2014

REGIONAL NEEDS ASSESSMENT

Prevention Resource Center
REGION 6

Table of Contents

Executive Summary

The Regional Needs Assessment (RNA) is a document compiled by the Prevention Resource Center in Texas Region 6 (PRC 6). PRC 6 is a program of The Council on Alcohol and Drugs Houston that provides substance abuse prevention services to thirteen counties in southeast Texas and is supported by the Texas Department of State Health Services (DSHS). The needs assessment has been conducted to provide the state, PRC 6 and the community with comprehensive information about adolescent drug and alcohol use, in terms of regional and statewide consumption trends and consequences.

The RNA was designed to enable PRC 6, DSHS, and community stakeholders to engage in long-term strategic prevention planning, particularly for adolescents, based on current data that demonstrates the needs of the community. This study also serves as the premiere effort in a body of work upon which further needs assessments will follow. Moreover, the information compiled in the RNA will serve as building blocks for the regional data repository that will contribute to a state data repository.

Assessing community needs requires a scientific approach using both quantitative and qualitative data. This document synthesizes available outcomes data and local knowledge regarding current drug and alcohol use among adolescents throughout Texas Region 6. The information presented was acquired by a team of regional evaluators, in collaboration with local and state entities, and compared to state data.

Three key points arose from the data collected for this RNA regarding adolescent use of alcohol, drugs, and tobacco in Region 6. First, marijuana use is trending up and perceived risk of harm from marijuana use is trending down. Second, middle- and high-school students are continually creating new ways of concealing and ingesting nicotine and alcohol. Third, some protective factors, such as adolescents having an adult to confide in, are strong across Region 6; meanwhile, some risk factors, such as poverty and lack of access to healthcare providers, are also strong in parts of our region.

In the urban center of Region 6, Houston, 44% of adolescents have tried marijuana by 12th grade. Surveys that measure students' perceptions and use show a lower risk perception of marijuana than alcohol. This perception of low risk contrasts with the fact of illegality of this substance, and juvenile arrests are unfortunately reflecting that contrast. Stronger education among parents and adolescents regarding the consequences of marijuana use may be needed.

Local research in Region 6 couples with statewide drug and alcohol trends to illustrate that adolescents continually innovate new methods of concealing nicotine, alcohol, and drugs. Tobacco use has decreased; however, e-cigarette use is trending up, partly because it is odorless and the liquid nicotine can easily be concealed. For example, interviewees report that some adolescents use gummy candy to absorb, conceal and carry liquid nicotine or alcohol. Concealment may contribute to the rates of high school students being offered or sold illegal drugs on school property (Texas: 26.4%, Houston: 32.2%).

Protective factors such as trusted relationships with adults are strong across Region 6. However, risk factors, such as poverty, limited access to healthcare providers, and rising commonality of opioid drug abuse across ages, are also present in various areas of our region. These risk and protective factors are not particular to rural or urban or suburban communities; each of our counties in Region 6 has a diverse and unique set of community assets and challenges regarding youth health and safety.

Key Concepts in This Report

This regional needs assessment was written within a public health framework and focuses on the needs of adolescents. The public health framework includes three key aspects to understanding drug, alcohol, and tobacco use:

- Risk and protective factors
- Consumption
- Consequences

The following sections will discuss the definitions given to these public health concepts in this RNA, as well as the concepts of adolescence and epidemiology.

Adolescence

The statewide PRC's, along with DSHS, are well aware of the impact that drugs and alcohol have on the state of Texas. While the incidence and prevalence rates of substance use among all age groups are concerning, evidence indicates that prevention work done with adolescents has a positive and sustainable community impact. The benefits of prevention work have an individual impact as well. Thus, adolescents are the target population for this RNA.

Adolescence is a developmental stage at which risk and protective factors can have the most impact on the individual.[i] Most concerning are the effects that substance use has on adolescent brain development, the potential for risky behavior, possible injury, and death. Also concerning are social consequences, such as poor academic performance, negative peer relationships, DUI crashes, and overall community strain.

Determining the length and defining characteristics of the adolescent period has caused some disagreement among scholars and health professionals. Developmental stages are typically marked by numeric age (the chronological viewpoint). However, some scholars and health professionals acknowledge that the appearance of characteristics also can be developmental markers. For example, new behaviors, cognitive reason, aptitude, attitude, and competencies can serve as developmental milestones.[ii]

The Texas Department of State Health Services defines adolescence as the period of ages 13-17.[iii] The American Psychological Association (APA) defines adolescence as ages 10-18, and the World Health Organization (WHO) defines it as ages 10-19.[iv,v] Both the APA and WHO include characteristics of the chronology of adolescence in their definitions. These characteristics include: the sexual maturation process; social priorities (including peer relations); and attempts to establish autonomy.

Developments in neuroscience have challenged definitions that end the adolescent period before age 20. Longitudinal neuroimaging research indicates that the human brain is still developing into our mid-twenties.[vi] These studies, many supported by the National Institute on Drugs and Alcohol (NIDA) and National Institute on Mental Health (NIMH), culminated in the consideration of an expanded definition of adolescence that ends at age 25. The area of the brain known for judgment and reason is the last to develop and is not complete by the age of 18. An overview of young adult brain development is

available online for lay readers, from the Young Adult Development Project at Massachusetts Institute for Technology (MIT).[vii]

Standard models of youth and young adult development are beginning to include neurological development, in addition to psychological, social, and sexual development, to more accurately define the age range of adolescence. However, age parameters in youth research are currently variable.

The information presented in this RNA is comprised of regional and state data, which generally define adolescence as ages 10 through 17-19. The data reviewed here has been mined from multiple sources and will therefore consist of varying demographic subsets of age. Some domains of youth data have breakdowns that conclude with ages 17, 18 or 19, while others combine "adolescent" and "young adult" to conclude with age 21.

Epidemiology

Epidemiology is a theoretical framework used in public health. Epidemiological studies consider contextual factors when planning disease control, namely the contributing factors of disease development and a disease's impact upon the public at large. The World Health Organization explains further[viii]:

> Epidemiology is the study of the distribution and determinants of health-related states or events (including disease), and the application of this study to the control of diseases and other health problems. Various methods can be used to carry out epidemiological investigations: surveillance and descriptive studies can be used to study distribution; analytical studies are used to study determinants.

Keeping in this framework, this needs assessment seeks to provide data on the frequency and distribution of adolescent substance abuse in Region 6, and describe contributing factors and consequences within our communities to contextualize these figures and aid effective prevention planning.

The Substance Abuse Mental Health Services Administration (SAMHSA) adopted the epidemiological framework to survey and monitor current indicators of drug and alcohol use nationally. Ultimately, the WHO, SAMHSA, and several other organizations are endeavoring to create an ongoing systematic infrastructure, such as a repository, that will enable: a) effective analysis of the disease burden; b) identifying risk populations; and c) strategic policy planning for prevention and treatment.

The epidemiological approach considers drug and alcohol use as a public health concern that is both preventable and treatable. Many states in the U.S. have used this perspective to approach drug and alcohol use and have gained ground in prevention work as a result. This model's etiologies (investigations of causation of disease) consider root problems rather than just symptoms, by examining the key aspects of substance abuse in communities: risk factors, protective factors, consumption, and consequences.

Risk and Protective Factors

The risk and protective factors concept is a critical building block of current adolescent substance use prevention. It holds that a set of internal and external characteristics influence an individual's abstinence from or susceptibility to drug, alcohol, and tobacco use. For years, it was widely held that the chemical properties of drugs and alcohol were the primary determinant of addiction. The current paradigm holds that while drugs and alcohol in fact have addictive properties, the individual's biology and social environment play a significant role in the risk of, or protection from, the development of addiction.

Risk and protective factors fall among four domains: 1. Self; 2. Family; 3. Community; and 4. Society.[ix] The first domain, *self*, address factors of biology and psychology, such as genetic predisposition to drug use, positive or negative self-image, and the level of an individual's self-control. The second domain, *family*, consists of factors such as family drug and alcohol behavior, family relationships, household poverty, and generally unstable home environments.[x] The third domain, *community*, addresses risk factors such as the level of violence and drug availability/use in neighborhoods and schools, and protective factors such as opportunities for recreation and access to health and social services. The final domain consists of broad societal factors that affect individuals, such as laws and policies, media, and cultural norms.

