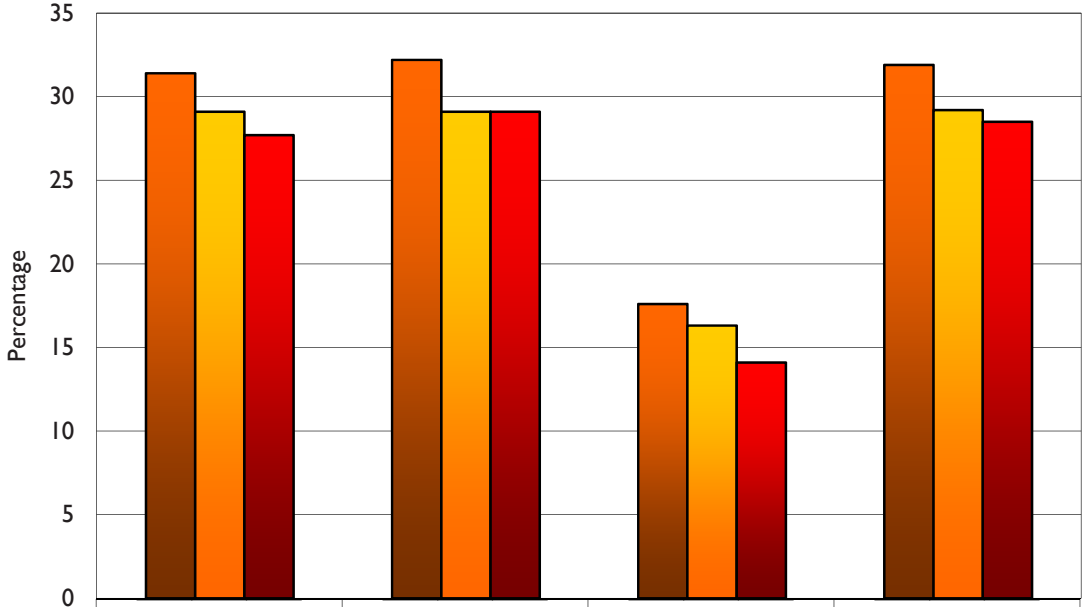
Source: Arizona Youth Survey. Unpublished Data. Arizona Criminal Justice Commission

Youth Riding with a Driver Who Had Been Drinking by Grade Level

Also noteworthy is the high percentage of youth who reported riding with someone who had been drinking (Figure 12). Approximately 30 percent of 8th and 10th graders in Arizona reported being in this precarious situation in 2010 within the 30 days preceding the survey. The percentage of 12th graders (14.0% in 2010) has been consistently lower over time than 8th and 10th grade youth (27.7% and 29.1%, respectively). The relationship of the student to the impaired driver is not known. Therefore, these youth may have been in the car with parents, other relatives, or with friends (Arizona Criminal Justice Commission, 2010b). A higher percentage of females responded that they had ridden in the car with a driver who had been drinking (30.6% vs. 26.3%) (Arizona Criminal Justice Commission, 2010c).

Figure 12: Riding with a Driver who has been Drinking by Grade

Percentage of Youth Indicating Riding with a Driver Who Has Been Drinking by Grade, AZ (2006-2010)



	Grade 8	Grade 10	Grade 12	Combined Grades
AZ 2006	31.4	32.2	17.6	31.9
AZ 2008	29.1	29.1	16.3	29.2
AZ 2010	27.7	29.1	14.1	28.5

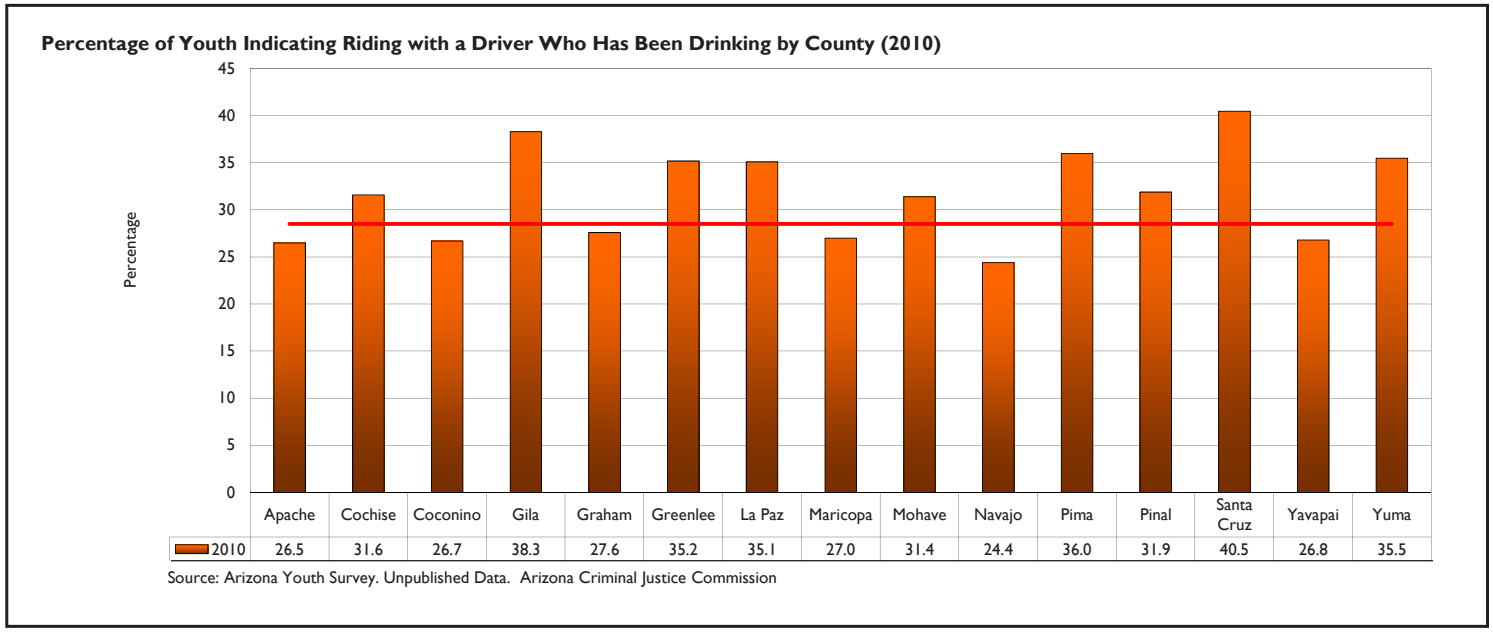
Source: Arizona Youth Survey, Arizona Criminal Justice Commission

Youth Riding with a Driver Who Had Been Drinking by County

In comparison, the 2006 AYS data reveal that almost 1-in-3 (31.9%) Arizona 8th, 10th and 12th grade students reported riding with someone who had been drinking alcohol. Thus, while the percentage of youth riding with someone who has been drinking was high in 2010, a reduction since 2006 is a cause for celebration and continued monitoring for future improvements.

Examining data by students' county of residence (Figure 13) reveals that nine of the state's 15 counties exceeded the statewide average of 28.5 percent of youth who had ridden with a driver who had been drinking. In some areas of the State, approximately 4-in-10 youth reported having been in this dangerous situation, indicating an urgent need to address this problem. (Note: The red line in the figure below indicates the state average.)

Figure 13:Youth Past 30-Day Riding with a Driver who has been Drinking, by County



Source: Arizona Youth Survey. Unpublished Data. Arizona Criminal Justice Commission

Youth and Adult DUI Arrests

Driving under the influence (DUI) has profound effects on the legal system and the productivity of Arizonans. Examining and monitoring trend data longitudinally on the consequences resulting from drinking and driving is important for determining prevention, intervention and treatment programming needs. For example, the number of adult DUI arrests recorded by the Arizona Department of Public Safety (DPS) decreased until 2005 but climbed in 2006 and 2007 (see Table 1); remained relatively consistent between 2007 and 2009 (at approximately 39,000 arrests); and declined in 2010 (to approximately 37,500 arrests). Juvenile arrests for DUI also declined until 2005 but increased in 2006. However, unlike adult DUI arrests, juvenile arrests began to fall again in 2008, and reached their lowest point in 2010 (Arizona Department of Public Safety, Crime in Arizona, 2002-2010). It is important to remember that the number of arrests may reflect the extent to which driving under the influence is occurring, but is also a function of DUI enforcement efforts.

Table 1: Number of Youth and Adult DUI Arrests, Arizona (2002-2010)

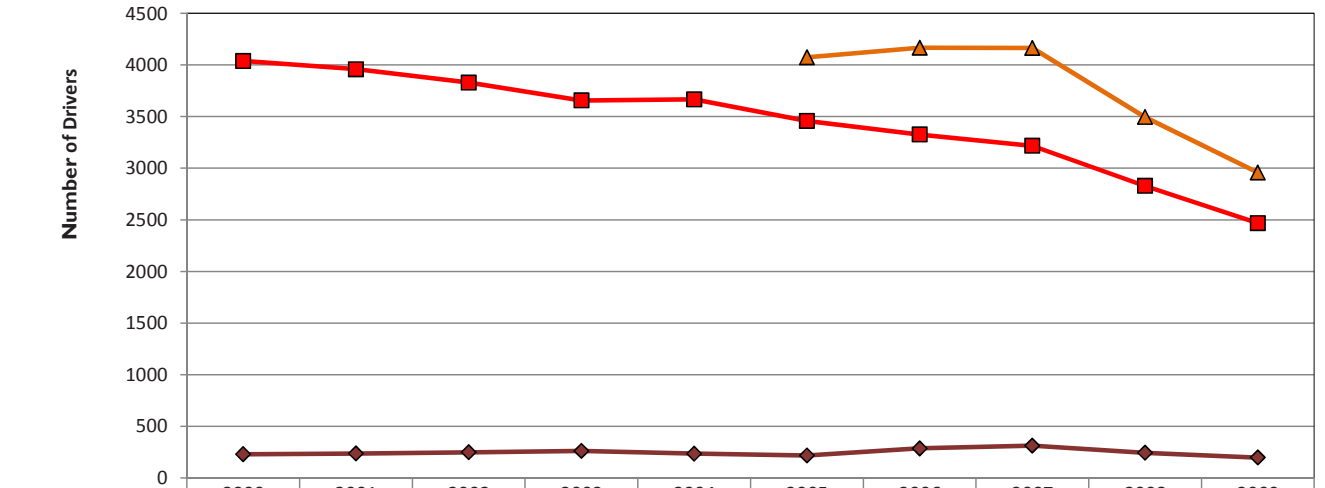
	2002	2003	2004	2005	2006	2007	2008	2009	2010
Juvenile DUI Arrests	605	612	595	516	604	600	567	499	453
Adult DUI Arrests	41,146	38,924	37,802	34,859	35,273	38,709	39,424	39,322	37,528
Total	41,751	39,536	38,397	35,375	35,877	39,309	39,991	39,821	37,981

Source: Crime in Arizona, Arizona Department of Public Safety

Alcohol-Related Crashes

In addition to the costs resulting from arrests and sentencing, Arizona bears a great burden due to DUI-related loss of life, pain and suffering, property damage, and medical costs. According to the Arizona Department of Transportation (ADOT), in 2009 (the most recent year for which data were available), the state suffered an economic loss of almost $485 Million ($484,582,824) due to fatalities, incapacitating and non-incapacitating injuries, possible injuries and property damage as a result of DUI (Arizona Department of Transportation, 2009). However, as seen in Figure 14, the number of drivers involved in alcohol-related crashes resulting in injury has decreased steadily over a period of ten years. Similarly, the number of drivers involved in alcohol-related crashes causing property damage (PDO) decreased sharply since 2007. Both of these findings should be celebrated, and efforts to further this trend should continue.

Figure 14: Drivers Involved in Alcohol-Related Crashes



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Fatal Crashes	230	236	248	261	235	217	286	312	244	197
Injury Crashes	4,038	3,959	3,830	3,656	3,667	3,458	3,326	3,217	2,828	2,468
PDO	n/a	n/a	n/a	n/a	n/a	4,075	4,166	4,165	3,496	2,957

Source: Arizona Motor Vehicle Crash Facts, Arizona Department of Transportation

Alcohol-Related Crashes by Age

According to Table 2, of alcohol-related motor vehicle crashes resulting in fatalities, injuries, and property damage between 2007 and 2009, drivers between the ages of 25 and 34 were most often behind the wheel. However, if the age categories inclusive of drivers younger than 20 and 21 to 24 are combined, drivers younger than 25 had roughly the same number of fatal alcohol-related accidents as those between the ages of 25 and 34, indicating that both youth and young adults are engaging in a behavior that leads to death, and drivers younger than 25 had more alcohol-related accidents that resulted in injuries and property damage than did those between the ages of 25 and 34.

Table 2: Number of Drivers Involved in Alcohol-Related Crashes by Age, Arizona (2007-2009)

Age Group	Fatal Crashes			Injury Crashes			PDO		
	2007	2008	2009	2007	2008	2009	2007	2008	2009
< 15-20 Years	41	35	15	417	317	264	516	422	350
21-24 Years	64	54	36	602	492	453	816	595	534
25-34 Years	79	65	52	909	789	681	1,184	979	837
35-44 Years	69	34	44	598	547	441	724	613	500
45-54 Years	33	34	30	395	410	370	504	480	407
55-64 Years	15	10	9	164	155	169	214	215	206
65-74 Years	5	3	6	57	57	42	57	55	49
75 and older	5	3	0	19	25	18	22	18	17
Not Stated	1	6	5	59	36	30	128	119	57
Total	312	244	197	3,220	2,828	2,468	4,165	3,496	2,957

Source: Arizona Motor Vehicle Crash Facts, Arizona Department of Transportation
Note. PDO refers to crashes involving property damage.

Alcohol-Related Mental Health Disorders

Data from the Arizona Department of Health Services (ADHS) are available regarding the prevalence of alcohol-related mental health disorders resulting in emergency department (ED) visits and hospital inpatient discharges. This section discusses the data related to Alcohol Psychoses and alcohol dependence syndrome. Diagnostic groupings are based on the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM). The ICD-9-CM diagnostic categories used to identify specific mental disorders are available online at http://www.azdhs.gov/plan/hip/for/mental/2007/mental107.xls. Data in this report are presented by gender, age group, race/ethnicity and geographic region (i.e., county) for the aforementioned alcohol-related conditions. For a more complete report examining a variety of mental health outcomes, the reader is referred to the *2011 Arizona Behavioral Health Epidemiology Profile*.

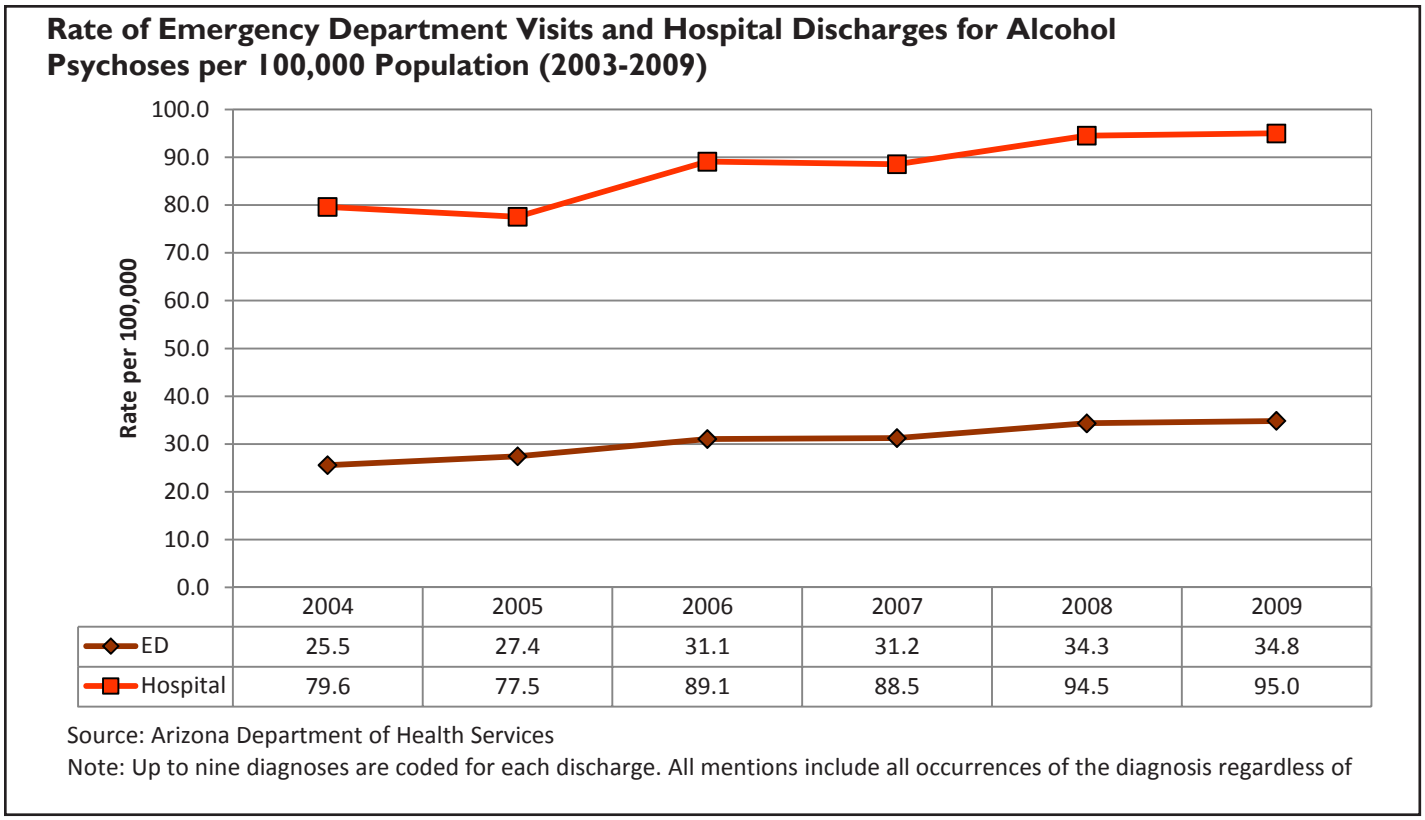
According to the Arizona Department of Health Services, Bureau of Public Health Statistics (Mrela & Torres, 2010), an inpatient discharge refers to a patient leaving a hospital after being admitted. Inpatient discharges refer to the number of events as the unit of analysis, rather than the individual patient. Thus, a patient who has been hospitalized more than once in a calendar year will be counted each time s/he is discharged. Emergency Department (ED) and inpatient hospitalization discharge data are mutually exclusive. Thus, ED data include only those individuals who were not admitted to the hospital.

Data reported by the Arizona Department of Health Services (ADHS) include first-listed diagnoses, which is the same as the number of discharges given that there is one first-listed diagnosis per discharge. All-listed diagnoses reported by ADHS include first-listed diagnoses as well as secondary diagnoses (with up to nine total diagnoses recorded per discharge). Tabulations of hospital inpatient data by first-listed diagnosis and all-listed diagnoses utilize the diagnostic categories available at http://www.azdhs.gov/plan/hip/cat/icd9primary.xls and http://www.azdhs.gov/plan/hip/cat/icd9procedure.xls, respectively.

Alcohol Psychoses

In 2009, there were 6,266 hospital inpatient discharges and 2,296 ED visits in Arizona for alcohol-related psychoses (Arizona Department of Health Services, 2009). Data presented in Figure 15 indicate that the rate of both hospital inpatient discharges for alcohol-related psychoses and ED visits increased since 2003 at a similar pace, though ED visits were less common.

Figure 15: State-Level Trends in Alcohol Psychoses



	2004	2005	2006	2007	2008	2009
ED	25.5	27.4	31.1	31.2	34.3	34.8
Hospital	79.6	77.5	89.1	88.5	94.5	95.0

Source: Arizona Department of Health Services

Note: Up to nine diagnoses are coded for each discharge. All mentions include all occurrences of the diagnosis regardless of

Alcohol Psychoses by Demographics

A closer look at the hospital discharge data (Table 3) indicate that males are substantially more likely than females to have presented at the hospital with alcohol-related psychoses. Rates for both genders increased slightly between 2007 and 2009.

The rates of hospital visits for alcohol-related psychoses have been fairly consistent across age group between 2007 and 2009. Patterns generally indicate a slight increase from year to year. Rates of hospital inpatient visits increase until ages 45 - 64 and then drop slightly among the elderly. Inpatient services for alcohol-related psychoses among children under 15 and adolescents are rare and did not exceed a rate of 4.0 per 100,000 for any year between 2007 and 2009.

The rate of hospital inpatient services was greatest among American Indian or Alaskan Natives followed by White, non-Hispanic individuals, Black or African Americans, and Hispanic or Latinos. Asian or Pacific Islanders sought inpatient services at the lowest rate across all years.

Table 3: Number (N) and Rate of Hospital Discharges with Alcohol Psychoses per 100,000 Population by Year and Demographic

Category	2007		2008		2009	
	N	Rate	N	Rate	N	Rate
Gender						
Female	1,340	41.8	1,504	46.1	1,548	47.0
Male	4,354	135.1	4,674	142.8	4,718	142.9
Unknown	0	*	0	*	0	*
Age Group						
Children <15	0	0.0	0	0.0	1	0.1
Adolescents 15-19	10	2.2	14	3.1	18	3.9
Young Adults 20-44	1,898	84.1	2,013	87.5	1,966	84.4
Middle Aged Adults 45-64	2,931	198.0	3,218	214.0	3,301	217.5
Elderly 65+	855	102.3	933	109.8	980	114.3
Unknown	0	*	0	*	0	*
Ethnicity/Race						
White non-Hispanic	4,125	106.5	4,584	116.4	4,679	117.6
Hispanic or Latino	686	38.1	710	38.9	704	38.4
Black or African American	162	63.9	172	66.8	136	52.2
American Indian or Alaskan Native	608	180.0	606	177.0	640	184.9
Asian or Pacific Islander	27	15.9	20	11.6	45	25.9
Other	47	*	1	*	0	*
Refused	39	*	85	*	62	*
State (Total)	5,694	88.5	6,178	94.5	6,266	95.0

Source: Arizona Department of Health Services

* Rate cannot be calculated because no population estimate is available for the level.

Alcohol Psychoses by County

Table 4 presents inpatient hospital discharges for alcohol-related psychoses by county for 2007 – 2009. In some cases, rates decreased slightly from 2007 to 2009 (see, for example, Yuma County), but it was more common for inpatient hospital visits related to alcohol-related psychoses to slightly increase over time.

Table 4: Number (N) and Rate of Hospital Discharges with Alcohol Psychoses per 100,000 Population by Year and County

County	2007		2008		2009	
	N	Rate	N	Rate	N	Rate
Apache	85	112.4	71	93.2	92	120.0
Cochise	76	55.2	80	57.4	97	68.4
Coconino	132	97.7	123	90.7	141	101.8
Gila	98	175.7	115	200.5	102	171.8
Graham	51	140.6	64	165.7	86	216.1
Greenlee	12	145.3	11	122.9	4	46.0
La Paz	20	91.8	23	106.8	18	82.7
Maricopa	2,875	74.1	3,343	85.2	3,437	86.7
Mohave	233	115.5	236	115.2	277	135.5
Navajo	174	150.9	158	137.7	156	135.2
Pima	1,343	133.8	1,345	132.7	1,282	125.9
Pinal	186	63.4	211	65.4	229	69.9
Santa Cruz	13	27.9	21	44.4	25	52.6
Yavapai	246	111.7	263	116.7	227	99.8
Yuma	106	52.6	109	53.5	90	44.0
Unknown	44	*	5	*	3	*
State (Total)	5,694	88.5	6,178	94.5	6,266	95.0

Source: Arizona Department of Health Services

* Rate cannot be calculated because no population estimate is available for the level.

ED Visits for Alcohol Psychoses by Demographics

Consistent with hospital discharge data, data from Arizona EDs (Table 5) indicate that males presented with signs of alcohol-related psychoses at a substantially greater rate than females. Rates for both genders increased slightly from 2007 to 2009.

Rates of ED visits for alcohol-related psychoses increased until ages 45 – 64 and then decreased among the elderly. This pattern is similar to hospital inpatient visits, though a more notable decline occured among the elderly for ED visits. Emergency Department services for alcohol-related psychoses among children under 15 and adolescents were rare and did not exceed a rate of 3.5 per 100,000 for any year between 2007 and 2009. For all age groups (with the exception of children under 15), there was an increase in the rate of ED visits from 2007 to 2009.

Table 5: Number (N) and Rate of Emergency Department Visits for Alcohol Psychoses per 100,000 Population by Year and Demographic

Category	2007		2008		2009	
	N	Rate	N	Rate	N	Rate
Gender						
Female	455	14.2	537	16.5	527	16.0
Male	1,555	48.2	1,707	52.2	1,769	53.6
Unknown	0	*	0	*	0	*
Age Group						
Children <15	0	0.0	1	0.1	0	0.0
Adolescents 15-19	9	2.0	11	2.4	16	3.5
Young Adults 20-44	1,098	48.6	1,215	52.8	1,206	51.8
Middle Aged Adults 45-64	846	57.1	948	63.0	1,004	66.1
Elderly 65+	57	6.8	69	8.1	70	8.2
Unknown	0	*	0	*	0	*
State (Total)	2,010	31.2	2,244	34.3	2,296	34.8

Source: Arizona Department of Health Services

* Rate cannot be calculated because no population estimate is available for the level.

ED Visits for Alcohol Psychoses by County

Though some county ED rates decreased for alcohol psychoses from 2007 to 2009 (see, for example, Apache County), the majority of counties showed increased rates (see Table 6). Overall, the number and rate of ED visits for this disorder across the State have increased overtime.

Table 6: Number (N) and Rate of Emergency Department Visits for Alcohol Psychoses per 100,000 Population by Year and County

County	2007		2008		2009	
	N	Rate	N	Rate	N	Rate
Apache	50	66.1	34	44.6	35	45.7
Cochise	43	31.2	32	22.9	47	33.1
Coconino	198	146.6	229	168.9	224	161.7
Gila	29	52.0	26	45.3	37	62.3
Graham	10	27.6	14	36.2	14	35.2
Greenlee	3	36.3	4	44.7	2	23.0
La Paz	7	32.1	9	41.8	10	45.9
Maricopa	803	20.7	945	24.1	906	22.9
Mohave	52	25.8	77	37.6	97	47.4
Navajo	82	71.1	99	86.3	114	98.8
Pima	481	47.9	501	49.4	566	55.6
Pinal	52	17.7	69	21.4	70	21.4
Santa Cruz	7	15.0	20	42.3	19	40.0
Yavapai	147	66.8	149	66.1	118	51.9
Yuma	35	17.4	35	17.2	37	18.1
Unknown	11	*	1	*	0	*
State (Total)	2,010	31.2	2,244	34.3	2,296	34.8

Source: Arizona Department of Health Services

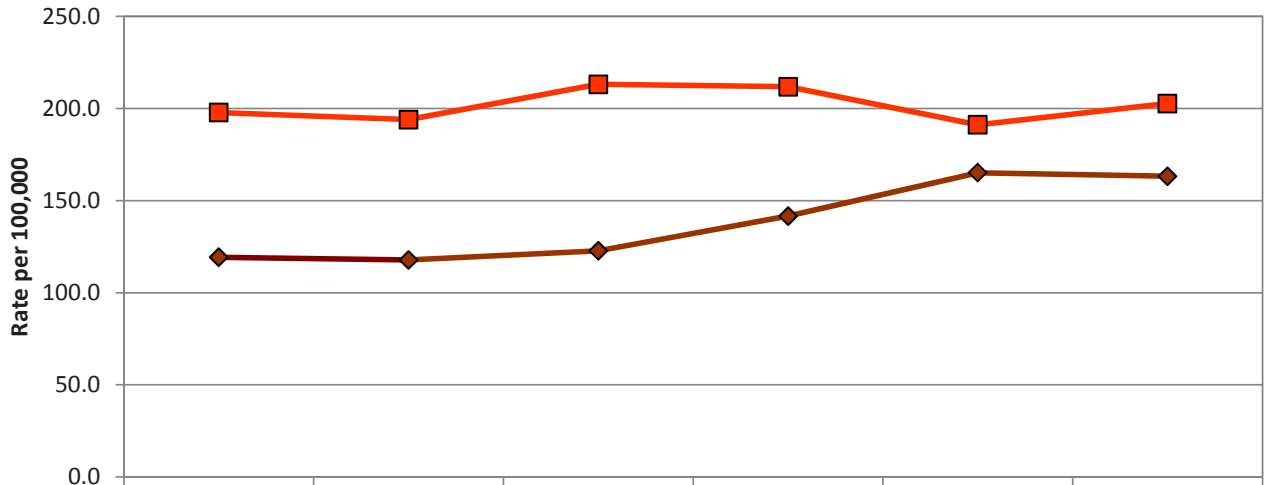
* Rate cannot be calculated because no population estimate is available for the level.

Alcohol Dependence Syndrome Neuroses

In 2009, there were 13,367 hospital inpatient discharges and 10,764 ED visits in Arizona for alcohol dependence syndrome-related neuroses (Arizona Department of Health Services, 2009). Data presented in Figure 16 indicate that the rate of hospital discharges has been relatively stable since 2003. In contrast, the rate of ED visits has steadily increased. The rate of inpatient discharges was consistently higher than the rate of ED visits over the time period.

Figure 16: State-Level Trends in Alcohol Dependence Neuroses

Rate of Emergency Department Visits and Hospital Discharges for Alcohol Dependence Syndrome Neuroses per 100,000 Population (2003-2009)



	2004	2005	2006	2007	2008	2009
ED	119.2	117.7	122.7	141.6	165.1	163.2
Hospital	197.8	193.9	213.1	211.8	191.1	202.7

Source: Arizona Department of Health Services

Note: Up to nine diagnoses are coded for each discharge. All mentions include all occurrences of the diagnosis regardless of the order on the medical record.

Alcohol Dependence Syndrome Neuroses by Demographics

A closer look at the data regarding discharges from inpatient hospital visits, seen in Table 7, indicates that rates for males are substantially higher than the rates for females. The rates for both genders were fairly consistent since 2007 with the rate for males slightly decreasing in 2008.

Inpatient stays related to alcohol dependence syndrome have been consistent for all age groups. Middle-aged adults, followed by the elderly and young adults were the most likely to visit a hospital in connection with alcohol dependence syndrome between 2007 and 2009. Children and adolescents were the least likely to require inpatient care related to alcohol dependence syndrome-related neuroses.

The rate of hospital inpatient services related to alcohol dependence syndrome was greatest among American Indian or Alaskan Natives, followed by White or non-Hispanic individuals and Black or African American individuals (exceeding 500, 200, and 100 per 100,000 population, respectively). The rates for all racial/ethnic groups have been fairly consistent from 2007 to 2009.

Table 7: Number (N) and Rate of Hospital Discharges with Alcohol Dependence Syndrome Neuroses per 100,000 Population by Year and Demographic

Category	2007		2008		2009	
	N	Rate	N	Rate	N	Rate
Gender						
Female	3,616	112.7	3,522	108.0	3,752	113.9
Male	10,007	310.5	8,966	273.9	9,615	291.2
Unknown	0	*	0	*	0	*
Age Group						
Children <15	1	0.1	3	0.2	3	0.2
Adolescents 15-19	47	10.6	58	12.8	60	13.2
Young Adults 20-44	4,409	195.2	4,208	183.0	4,518	193.9
Middle Aged Adults 45-64	7,081	478.3	6,490	431.6	6,965	458.9
Elderly 65+	2,085	249.5	1,729	203.5	1,821	212.4
Unknown	0	*	0	*	0	*
Ethnicity/Race						
White non-Hispanic	9,102	235.0	8,405	213.4	8,862	222.7
Hispanic or Latino	2,062	114.7	1,863	102.2	2,029	110.6
Black or African American	401	158.2	383	148.8	411	157.8
American Indian or Alaskan Native	1,750	518.1	1,622	473.8	1,812	523.6
Asian or Pacific Islander	77	45.4	46	26.7	108	62.1
Other	114	*	2	*	0	*
Refused	117	*	167	*	145	*
State (Total)	13,623	211.8	12,488	191.1	13,367	202.7

Source: Arizona Department of Health Services
* Rate cannot be calculated because no population estimate is available for the level.

Alcohol Dependence Syndrome Neuroses by County

Table 8 presents hospital discharges by county from 2007-2009. Though some county rates decreased for alcohol dependence syndrome from 2007 to 2009 (see, for example, Pima County), the majority of counties showed increased rates. Overall, the number and rate of hospital discharges for this disorder across the State have increased.

Table 8: Number (N) and Rate of Hospital Discharges with Alcohol Dependence Syndrome Neuroses per 100,000 Population by Year and County

County	2007		2008		2009	
	N	Rate	N	Rate	N	Rate
Apache	185	244.7	132	173.3	219	285.6
Cochise	236	171.4	217	155.6	218	153.7
Coconino	340	251.7	292	215.3	332	239.7
Gila	185	331.7	168	292.9	233	392.5
Graham	112	308.8	209	541.0	201	505.1
Greenlee	22	266.4	19	212.3	12	138.1
La Paz	42	192.8	35	162.5	46	211.3
Maricopa	6,137	158.2	5,966	152.0	6,379	160.9
Mohave	770	381.8	626	305.5	692	338.4
Navajo	361	313.0	292	254.4	347	300.6
Pima	3,541	352.7	3,048	300.7	3,168	311.2
Pinal	726	247.5	707	219.1	703	214.5
Santa Cruz	71	152.5	58	122.6	68	143.2
Yavapai	504	228.9	465	206.4	445	195.6
Yuma	277	137.5	245	120.2	293	143.3
Unknown	114	*	9	*	11	*
State (Total)	13,623	211.8	12,488	191.1	13,367	202.7

Source: Arizona Department of Health Services

* Rate cannot be calculated because no population estimate is available for the level.

ED Visits for Alcohol Dependence Syndrome Neuroses by Demographics

Emergency department visits for alcohol dependence syndrome-related neuroses (Table 9) indicate that males receive emergency care for alcohol dependence syndrome at nearly triple the rate of females. The rates for both males and females have increased since 2007.

Emergency department data also show that middle-aged adults, followed by young adults and adolescents had the highest rates in connection with alcohol dependence syndrome between 2007 and 2009. Rates for middle-aged adults and young adults have increased slightly since 2007. Children, adolescents and the elderly were the least likely to seek or require emergency care in connection with alcohol dependence syndrome-related neuroses. Rates for children, adolescents and the elderly have been relatively stable since 2007.

Table 9: Number (N) and Rate of Emergency Department Visits for Alcohol Dependence Syndrome Neuroses per 100,000 Population by Year and Demographic

Category	2007		2008		2009	
	N	Rate	N	Rate	N	Rate
Gender						
Female	2,228	69.4	2,746	84.2	2,832	86.0
Male	6,879	213.4	8,043	245.7	7,932	240.2
Unknown	0	*	0	*	0	*
Age Group						
Children <15	15	1.1	19	1.3	19	1.3
Adolescents 15-19	165	37.1	219	48.5	155	34.0
Young Adults 20-44	4,350	192.6	5,029	218.6	4,995	214.4
Middle Aged Adults 45-64	4,163	281.2	5,016	333.5	5,089	335.3
Elderly 65+	414	49.5	505	59.4	505	58.9
Unknown	0	*	1	*	1	*
State (Total)	9,107	141.6	10,789	165.1	10,764	163.2

Source: Arizona Department of Health Services

* Rate cannot be calculated because no population estimate is available for the level.

ED Visits for Alcohol Dependence Syndrome Neuroses by County

Data regarding ED visits for alcohol dependence syndrome by county (see Table 10) indicate that, though some county rates decreased from 2007 to 2009 (see, for example, Greenlee County), the vast majority of counties showed increased rates. Overall, the number and rate of ED visits for this disorder across the State increased since 2007.

Table 10: Number (N) and Rate of Emergency Department Visits for Alcohol Dependence Syndrome Neuroses per 100,000 Population by Year and County

County	2007		2008		2009	
	N	Rate	N	Rate	N	Rate
Apache	193	255.3	237	311.2	198	258.3
Cochise	288	209.1	186	133.4	162	114.2
Coconino	626	463.5	714	526.5	640	462.1
Gila	110	197.2	158	275.4	223	375.7
Graham	66	182.0	79	204.5	142	356.9
Greenlee	11	133.2	11	122.9	4	46.0
La Paz	14	64.3	19	88.2	21	96.5
Maricopa	3,181	82.0	3,992	101.7	3,747	94.5
Mohave	365	181.0	494	241.1	546	267.0
Navajo	249	215.9	251	218.7	307	266.0
Pima	2,933	292.2	3,207	316.4	3,532	347.0
Pinal	244	83.2	500	155.0	458	139.8
Santa Cruz	48	103.1	47	99.4	47	99.0
Yavapai	474	215.3	579	257.0	517	227.2
Yuma	226	112.2	306	150.2	215	105.2
Unknown	79	*	9	*	5	*
State (Total)	9,107	141.6	10,789	165.1	10,764	163.2

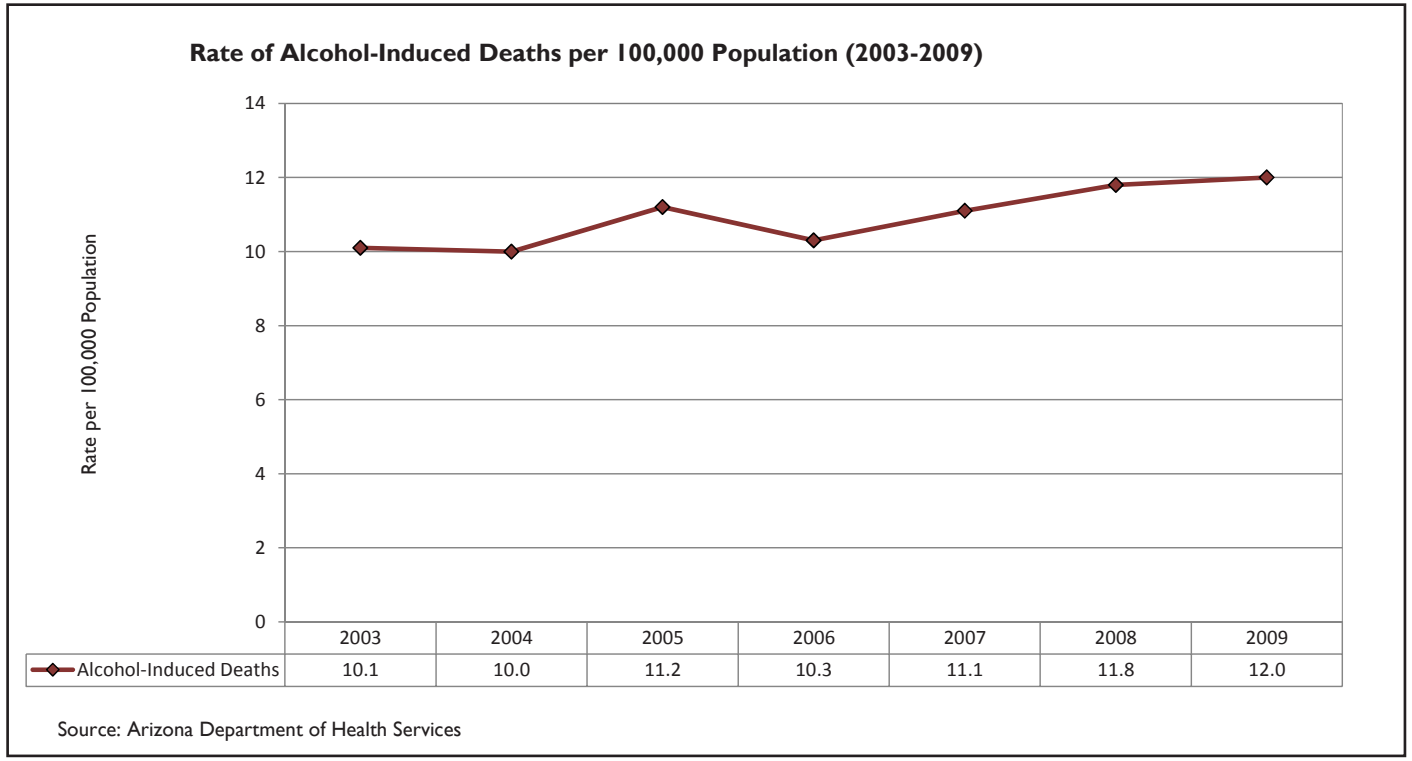
Source: Arizona Department of Health Services

* Rate cannot be calculated because no population estimate is available for the level.

Alcohol-Induced Deaths

The Arizona Department of Health Services is also the source of data and information about the rate of alcohol-induced deaths in the State. According to Figure 17, the rate of alcohol-induced deaths in Arizona has increased since 2006 (from 10.3 per 100,000 population in 2006 to 12.0 per 100,000 population in 2009).

Figure 17: Rate of Alcohol Induced Deaths per 100,000 population, Arizona (2003-2009)



Source: Arizona Department of Health Services

Alcohol-Induced Deaths by Demographics

Table 11 highlights the distribution of alcohol-induced death by gender, race/ethnicity, and geographic area (urban vs. rural). The rates of alcohol-induced deaths were almost three times higher for males. Further, the rates for both males and females have increased consistently since 2007.

Individuals who identified themselves as American Indian or Alaskan Native had the highest rate of alcohol-induced death in 2009 (62.1 per 100,000 population), which was substantially higher than that of Hispanic/Latino individuals (10.1 per 100,000 population) and White non-Hispanic individuals (10.0 per 100,000 population). Furthermore, rates for American Indian or Alaskan Natives have consistently increased since 2007 while the rates for other racial/ethnic groups have been fairly stable. Asian or Pacific Islanders have consistently had the lowest rates of alcohol-induced deaths.

Between 2008 and 2009, Arizonans living in rural areas had a rate of alcohol-induced deaths nearly twice as high as the rate in the state's urban areas. Rates for both rural and urban areas increased since 2007, but a more dramatic increase was noted in rural areas (from 16.3 to 19.1 per 100,000 population in 2007 and 2009, respectively).

Table 11: Number (N) and Rate of Alcohol-Induced Death by Gender, Ethnicity/Race, Urban/Rural Area per 100,000 Population by Year

Category	2007		2008		2009	
	N	Rate	N	Rate	N	Rate
Gender						
Female	189	5.9	220	6.6	232	6.9
Male	523	16.8	552	17.3	563	17.4
Ethnicity/Race						
White non-Hispanic	434	9.4	499	10.6	479	10.0
Hispanic or Latino	127	11.8	105	9.2	117	10.1
Black or African American	13	6.9	15	7.3	16	7.0
American Indian or Alaskan Native	133	49.3	147	54.3	176	62.1
Asian or Pacific Islander	3	2.5	3	1.8	3	2.8
Urban/ Rural Area						
Urban	*	10.1	*	10.4	*	10.5
Rural	*	16.3	*	19.2	*	19.1
State (Total)	712	11.1	772	11.8	795	12.1

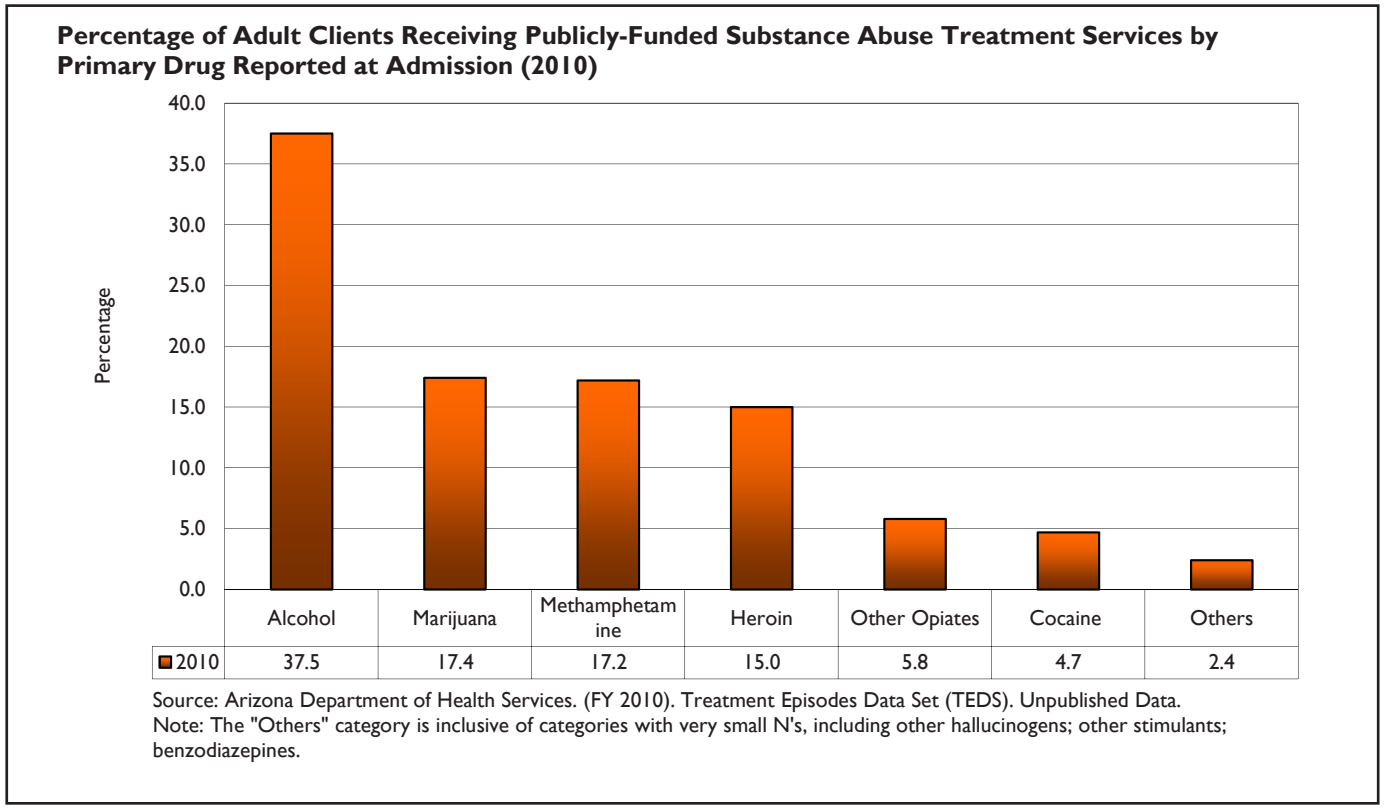
Source: Arizona Department of Health Services

* Rate cannot be calculated because no population estimate is available for the level.

Alcohol Abuse Treatment

Alcohol was the most frequently reported primary substance of abuse among clients receiving publicly-funded treatment services in 2010 (see Figure 18). The percentage of clients indicating alcohol as their primary substance at admission to treatment (37.5%) is greater than the percentage who reported marijuana (17.4%) and methamphetamine (17.2%) combined. A high percentage of clients also reported heroin as a primary substance (15.0%), indicating that treatment providers are faced with the need to address multiple types of substance abuse and dependence.

Figure 18: Adult Clients' Primary Drug Reported at Admission



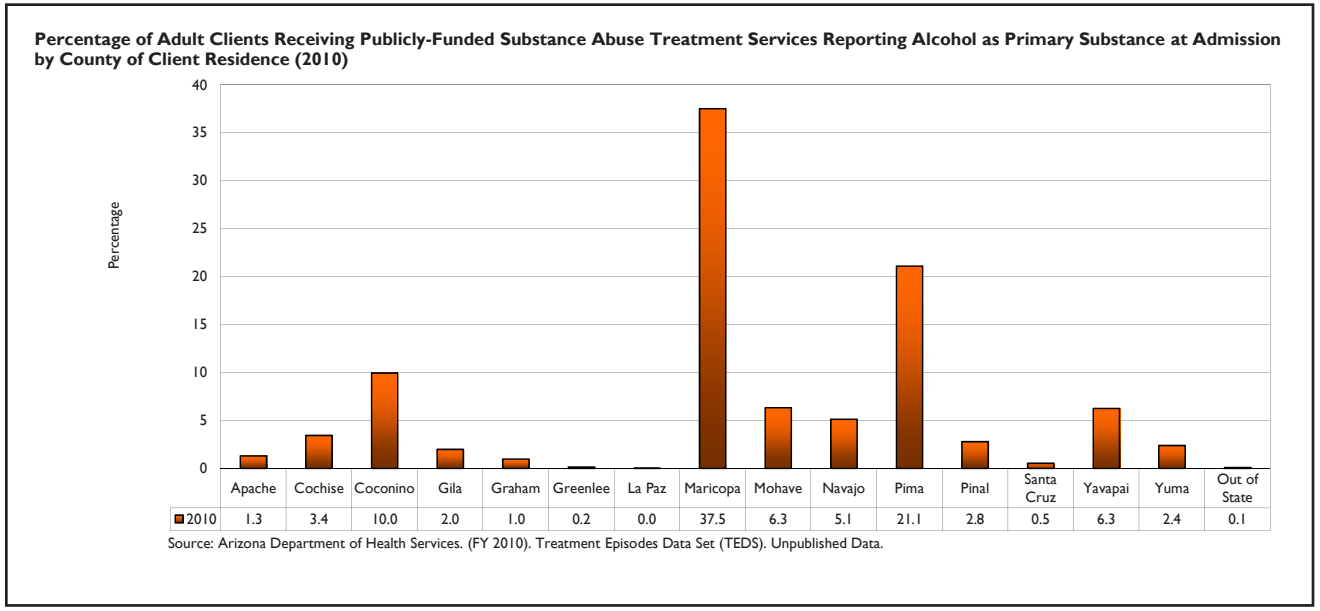
Source: Arizona Department of Health Services. (FY 2010). Treatment Episodes Data Set (TEDS). Unpublished Data.
Note: The "Others" category is inclusive of categories with very small N's, including other hallucinogens; other stimulants; benzodiazepines.