THE RISK AND PROTECTIVE FACTORS MODEL[xi]

As research on SUD shifted to focus on risk and protective factors, detailed questions about home environments were added to surveys on adolescent drug and alcohol abuse. For example, the Adverse Child Experience (ACE) study surveyed 17,000 respondents and highlighted a link between adverse childhood experiences and subsequent poor behavioral health choices.[xii] Participants were queried on the following experiences: physical, emotional, and sexual abuse; and growing up in a household with a family member who may be an alcoholic or drug-user, an absent parent, imprisoned, or mentally ill. ACE questions have since been added to WHO surveys and the Behavioral Risk Factor Surveillance Survey (BRFSS), which is a contributing data set to this report.

Consequences and Consumption Factors

The epidemiological approach calls for examination of consequences and consumption of drugs, alcohol, and tobacco.

Consequences and consumption patterns share a complex relationship; they are deeply intertwined and often occur in the context of other factors. In some cases, it is unclear if the consumption has led to the consequence, or if what appears to be a consequence was actually a trigger for consumption. For example, a student's decision to drop out of school may have been preceded by her involvement in drugs, or the student's decision to drop out of school may have influenced her initiation into drug or alcohol use. This report will examine both the rates of consequences and the rates of consumption.

Overview of Consequences Concept

For the purposes of this report, consequences are defined as adverse social, health, and safety issues or outcomes associated with alcohol or drug use. Examples of consequences include mortality, morbidity, violence, crime, health risks, and academic failure, imprisonment, and alienation.

The consequences of drugs and alcohol are felt first in individual lives and communities and eventually ripple through the global spheres of public health, safety, and economy. The World Health Organization estimates the harmful use of alcohol is a causal factor in more than 200 types of disease and injury, and that 5.1% of the global health burden is attributed to alcohol.[xiii] Additionally, stakeholders and policymakers have a vested interest in the monetary and safety costs associated with substance-related consequences. Regional data on the public safety consequences of alcohol and drugs are included later in this RNA.

Overview of Consumption Concept

Consumption is defined in this report as the patterns of use of alcohol, tobacco, illicit drugs, and prescription drugs. Consumption factors are examined in terms of frequency of use and behaviors. Trends emerge from these factors, such as current use (within the previous 30 days), age of initial use, lifetime use, and trends by age, gender, or ethnicity.

Measurement of substances consumed can be a challenging factor in consumption data collection. For example, alcoholic beverages are available in various sizes and alcohol-by-volumes. Consequently, units must be standardized to derive meaningful conclusions of consumption and consequences patterns. The BAC (blood alcohol concentration) is also an important metric in determining risk associated with consumption.

Alcohol is legal, commercially available, and federally regulated and is therefore easier to standardize. However, the use/misuse of illicit and prescription drugs pose a greater challenge to standardized measurement. The inability to know or regulate the purity of street drugs is one of the riskiest determinants for consumption. The irregularity of illicit drug composition poses a significant risk of overdose and inhibits measurement of consumption by standardized metrics. Pharmaceuticals pose another consumption variation potential, for they vary widely by potency and effect.

Few regional data sources include toxicology metrics. The majority of consumption data presented in this RNA are self-reported by adolescents via survey responses.

Introduction

The Department of State Health Services (DSHS), Substance Abuse & Mental Health Services Section, funds approximately 188 school and community-based programs statewide to prevent the use and consequences of alcohol, tobacco and other drugs among Texas adolescents and families. These programs provide evidence-based curricula and effective prevention strategies identified by the Substance Abuse and Mental Health Services Administration's Center for Substance Abuse Prevention (CSAP). The Strategic Prevention Framework provided by CSAP guides many prevention activities in Texas. In 2004, Texas received a state incentive grant from CSAP to implement the Strategic Prevention Framework in close collaboration with local communities in order to tailor services to meet local needs for substance abuse prevention. This prevention framework provides a continuum of services that target the three classifications of prevention activities under the Institute of Medicine (IOM), which are universal, selective, and indicated.

STRATEGIC PREVENTION FRAMEWORK[14]:

The DSHS Substance Abuse Services funds Prevention Resource Centers (PRCs) across the state of Texas. These centers are part of larger network of youth prevention programs providing direct prevention education to adolescents in schools and the community, as well as community coalitions that focus on implementing effective environmental strategies. This network of substance abuse prevention services work to improve the welfare of Texans by discouraging and reducing substance use and abuse. Their work provides valuable resources to enhance and improve our state's prevention services. The state's three prevention priorities are to reduce: (1) under-age drinking; (2) marijuana use; and (3) non-medical prescription drug abuse. These priorities are outlined in the Texas Behavioral Health Strategic Plan developed in 2012.

Purpose of the Prevention Resource Centers (PRC)

Prevention Resource Centers serve the community by providing infrastructure prevention resources and other indirect services to support a network of substance abuse prevention services. Beginning in 2013, PRCs were re-tasked to become a regional resource for substance abuse prevention data. They formerly served as a clearinghouse for substance use literature, prevention education, and media

resources. Their primary purpose of PRCs now is to gather and disseminate substance abuse prevention data to support substance abuse prevention programs in Texas. These services provide an essential service to the state and local prevention programs, by providing data used for program planning and evaluating the long-term impact of prevention efforts in Texas. Other valuable services provided by PRCs include prevention media campaigns, alcohol retailer compliance monitoring, tobacco Synar activities, and opportunities for substance abuse prevention training.

Our Regions

Regional Evaluators and Prevention Resource Centers are currently in seven of the eleven health regions across the state of Texas. Together, the seven PRCs work together to collect substance use data across Texas. A breakdown of counties in the currently active regions is presented below.
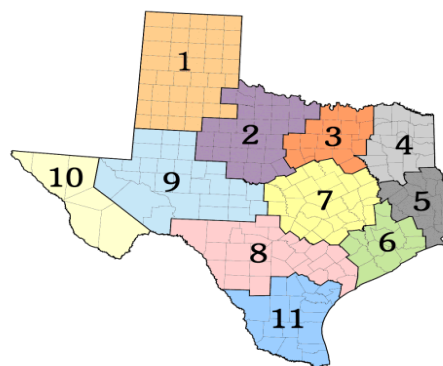
Prevention Resource Centers by Region and County

PRC Region	Counties
1	Armstrong, Bailey, Briscoe, Carson, Castro, Childress, Cochran, Collingsworth, Crosby, Dallam, Deaf Smith, Dickens, Donley, Floyd, Garza, Gray, Hale, Hall, Hansford, Hartley, Hemphill, Hockley, Hutchinson, King, Lamb, Lipscomb, Lubbock, Lynn, Moore, Motley, Ochiltree, Oldham, Parmer, Potter, Randall, Roberts, Sherman, Swisher, Terry, Wheeler, and Yoakum (41)
2	Archer, Baylor, Brown, Callahan, Clay, Coleman, Comanche, Cottle, Eastland, Fisher, Foard, Hardeman, Haskell, Jack, Jones, Kent, Knox, Mitchell, Montague, Nolan, Runnels, Scurry, Shackelford, Stonewall, Stephens, Taylor, Throckmorton, Wichita, Wilbarger, and Young (30)
3	Collin, Cooke, Dallas, Denton, Ellis, Erath, Fannin, Grayson, Hood, Hunt, Johnson, Kaufman, Navarro, Palo Pinto, Parker, Rockwall, Somervell, Tarrant, and Wise (19)
4	Anderson, Bowie, Camp, Cass, Cherokee, Delta, Franklin, Gregg, Harrison, Henderson, Hopkins, Lamar, Marion, Morris, Panola, Rains, Red River, Rusk, Smith, Titus, Upshur, Van Zandt, and Wood (23)
6	Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Harris, Liberty, Matagorda, Montgomery, Walker, Waller, and Wharton (13)
7	Bastrop, Bell, Blanco, Bosque, Brazos, Burleson, Burnet, Caldwell, Coryell, Falls, Fayette, Freestone, Grimes, Hamilton, Hays, Hill, Lampasas, Lee, Leon, Limestone, Llano, Madison, McLennan, Milam, Mills, Robertson, San Saba, Travis, Washington, and Williamson (30)
11	Aransas, Bee, Brooks, Cameron, Duval, Hidalgo, Jim Hogg, Jim Wells, Kenedy, Kleberg, Live Oak, McMullen, Nueces, Refugio, San Patricio, Starr, Webb, Willacy, and Zapata (18)

What Evaluators Do

Regional PRC Evaluators are primarily responsible for identifying and gathering data on alcohol and drug consumption, consequences, and related risk and protective factors within their respective service regions. Their work in identifying and tracking substance use consumption patterns is disseminated to stakeholders and the public through a variety of methods, such as fact sheets, social media, traditional news outlets, presentations, and reports such as this Regional Needs Assessment. Their work serves to provide state and local agencies valuable prevention data to assess target communities and high-risk populations in need of prevention services.