Alcohol Abuse Treatment by County

Figure 19 notes the county of residence for clients who reported alcohol as their primary substance at treatment admission. All treatment records are specific to residents of Arizona. Treatment records for individuals whose primary residence is located in another state or country are included separately in the figure and in this report.

General trends indicate that urban counties reported a much higher percentage of adults receiving publicly-funded treatment for alcohol compared to rural counties. Information on clients' residence and the location of substance abuse treatment service providers should be compared to assess the availability of services in relation to client location in order to assure that substance abuse treatment services are located/provided where they are needed.

Figure 19: Substance Abuse Treatment for Alcohol Use by County



Source: Arizona Department of Health Services. (FY 2010). Treatment Episodes Data Set (TEDS). Unpublished Data.

Methamphetamine

Methamphetamine Use in Arizona: An Introduction

Methamphetamine is a significant threat to the health and safety of Arizonans. The production, distribution, and use of methamphetamine is of concern because of the severity of the consequences associated with the problem and Arizona's shared border with Mexico, a principal port of entry for drug smuggling. According to the Drug Enforcement Administration (DEA), Mexican-produced methamphetamine is the most common type encountered in Arizona (Drug Enforcement Administration, 2008).

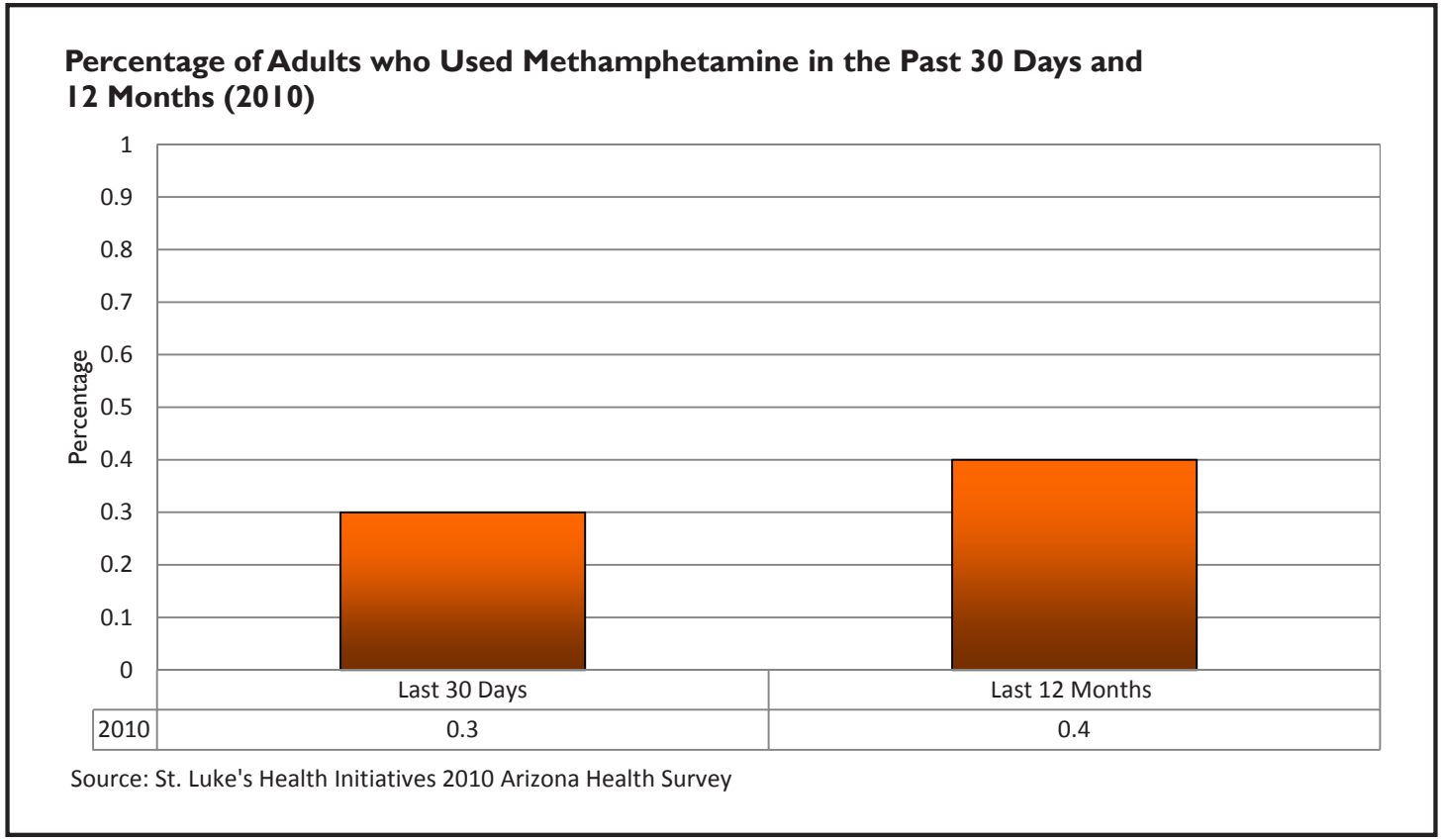
Prevention

As a result of its innovative and groundbreaking efforts surrounding the prevention of methamphetamine use, Arizona was selected as one of only eight states to participate in the Department of Justice, Office of Community Oriented Policing Services' Rural Law Enforcement Methamphetamine Initiative (RLEMI). This project provided Arizona with the assistance and expertise of Strategic Applications International to establish and enhance problem-solving strategies that encourage community policing efforts designed to combat the use and distribution of methamphetamine. Goals were developed for Arizona, which included implementing and/or enhancing the collaborative efforts of law enforcement and community coalitions in identified high-need counties and tribal areas of Arizona; ensuring the establishment of an Alliance for Drug Endangered Child (DEC) in the identified regions; identifying gaps in treatment services for individuals abusing or dependent on methamphetamine in each identified rural/tribal region; and collaborating with the Arizona Criminal Justice Commission (ACJC), Substance Abuse Epidemiology Work Group and tribal areas to increase access to accurate data related to methamphetamine.

The RLEMI strategic plan was built upon that created during the 2008 National Summit held in Washington, D.C. which brought together 21 states, including Arizona, to utilize a facilitated planning process to develop action plans that incorporated evidence-based and culturally-appropriate practices and policies to respond to methamphetamine use among justice-involved persons; lesbian, gay, bisexual and transgender (LGBT) individuals; and women.

In order to understand where prevention efforts should be targeted, it is necessary to identify the populations most likely to use methamphetamine. For instance, according to the Arizona Health Survey conducted by St. Luke's Health Initiative (Wolfersteig, et al, 2010), 0.3 percent of adults in Arizona reported methamphetamine use in the 30 days preceding the survey, and 0.4 percent reported use over the last 12 months (Figure 20 on following page).

Figure 20: Past 30-Day Adult Methamphetamine Use



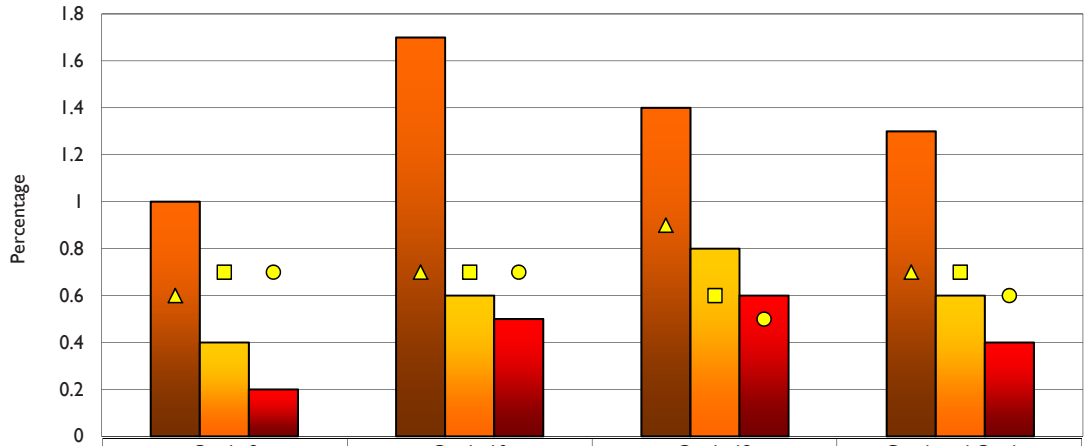
Source: St. Luke's Health Initiatives 2010 Arizona Health Survey

Past-Month Youth Methamphetamine Use by Grade Level

The AYS provides robust data delineating use patterns and related behaviors among 8th, 10th and 12th graders. among youth, 30-day methamphetamine use rates ranged between 0.2 percent and 0.6 percent in 2010 (Arizona Criminal Justice Commission, 2008c). Between 2006 and 2010, a higher percentage of students in 12th grade reported methamphetamine use compared to students in 8th and 10th grade and a higher percentage of Arizona 12th graders reported methamphetamine use than did their national peers (see Figure 21). However, the percentage of Arizona students reporting methamphetamine use decreased between 2006 and 2010 (from 1.3% to 0.4%, respectively), which is lower than the national average of 0.6%. This significant achievement was a result of the coordinated strategies and efforts in Arizona to reduce the impact of methamphetamine on its communities.

Figure 21: Past 30-Day Youth Methamphetamine Use by Grade

Percentage of Youth Indicating Methamphetamine Use in Past 30 Days by Grade, AZ vs. U.S. (2006-2010)



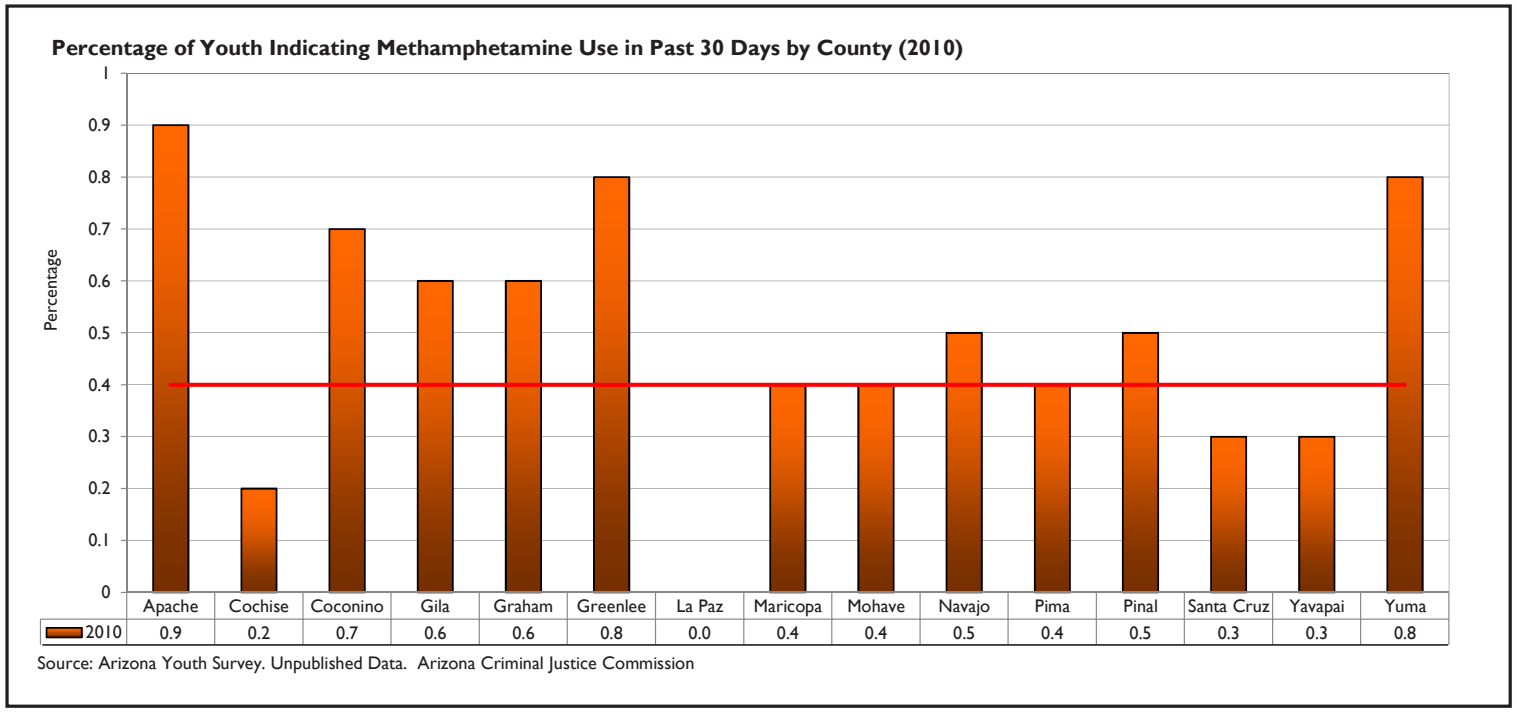
	Grade 8	Grade 10	Grade 12	Combined Grades
AZ 2006	1.0	1.7	1.4	1.3
AZ 2008	0.4	0.6	0.8	0.6
AZ 2010	0.2	0.5	0.6	0.4
MTF 2006	0.6	0.7	0.9	0.7
MTF 2008	0.7	0.7	0.6	0.7
MTF 2010	0.7	0.7	0.5	0.6

Source: Arizona Youth Survey, Arizona Criminal Justice Commission; Monitoring the Future, National Institute on Drug Abuse

Past-Month Youth Methamphetamine Use by County

According to Figure 22, methamphetamine use by youth in Arizona varies by geography. (Note: The red line in the figure below indicates the state average.) The percent of youth reporting past 30-day use varies from 0.2 percent to 0.9 percent. These data indicate a need to look further into the individual/peer, family, school and community-level risk and protective factors to determine the reasons behind differential use patterns. Indeed, the fact that youth in rural counties are more likely to report methamphetamine use suggests different programming needs by county that build upon individual, community, family and school strengths.

Figure 22: Past 30-Day Youth Methamphetamine Use by County



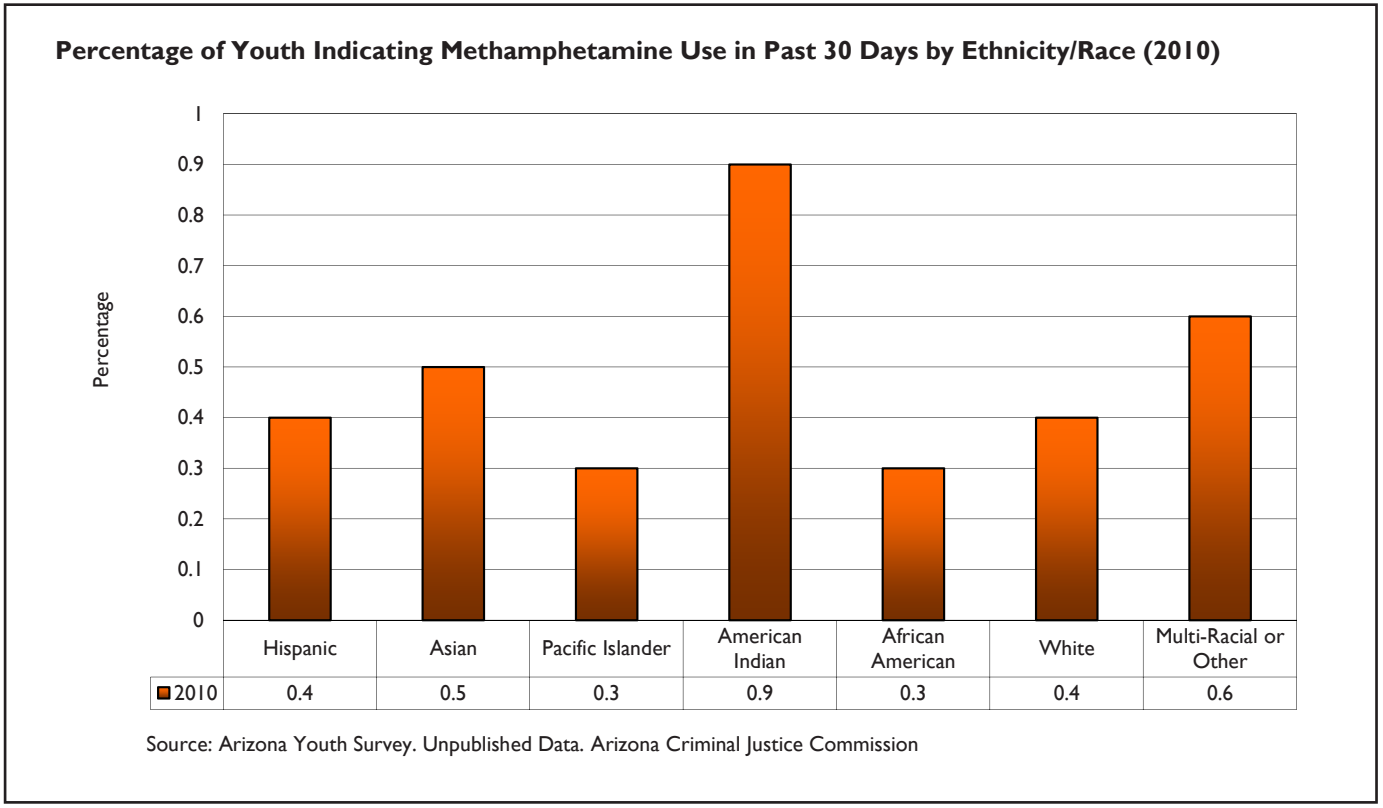
	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz	Maricopa	Mohave	Navajo	Pima	Pinal	Santa Cruz	Yavapai	Yuma
2010	0.9	0.2	0.7	0.6	0.6	0.8	0.0	0.4	0.4	0.5	0.4	0.5	0.3	0.3	0.8

Source: Arizona Youth Survey. Unpublished Data. Arizona Criminal Justice Commission

Past-Month Youth Methamphetamine Use by Ethnicity/Race

Youth reporting their racial/ethnic background as American Indian and "Multi-racial or other" were the most likely to report past 30-day methamphetamine use (0.9% and 0.6%, respectively). African American, Pacific Islander, White and Hispanic 8th, 10th and 12th graders were the least likely to report such use (see Figure 23). These findings again indicate differential programming and prevention needs for various populations, which should be addressed at the community- and state-level.

Figure 23: Past 30-Day Youth Methamphetamine Use by Ethnicity/Race

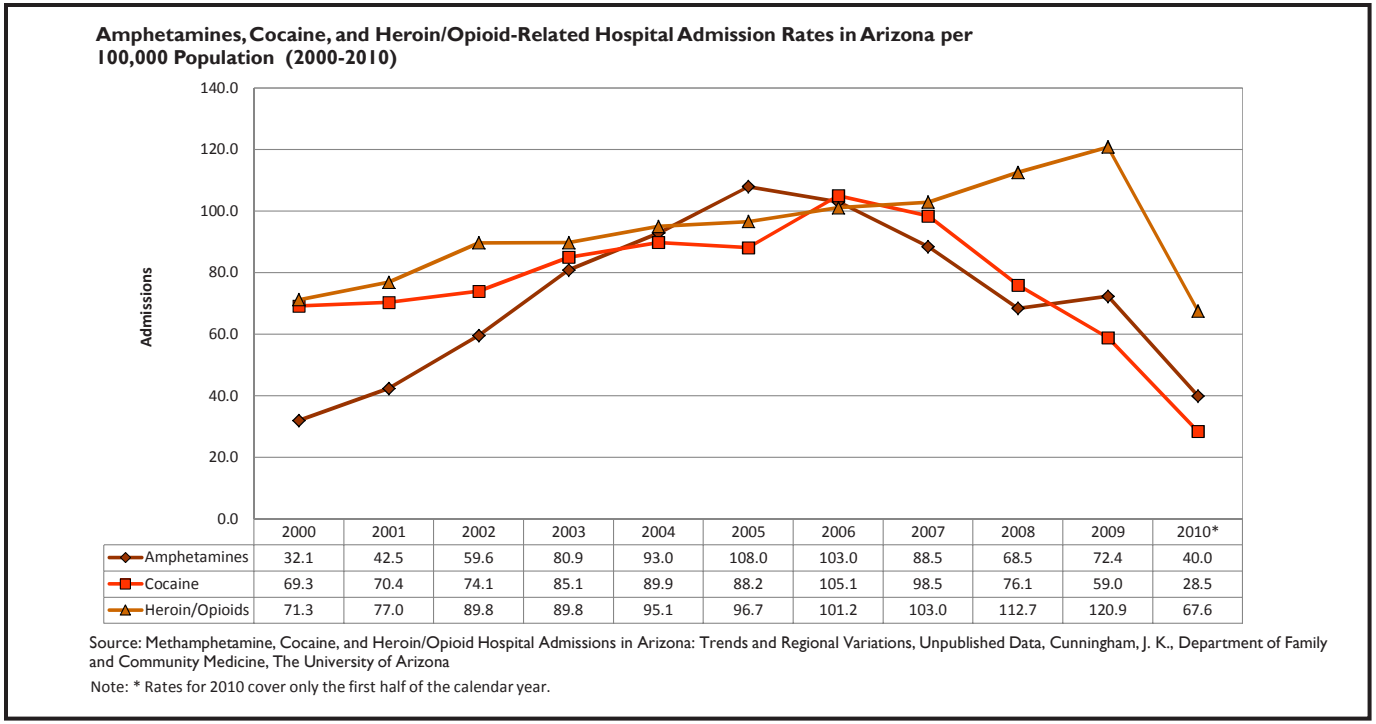


Source: Arizona Youth Survey. Unpublished Data. Arizona Criminal Justice Commission

Methamphetamine Treatment

Figure 24 indicates the rate of hospital admissions for amphetamines, cocaine and heroin/opioids in Arizona. It is important to note that 2010 rates were calculated based upon the hospital admissions for the first half of the year (only six months of data), making them appear much lower than other years. There was a steady growth in hospital admissions for all substances from 2000 to 2006. The rates for admissions for cocaine and amphetamines began to decrease after that time, a trend that continues. In contrast, the rate of hospitalizations for heroin/opioids continues to increase and has been significantly higher than the rates of hospitalizations for cocaine and amphetamines since 2007.

Figure 24: Arizona Hospital Admissions for Amphetamines, Cocaine and Heroin/Opiods



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010*
Amphetamines	32.1	42.5	59.6	80.9	93.0	108.0	103.0	88.5	68.5	72.4	40.0
Cocaine	69.3	70.4	74.1	85.1	89.9	88.2	105.1	98.5	76.1	59.0	28.5
Heroin/Opioids	71.3	77.0	89.8	89.8	95.1	96.7	101.2	103.0	112.7	120.9	67.6

Source: Methamphetamine, Cocaine, and Heroin/Opioid Hospital Admissions in Arizona: Trends and Regional Variations, Unpublished Data, Cunningham, J. K., Department of Family and Community Medicine, The University of Arizona

Note: * Rates for 2010 cover only the first half of the calendar year.

Methamphetamine Treatment by County

Table 12 provides information about hospital admissions for amphetamines, cocaine and heroin/opioids in urban (Maricopa and Pima Counties) and rural areas (all other counties combined). The rate of hospital admissions for all substances is higher in urban counties. Maricopa County, in particular, has dramatically higher admission rates than either Pima County or the rural county aggregate. Similar to the trends presented in Figure 22, rates of hospital admissions for amphetamines and cocaine have decreased slightly since 2006 while the rates for heroin/opioids have increased.

Table 12: Amphetamine, Cocaine, and Heroin/Opioids-Related Hospital Admission Rates per 100,000 Population (2006-2010*)

Drug	Maricopa County					Pima County					Rural Areas				
	2006	2007	2008	2009	2010*	2006	2007	2008	2009	2010*	2006	2007	2008	2009	2010*
Amphetamine	67.7	57.9	46.3	48.9	27.7	20.6	17.0	14.0	14.9	7.9	14.7	13.5	8.2	8.6	4.5
Cocaine	52.0	47.5	36.2	28.7	13.8	49.7	47.6	37.4	28.4	13.8	3.3	3.4	2.5	1.9	0.9
Heroin/Opioids	62.6	62.0	69.5	73.8	39.3	29.3	30.1	32.0	34.5	21.2	9.2	10.9	11.1	12.7	7.1

Source: Methamphetamine, Cocaine, and Heroin/Opioid Hospital Admissions in Arizona: Trends and Regional Variations (2006-2010). Unpublished Data. Cunningham, J.K., Department of Family and Community Medicine, The University of Arizona

Note: *Rates for 2010 cover only the first half of the calendar year.

A continued examination of these data will reveal if efforts to combat methamphetamine continue to be successful and will illustrate whether the need for heroin treatment will continue to rise.

Treating methamphetamine addiction is a priority in Arizona. A three-year $8.3 million competitive discretionary grant by the Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Substance Abuse Treatment (CSAT) was awarded to Arizona in September, 2007. The goals of the grant were to expand substance abuse treatment service capacity, support client choice, and increase the array of faith-based and community-based providers for clinical treatment and recovery support services for methamphetamine-affected clients. Arizona's Access to Recovery (ATR) program developed and implemented a cost-effective treatment and recovery support services voucher system for individuals with methamphetamine-related substance use disorders involved in a county-based adult drug court and in the general population. Objectives included the development and implementation of a voucher-driven process for methamphetamine users that offered a choice of service providers and the creation of a broad network of eligible treatment and recovery support service providers. The ATR program served 1,353 clients over the life of the grant.

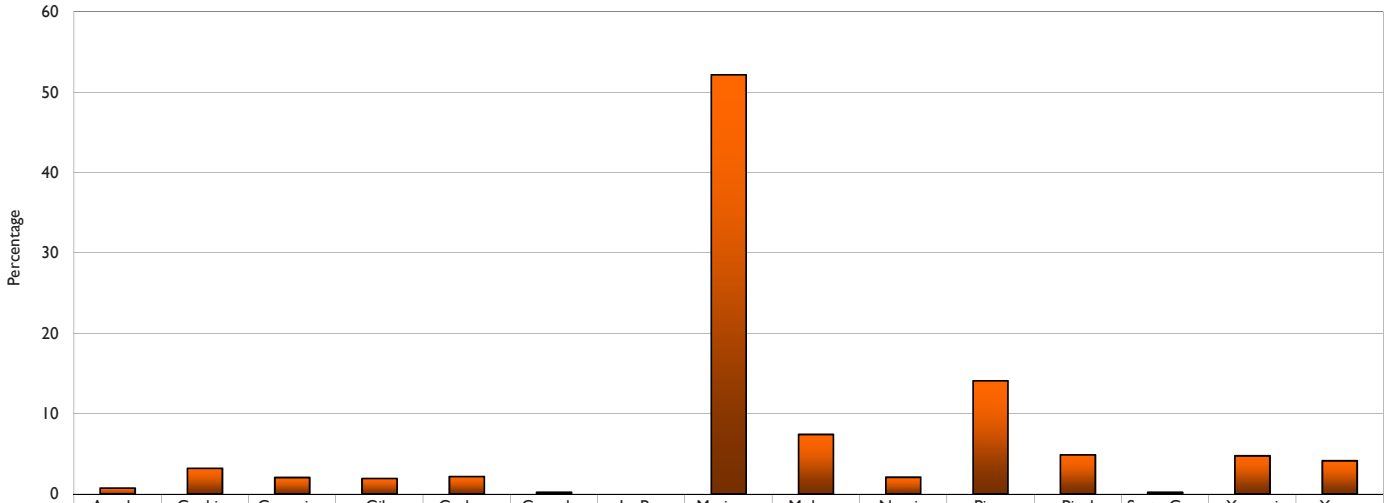
Outcomes presented in Figure 18 indicate that marijuana and methamphetamine are the most commonly-reported primary substance of use at admission to treatment (second to alcohol).

Methamphetamine Treatment by County, Cont.

Figure 25 highlights the county of residence of clients who reported methamphetamine as their primary substance at treatment admission in 2010. The highest percentage of clients reporting methamphetamine as a primary substance of use live in Maricopa County (52.2%), followed by Pima County (14.1%). In 2008, Maricopa County (35%) represented a smaller percentage of the population of individuals using methamphetamine as their primary substance, while Pima County represented more of this population (19%) (Treatment Episodes Data Set. Unpublished Data).

Figure 25: Methamphetamine As Primary Substance Used by County of Adult Client Residence

Percentage of Adult Clients Receiving Publicly-Funded Substance Abuse Treatment Services Reporting Methamphetamine as Primary Substance at Admission by County of Client Residence (2010)



	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz	Maricopa	Mohave	Navajo	Pima	Pinal	Santa Cruz	Yavapai	Yuma
2010	0.7	3.2	2.0	1.9	2.2	0.2	0.0	52.2	7.4	2.1	14.1	4.9	0.2	4.8	4.1

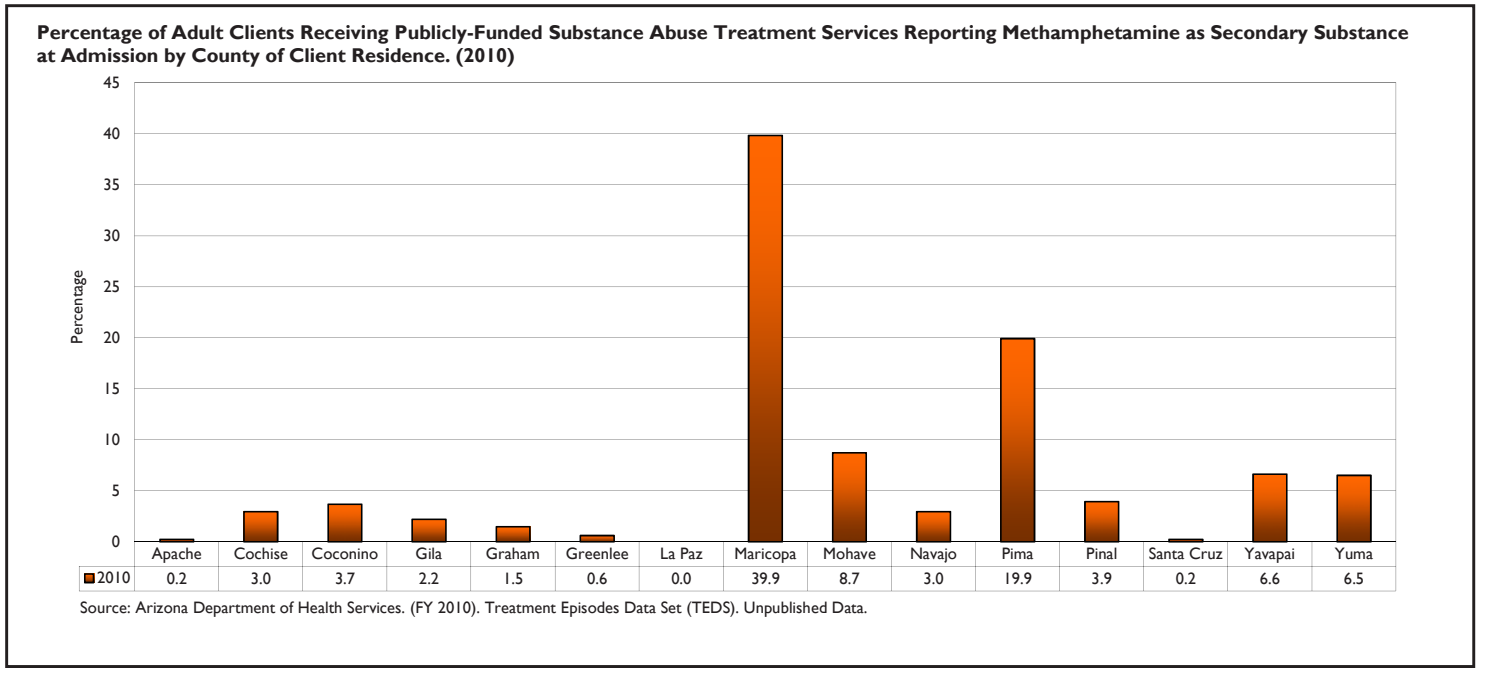
Source: Arizona Department of Health Services. (FY 2010). Treatment Episodes Data Set (TEDS). Unpublished Data.

Methamphetamine Treatment by County, Cont.

Figure 26 highlights the county of residence of clients who reported methamphetamine as their secondary substance at treatment admission. Maricopa County was home to 39.9 percent of clients reporting methamphetamine as their secondary substance of use, followed by Pima County (19.9%). In 2008, Maricopa County represented a smaller percentage of the population of individuals using methamphetamine as their secondary substance of choice at 26.0 percent, while Pima County represented more of this population at 22.0 percent (Treatment Episodes Data Set. Unpublished Data).

Findings related to secondary substance of use at admission largely mirror the results regarding primary substance of admission, but also indicate that methamphetamine may have become a greater concern in Maricopa County between 2008 and 2010 among adults in treatment. This information stands as a reminder that the location of substance abuse treatment clients (and individuals in need of treatment) should be compared to the location of substance abuse treatment service providers in order to assess the availability of services in relation to client location.

Figure 26: Methamphetamine as Secondary Substance Used by County of Adult Client Residence



Methamphetamine Enforcement

Data from the Drug Enforcement Administration (DEA) and the High Intensity Drug Trafficking Area (HIDTA) program regarding methamphetamine seizures at or near the border and methamphetamine labs and incidents allow a comparison of the primary and secondary substances reported at treatment admission with the availability of the drug to those using it.

Figure 27 indicates a dramatic increase in the amount of methamphetamine seized in calendar year 2010 compared to previous years (www.hidta.org). In fact, the amount seized in 2010 was three times that seized in 2008. This is in stark contrast to the reductions in seizures between 2007 and 2008 (from approximately 1,000 pounds to 571) (Drug Enforcement Administration, personal communication). It now appears that the noted reduction may have been an anomaly in the overall trend and continued monitoring is necessary.

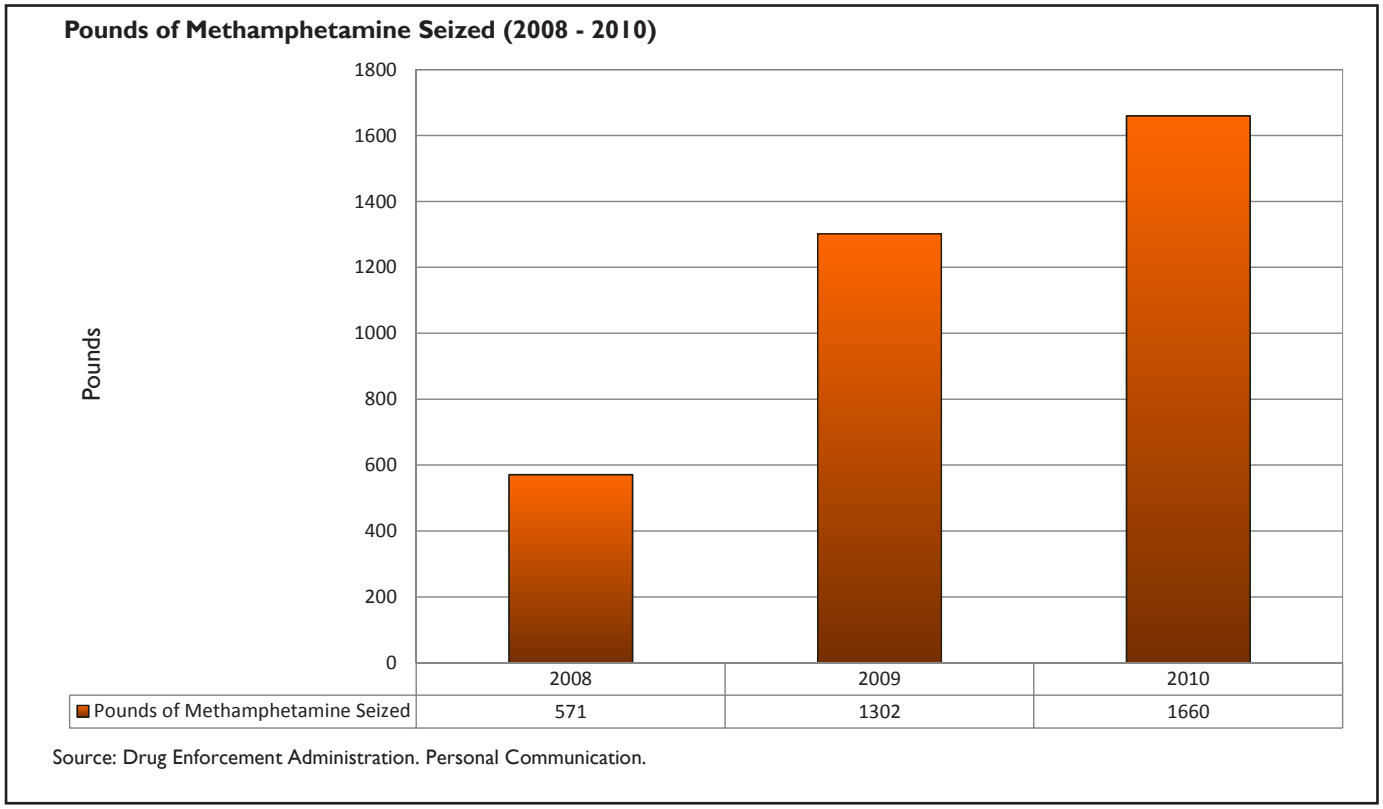
Increased drugs in Arizona mean that more children are likely living in drug-endangered environments. The Arizona Alliance for Drug Endangered Children (Alliance) promotes the development of drug-endangered children (DEC) programs and guidelines that promote the coordination of efforts to address the needs of children found in clandestine laboratory and other drug environments. Indeed, the Alliance has provided suggestions for policy changes and draft protocols for consideration to address the needs of children found in all DEC environments (i.e., not focusing specifically on children living in meth lab environments).

The Chair and other members of the Alliance have been actively working with other state DEC Alliances, county Drug Task Forces, the federal DEC Task Force created by the US Attorney's Office, the National Alliance for Drug Endangered Children, the Drug Endangered Children Training and Advocacy Center, the Drug Enforcement Administration's Victim Witness Program, the Department of Justice Rural Law Enforcement Meth Initiative administered by Strategic Applications International, and tribal and community coalitions in Arizona to collaboratively address the issue of children living in drug environments. Additionally, the Chair actively coordinates his efforts with those of other state and federal organizations and community coalitions through his membership on the Arizona Substance Abuse Partnership.

Methamphetamine Enforcement, Cont.

The Chair and members of the Alliance training team provide presentations and host training events on DEC-related issues for state, county and tribal agencies and community organizations. The Alliance has provided training to numerous agencies, communities and tribes throughout Arizona to assist them in developing DEC programs and the Chair recently facilitated a DEC and children of incarcerated parents exercise to aid in identifying a response protocol and resources for children in the South Mountain community. In 2011 alone, the Chair and the Alliance have conducted numerous trainings, some of which were Arizona Peace Officer Standards Training (POST)-approved, for child protective service workers, law enforcement officers, tribal and state primary and behavioral healthcare providers, administrators, policymakers, childcare providers and educators, including members of the

Figure 27: Pounds of Methamphetamine Seized in Arizona



Source: Drug Enforcement Administration. Personal Communication.

Critical Populations

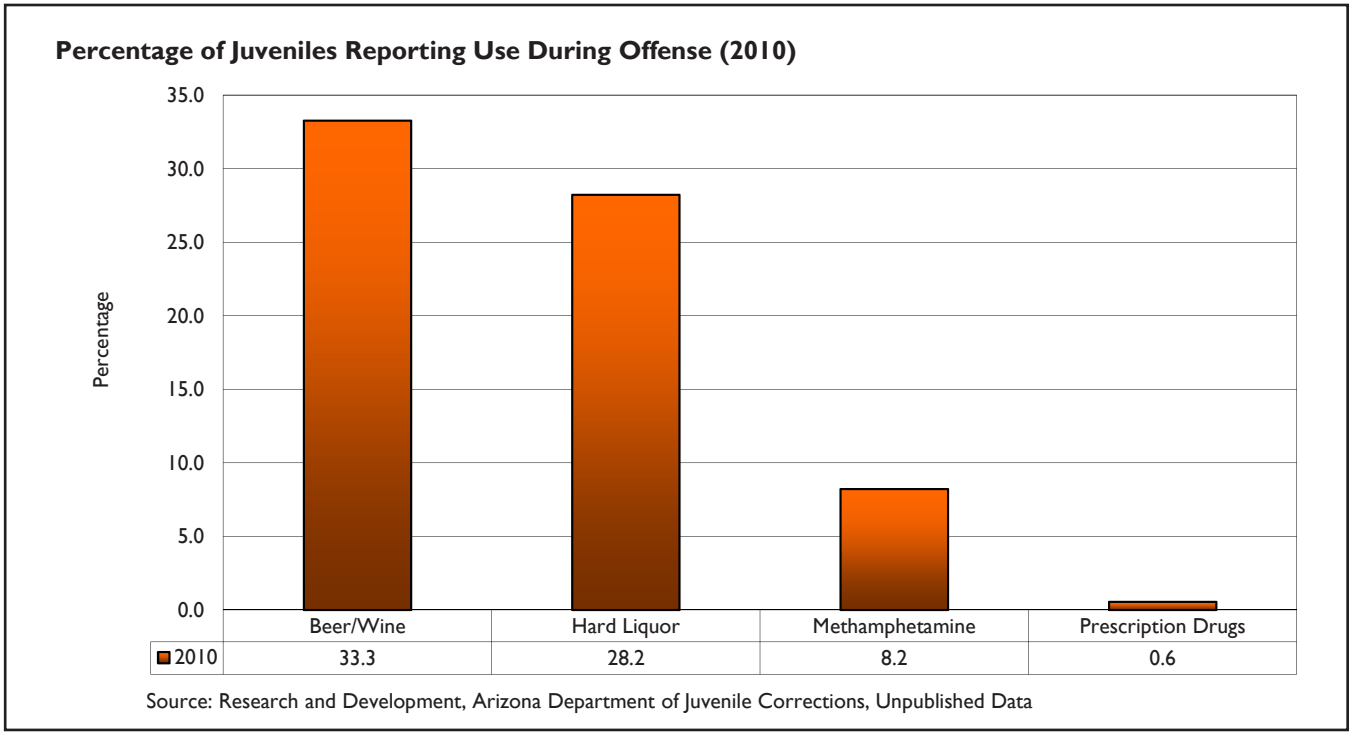
Critical Populations in Arizona: An Introduction

Identifying people disproportionately affected by substance abuse and mental health issues and understanding and addressing the needs of groups is especially crucial as these individuals may come into contact with numerous systems at various points in their lives, including the child welfare and criminal justice systems. Addressing their needs benefits them, their families and the State as a whole. The data and analyses on this and the following pages examine the substance abuse and mental health issues of Arizona's committed juveniles, incarcerated adults in Maricopa County, and the demographic characteristics of adults with drug and alcohol problems participating in the Arizona Families F.I.R.S.T. program.

Substance Use During Criminal Offense by Juveniles Committed in Arizona

Figure 28 indicates that of those whose crimes led to commitment to juvenile correctional facilities in Arizona, approximately 1-in-3 had been drinking beer or wine when they committed the offense and 28.2 percent had been drinking hard liquor (Research and Development, Arizona Department of Juvenile Corrections, Unpublished Data). In comparison, 8.2 percent indicated that they had been using methamphetamine and 0.6 percent indicated prescription drug use at the time of the crime.

Figure 28: Use During Criminal Offense, Committed Juveniles in Arizona, 2010



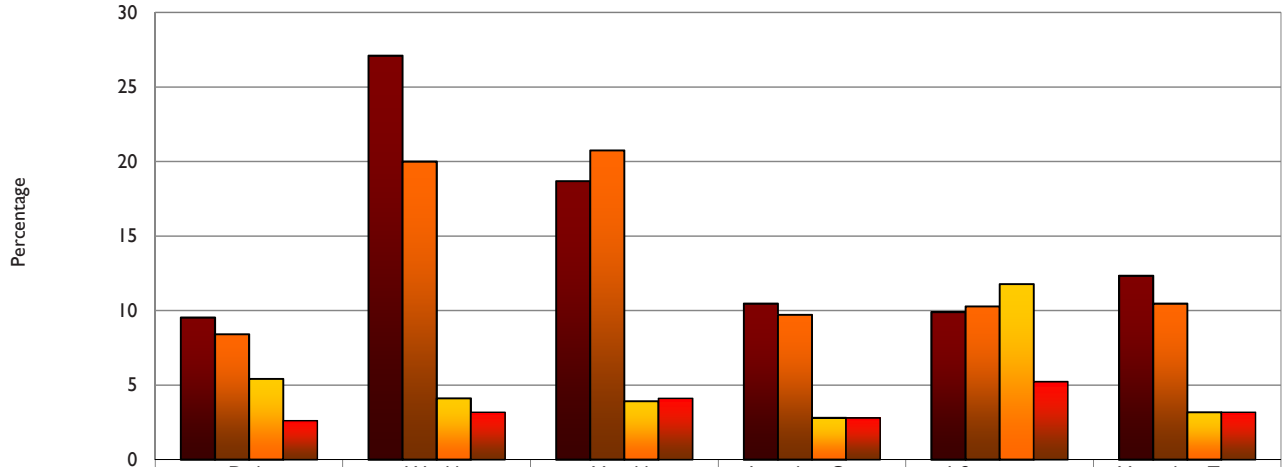
Source: Research and Development, Arizona Department of Juvenile Corrections, Unpublished Data

Substance Use Prior to Commitment of Committed Juveniles in Arizona

The percentage of Arizona juveniles reporting substance use prior to their commitment varied greatly by the type of substance used and the frequency with which it was used (see Figure 29). For example, on average, amphetamines/methamphetamines were reportedly used one to two times prior to commitment while beer/wine and hard liquor were reportedly used much more frequently than any other substance (often on a weekly or monthly basis prior to commitment).

Figure 29: Frequency of Use Prior to Commitment, Juveniles in Arizona

Percentage of Juveniles Indicating Frequency of Use Prior to Commitment by Substance Type (2010)



	Daily	Weekly	Monthly	Less than Once	1-2 time ever	More than Twice
Beer/Wine	9.5	27.1	18.7	10.5	9.9	12.3
Hard Liquor	8.4	20.0	20.7	9.7	10.3	10.5
Methamphetamine	5.4	4.1	3.9	2.8	11.8	3.2
Prescription Drugs	2.6	3.2	4.1	2.8	5.2	3.2

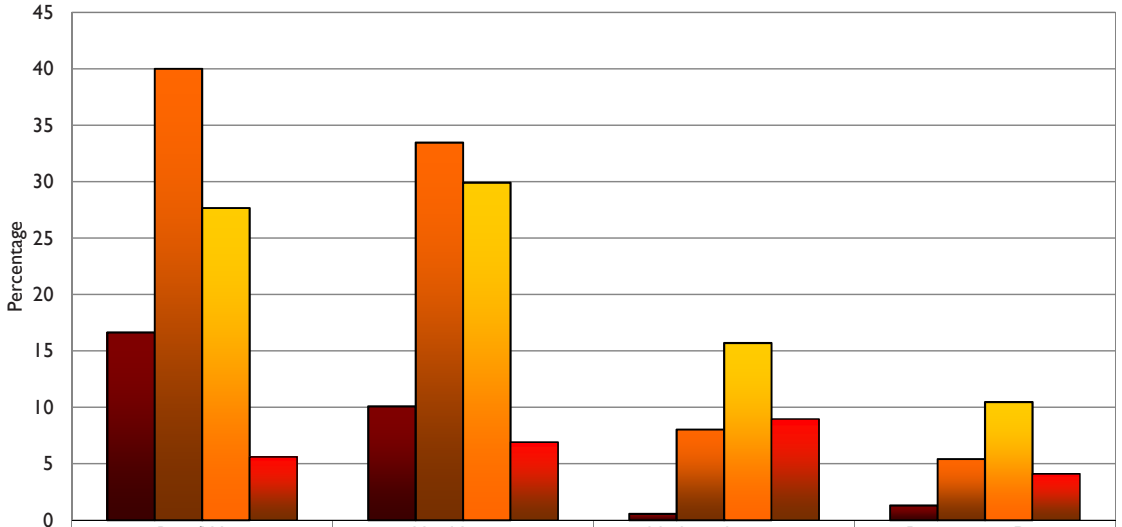
Source: Research and Development, Arizona Department of Juvenile Corrections, Unpublished Data
Note: Methamphetamine use refers to either amphetamine or methamphetamine use.