About This Document

This needs assessment is a review of data on substance abuse and related variables across the state that will aid in substance abuse prevention decision making. The report is a product of the partnership between the regional Prevention Resource Centers and the Texas Department of State Health Services. The report seeks to address the substance abuse prevention data needs at the state, county and local levels. The assessment focuses on the state's prevention priorities of alcohol (underage drinking), marijuana, prescription drugs and other drug use among adolescents in Texas. This report explores drug consumption trends and consequences. Additionally, the report addresses related risk and protective factors as identified by the Center for Substance Abuse Prevention (CSAP).

Specifically, this regional assessment serves the following purposes:

- ➢ To discover patterns of substance use among adolescents and monitor changes in substance use trends over time;
- ➢ To identify gaps in data where critical substance abuse information is missing;
- ➢ To determine regional differences and disparities throughout the state;
- ➢ To identify substance use issues that are unique to specific communities and regions in the state;
- ➢ To provide a comprehensive resource tool for local providers to design relevant, data-driven prevention and intervention programs targeted to needs;
- ➢ To provide data to local providers to support their grant-writing activities and provide justification for funding requests;
- ➢ To assist policy-makers in program planning and policy decisions regarding substance abuse prevention, intervention, and treatment in the state of Texas.

Features of This Document

Potential readers of this document include stakeholders who are vested in the prevention, intervention, and treatment of adolescent substance use in the state of Texas. Stakeholders include but are not limited to: substance abuse prevention and treatment providers; medical providers; schools and school districts; substance abuse community coalitions; city, county, and state leaders; prevention program staff; and community members vested in preventing substance use.

This report includes a wealth of information, and readers may consult it for a variety of reasons. Some may be reading only for an overview, while others may be reading for more detailed information on trends and consequences of specific drugs. This document is organized in a way to meet these various needs.

The Executive Summary section provides highlights of the report for those seeking a brief overview. Our terminology and framework are described in Key Concepts, in order to clarify concepts that may have varying definitions across professional fields. The core of the report focuses on substance use and consequence data, with each substance detailed separately.

Methodology

Process

The state evaluator and the regional evaluators collected primary and secondary data at the county, regional, and state levels between September 1, 2013 and May 30, 2014. The state evaluator met with the regional evaluators at a statewide conference in October 2013 to discuss the expectations of the regional needs assessments. Relevant data elements were determined and reliable data sources were identified through a collaborative process among the team of regional evaluators with the support of the Southwest Regional Center for Applied Prevention Technologies (CAPT). Between October 2013 and June 2013, the state evaluator met with regional evaluators via bi-weekly conference calls to discuss the criteria for processing and collecting data. The data was primarily gathered through established secondary sources including federal and state government data sources. Region-specific data collected through local organizations, community coalitions, school districts and local-level governments are included to provide unique local information. Additional data was collected from primary sources via in-depth interviews and focus groups with regional stakeholders and community members.

Data Collection

As a group, the regional evaluators and the state evaluator developed criteria for selecting quantitative data and other types of secondary data. Each region used their own discretion in developing criteria for collecting primary qualitative data.

Criterion for Selecting Secondary Data Sources

Evaluators chose secondary data sources based on the following criteria:

- ➢ **Relevance:** Data sources that provide an appropriate measure of substance use consumption, consequence, and related risk and protective factors
- ➢ **Timeliness:** Data sources that contain the most recently available data (within the last five years)
- ➢ **Valid and Reliable:** Data sources that used well-documented methodology with valid and reliable data collection tools
- ➢ **Representative:** Data sources that most accurately reflect the target population in Texas and across the eleven human services regions
- ➢ **Accuracy:** Data sources that provide an accurate measure of the associated indicator

Please note that each secondary data source presented in this assessment uses varying geographic parameters for analyzing data. Where possible, we obtained data that specifically covers Region 6 and provides county-specific data. However, for many secondary data sources, only state level data or data for the city of Houston were available at the time the assessment was conducted.

Key Informant Interviews and Focus Groups

Each region features a unique set of data sources and substance related issues. The gathering of primary data is likewise unique to each region.

In Region 6, the process of collecting qualitative data consisted of conducting interviews with stakeholders, focus groups with prevention specialists, and focus groups with adolescents. Stakeholders selected for interviews consisted of researchers and professors from universities within the region. Participating institutions include the Department of Social Psychology at the University of Houston, the Prevention Research Center at the University Of Texas School Of Public Health, and the Juvenile Justice and Psychology department at Prairie View A & M University. We also conducted interviews with wellness centers and alcohol prevention programs on college campuses, including the University of Houston, Sam Houston State University, and the University of St. Thomas. The third group of stakeholder interviews were members of coalitions that collaborate on substance abuse prevention and treatment throughout Region 6.

Focus groups were conducted with youth prevention specialists and adolescents, separately. Youth prevention specialists were selected from agencies within the region that receive DSHS funding for prevention programming. Adolescent focus group members were selected from youths participating in a tobacco summit at The Council on Alcohol and Drugs Houston.

Region 6 Demographics

Texas Region 6, also known as the Gulf Coast region, is settled in southeast Texas and encompasses the following 13 counties: 1) Austin, 2) Brazoria, 3) Chambers, 4) Colorado, 5) Fort Bend, 6) Galveston, 7) Harris, 8) Liberty, 9) Matagorda, 10) Montgomery, 11) Walker, 12) Waller, 13) Wharton.[15]
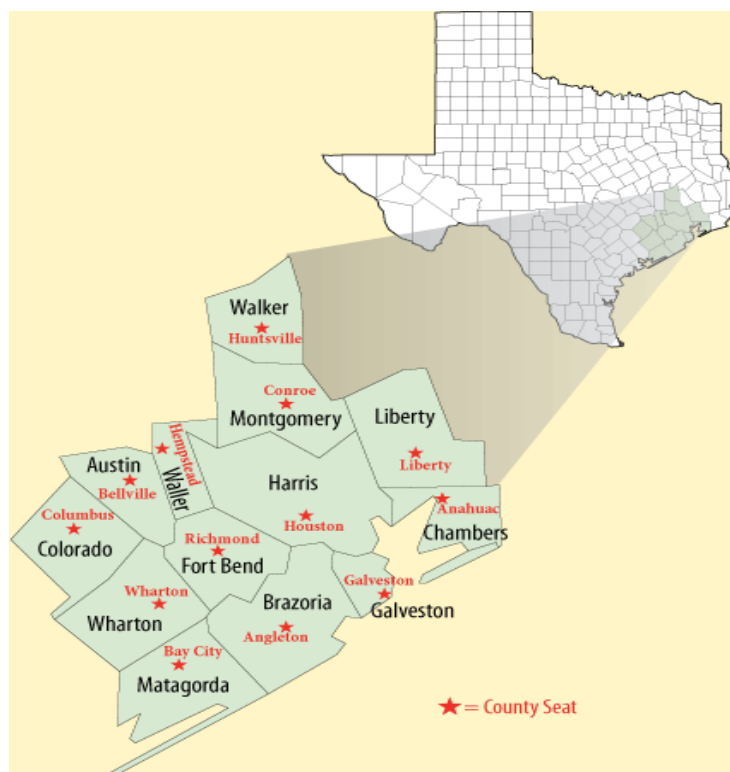
Statewide Demographic Overview

Texas was the fifth fastest growing state in the country during the period of 2000-2010, according to the U.S. Census.[16] The Census Bureau also reported that Texas experienced an increase of 4.3 million people, making Texas the state with the highest numeric increase in population in the last decade.

Non-Hispanic Whites were the largest ethnic group in Texas during the 2010 Census. However, it is estimated that Hispanics may become the largest Texas ethnic group by 2015.[17] The Hispanic population grew in Texas by 32% from 2000 to 2010.

Texas State Demographics by Age and Ethnicity[18]

Age Group	Total	African American	Anglo	Hispanic	Other
0-85+ years of age	26,059,203	2,986,753	11,552,519	10,016,354	1,503,577
12-21 years of age	3,909,825	489,069	1,398,553	1,798,092	224,111

Regional Population

Region 6 has a population of over 6 million people. Over 4.2 million residents live in just one of our 13 counties: Harris County and the city of Houston. Houston is the fourth most populous city in the U.S. and one of the top three fastest growing U.S. cities, according to the 2010 Census.[19] Houston and Dallas combined account for half the population of Texas. There are almost 930,000 adolescents in Region 6.[20]

The fastest growing county in Region 6 is Fort Bend County. From 2000-2012, Fort Bend County's population grew by 65.8%.[21] As illustrated below, Fort Bend County now has the second largest adolescent population in the Region.

Age

Throughout Region 6, adolescents and young adults (defined here as ages 12 - 21) comprise between 13% and 16% of the population in most of our counties. The exceptions are Walker and Waller counties, which have adolescent/young adult populations of 17% and 21%, respectively. Notably, both counties are home to universities, which may account for their increased percentages of adolescents and young adults. Prairie View A&M is in Waller County, and Sam Houston State University is in Walker County.

Population and Adolescent Population by County in Region 6[22]

County	Total Population	12-21 Years of Age
Total Region 6	6,333,796	929,473 (15%)
Harris	4,245,204	611,354 (14%)
Fort Bend	624,831	101,678 (16%)
Montgomery	482,744	70,961 (15%)
Brazoria	324,663	46,723 (14%)
Galveston	300,849	42,071 (14%)
Walker	68,827	11,842 (17%)
Liberty	76,905	11,212 (14%)
Waller	44,547	9,271 (21%)
Chambers	36,745	6,038 (16%)
Wharton	41,475	5,959 (14%)
Matagorda	37,132	5,444 (15%)
Austin	28,837	4,085 (14%)
Colorado	21,037	2,835 (13%)

Population by Age in Region 6, 2008-2012[23]
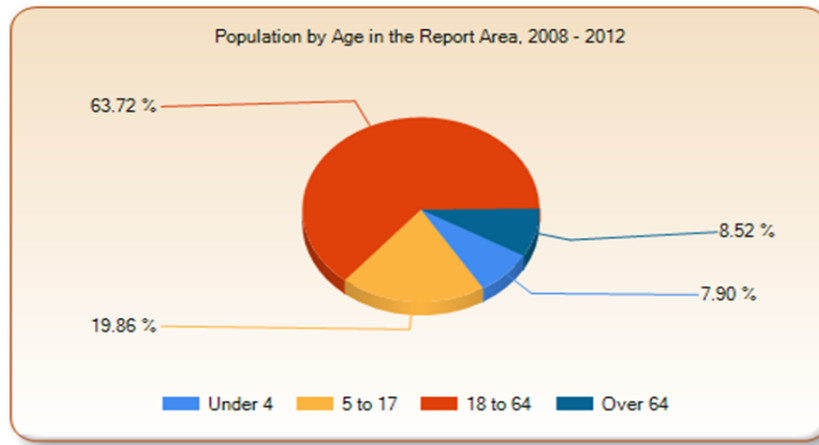
Race and Ethnicity

Consistent with state demographics, non-Hispanic whites comprise the largest ethnic group in our region. The following two charts illustrate racial demographics of Region 6 overall and by county, based on information from the Texas State Data Center[24]:
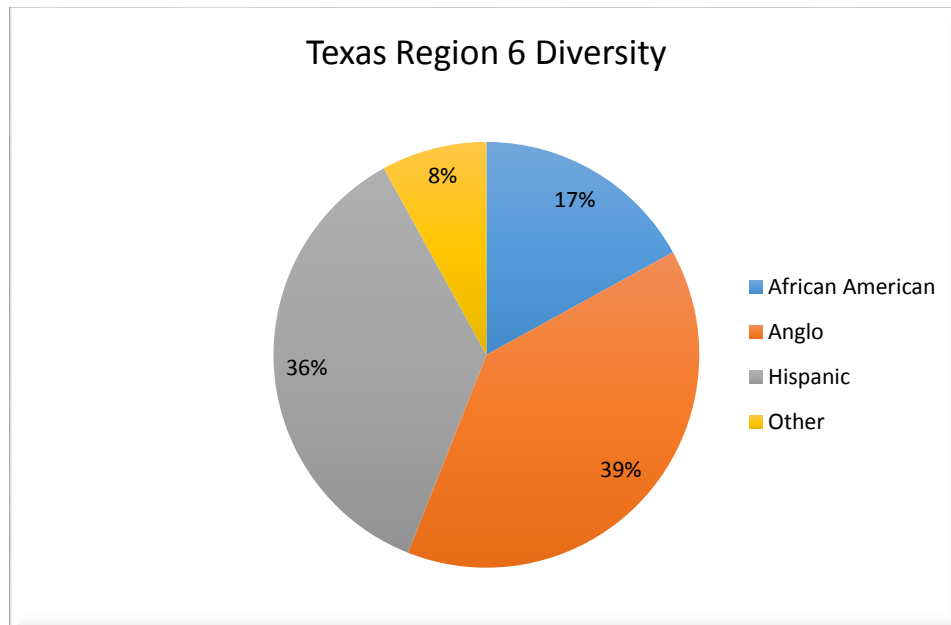
Texas Region 6 Diversity, by County

County	Total Population	African American	Anglo	Hispanic	Other
Austin	28,837	2,667	18,574	7084	512
Brazoria	324,663	38,830	168,875	91,930	25,028
Chambers	36,745	2,955	25,590	7,281	919
Colorado	21,037	2,670	12,352	5,723	292
Fort Bend	624,831	131,589	220,356	151,554	121,332
Galveston	300,849	39,930	176,333	69,280	15,306
Harris	4,245,204	777,936	1,353,279	1,777,136	336,853
Liberty	76,905	8,175	52,408	14,580	1,742
Matagorda	37,132	4,084	17,243	14,610	1,195
Montgomery	482,744	19,887	338,152	105,113	19,592
Walker	68,827	15,263	39,936	11,814	1,814
Waller	44,547	10,751	19,463	13,431	902
Wharton	41,475	5655	19,372	15,946	502
Total Region 6	**6,333,796**	**1,060,392 (16%)**	**2,461,933 (39%)**	**2,285,482 (36%)**	**525,989 (8%)**

Socioeconomic Indicators

The economy of Region 6 centers on the following industries: petrochemical, medical and agricultural. The Houston Galveston Area Council (HGAC), using U.S. Census data, observed that economic conditions in Region 6 may be more favorable than most places in the United States; however, our region faced higher unemployment rates recently than in past years.[25]

Over 1 million households in Region 6 are in poverty. The following table provides an overview of estimated rates of poverty and median household income for the region[26]:

Median Household Income and Poverty Estimates, by County (2012)

County	Poverty Estimate	Estimated Poverty Rate	Median Household Income
Walker	12,301	23.9 %	$38,024
Matagorda	7,099	19.7 %	$40,860
Waller	7,999	19.7 %	$47,015
Harris	783,419	18.6 %	$51,298
Liberty	13,237	18.6 %	$48,441
Colorado	3,626	17.8 %	$40,702
Wharton	7,278	17.8 %	$40,716
Montgomery	60,202	12.5 %	$65,874
Galveston	36,380	12.3 %	$59,588
Austin	3,356	11.8 %	$51,448
Brazoria	36,633	11.7 %	$64,883
Chambers	3,217	9.0 %	$73,031
Fort Bend	55,527	8.9 %	$86,037

Employment

Region 6 employment rates, as of May 2014, are slightly stronger than the Texas state average, and unemployment rates have dropped in all counties over the last year.[27] The current unemployment rate in Region 6 is 5 %, compared to a 5.1% Texas state average and a 6.3% national average.[28]

The Houston Galveston Area Council (HGAC), citing the Texas Workforce Commission, noted that by 2011 Region 6 had regained all of the jobs that it lost since the economic recession in 2008. However, the region's unemployment rate is still higher than the pre-recession rate of 4.2% (December 2007).[29]

Region 6 current and previous year's unemployment rates are below, as reported by Texas Workforce Solutions[30]:

Region 6 Unemployment Rates 2014 and 2013

Legend: ■ Latest Month May 2014 Rate   ■ Year Ago May 2013 Rate

County	Latest Month May 2014 Rate	Year Ago May 2013 Rate
Region 6 WDA	5.0	6.1
Texas State	5.1	6.3
Austin Co.	4.9	5.9
Brazoria Co.	5.1	6.5
Chambers Co.	5.2	6.6
Colorado Co.	4.1	5.2
Fort Bend Co.	4.7	5.6
Galveston Co.	5.3	6.8
Harris Co.	5.0	6.2
Liberty Co.	6.3	8.0
Matagorda Co.	7.2	9.4
Montgomery Co.	4.4	5.3
Walker Co.	5.3	6.5
Waller Co.	5.0	6.7
Wharton Co.	4.6	5.8

Free School Lunch Recipients

One method of assessing poverty is by measuring the number of students who qualify for school free lunch programs. The following table illustrates the rate of Region 6 students receiving free and reduced-price lunch.