Age of Initiation among Committed Juveniles in Arizona

The average age of initiation among individuals in juvenile correctional facilities varied by substance during fiscal year (FY) 2010 (Figure 30). The majority of juveniles indicated that they began drinking beer/wine or hard liquor between the ages of 11 and 13. However, a considerably high percentage (16.6%) indicated that they began drinking beer/wine at 10 years old or younger, indicating a need for prevention efforts targeting younger youth and targeted at increasing the age of initiation. The majority of offenders who reported the use of hard liquor indicated that they started between the ages of 11 and 13, and an almost equally high percentage indicated that they began drinking between the ages of 14 and 15 years. For the majority of respondents, initiation of amphetamine/methamphetamine and prescription drug use appears to have occurred later, between the ages of 14 and 15.

Figure 30: Age at First of Use by Substance among Committed Juveniles in Arizona

Percentage of Juveniles Indicating First Use by Age and Substance Type (2010)



	Beer/Wine	Hard Liquor	Methamphetamine	Prescription Drugs
10 years old and under	16.6	10.1	0.6	1.3
11-13 years old	40.0	33.5	8.0	5.4
14-15 years old	27.7	29.9	15.7	10.5
16 years old and older	5.6	6.9	9.0	4.1

Source: Research and Development, Arizona Department of Juvenile Corrections, Unpublished Data

Note: Methamphetamine use refers to either amphetamine or methamphetamine use.

Alcohol Dependence and Abuse among Committed Juveniles in Arizona

According to the Research and Development Unit of the Arizona Department of Juvenile Corrections (ADJC), substance abuse is defined as a maladaptive pattern of substance use leading to a clinically-significant impairment or distress, as manifested by one or more of the following recurrent/continuing disturbances to a juvenile's life within a 12-month period: substance use resulting in a failure to fulfill major role obligations at work, school, or home; substance use in situations in which it is physically hazardous; substance-related legal problems; and/or substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of substance use. Similarly, substance dependence is a maladaptive pattern of substance use leading to a clinically-significant impairment or distress, but is manifested by three or more of the following that occur at any time in the same 12-month period: tolerance to or withdrawal from the substance; taking the substance in larger amounts or over a longer period than intended; a persistent desire or unsuccessful efforts to cut down or control use; spending a great deal of time in activities necessary to obtain the substance, use it or recover from the effects of it; and/or giving up or reducing important social, occupational or recreational activities because of substance use.

When entering the ADJC, juveniles can be diagnosed with alcohol abuse or as alcohol dependent; be diagnosed with substance abuse or as substance dependent; or be found to have no abuse or dependency issues. Figure 31 indicates that 17.9 percent of juveniles assessed in Arizona's juvenile facilities in 2010 were diagnosed as alcohol dependent and 52.7 percent were diagnosed as substance dependent. Approximately four-in-10 (42.2%) were diagnosed as having symptoms of alcohol abuse and over half (51.0%) were diagnosed as having symptoms of substance abuse. Juveniles can be given multiple diagnoses. For example, juveniles can be categorized as abusing marijuana (substance abuse) and dependent upon cocaine (substance dependent). Thus, totals equal to more than 100 percent. These findings indicate that substance abuse and dependence are seriously impeding on the successful educational, social and emotional development of this population.

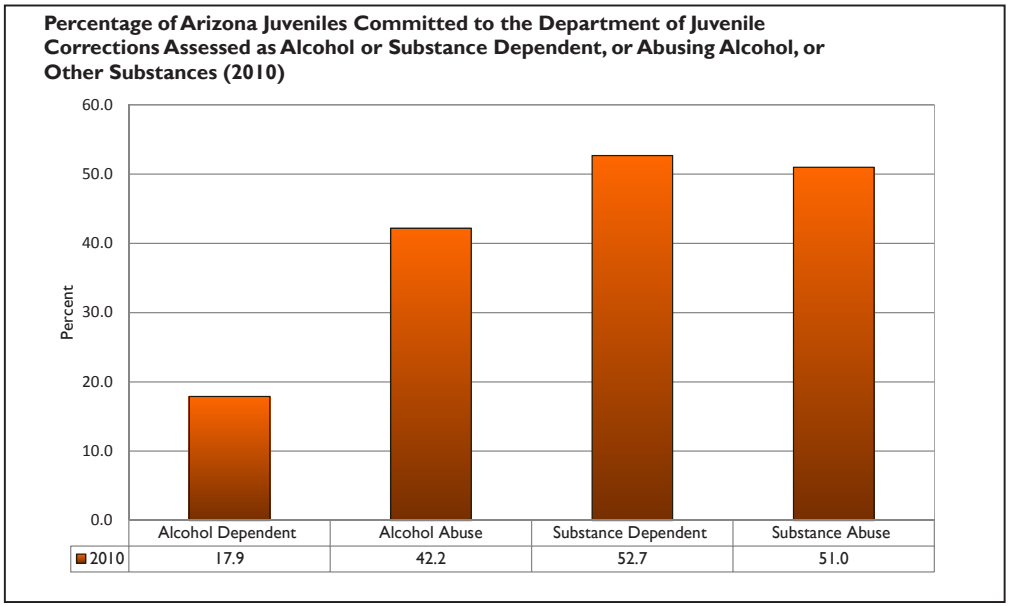


Figure 31: Alcohol Dependence and Abuse among Committed Juveniles in Arizona

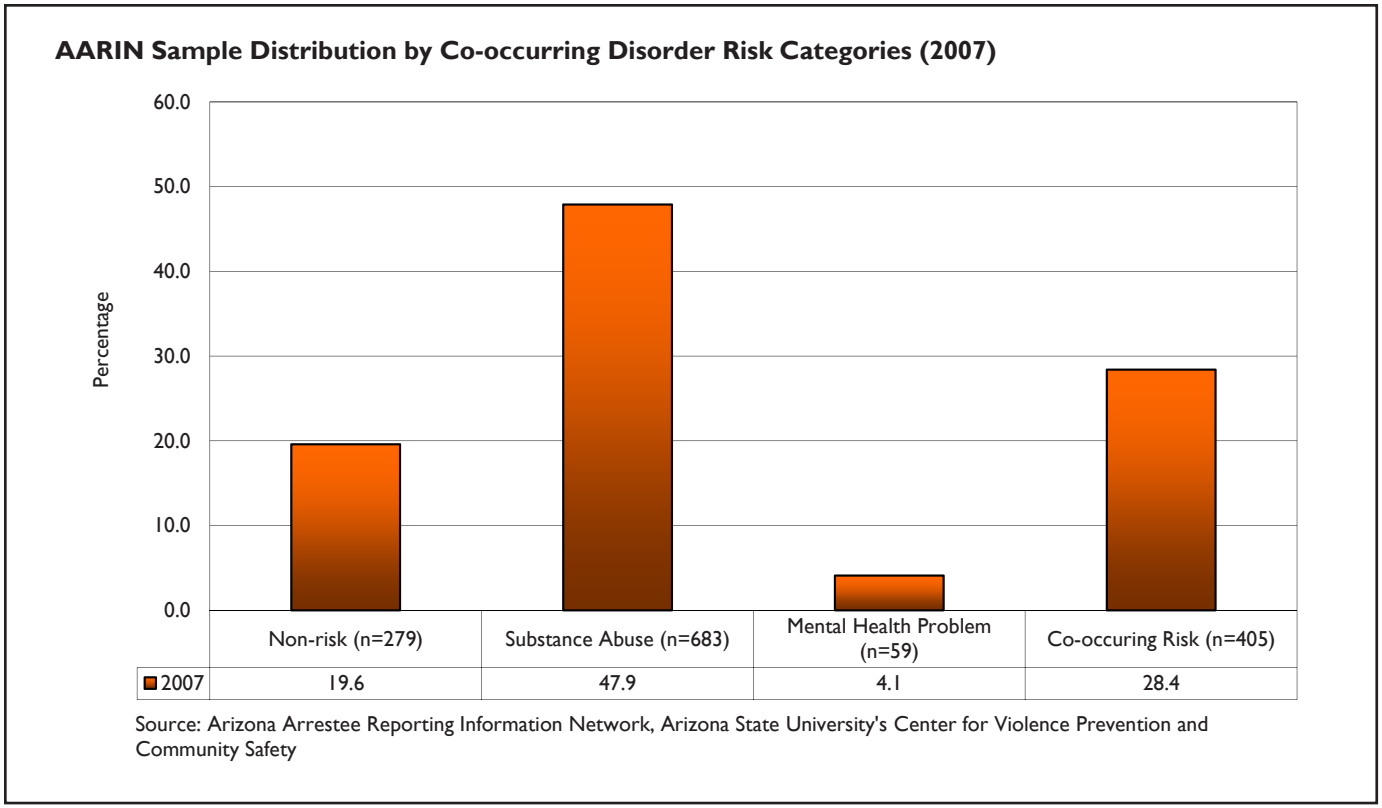
Incarcerated Adults: Co-Occuring Disorders

Monitoring the co-occurrence of substance abuse and mental health issues is of concern to the nation because of the complexity of treating both conditions simultaneously. One way to examine the prevalence of co-occurring disorders is with the Arizona Arrestee Reporting Information Network (AARIN), a grant-funded research project operated by researchers from Arizona State University's (ASU) Center for Violence Prevention and Community Safety sponsored by the Maricopa County Board of Supervisors. The AARIN is modeled after the National Institute of Justice's (NIJ) Arrestee Drug Abuse Monitoring (ADAM) program. The AARIN program provides a cost-effective means of detecting the drug use patterns of arrestees in Arizona to be utilized as an early warning and monitoring system, and as a research platform to serve as a guide for data-driven policy and decision-making.

The AARIN project is an ongoing collection, analysis and reporting mechanism for drug use and drug-related activities of male and females arrested in Maricopa County at five booking facilities across the county, three adult and two juvenile detention. Data are collected and reported on a quarterly basis throughout the year. The core survey instrument administered to arrestees begins with a set of questions about the arrestees' past and current drug use, drug dependency, and the drug treatment or detoxification services they have received in the past or are currently receiving. This is followed by an assessment of the arrestees' criminal history, firearm possession and gang involvement, victimization experiences and current and past mental health status. Interviews are conducted by trained staff in one-on-one confidential interviews. All interviews are anonymous and voluntary. The final stage of the process is the collection of a urine specimen designed to scientifically validate drug use among the detained population in Maricopa County.

Figure 32 (following page) indicates the results for adults incarcerated in Maricopa County who were assessed for substance abuse. Almost half (47.9%) were found to be substance abusers without co-occurring mental health issues. Approximately 1-in-5 (19.6%) individuals was determined to have neither a substance abuse nor a mental health issue. The occurrence of a mental health problem without a co-occurring substance abuse concern was rare in the sample as only 4.1 percent were diagnosed as having only a mental health issue without substance abuse. The population found to be especially vulnerable were the almost 3-in-10 (28.4%) who were found to have both a substance abuse problem and a mental health issue. This information highlights the special needs of the individuals who come into contact with our criminal justice system and hints at the complexities of treating this population.

Figure 32: AARIN Sample by Risk Category

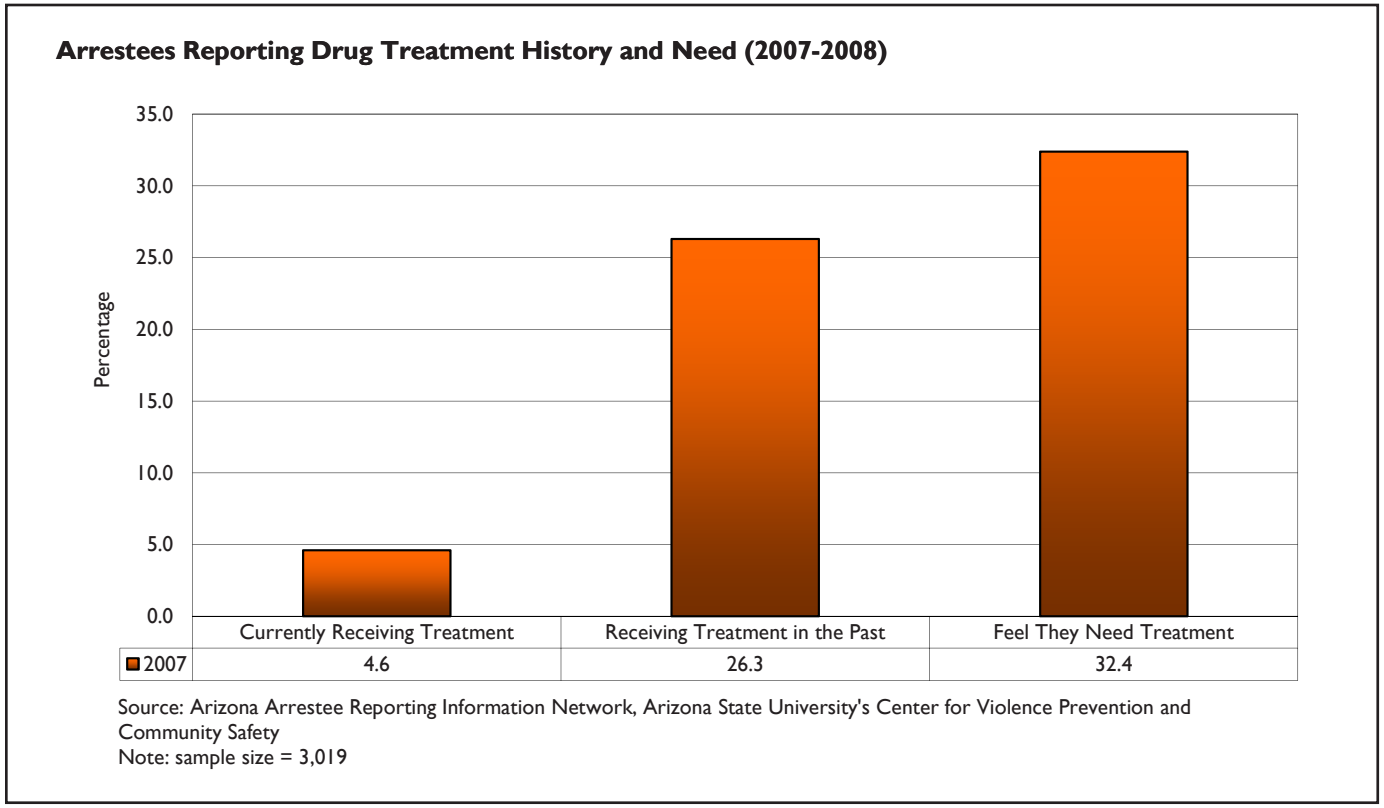


Source: Arizona Arrestee Reporting Information Network, Arizona State University's Center for Violence Prevention and Community Safety

Incarcerated Adults: Co-Occuring Disorders, Cont.

Figure 33 provides further information on the finding that almost 3-in-10 (28.4%) individuals recently arrested had both a substance abuse problem and a mental health issue. While almost half of the adult population in the criminal justice system in Maricopa County had a substance abuse issue and almost 30 percent had co-occurring concerns, less than five percent of those who were assessed between 2007—2008 reported that they were currently receiving treatment. Over one-quarter had received treatment in the past and almost 1-in-3 indicated that they felt they needed treatment services.

Figure 33: AARIN Drug Treatment History and Need (2007-2008)



Source: Arizona Arrestee Reporting Information Network, Arizona State University's Center for Violence Prevention and Community Safety
Note: sample size = 3,019

Incarcerated Adults: Arrestee Demographics

Table 13 provides the demographic characteristics of the 2009 AARIN sample. Program arrestees were predominately White, including approximately half of the female population. Overall, Whites represented slightly less than 50 percent of the arrestee population. Hispanics, both male and female, represented the second largest racial/ethnic group, followed by Blacks, Native Americans and "Other".

Arrestees were most commonly 36 and older (33.4% of the male population and 32.0% of the female population), followed by individuals between 21 and 25 and 26 to 30-year olds. Overall, males represented a substantially larger portion of the incarcerated/detained population (76.5% vs. 23.5%, respectively).

Table 13: Characteristics of the Arrestee Population Participating in the Arizona Arrestee Reporting Information Network Program.

	% Male	% Female	% Total
Ethnicity/Race			
White	45.2	50.5	46.4
Black	15.5	12.8	14.8
Hispanic	33.3	27.6	31.9
Native American	5.5	8.3	6.2
Other	0.6	0.8	0.6
Age Category			
15-20	14.6	14.2	14.5
21-25	23.4	22.1	23.1
26-30	17.2	19.3	17.7
31-35	11.4	12.4	11.6
36 and Older	33.4	32.0	33.1
Total	76.5	23.5	100

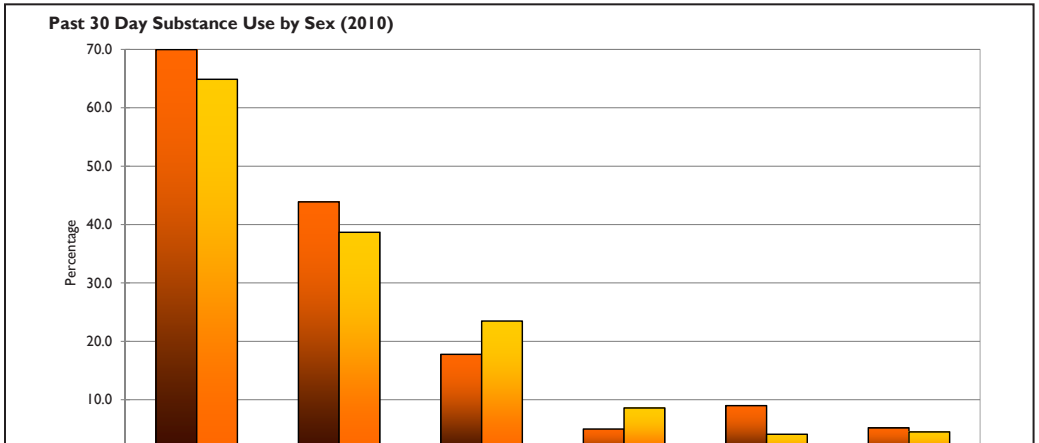
Source: Arizona Arrestee Reporting Information Network Adult Report, Arizona State University's Center for Violence Prevention and Community Safety

Past-Month Substance Use among Arrestees by Sex

Figure 34 shows self-reported 30-day substance use by sex and type of substance among the arrestee sample. Chi-square tests were conducted to determine significant differences between groups in the AARIN sample. The Chi Square test compares counts of categorical (e.g., yes or no; male or female) responses between two or more independent groups. Though percentages are presented in the figure, statistics are conducted on the actual count of individuals in each category and are compared across the categories to determine if counts in one group are statistically different (significantly more or less likely) from counts in another group. A result is deemed statistically significant when the outcome has a 5 percent probability or less of occurring by chance alone; an outcome at this probability level could be due to chance, and not an actual significant difference, but this would be expected to occur less than one time in 20. Thus, a 5 percent probability or less denotes a difference that is statistically meaningful.

Alcohol use in the last 30 days was most commonly reported by both male and female arrestees (70.0% and 64.9%, respectively), with males reporting alcohol use significantly more often than females. Marijuana use was also commonly reported by both males and females (43.9% and 38.7%, respectively). Similar to alcohol use, male arrestees reported marijuana use more often than females. In contrast, significantly more female arrestees reported methamphetamine and cocaine use compared to male arrestees. Almost 1-in-4 females used methamphetamine compared to 17.8 percent of males. Over eight percent of females reported crack cocaine use compared to five percent of males.

Figure 34: Past 30-Day Substance Use by Sex



	Alcohol*	Marijuana*	Methamphetamine*	Crack Cocaine*	Powder Cocaine*	Opiates
Male	70.0	43.9	17.8	5.0	9.0	5.2
Female	64.9	38.7	23.5	8.6	4.1	4.5

Source: Arizona Arrestee Reporting Information Network Adult Report, Arizona State University's Center for Violence Prevention and Community Safety
*p < .05

While crack cocaine, followed by opiates and powder cocaine are the least commonly used substances among arrestees, these data suggest that alcohol and marijuana use may be typical for male arrestees, while methamphetamine and crack cocaine use may be more typical for females.

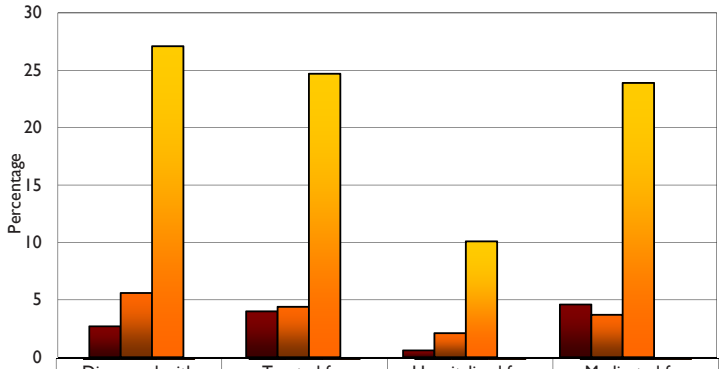
Mental Health Factors among Arrestees

Data from the 2010 Arizona Arrestee Reporting Information Network, Adult Report (White, 2010) reveal the percentage of arrestees who reported being diagnosed, treated, hospitalized or medicated for a mental illness in their lifetime, in the year before arrest, and in the prior 30-days. Lifetime outcomes shown in Figure 35 indicate that over one-quarter (27.1%) of arrestees reported being diagnosed with a mental illness in their lifetime and almost one-quarter (24.7%) indicated having been treated for such. Just over 10 percent (10.1%) of arrestees had been hospitalized for a mental illness in their lifetime and 23.9 percent had been medicated. It is important to note that treatment, hospitalization and the use of medication for mental illness occurred less frequently than diagnoses, indicating a possible gap between diagnosis and resources and/or desire for treatment.

Past 12-month data indicated that 5.6 percent of arrestees had been diagnosed with mental illness; 4.4 percent had been treated for mental illness; 2.1 percent had been hospitalized for such; and 3.7 percent had been medicated. Again, a gap exists between the percentage of arrestees diagnosed with mental illness relative to those treated, hospitalized or medicated in the past year.

Figure 35: Mental Health Diagnoses, Treatment, Hospitalizations, and Medications Among the Arizona (Maricopa County) Arrestee Population

Mental Health Diagnoses, Treatment, Hospitalizations, and Medications among the Arizona (Maricopa County) Arrestee Population, Past 30-Days, 12 Months and Lifetime (2010)



	Diagnosed with Mental Illness	Treated for Mental Illness	Hospitalized for Mental Illness	Medicated for Mental Illness
Past 30 Days	2.7	4.0	0.6	4.6
Past 12 Months	5.6	4.4	2.1	3.7
Lifetime	27.1	24.7	10.1	23.9

Source: Arizona Arrestee Reporting Information Network Adult Report, Arizona State University's Center for Violence Prevention and Community Safety

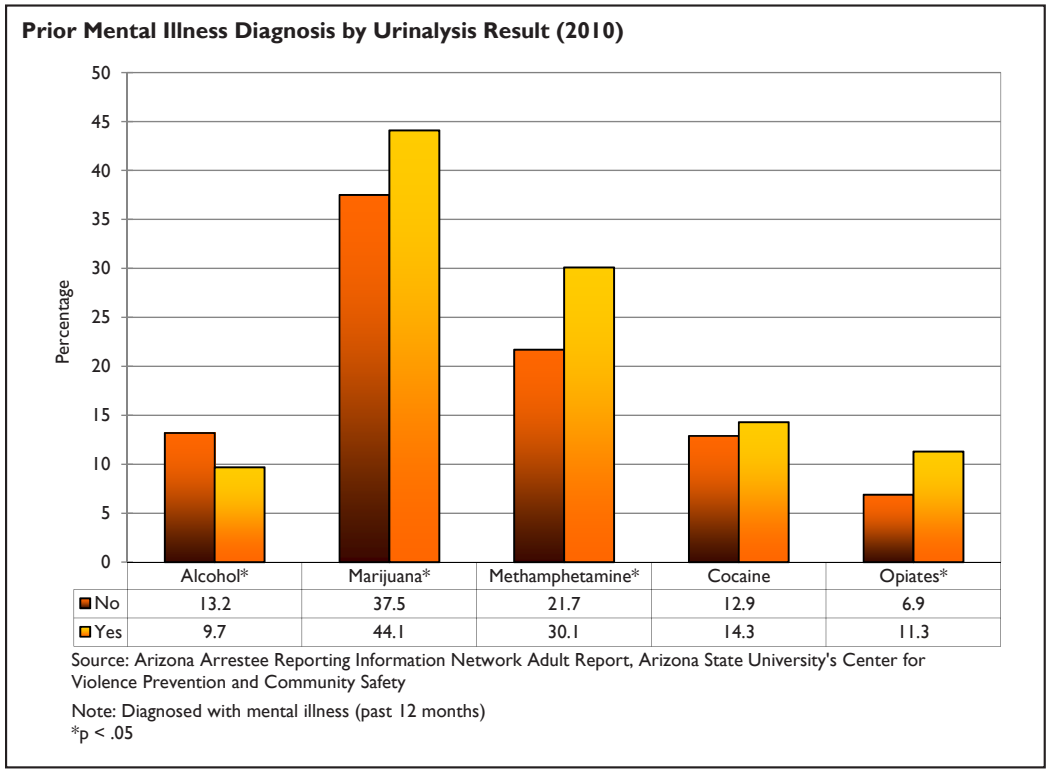
Arrestee outcomes for the past 30-days reveal a slightly different picture. More recent arrestees reported being medicated (4.6%) than had been diagnosed (2.7%) or treated (4.0%). Only 0.6 percent reported being hospitalized. This outcome makes intuitive sense in that a mental illness diagnosis may have occurred just prior to the 30-day period preceding data collection and thus, treatment and medication for mental illness may have occurred during the preceding 30 days while the diagnosis fell just outside of that time period.