From the U.S. Department of Education's Common Core of Data (CCD), school year 2011-2012[31]:

Free and Reduced-Price Lunch in Region 6 Public Schools, by County

County	Reduced-Price Lunch Recipients	Free Lunch Recipients	Free and Reduced-Price Sum	Total Students in Public School 2011-12	Rate of students receiving lunch assistance
Waller	518	3,855	4,373	5,967	73.3%
Matagorda	518	4,262	4,780	7,096	67.4%
Wharton	602	4,616	5,218	8,117	64.3%
Colorado	303	1,889	2,192	3,452	63.5%
Liberty	1,252	7,956	9,208	14,616	63.0%
Harris	62,869	412,759	475,628	828,535	57.4%
Austin	420	2,348	2,768	5,310	52.1%
Brazoria	4,397	24,552	28,949	62,383	46.4%
Galveston	3,109	22,638	25,747	56,207	45.8%
Montgomery	5,531	34,035	39,566	93,385	42.4%
Walker	770	2,219	2,989	7,805	38.3%
Chambers	446	2,021	2,467	6,940	35.5%
Fort Bend	7,406	38,098	45,504	131,783	34.5%

Access to Healthcare

Lack of access to affordable healthcare inhibits a person's ability to receive primary care and specialty care, including treatment for substance use issues, and may result in poor health status.

The findings below on adults' lack of access to affordable healthcare are from the Behavioral Risk Factor Surveillance System (BRFSS) (2012)[32]:

➢ 30.6% of residents (18 or older) in Texas Region 6 reported they do not have access to health insurance/healthcare coverage. 69.4% reported they do have access to insurance, which is consistent with the statewide rate of insured residents (69.4%).

➢ 22.5% of residents (18 or older) in Texas Region 6 reported that they were kept from seeking medical services because of the cost. This is slightly higher than the overall state rate of 20.9%.

The table below shows the number of uninsured children under the age of 19 in Region 6. Findings from the U.S. Census Bureau (2011)[33]:

Uninsured Youth (under age 19) in Region 6, by County

County	Percent
Waller	20%
Walker	17.7%
Colorado	17.3%
Austin	15.6%
Harris	15.4%
Matagorda	15.4%
Liberty	15.1%
Wharton	15.1%
Brazoria	13.4%
Montgomery	13.4%
Fort Bend	13.3%
Chambers	12.7%
Galveston	11.6%

Consequences

The following sections will explore the consequences of substance use in Region 6. Consequences may directly harm the substance abuser and others. Severe consequences arising from alcohol and drug consumption, for example DUI crashes, arrests, violence, and health impacts, serve as the visible results of substance abuse for which assessment, planning and action seek solutions.

Adolescents' perceptions of the dangers of drugs, alcohol, and tobacco are a key piece of information when analyzing consequences. As discussed in the Adolescence section of this report, the portion of the brain where critical thought, logical decision making, and perceiving consequences for actions develops throughout adolescence and is not complete by age 18.This section reports on Texas adolescents' perceived dangers of drugs and alcohol, as well as measurable consequences to individuals and communities.

Perceived Risk of Harm

The Texas School Survey reports on middle and high school students' perceptions of the dangers of substance abuse. Note that for this data, we currently do not have regional or county-level data.

Findings from the Texas School Survey (2012) on perceptions of risk of harm[34]:

Texas Students' Perceptions of the Dangers of Underage Drinking

	All	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
Very Dangerous	50.3%	64.6%	53.5%	46.7%	45.7%	45.9%	43.9%
Somewhat Dangerous	29.7%	20.3%	25.3%	30.3%	32.7%	34.2%	37.3%
Not Very Dangerous	13.3%	9.0%	13.5%	15.4%	14.9%	13.5%	13.2%
Not Dangerous at All	3.2%	2.1%	3.6%	3.9%	3.3%	3.2%	2.8%
Do Not Know	3.5%	4.0%	4.1%	3.6%	3.4%	3.2%	2.8%
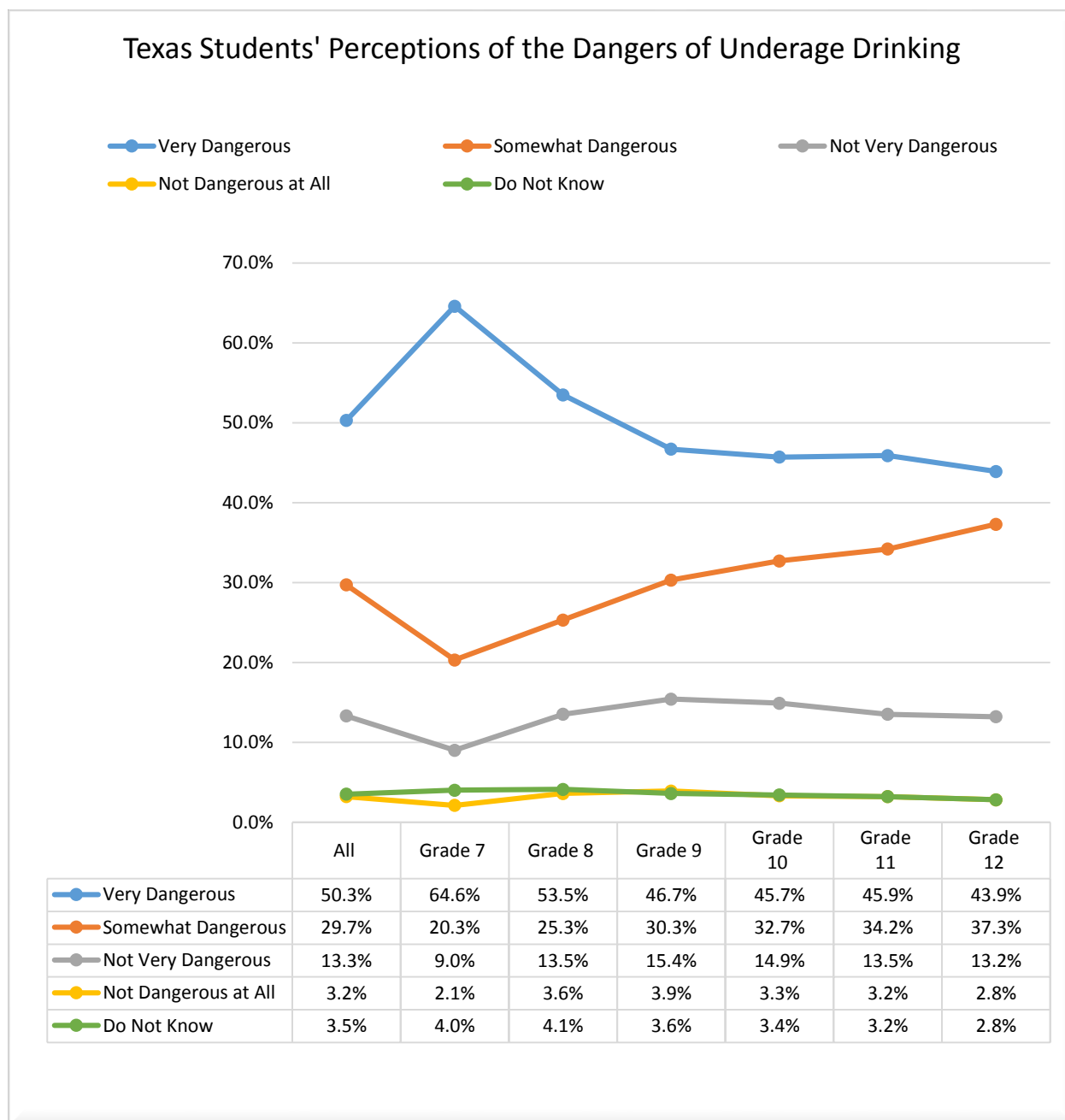
Continued findings from the Texas School Survey (2012)[35]:

Texas Students' Perceptions of the Dangers of Marijuana Use

	All	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
Very Dangerous	58.2%	80.6%	69.5%	55.9%	50.2%	47.2%	41.4%
Somewhat Dangerous	14.2%	8.0%	11.7%	15.5%	16.8%	15.8%	18.3%
Not Very Dangerous	11.8%	3.8%	7.4%	12.9%	14.4%	16.2%	17.4%
Not Dangerous at All	12.0%	3.5%	7.1%	11.9%	15.2%	17.3%	19.2%
Do Not Know	3.8%	4.1%	4.3%	3.8%	3.5%	3.5%	3.7%
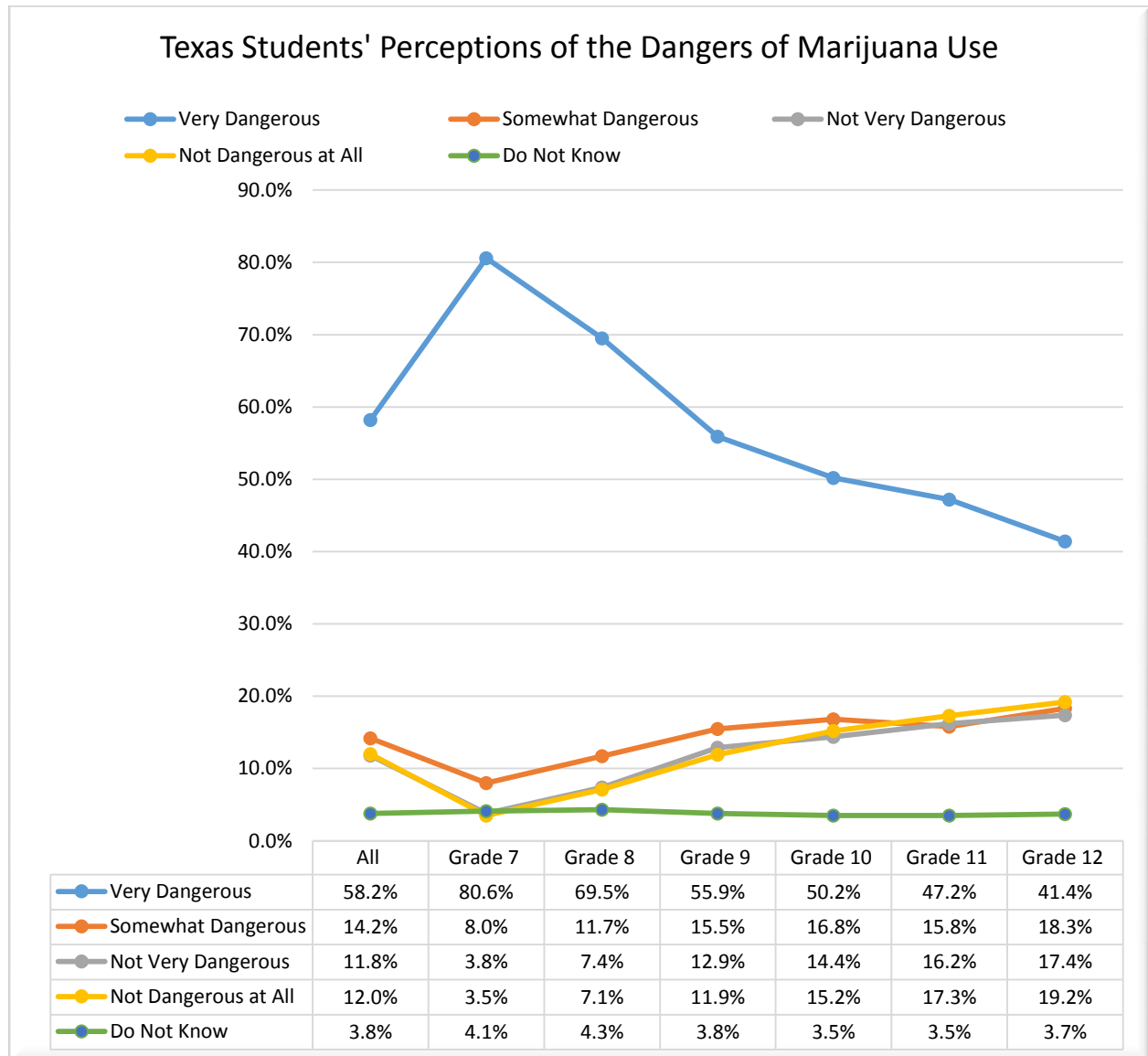
- ➢ 19.2% of 12th graders perceive marijuana to be "not dangerous at all," while 2.8% perceive alcohol to be "not dangerous at all."
- ➢ Fewer 12th graders ranked marijuana as "very dangerous" than ranked alcohol as very dangerous. (41.4% and 43.9% respectively).
- ➢ From grades 7 to 12, the perception of marijuana as "very dangerous" drops from 80.6% to 41.4%.
- ➢ Texas students' perceived risk of harm from marijuana is significantly lower than other illicit drugs.
  - ➢ 58.2% of students across grades 7-12 perceive marijuana as "very dangerous," compared with 85% of students perceiving cocaine as very dangerous and 78.5% perceiving ecstasy as very dangerous.

Mortality
Drug/Alcohol Related Fatalities

The Texas County with the highest number of DUI related fatalities in 2012 was Harris County of Region 6. Additional findings on DUI related fatalities in Harris County and Region 6 are below, from the Texas Department of Transportation (2012)[36]:

- ➢ 40 young people in Region 6 under the age of 21 suffered a DUI related fatality in 2012. This accounts for 15.3% of all DUI related fatalities among all age groups in Region 6.
- ➢ 29.7% of DUI related fatalities in Harris County involved young people under the age of 25 in 2012.
- ➢ 175 DUI related fatalities occurred in Harris County in 2012, which accounted for 15.9% of all DUI fatalities in Texas. The county with the next highest rate was Dallas County, with only 82 DUI related fatalities (7% of all DUI fatalities in Texas).

Suicide

The Substance Abuse and Mental Health Administration (SAMHSA) has suggested that substance abuse may be second only to depression and mood disorders in being a major risk factor for suicide.[37]

The findings below on suicides among all age groups at the state and regional level are taken from the Texas Department of State Health Services[38]:

- ➢ In 2011, 660 suicides were committed in Region 6. This accounted for 23% of the total number of suicides throughout the state of Texas.

The findings below on suicide among high school students are from the Youth Risk Behavior Survey[39]:

- ➢ In 2013, 16.7% of high school students in Houston reported having seriously considered attempting suicide.
  - ▪ This is comparable to the Texas rate of 16.7% and the national rate of 17%.
- ➢ In 2013, 11.6% of high school students in Houston reported attempting a suicide.
  - ▪ This is higher than the Texas rate of 10.1% and the national rate of 8%.

Overdose

Recent figures on death by overdose reveal a strong increase in prescription drug abuse and its tragic consequences. The Centers for Disease Control announced in 2011 that, nationally, deaths from opioid pain relievers exceed those from illegal drugs.[40] Adolescents and adults may perceive prescription drugs to be safer than illegal drugs; however, they can be addictive and can cause overdose, especially when taken with alcohol or other drugs.

Figures on deaths by overdose of prescription and illicit drugs in Region 6, from the Department of State Health Services Vital Statistics Unit[41]:

- ➢ 490 people of all ages died of drug overdose in Region 6 in 2011.
  - ▪ 65% (318) of those deaths were attributed to prescription narcotics.
  - ▪ 28% (137) were attributed to cocaine.
  - ▪ 7% (35) were attributed to heroin.
- ➢ 12 adolescents (under the age of 20) died of drug overdose in Region 6 in 2011.
  - ▪ 11 (92%) were attributed to prescription narcotics, and one was attributed to heroin.

Academic

In this section, we discuss factors related to adolescents in schools, such as school dropout rates, suspensions, and truancy, which may reflect or influence drug, alcohol, and tobacco use.