Mental Illness Diagnoses and Substance Use among Arrestees

In addition to self-report data regarding mental illness, self-reported drug use is verified by urinary analysis (UA). Where applicable, statistically significant differences are reported.

Figure 36 shows that arrestees who reported having been diagnosed with a mental illness at some point during their lifetime were significantly more likely than those with no mental illness diagnosis to test positive for marijuana, methamphetamine, and opiates. The positive test rate for marijuana among these individuals was 44.1 percent compared to 37.5 percent among those with no diagnosis. among those with a mental illness diagnosis, 11.3 percent tested positive for opiates compared to 6.9 percent of those with no such diagnosis. The positive test rates for methamphetamine were 30.1 percent vs. 21.7 percent (with a mental illness diagnosis and without a diagnosis, respectively). There were no significant differences among users of cocaine, and those without a mental illness diagnosis demonstrated significantly higher rates of positive alcohol tests than those with a diagnosis (13.2% vs. 9.7%).

Figure 36: Mental Illness Diagnosis by Urinalysis Results among Arrestees, Arizona



	Alcohol*	Marijuana*	Methamphetamine*	Cocaine	Opiates*
No	13.2	37.5	21.7	12.9	6.9
Yes	9.7	44.1	30.1	14.3	11.3

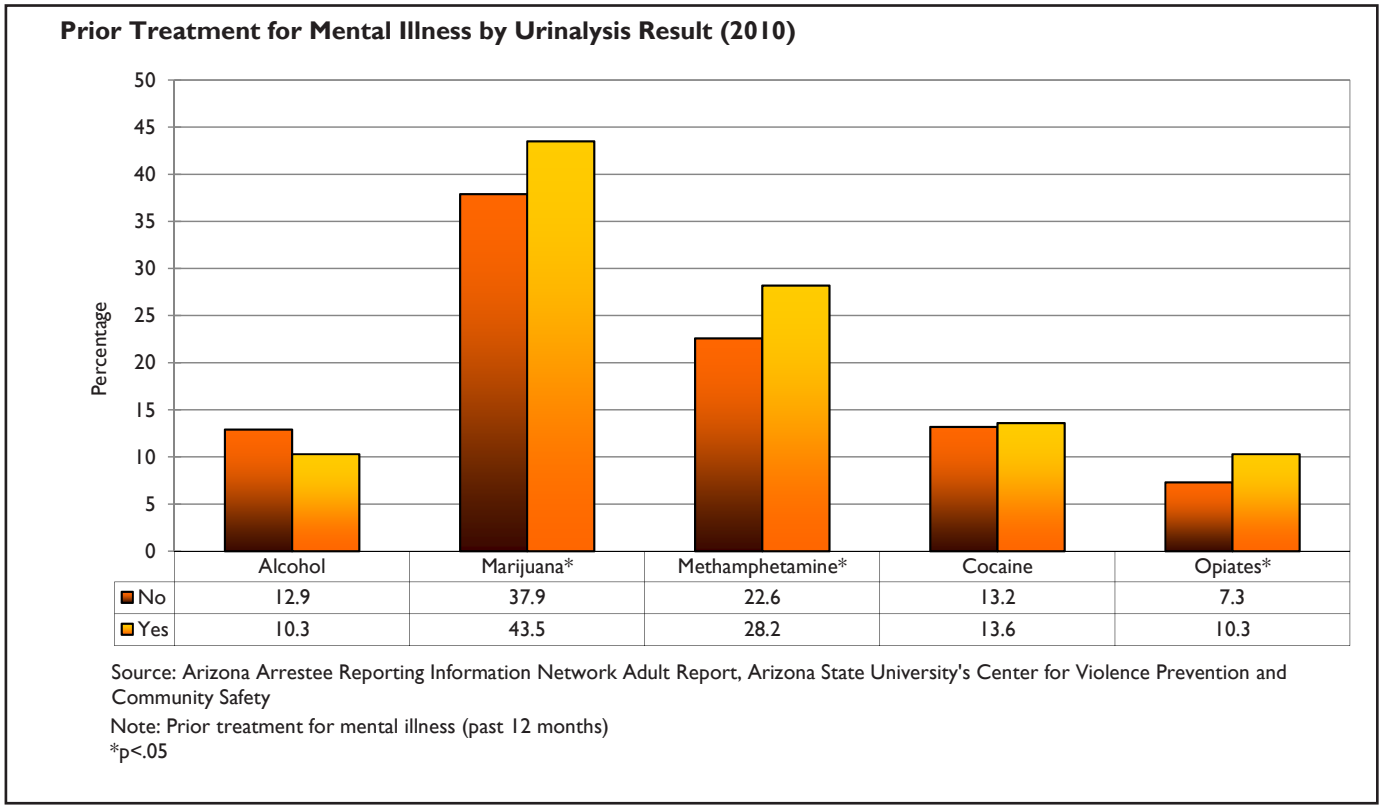
Source: Arizona Arrestee Reporting Information Network Adult Report, Arizona State University's Center for Violence Prevention and Community Safety

Note: Diagnosed with mental illness (past 12 months)
*p < .05

Mental Illness Treatment and Urinalysis Results among Arrestees

Figure 37 shows the relationship between mental health treatment and positive drug test results. Arrestees who reported receiving mental health treatment were significantly more likely than other arrestees to test positive for marijuana, methamphetamine, and opiates ($p<.05$). among those who indicated that they had received treatment, 43.5 percent tested positive for marijuana, 28.2 percent for methamphetamine, and 10.3 percent tested positive for opiates compared with 37.9 percent, 22.6 percent, and 7.3 percent among those who had not been treated, respectively. There were no significant differences between the two groups in positive urinalysis results for cocaine and alcohol.

Figure 37: Prior Treatment for Mental Illness by Positive Urinalysis among Arrestees, Arizona



	Alcohol	Marijuana*	Methamphetamine*	Cocaine	Opiates*
No	12.9	37.9	22.6	13.2	7.3
Yes	10.3	43.5	28.2	13.6	10.3

Source: Arizona Arrestee Reporting Information Network Adult Report, Arizona State University's Center for Violence Prevention and Community Safety

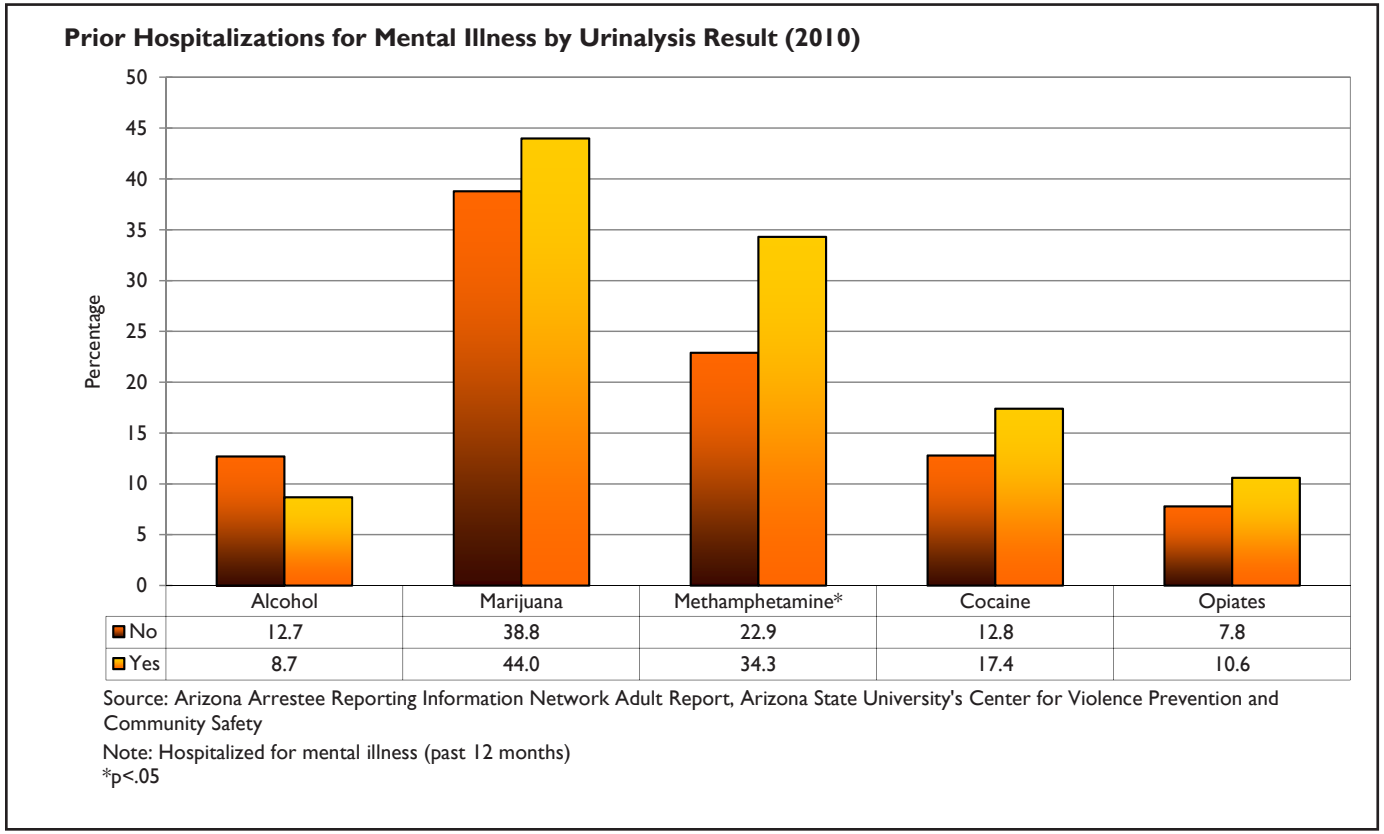
Note: Prior treatment for mental illness (past 12 months)

*p<.05

Mental Illness Hospitalizations and Urinalysis Results

With respect to those hospitalized for mental illness, Figure 38 reveals only one statistically significant difference. Approximately one-third (34.3%) of those who had been hospitalized for mental illness tested positive for methamphetamine compared to 22.9 percent of those who had not been hospitalized. Although arrestees who had been hospitalized were slightly more likely to test positive for marijuana (44.0% vs. 38.8%), cocaine (17.4% vs. 12.8%), and opiates (10.6% vs. 7.8%), none of these differences reached statistical significance.

Figure 38: Prior Hospitalizations for Mental Illness by Positive Urinalysis among Arrestees, Arizona



	Alcohol	Marijuana	Methamphetamine*	Cocaine	Opiates
No	12.7	38.8	22.9	12.8	7.8
Yes	8.7	44.0	34.3	17.4	10.6

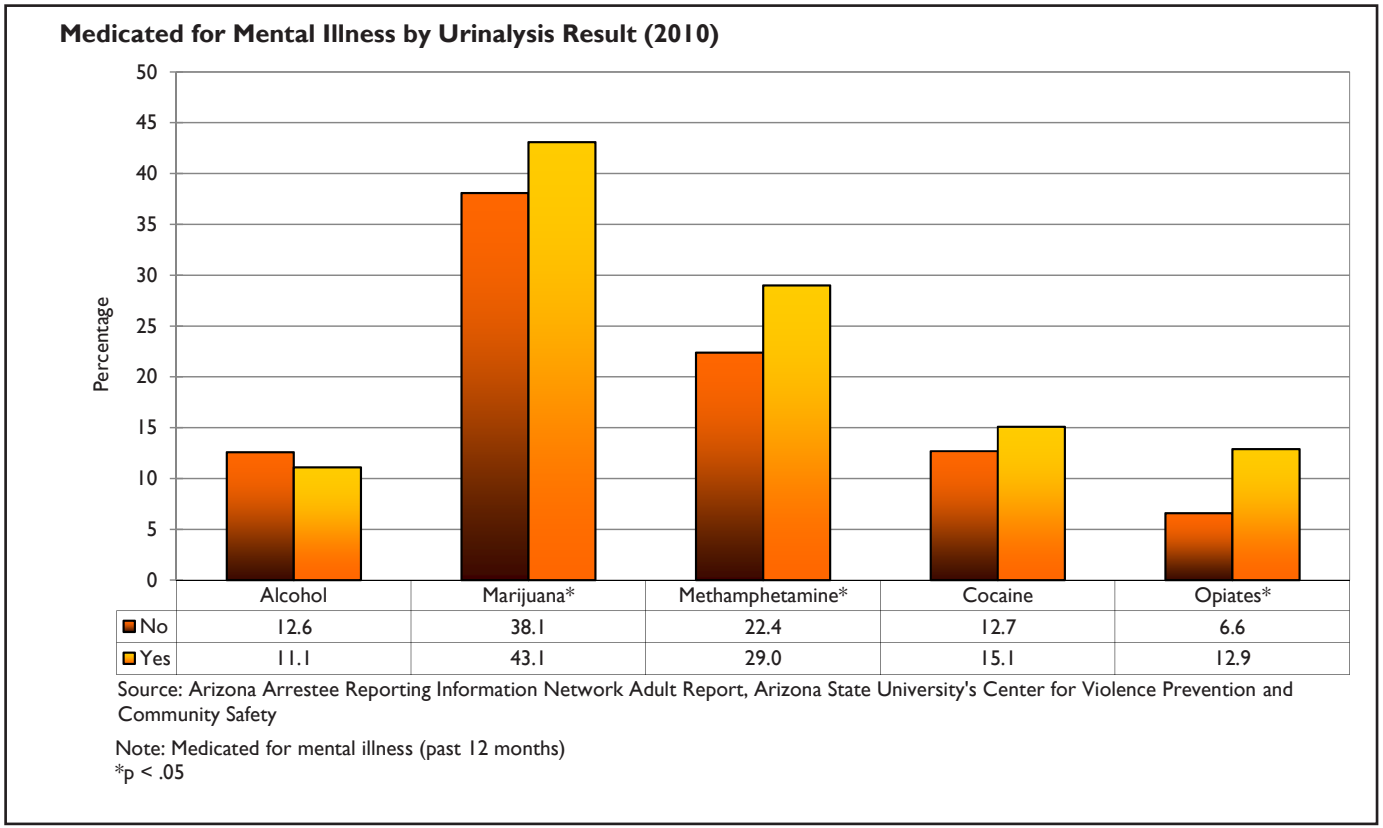
Source: Arizona Arrestee Reporting Information Network Adult Report, Arizona State University's Center for Violence Prevention and Community Safety

Note: Hospitalized for mental illness (past 12 months)
*p<.05

Medications for Mental Illness and Urinalysis Results among Arrestees

Figure 39 demonstrates the relationship between having received medication for mental illness and positive urinalysis results for alcohol and drugs. Significant differences were found between those medicated and not medicated for mental illness and positive results for marijuana (43.1% vs. 38.1%), methamphetamine (29.0% vs. 22.4%) and opiates (12.9% vs. 6.6%). No significant differences were found for cocaine and alcohol.

Figure 39: Medications for Mental Illness by Urinalysis Results among Arrestees, Arizona



	Alcohol	Marijuana*	Methamphetamine*	Cocaine	Opiates*
No	12.6	38.1	22.4	12.7	6.6
Yes	11.1	43.1	29.0	15.1	12.9

Source: Arizona Arrestee Reporting Information Network Adult Report, Arizona State University's Center for Violence Prevention and Community Safety

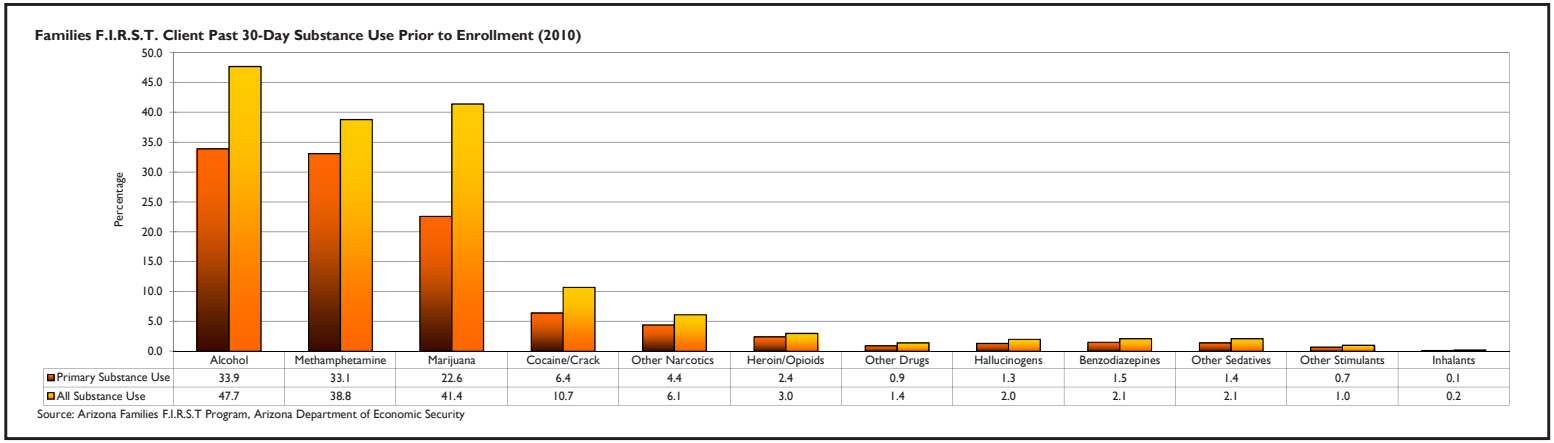
Note: Medicated for mental illness (past 12 months)
*p < .05

Families F.I.R.S.T. Participants

The Arizona Families F.I.R.S.T. (Families in Recovery Succeeding Together) program is a substance abuse prevention and treatment program established in 2000 designed to provide treatment services in order to strengthen families. Participants in Arizona Families F.I.R.S.T. (AFF) are parents or caregivers whose substance abuse has caused problems with maintaining a healthy family life. AFF is a program that provides contracted family-centered, strengths-based, substance abuse treatment and recovery support services to parents or caregivers whose substance abuse is a significant barrier to maintaining or reunifying the family. Clients for the program are referred by Child Protective Services and by the Jobs program. The goal of the program is to reduce or eliminate abuse of and dependence on alcohol and other drugs, and to address other adverse conditions related to substance abuse. Participants who enter the program report their substance use pattern for the preceding 30 days. The information about substance use patterns from 2010 can be found in the AFF Program Annual Evaluation Report (Arizona Department of Economic Security, 2010).

Figure 40 provides information about primary substance use as well as any substance use. Alcohol (33.9%), methamphetamine (33.1%) and marijuana (22.6%) were the most commonly reported primary substances used prior to enrollment. Similarly, alcohol, marijuana and methamphetamine were the most frequently-used substances reported (i.e., not just the primary substance used). Given that many individuals enrolled in the AFF program are involved in the child welfare system, it is evident that substance abuse, especially the use of alcohol, methamphetamine and marijuana, is adversely impacting family dynamics and the security of Arizona youth.

Figure 40: Past 30-Day Substance Use among Participants of the Families F.I.R.S.T. Program



	Alcohol	Methamphetamine	Marijuana	Cocaine/Crack	Other Narcotics	Heroin/Opioids	Other Drugs	Hallucinogens	Benzodiazepines	Other Sedatives	Other Stimulants	Inhalants
Primary Substance Use	33.9	33.1	22.6	6.4	4.4	2.4	0.9	1.3	1.5	1.4	0.7	0.1
All Substance Use	47.7	38.8	41.4	10.7	6.1	3.0	1.4	2.0	2.1	2.1	1.0	0.2

Source: Arizona Families F.I.R.S.T Program, Arizona Department of Economic Security

Previously-Identified Emerging Issues — Updates

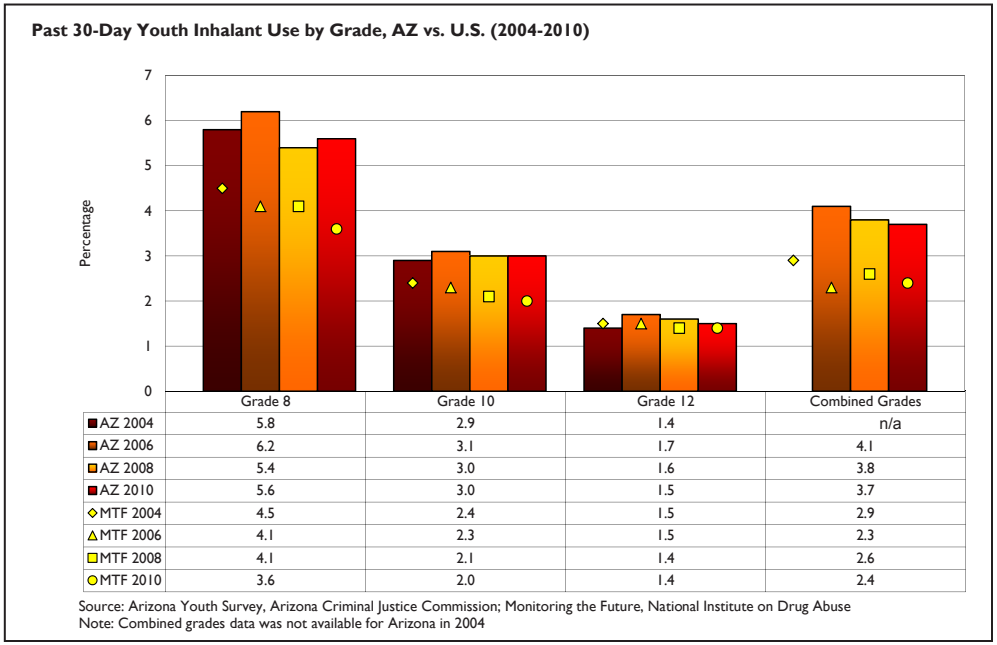
Youth Inhalant Use

An emerging trend noted in *The Impact of Substance Abuse: A Snapshot of Arizona* (2008) indicated that, typically, older youth are more likely to use substances than younger individuals. In contrast, inhalant use (i.e., sniffing glue, breathing the contents of an aerosol spray can, or inhaling other gases or sprays) trends both in Arizona and nationally (Monitoring the Future, 2010) indicate that higher percentages of 8th graders reported the use of inhalants than did 10th and 12th graders (see Figure 39). This finding was highlighted in 2008 for continued monitoring because of the damaging effects of inhalants on the developing brain.

Figure 41 shows that, for all grades, inhalant use increased in Arizona from 2004 to 2006 and then decreased in 2008. The 2006 to 2008 decrease was particularly notable in Grade 8 as the percentage indicating use in the last 30 days decreased from 6.2 to 5.4 percent. In 2010, 8th grade inhalant use increased slightly from 5.4 to 5.6 percent, while use in Grade 10 remained constant and use among high school seniors decreased from 1.6 percent in 2008 to 1.5 percent in 2010. Nationally, the pattern of inhalant use by grade is similar, but more consistent. National data indicate stable or declining use of inhalants by grade and for all grades combined from 2004 to 2010 (Monitoring the Future, 2010).

The pattern observed in 2008 remains; inhalant use is more common among younger youth and declines as youth age. As data in this report suggest, the use of other substances becomes more common as youth age, making inhalants an anomalous substance. Despite the declining use of inhalants, Monitoring the Future Survey data indicate that nationwide, perceptions among 8th graders of the harmfulness of trying inhalants once or twice have decreased slightly (from 38.7% considering it harmful in 2004 to 35.5% in 2010). Similarly, the percentage of youth who disapprove of trying inhalants once or twice has declined slightly (from 85.1% in 2004 to 83.1% in 2010).

Figure 41: Past 30-Day Inhalant Use



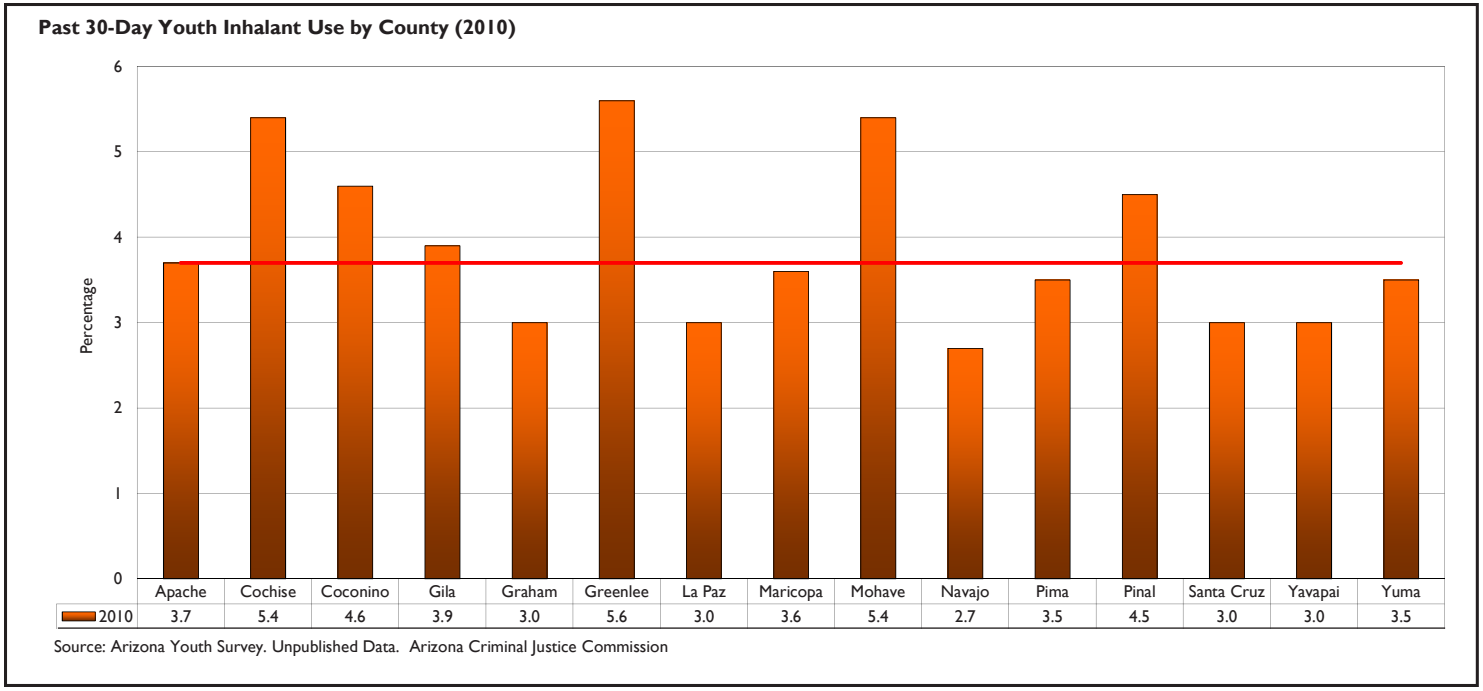
	Grade 8	Grade 10	Grade 12	Combined Grades
AZ 2004	5.8	2.9	1.4	n/a
AZ 2006	6.2	3.1	1.7	4.1
AZ 2008	5.4	3.0	1.6	3.8
AZ 2010	5.6	3.0	1.5	3.7
MTF 2004	4.5	2.4	1.5	2.9
MTF 2006	4.1	2.3	1.5	2.3
MTF 2008	4.1	2.1	1.4	2.6
MTF 2010	3.6	2.0	1.4	2.4

Source: Arizona Youth Survey, Arizona Criminal Justice Commission; Monitoring the Future, National Institute on Drug Abuse
Note: Combined grades data was not available for Arizona in 2004

Youth Inhalant Use by County

Differences in past 30-day inhalant use are found by county (see Figure 42) with 2.7 percent of surveyed youth reporting inhalant use in some areas and up to 5.6 percent in others. (Note: The red line in the figure below indicates the state average.)

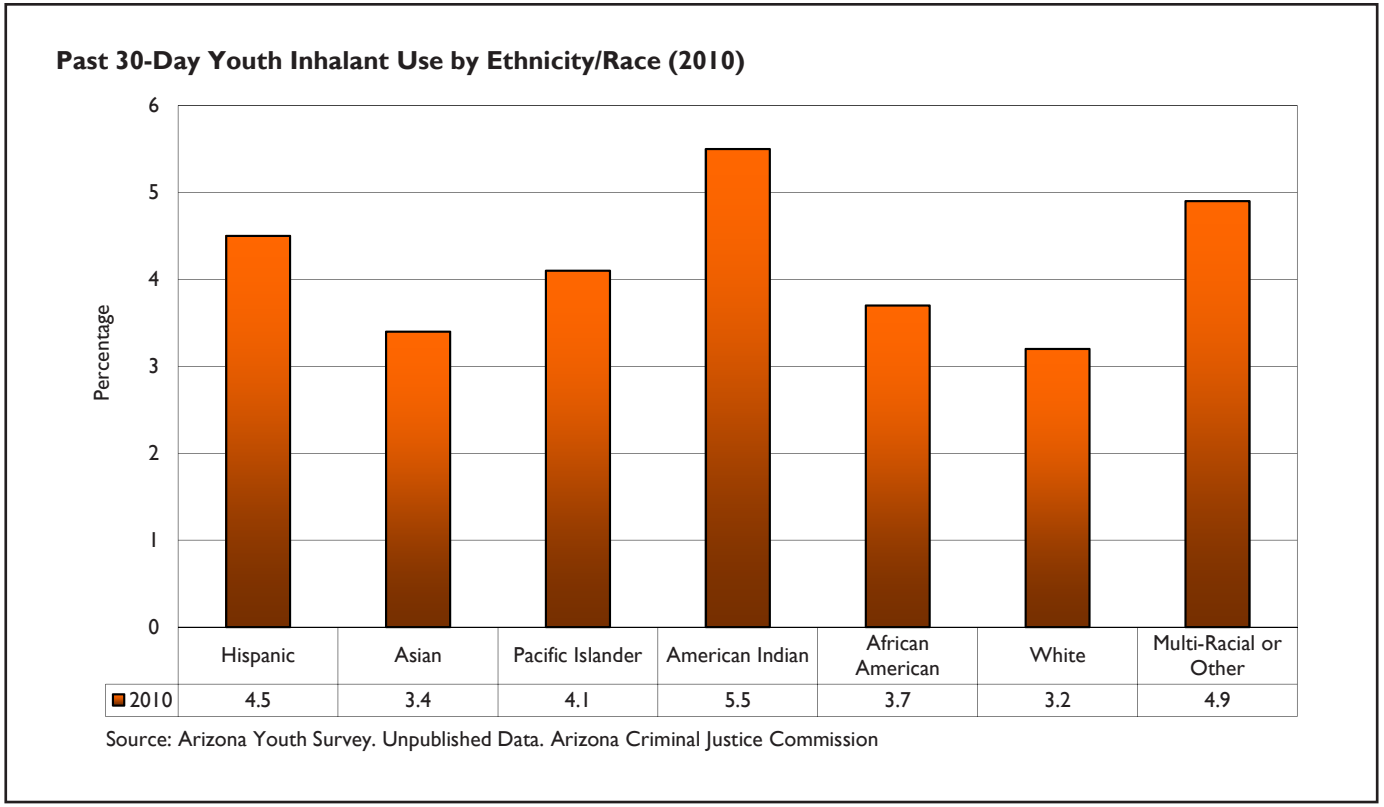
Figure 42: Past 30-Day Inhalants Use by County



Youth Inhalant Use by Ethnicity/Race

Racial/ethnic variations in inhalant use are noted in Figure 43. American Indian (5.5%) and "Multi-racial or other" youth (4.9%) appear to be the most susceptible to the dangers of inhalant use. In contrast, White youth (3.2%) and Asian youth (3.4%) were least likely to use inhalants. It is important to remember that protective factors that act as buffers for each racial/ethnic group should be examined in detail and used as a basis for designing culturally-competent responses to this and other issues.

Figure 43: Past 30-Day Youth Inhalant Use by Ethnicity/Race



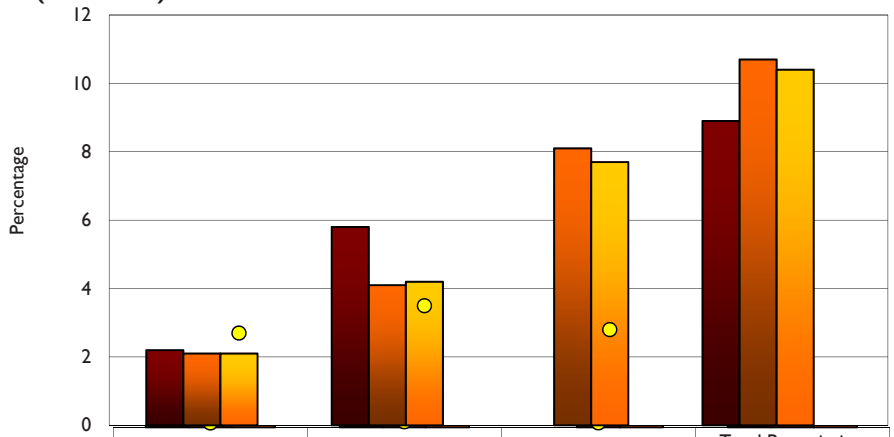
Source: Arizona Youth Survey. Unpublished Data. Arizona Criminal Justice Commission

Youth Prescription Drug Use

The misuse of prescription drugs is another emerging topic that has received national attention. Over six percent of Arizona 8th, 10th and 12th grade youth reported the misuse of prescription drugs in the 30 days prior to the 2006 survey (Arizona Criminal Justice Commission, 2006). This rate has increased since that time, with over 10 percent of Arizona 8th, 10th and 12th grade students reporting the misuse of prescription drugs in 2010 (see Figure 44). In order to better understand what types of prescriptions were being abused, the wording of the questions pertaining to the misuse of prescription drugs was changed for the 2008 and 2010 administrations of the AYS (i.e., to delineate stimulant, sedative and pain reliever use). Figure 44 indicates that since 2006, prescription pain relievers (narcotics) were the most commonly-misused prescription drugs second to sedatives. Moreover, a higher percentage of Arizona students reported use of these two types of prescription drugs than their peers across the nation, but a lower percentage of Arizona students misused stimulants. While we can celebrate the fact that the percentage of students using pain relievers and sedatives in Arizona has decreased since 2006, overall prescription drug use has increased over that time period.

Figure 44: 30-Day Youth Prescription Drug Use by Prescription Type and Year

Past 30-Day Youth Prescription Drug Use in the Past 30-Days by Type of Drug, AZ vs. U.S. (2006-2010)



	Stimulants	Sedatives	Pain Relievers	Total Prescription Drugs
AZ 2006	2.2	5.8	n/a	8.9
AZ 2008	2.1	4.1	8.1	10.7
AZ 2010	2.1	4.2	7.7	10.4
MTF 2010	2.7	3.5	2.8	n/a

Source: Arizona Youth Surve, Arizona Criminal Justic Commission; Monitoring the Future, National Institude on Drug Abuse
Note: MTF data for "Total Prescription Drugs" was not available.

Youth Prescription Drug Use by Demographics

The 2010 AYS data indicate differences in prescription drug use by respondent demographics. For example, a higher percentage of female youth reported past 30-day use of prescription sedatives (5.0% vs. 4.2%), and overall prescription drug use (10.9% vs. 9.8%) than did their male counterparts. However, the use of prescription stimulants (2.1% vs. 2.2%) and narcotics was similar for females and males, respectively (7.8% vs. 7.6%).

Table 14 indicates that the use of prescription stimulants, sedatives and pain relievers appears to be highest among 10th and 12th graders. Overall, more than 1-in-10 youth in 10th and 12th grade indicated misuse of any prescription drug between 2006 and 2010. When compared with their peers across the nation, Arizona 8th, 10th and 12th graders reported higher use of sedatives and prescription pain relievers.

Table 14. Past 30-Day Youth Use of Prescription Drugs for Non-Prescribed Purposes by Grade and Prescription Type, Arizona (2006 - 2010)

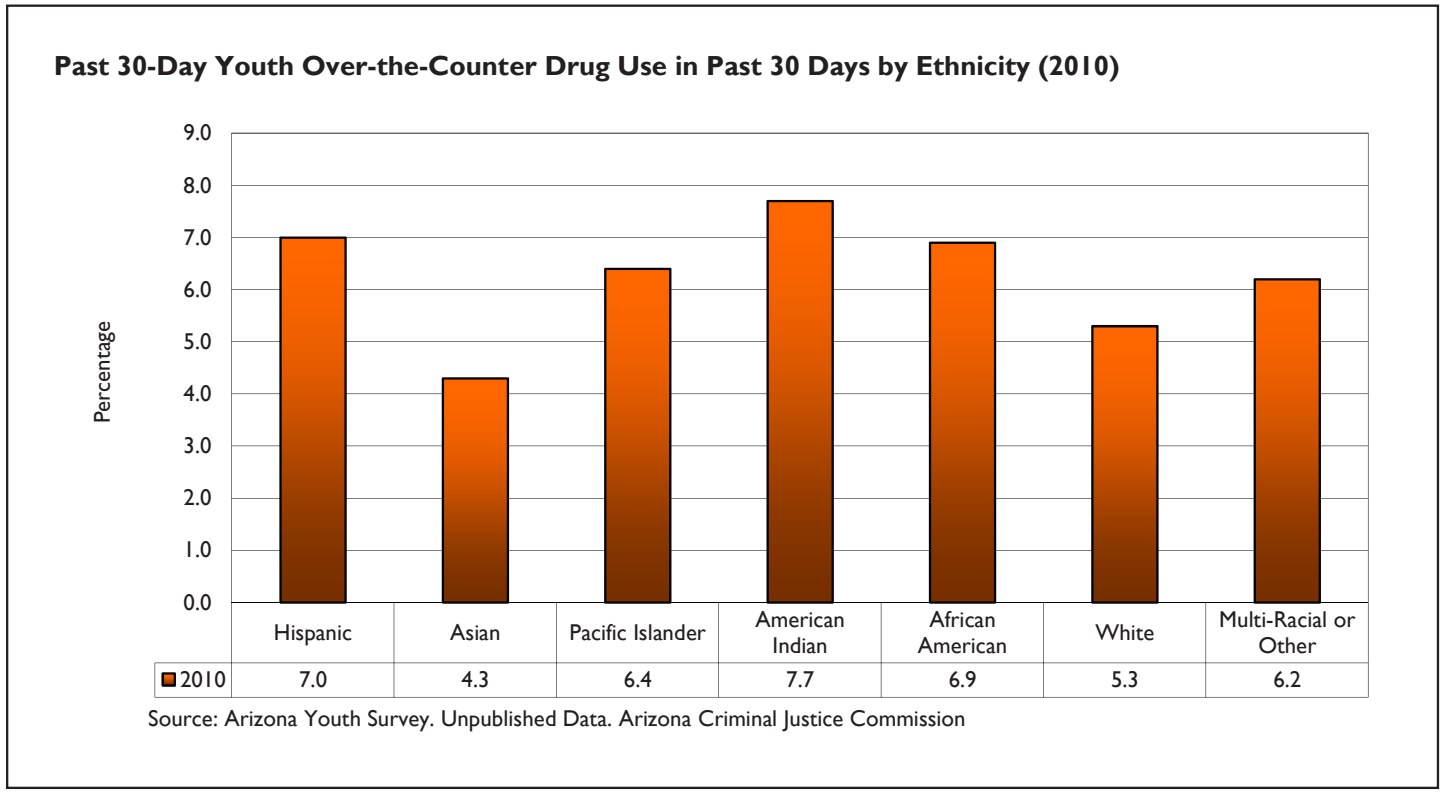
	8th Grade				10th Grade				12th Grade			
	2006	2008	2010	MTF '10	2006	2008	2010	MTF '10	2006	2008	2010	MTF '10
Prescription Stimulants	1.5	1.6	1.4	1.9	2.9	2.9	2.8	3.3	2.6	2.1	2.5	3.0
Prescription Sedatives	4.5	3.4	3.6	2.5	6.6	4.5	4.7	3.9	7.1	5.0	4.7	4.2
Prescription Pain Relievers	n/a	6.0	5.7	1.3	n/a	9.4	8.9	3.0	n/a	10.5	9.7	4.1
Total Prescription Drugs	7.0	8.6	8.2	n/a	10.3	12.2	11.8	n/a	10.4	13.1	12.4	n/a

Source: Arizona Youth Survey, Arizona Criminal Justice Commission
Source: Monitoring the Future, National Institute on Drug Abuse

Youth Over-the-Counter Drug Use by Ethnicity/Race

Figure 45 indicates a slight variation overall by race/ethnicity for total over-the-counter drug use, with Asian youth reporting the lowest use (4.5%) and youth describing themselves as "Multi-racial or other" and American Indian indicated the highest use (12.0% for both ethnic/racial groups). For the other racial/ethnic groups, roughly one-in-10 youth indicated any form of prescription drug misuse.

Figure 45: Past 30-Day Youth Over-the-Counter Drug Use by Ethnicity/Race



Source: Arizona Youth Survey. Unpublished Data. Arizona Criminal Justice Commission

Youth Prescription Drug Use by Ethnicity/Race

Table 15 indicates that rates of prescription stimulant use do not vary widely by race/ethnicity, but there is some variation in use rates for sedatives and pain relievers. For example, sedatives appear to be most widely used by youth who identify as "Multi-racial or other", while pain relievers are used by more youth who identify as American Indian. Information such as this may be helpful in informing programs aimed at reducing the availability of prescriptions to all youth, but particularly to those youth who report disproportionate use.

Table 15: Past 30-Day Youth Use of Prescription Drugs for Non-Prescribed Purposes by Ethnicity/Race and Prescription Type, Arizona (2010)

Ethnicity	Prescription Stimulants	Prescription Sedatives	Prescription Pain Relievers	Total Prescription Drugs
Hispanic	1.7	4.1	8.5	10.9
Asian	1.0	2.1	3.1	4.5
Pacific Islander	2.7	3.9	7.1	9.6
American Indian	2.0	3.9	10.2	12.0
African American	2.0	3.0	7.0	8.8
White	2.5	4.5	7.5	10.5
Multi-Racial or Other	2.3	5.2	8.8	12.0

Source: Arizona Youth Survey. Unpublished Data. Arizona Criminal Justice Commission

Youth Prescription Drug Use by County

Table 16 presents data on prescription drug use in Arizona by county. Prescription drug use varies by county of residence, with youth in rural areas being more likely to report this dangerous behavior. These findings again point to the necessity of customizing programs to the needs of youth based on where they live, their age and their racial/ethnic background, remembering also to examine the strengths upon which these groups can build.

Table 16: Past 30-Day Use of Prescription Drugs by Type and County (2010)

County	Prescription Stimulants	Prescription Sedatives	Prescription Pain Relivers	All Prescription Drugs
Apache	1.8	3.5	8.2	9.9
Cochise	1.6	4.1	6.0	8.9
Coconino	1.8	3.1	6.2	9.2
Gila	1.1	3.8	8.7	10.8
Graham	1.6	4.3	8.5	11.4
Greenlee	1.6	4.8	9.7	12.9
La Paz	1.4	4.2	7.8	10.0
Maricopa	2.3	4.2	7.3	10.1
Mohave	1.9	6.3	10.7	13.5
Navajo	1.0	3.3	7.6	9.2
Pima	2.3	4.7	9.3	12.0
Pinal	1.6	3.7	8.6	10.8
Santa Cruz	0.8	2.4	6.9	8.7
Yavapai	1.9	4.4	9.2	11.5
Yuma	2.3	3.3	8.2	11.0

Source: Arizona Youth Survey 2010. Unpublished Data. Arizona Criminal Justice Commission

New Emerging Issues

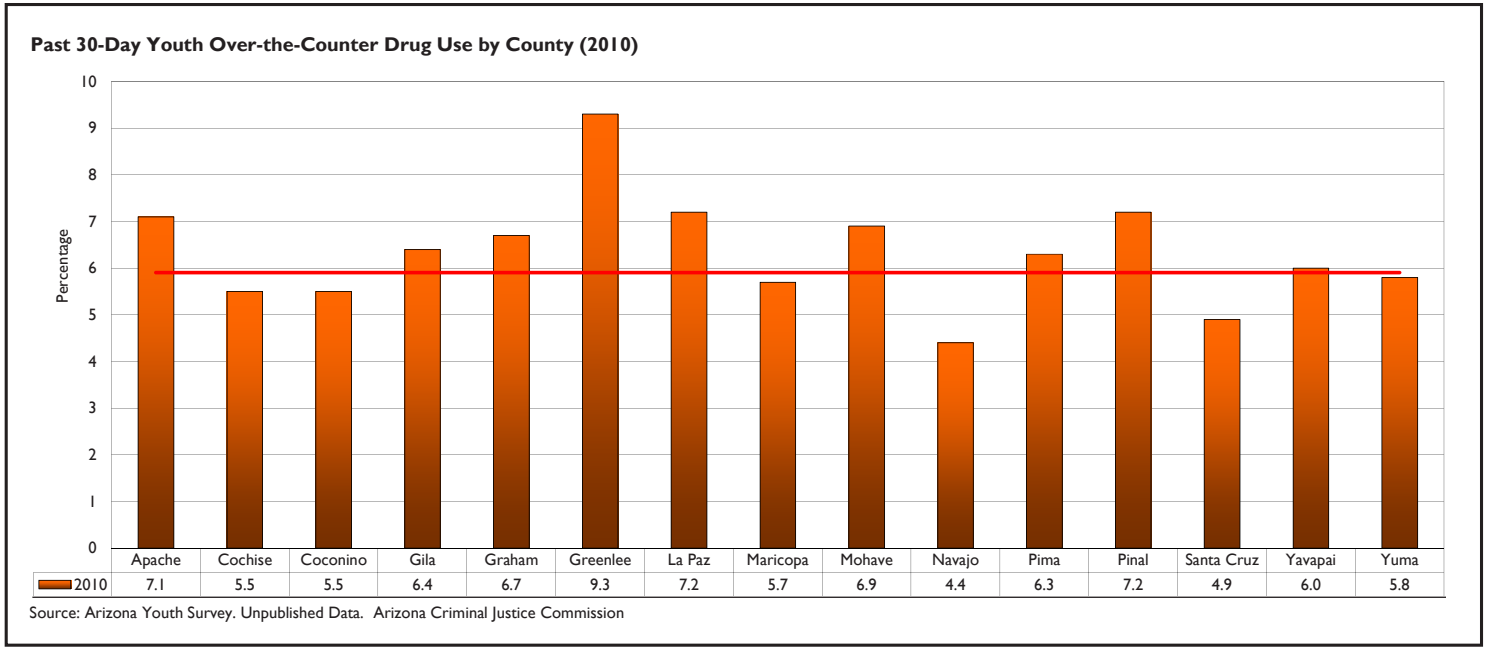
Youth Over-the-Counter Drug Use by County

The Arizona Youth Survey first surveyed youth about use of over-the-counter medications in 2008. Since that time, there has been a slight increase in over-the-counter drug use among 12th graders, increasing from 5.9 percent in 2008 to 6.3 percent in 2010. Use among 8th and 10th grade students decreased slightly over the same time period. Eighth graders' use decreased from 5.6 percent to 5.4 percent, while 10th graders' use decreased from 5.6 percent to 5.4 percent. The percentages of youth in grades 8 and 10 who used over-the-counter medications did not change dramatically. Overall, older students indicated more over-the-counter drug use.

The AYS finds that higher percentages of females reported past 30-day over-the-counter drug use (6.2% vs. 5.6%) than male students (Arizona Criminal Justice Commission, 2010c). Similar to prescription drug misuse, abuse of over-the-counter drugs is dangerous given that youth may be unaware of potential interactions between over-the-counter medications and illicit drugs, prescription drugs and alcohol.

Figure 46 reports on over-the-counter drug use by county of residence and indicates a pattern seen elsewhere in this report: youth living in rural counties are more likely to misuse than youth in urban areas. (Note: The red line in the figure below indicates the state average.)

Figure 46: Past 30-Day Youth Over-the-Counter Drug Use by County, Arizona



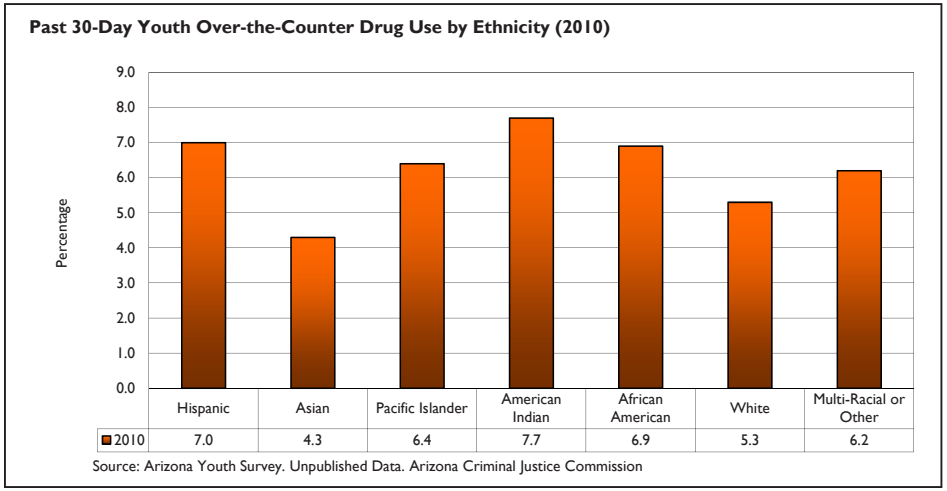
	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz	Maricopa	Mohave	Navajo	Pima	Pinal	Santa Cruz	Yavapai	Yuma
2010	7.1	5.5	5.5	6.4	6.7	9.3	7.2	5.7	6.9	4.4	6.3	7.2	4.9	6.0	5.8

Source: Arizona Youth Survey. Unpublished Data. Arizona Criminal Justice Commission

Over-the-Counter Drug Use by Ethnicity/Race

Figure 47 reports on over-the-counter drug use by race/ethnicity. American Indian, Hispanic and African American youth reported higher over-the-counter use in 2010 than other racial/ethnic groups. The lowest use was indicated by Asian youth, similar to findings regarding prescription drug use.

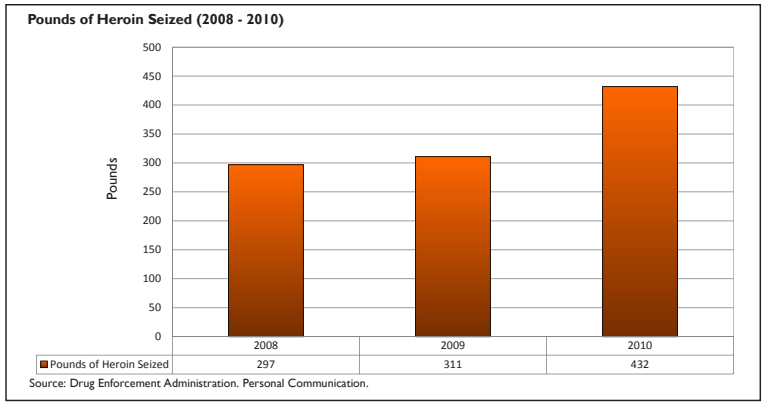
Figure 47: Past 30-Day Youth Over-the-County Drug Use by Ethnicity/Race



Heroin Use and Seizures

As previously mentioned, the DEA reports an increase of approximately 25 percent in the amount of heroin seized in Arizona between calendar year (CY) 2008 and 2010 (see Figure 48) as well as an increase in the amount of methamphetamine and marijuana seized over the same period. This trend begs attention due to the increase in the number of hospital admissions for heroin noted earlier in this report.

Figure 48: Pounds of Heroin Seized, Arizona

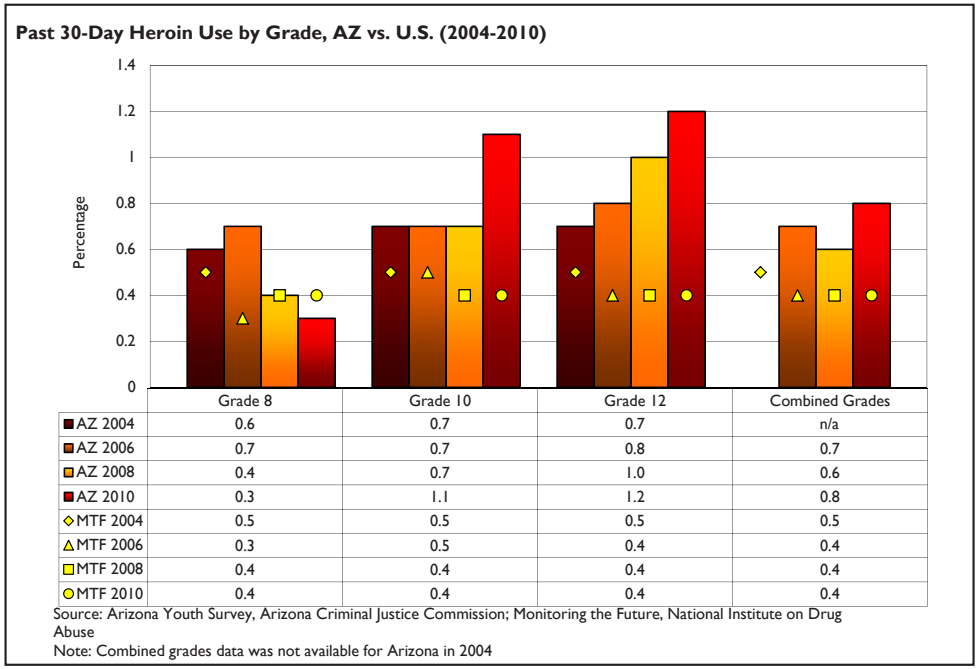


Past-Month Youth Heroin Use

Although the percentage of youth reporting heroin use in the last 30 days appears to be low, it has increased for some age groups over time (see Figure 49). More specifically, while the percentage of 8th grade youth in Arizona who reported past 30-day heroin use decreased since 2004 (from 0.6% in 2004 to 0.3% in 2010, the percentage of 10th graders reporting such use increased since 2008 (0.7% in 2008 vs. 1.1% in 2010). Similarly, the percentage of high school seniors who reported heroin use increased at each survey administration (0.7% in 2004, 0.8% in 2006, 1.0% in 2008, and 1.2% in 2010), indicating that youth who are entering adulthood may be more at risk of heroin use and the consequences associated with the drug. Furthermore, a higher percentage of Arizona youth reported heroin use than their peers across the nation. Similar to the other substances examined in this report, differences by gender and county were noted. More males than females reported using the drug in 10th and 12th grade. While most counties had very few youth who reported heroin use, others appear to bear more of the burden associated with the drug (Arizona Criminal Justice Commission, 2010a).

The Arizona Health Survey indicates that a relatively small percentage of adults reported heroin use (0.2%) (Saint Luke's Health Initiatives, 2010). While the percentage of non-incarcerated adults and non-detained youth self-reporting use of the drug is low, increases in heroin seizures, hospital admissions and substance abuse treatment services indicate that both drug trafficking and use of the drug are to blame for its toll on Arizona, a cost we clearly cannot afford to pay.

Figure 49: Past 30-Day Youth Heroin Use by Grade and Year



	Grade 8	Grade 10	Grade 12	Combined Grades
AZ 2004	0.6	0.7	0.7	n/a
AZ 2006	0.7	0.7	0.8	0.7
AZ 2008	0.4	0.7	1.0	0.6
AZ 2010	0.3	1.1	1.2	0.8
MTF 2004	0.5	0.5	0.5	0.5
MTF 2006	0.3	0.5	0.4	0.4
MTF 2008	0.4	0.4	0.4	0.4
MTF 2010	0.4	0.4	0.4	0.4

Source: Arizona Youth Survey, Arizona Criminal Justice Commission; Monitoring the Future, National Institute on Drug Abuse
Note: Combined grades data was not available for Arizona in 2004

Data Gaps

According to its purpose, the Epi Work Group identifies substance consumption and consequence patterns in the State. The Epi Work Group's primary goal is to bring data to bear on the substance abuse issues facing Arizona. In this vein, the Epi Work Group continues to enhance the State's data collection infrastructure and data-sharing mechanisms.

In the course of the Epi Work Group's efforts, a variety of data and research needs have been identified, some of which presented significant gaps in Arizona's knowledge of substance consumption and consequence patterns. The 2005, 2007 and 2009 *Substance Abuse Epidemiology Profile* (Profile) noted several data collection needs, many of which the Epi Work Group and the State have been able to address. Other data gaps remain. The following information notes the work necessary to improve the state's ability to make data-driven decisions, and reports on how the GOCYF, the Epi Work Group and other stakeholders can continue to further these efforts.

Sub-County Data

The Epi Work Group seeks to acquire and provide survey data at a sub-county level, or archival data that can be disaggregated to a sub-county level, whenever possible. In most instances, survey and archival data are readily available at a county level, but this may not accurately describe the circumstances at a municipal- or neighborhood-level. Further, the costs of sampling so that smaller geographic areas can be reliably estimated are often prohibitive.

When the 2009 *Substance Abuse Epidemiology Profile* was published, Arizona did not have an institutionalized drug data clearinghouse that centralized the storage and dissemination of state and local drug data. The Epi Work Group was responsible for collecting data from a variety of national, state, and local sources, and facilitating the dissemination of these data to substance abuse prevention policymakers and practitioners statewide in the form of data requests to the appropriate entities. The Epi Work Group and the GOCYF recognized the need for improved data collection and coordination between Arizona's communities and tribal nations and a public access drug data prevention resource hub for the dissemination of local consumption, consequence and context data.

To address this need, Arizona devised a strategy to assess sub-county estimates and present this information to communities who depend upon data to make decisions about the needs of their communities. Utilizing monies from the SPF SIG, the Statistical Analysis Center (SAC) of the Arizona Criminal Justice Commission (ACJC) created and maintains a Drug Data Clearinghouse as part of an initiative known as the Community Data Project (CDP) (see http://www.bach-harrison.com/arizonadataproject).

The foundation of the Drug Data Clearinghouse of the CDP was determined by the indicators included in Arizona's biennial *Substance Abuse Epidemiology Profile*, which compiles data from a variety of federal, state, and local sources. Staff members at the ACJC's SAC have created an electronic data warehouse that contains both current and historical data for elements in the *Substance Abuse Epidemiology Profile* at the smallest unit of analysis publicly available (e.g., state, county, city, zip code, census block, etc.).

The ACJC is responsible for updating the data maintained in the Drug Data Clearinghouse, with the assistance of the Epi Work Group and with funding from the State Epidemiological Outcomes Workgroup (SEOW) subcontract from the Substance Abuse and Mental Health Services Administration (SAMHSA) administered by Synectics for Management Decisions, Inc. The ACJC and partners also identify additional data sources relevant to the work of the Arizona Substance Abuse Partnership (ASAP), its work groups, and state and local substance abuse prevention practitioners and policymakers. Emphasis is placed on obtaining local data (e.g., city and community-level data) for and from local substance abuse prevention coalitions.

The site has interactive mapping and data file functions that allow users to select specific data elements and geographic units of analysis most relevant to their work and have those data delivered in a variety of formats (i.e., maps, tables and graphs) that can be saved and imported into reports and other documents and downloaded into a spreadsheet format.

Another important component of the CDP is the creation of substance abuse prevention coalition-level "data books" that provide a fundamental understanding of the impact of drug and alcohol use on Arizona's communities. These books use data from the Drug Data Clearinghouse to paint a comprehensive picture of consumption, consequences and the context in which substance use/abuse occurs for the 26 substance abuse prevention community coalitions previously funded through the Strategic Prevention Framework State Incentive Grant (SPF SIG).

Over the next year, the Epi Work Group and the GOCYF will work on a Data Dissemination Plan that includes educating communities, policymakers and other key stakeholders about the numerous uses of the CDP, including grant writing and reporting; project and program evaluation; prevention and intervention planning; and conveying community needs to decision-makers.

Substance Abuse Prevention Resources and Substance Abuse Treatment Service Capacity

The 2005 and 2007 *Substance Abuse Epidemiology Profile* included an assessment of prevention resources available in the state. While the Epi Work Group recommended that these assessments continue and that data at the lowest geographic level possible be utilized (closest to program delivery), the Arizona Drug and Gang Prevention Resource Center, whose staff assisted with these efforts in the past, was defunded by the Arizona State Legislature in 2009. Thus, the 2009 Profile did not include this information, but recognized the need for accurate and timely information on the prevention resources available in the state, including measures of the behavioral objectives targeted by these resources.

This year, the GOCYF, the Epi Work Group and the Southwest Interdisciplinary Research Center (SIRC) at Arizona State University (ASU) will help assess gaps in the available substance abuse prevention resources available to meet the needs of Arizona's communities and residents using data collected by the Arizona Department of Health Services (ADHS).

Additionally, GOCYF, SIRC and the Epi Work Group will utilize data from the ADHS to help Arizona monitor its substance abuse treatment service capacity. Information on the location and specific services offered by treatment facilities will be a valuable resource for communities making treatment referrals as well as for identifying disparities between treatment need relative to treatment service availability.

Combined, information on the prevention and treatment resources available within Arizona's communities will facilitate an understanding of gaps between the needs of Arizona's communities and the resources to address these issues.

Tribal Data

While the substance abuse consequence and consumption pattern data specific to American Indians are useful whenever information on ethnicity is available, data specific to the 21 tribes in Arizona are not available to include in this report at this time. Currently, it is not customary for tribal data to be organized in a centralized tribal repository or shared outside of tribal programs. In addition, many tribes could use the assistance of "data experts" to help them process their client data into a usable format. Further, the operationalizations of data indicators often vary by tribe, and no standardized local data collection process currently exists. Therefore, comparisons across tribes and between any particular tribe and the state are not yet feasible. Closing the existing gaps between tribal and non-tribal data indicators in order to accurately measure substance abuse among American Indians in Arizona will require consistent, on-going communications and meaningful partnerships between tribes, tribal entities, and federal and state partners.

Measures of the Severity of Substance Use

The Epi Work Group understands that certain consequences or drugs may exert a heavier toll on individuals and society than others. The 2005 *Substance Abuse Epidemiology Profile* was not able to describe or quantify the effects of substance use on individuals or society, and additional data in the 2007 *Substance Abuse Epidemiology Profile* only pointed to the economic costs and utilization of system resources associated with substance abuse. Specifically, the 2007 profile outlined the economic burden of smoking-attributable diseases and provided a description of the population utilizing publicly-funded substance abuse treatment services. The 2009 *Substance Abuse Epidemiology Profile* attempted to further these efforts, but more information is needed.

Literature on the costs to society associated with specific substances should be reviewed, as should cost-benefit analyses that measure the fiscal impact of diverting criminal offenders to substance abuse treatment services (i.e., not incarcerating them).

Proportion of Health or Social Problems Attributable to Substance Use

Throughout the development of the 2005, 2007 and 2009 *Substance Abuse Epidemiology Profile*, questions about the relationship of substance use to other health issues such as heart disease and cancer, and to social problems such as crime and school dropout, have remained unanswered. The Epi Work Group acknowledges that these relationships exist and are an essential contribution to a robust profile of the effects of substance use.

Addressing this data gap requires few resources and should begin with a literature review of studies that measure the impact of substance abuse on these health and social problems, including an examination of studies specific to Arizona's population. Additional analysis of adult data from the Arizona Health Survey could also begin to provide these insights.

Substance-Specific Data

Attention to substance-specific consumption and consequence patterns has been hampered by a lack of verifiable data. For example, data related to primary substance use is self-reported by clients entering treatment services and much of this information is not verified by urinalysis or other means. Further, we have only anecdotal information about criminal activities motivated by efforts to obtain illicit drugs or alcohol, or such activities that occur in which the participant is under the influence of drugs or alcohol, and even less information about the substances used by individuals in the commission of crime.

Data captured by the Arizona Arrestee Reporting Information Network (AARIN) are used to broaden our understanding of the correlation between substance abuse and crime. The AARIN project is grant-funded research conducted by researchers at the Center for Violence Prevention and Community Safety at Arizona State University (ASU) and is sponsored by the Maricopa County Board of Supervisors. The AARIN is modeled after the National Institute of Justice's (NIJ) Arrestee Drug Abuse Monitoring (ADAM) program. The AARIN project provides a cost-effective means of detecting the drug use patterns of arrestees in Arizona to be utilized as an early warning and monitoring system, and as a research platform to serve as a guide for data-driven policy and decision-making. Interviews of recent arrestees include questions on veteran status, gang involvement and other pertinent information, which is supplemented by urinalysis results.

At this time, this project is specific to Maricopa County. In order to ensure that the needs of rural Arizona are better understood and policy developed to address their special needs, this project should be adopted by the other metropolitan area (Pima County) and regionally in other areas of the State.

Data Gap Summary

While many data gaps identified in the 2005, 2007 and 2009 *Substance Abuse Epidemiology Profile* have been addressed, other important components of a complete data collection system remain in need of our attention. Specifically, the Epi Work Group's efforts would be greatly assisted by an increased understanding of the substance abuse concerns of tribal populations and the proportion of health, social problems and economic costs and/or years of productive life lost attributable to substance use. Addressing these data gaps would further ongoing efforts to improve the health of the State, tribes, and communities.

Conclusions and Recommendations

Intervention / Enforcement

The larger the amount of illegal drugs available, the more efforts to prevent substance abuse and associated consequences are needed. Similarly, increased supply requires that increased substance abuse treatment services be available for individuals who need them. Data on the amount of drugs seized in Arizona offer crucial predictive information for providers of both prevention and treatment services. In Arizona, increased heroin and methamphetamine seizures emphasize the increased need for prevention efforts and indicate that an increase in the number of substance abuse treatment service providers may be necessary. Indeed, after continued reductions in seizures over time, the amount of methamphetamine seized in 2010 was three times that seized in 2008. It now appears that the previous reductions in drug seizures may have been an anomaly in the overall trend.

Substance Abuse Prevention and Treatment Priorities

Substances that are easy to obtain have arisen as legitimate community health concerns. Youth can find prescription and over-the-counter medications in the family's medicine chest and inhalants (i.e., glue, the contents of aerosol spray cans, or other gases or sprays) can be purchased easily or found at home. While we can celebrate the fact that the percentage of students using pain relievers and sedatives in Arizona decreased since 2006, overall prescription drug use (pain relievers, sedatives and stimulants combined) has increased and pain relievers remain the most commonly-misused type of prescription drugs.

Prescription and over-the-counter drug use varies by county of residence and by race/ethnicity, with youth in rural areas more likely to have reported these dangerous behaviors, and American Indian, Hispanic and African American youth reported higher use of over-the-counter drugs in 2010. For some populations, the use of over-the-counter medications to get high is more commonplace than prescription drug misuse. This highlights the need to urge parents to keep all medications locked up, not just those for which a prescription is required. Similar to prescription drug misuse, abuse of over-the-counter drugs is dangerous; youth may be unaware of potential interactions between over-the-counter medications and illicit drugs, prescription drugs and alcohol.

Methamphetamine use among Arizona's 8th, 10th and 12th grade youth is low and declining, a result of coordinated strategies and efforts in Arizona to reduce the impact of the drug on Arizona. However, differential use patterns by geography and race/ethnicity indicate a need to look further into individual/peer, family, school and community-level risk and protective factors to determine the reasons behind these discrepancies. Indeed, the fact that youth in rural counties are more likely to report methamphetamine use suggests different programming needs that build upon the strengths of the communities and schools in which youth live, learn and play.

Although the percentage of youth reporting heroin use appears low, it has increased for some groups over time and a higher percentage of Arizona youth reported use than their peers across the nation. While the percentage of 8th grade youth in Arizona who reported heroin use decreased since 2004, the percentage of 10th graders reporting use increased since 2008. Similarly, the percentage of high school seniors who reported heroin use increased at each survey administration, indicating that youth entering adulthood may be more at risk of heroin use and the consequences associated with the drug. Similar to the other substances examined in this report, differences by gender and county were noted. While most counties had a low percentage of youth who reported heroin use, others appear to bear more of the burden associated with the drug.

The Arizona Health Survey also indicated a relatively small percentage of adults who reported heroin use. However, while the percentage of non-incarcerated adults and non-detained youth reporting use of the drug is low, increases in heroin seizures and substance abuse treatment service utilization and hospital admissions for heroin use indicate that both drug trafficking and use of the drug are taking a toll on Arizona.

Data from the Drug Enforcement Administration (DEA) and the High Intensity Drug Trafficking Area (HIDTA) program regarding methamphetamine seizures at or near the border and methamphetamine labs and incidents should be compared to the primary and secondary substances reported at treatment admission in order to anticipate changes in the needs of Arizona's treatment system and to aid in prevention programming.

Substance Abuse Treatment: Hospitals, Emergency Departments and Behavioral Healthcare Service Providers

Recent data on alcohol use among the general adult population in Arizona provide information about the potential need for treatment services. Almost half of surveyed adults reported drinking five or more drinks in one day in the past 12 months, which may be a cause for concern. However, we can celebrate the fact that underage drinking has declined as have the numbers of adult and juvenile DUI arrests. Further, the number of drivers involved in alcohol-related crashes resulting in injury and those causing property damage has declined. Youth and young adults between the ages of 20 and 34 are most often those who are drinking and driving with disastrous results. Despite these successes, estimates indicate that the financial impact of alcohol-related crashes is tremendous. Further, the rate of alcohol-induced deaths has increased, disproportionately impacting males and individuals who identified themselves as American Indian or Alaskan Native. Hospital visit rates for alcohol-related psychoses and alcohol dependence syndrome were also greatest among this population. Arizonans living in rural areas had rates of alcohol-induced deaths nearly twice as high as those of the state's urban populations. These findings necessitate interventions that target these high-risk groups.

Alcohol abuse was also an issue for the publicly-funded behavioral health service system. The percentage of clients indicating alcohol as their primary substance of abuse at admission to treatment (37.5%) was greater than the percentage who reported marijuana (17.4%) and methamphetamine (17.2%) combined.

A high percentage of substance abuse treatment clients also reported heroin as a primary substance (15.0%). After a steady growth in hospital admissions for heroin/opioids, cocaine and amphetamines from 2000 to 2006, admissions for cocaine and amphetamines began to decrease. In contrast, the rate of hospitalizations for heroin/opioids continues to increase and has been significantly higher than the rates of hospitalization for cocaine and amphetamines since 2007. Converse to other findings regarding the impact of substance abuse on Arizona's rural communities, the rate of hospital admissions for amphetamine, cocaine and heroin/opioids is higher in urban counties. Maricopa County, in particular, has dramatically higher admission rates than either Pima County or the rural county aggregate for these substances. A continued examination of these data will reveal if efforts to combat methamphetamine continue to be successful and will illustrate whether the need for heroin treatment will continue to rise.

Finally, it is important that information on clients' residence and the location of substance abuse treatment service providers be compared to assess the availability of services in relation to client location in order to assure that substance abuse treatment services are located/provided where they are needed, and so that any obstacles to providing and obtaining treatment services can be overcome.

Critical Populations

This report reveals that youth commited to Arizona's juvenile correctional facilities were often drinking alcohol or using substances at the time of the crime for which they were committed. Additionally, they initiated alcohol and drug use at very early ages; further, large percentages of these youth were diagnosed as alcohol and/or substance abusing or dependent. These findings indicate a need for prevention efforts targeting younger youth with the goal of increasing the age of initiation. Clearly, substance abuse and dependence are seriously impeding upon youths' successful educational, social and emotional development.

Among recent adult and youth arrestees in Maricopa County, almost half who were assessed for substance abuse did not report co-occurring mental health issues, and only 1-in-5 individuals had neither a substance abuse nor a mental health issue. However, especially vulnerable were the almost 3-in-10 with both a substance abuse problem and a mental health concern. This information highlights the special needs of the individuals who come into contact with our criminal justice system and hints at the complexities of treating this population.

Alcohol and marijuana use were commonly reported by arrestees, with males reporting use more often than females. In contrast, more females reported methamphetamine and cocaine use, suggesting that alcohol and marijuana use may be more typical for male arrestees, while methamphetamine and crack cocaine use may be more common for females.

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