Below are dropout rates by county as calculated by the Texas Education Agency (TEA) for the 2011-2012 school year[42]:

Academic Dropout Rates in Region 6, by County

County	Rate
Walker	8.5
Harris	8.3
Liberty	6.1
Galveston	4.9
Austin	4.6
Fort Bend	4.5
Matagorda	3.8
Montgomery	3.7
Brazoria	3.3
Colorado	2.4
Waller	1.9
Wharton	1.4
Chambers	0.7

Suspensions and Expulsions

The findings reported in this section are taken from the Texas Education Agency (TEA)'s regional discipline summary. The counties included in the TEA regions do not correspond exactly with the regional breakdown of the counties used by the PRC. Thus, three TEA regions are presented here that include counties from PRC Region 6 and other regions[43]:

Discipline Summary for TEA Region 3 2012-2013

(Counties: Calhoun, Colorado , Dewitt, Goliad, Jackson, Karnes, Lavaca, Matagorda, Refugio, Victoria)

Total Enrollment for Region	56,404	
Number of students expelled	54	0.09%
Number of students suspended in school	9,041	16%
Number of students suspended out of school	3,037	5.4%

Discipline Summary for TEA Region 6 2012-2013

(Counties: Austin, Brazos, Burleson, Grimes, Houston, Leon, Madison, Milam, Montgomery, and Polk)

|		
Total Enrollment for Region	187,269	
Number of students expelled	248	0.13%
Number of students suspended in school	22,163	11.8%
Number of students suspended out of school	6,760	3.6%

Discipline Summary for TEA Region 4 2012-2013
(Counties: Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty and Waller)

Total Enrollment for Region	1,158,515	
Number of students expelled	1,261	0.11%
Number of students suspended in school	137,684	11.9%
Number of students suspended out of school	71,041	6.1%

Absences and Conduct Problems
The findings below illustrate the extent to which adolescent drug and alcohol use relate to school conduct problems and absences in Texas. According to the TSS, marijuana users have the highest rates of school absences and conduct problems compared to alcohol users and non-users.

From the Texas School Survey (2012)[44]:
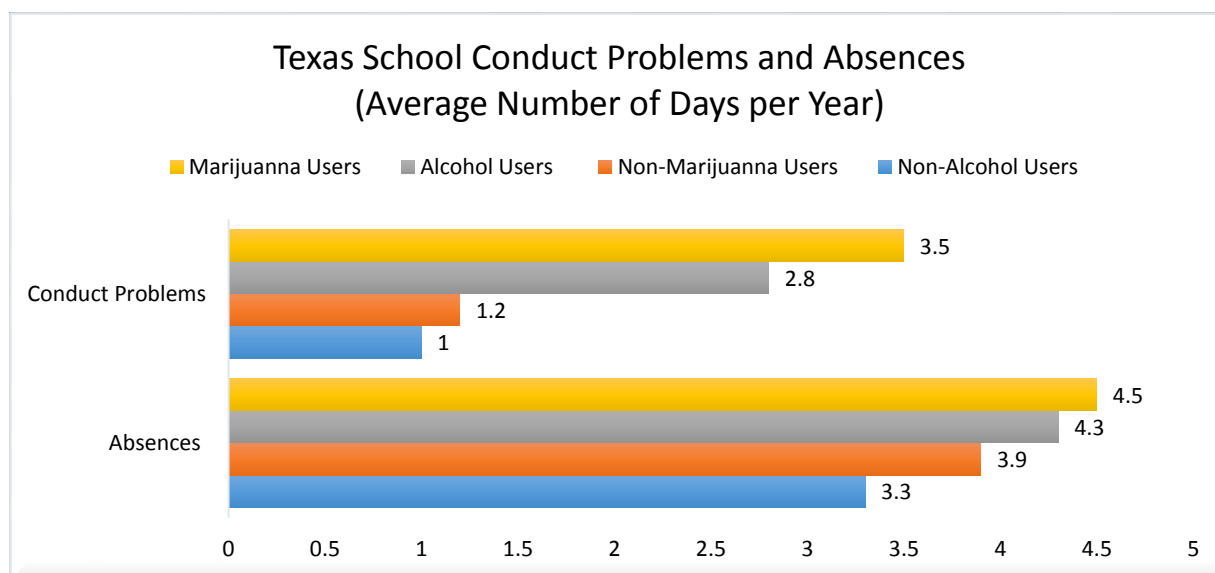
Early Sexual Behavior
Often when adolescents experiment with one risky behavior, they may engage in another. This section illustrates how substance abuse can relate to early sexual activity and teen pregnancy. Note that regional data is not available for the sexual behavior and teenage pregnancy rates reported below; only Texas state level and Houston city level data are currently available.

Sexual Behaviors and the Use of Alcohol and Drugs
Findings from the Youth Risk Behavior Survey (2013)[45]:

- ➢ In Texas, 45.9% of high school students reported that they are sexually active.
- ➢ 46.8% of Houston high school students and 45.9% nationally reported they are sexually active.
- ➢ In Texas, 23.8% of high school students reported that they drank alcohol or used drugs before their last sexual intercourse.
- ➢ 24% of Houston high school students and 22.4% nationally reported that they drank alcohol or used drugs before their last sexual intercourse.

Teenage Pregnancy

Drugs and alcohol impair decision making and increase impulsiveness. These effects can increase risky behavior, including unprotected sex.

The University Of Texas School Of Public Health Prevention Research Center compiled models to map the teen birth rates from school districts in the Houston area. Below is a table that shows how each of these districts compared with the national and state rates[46]:

Teenage Birth Rate by Houston Area School District 2011	
TX School District	**Number of Births per 1,000 females ages 15-19**
National Average	**31**
Texas Average	**47**
Aldine	62
Alief	37
Channelview	57
Clear Creek	30
Crosby	44
Cy Fair	37
Deer Park	54
Fort Bend	32
Friendswood	24
Galena Park	65
Goose Creek	50
Houston	55
Huffman	37
Humble	43
Katy	27
Klein	37
Lamar Consolidated	23
LaPorte	38
North Forest	67
Pasadena	53
Sheldon	51
Spring	42
Spring Branch	41
Stafford MSD	30

Depression

Depression and substance use frequently co-occur in adolescence.[47] In some cases, substance use leads to the development of major depressive order. In others, a depressive order may lead to substance abuse. In one study, researchers found that the co-morbidity of substance use disorders, specifically alcohol use and major depressive episodes, were associated with higher risk of suicide attempts, lower global functioning and life dissatisfaction.[48]

Below are findings from the Youth Risk Behavior Survey regarding depressive symptoms among high school students in Texas and the city of Houston[49]:

 - 28.3% of high school students in Texas reported feeling sad or hopeless almost every day for 2 or more weeks in a row and that they stopped doing some usual activities during the 12 months before the survey.
 - 29.9% of high school students in Houston reported feeling sad or hopeless almost every day for 2 or more weeks in a row and that they stopped doing some usual activities during the 12 months before the survey.

Criminal Activity

As with other indicators in this section on consequences, there is a link between crime and substance use. The sections below provide data related to this relationship.

Assaults and Robberies

In 2012, according to findings from the Federal Bureau of Investigations (FBI), the following number of arrests related to assault and robberies occurred in Region 6[50]:

 - 2,047 arrests for robberies
 - 4,613 arrests for aggravated assault
 - 3,8097 arrests for burglary
 - 26, 606 arrests for larceny throughout Region 6

Property Crimes

In 2012, according to findings from the FBI, the following number of arrests related to property crimes occurred in Region 6[51]:

 - 290 arrests for buying, receiving, or selling stolen property throughout Region 6
 - 3,221 arrests for vandalism throughout Region 6

Domestic Abuse

In 2012, according to findings from the FBI, the following number of arrests occurred for offenses against families and children in Region 6[52]:

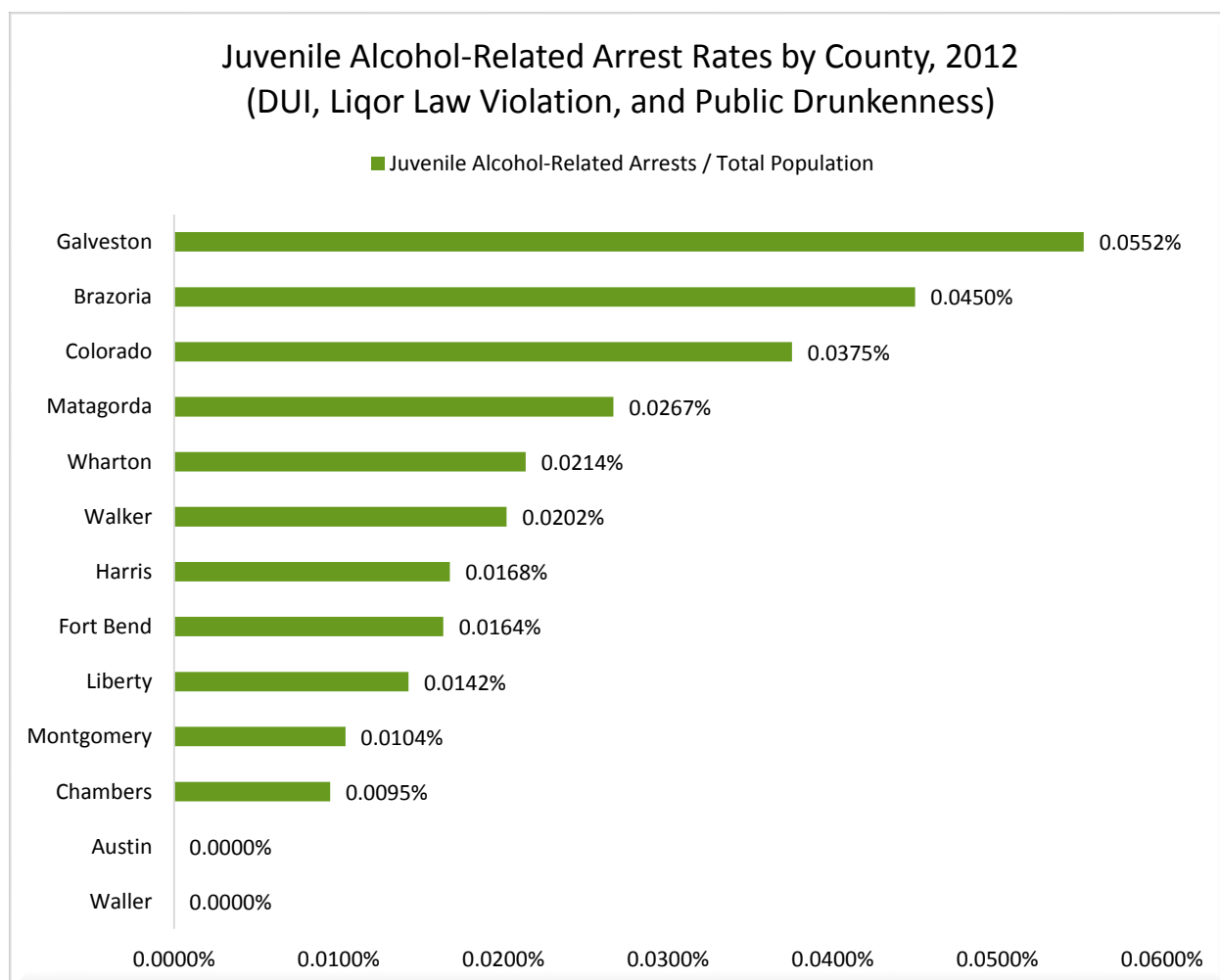 - 674 arrests for offenses against families and children

Arrests Related to Alcohol

In 2012, according to findings from the FBI, the following number of arrests related to alcohol occurred in Region 6, including minors and adults[53]:

- 18430 arrests for DUI
- 4,939 arrests for violation of liquor laws
- 29,854 arrests for public drunkenness
- 10,900 arrests for disorderly conduct
- 1,217 arrests of minors for DUI, liquor law violation, or public drunkenness
  - 85 arrests of minors for DUI
  - 587 arrests of minors for violation of liquor laws
  - 545 arrests of minors for public drunkenness

Juvenile arrests for alcohol offenses in Region 6 are detailed below. Due to the significant population variance across counties in Region 6, rates are shown as a percentage of total population. Note that the number of adolescents arrested for alcohol represents less than one percent of the total population in all counties.

Juvenile arrests for DUI, liquor law violation, and public drunkenness in Region 6 (FBI 2012)[54]:

Juvenile Alcohol-Related Arrest Rates by County, 2012 (DUI, Liqor Law Violation, and Public Drunkenness)

■ Juvenile Alcohol-Related Arrests / Total Population

County	Rate
Galveston	0.0552%
Brazoria	0.0450%
Colorado	0.0375%
Matagorda	0.0267%
Wharton	0.0214%
Walker	0.0202%
Harris	0.0168%
Fort Bend	0.0164%
Liberty	0.0142%
Montgomery	0.0104%
Chambers	0.0095%
Austin	0.0000%
Waller	0.0000%

Arrests Related to Drugs

The following number of arrests related to drugs occurred in Region 6 in 2012, among adults and minors, according to FBI data[55]:
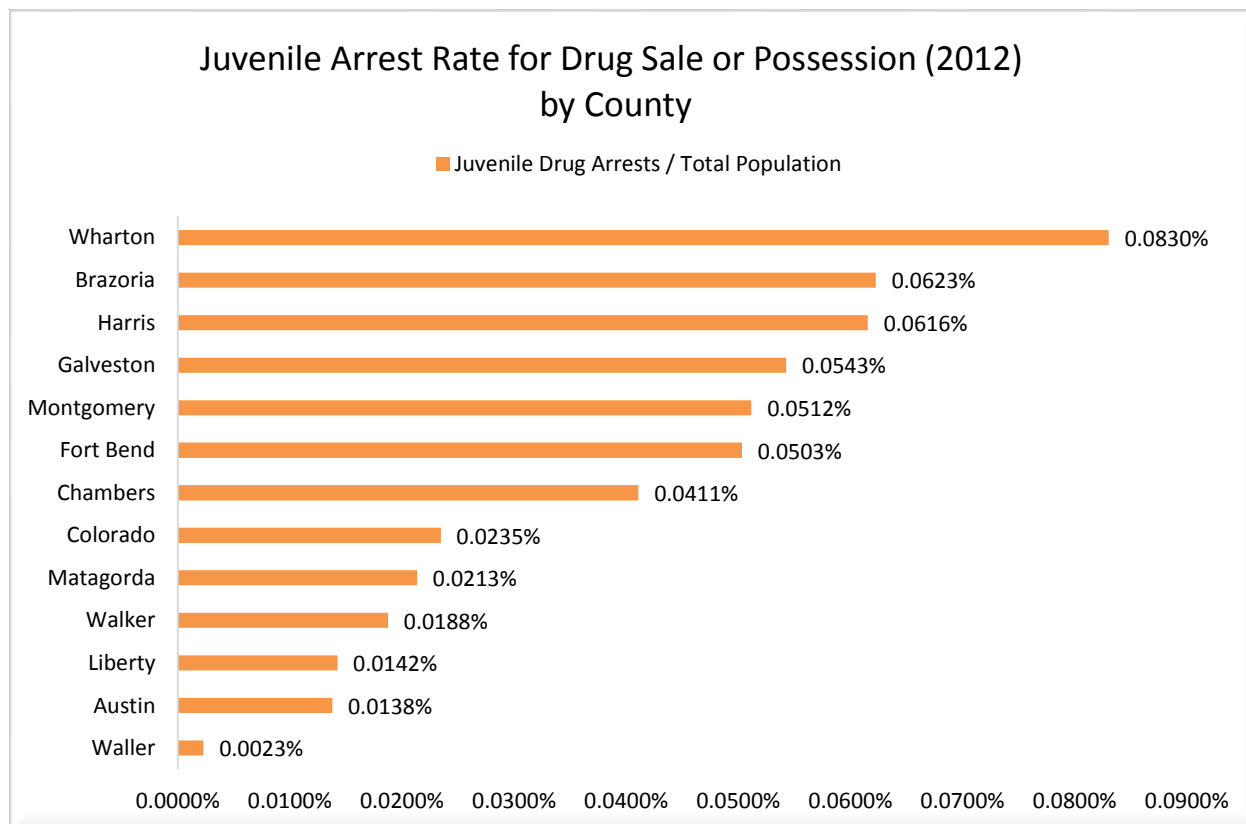
➢ 33,045 total arrests for *drug violations* (including opium, cocaine, marijuana, synthetic narcotics and other dangerous non-narcotic drugs) throughout Region 6, including adults and adolescents.

➢ 32, 082 total arrests for *possession of drugs* (including opium, cocaine, marijuana, synthetic narcotics and other dangerous non-narcotic drugs) throughout Region 6, including adults and adolescents.

The following figures reflect *minors* in possession of drugs in Region 6 (FBI 2012):

➢ 3,494 arrests for drug possession (all substances)
➢ 2,716 arrests for marijuana possession
➢ 192 arrests for synthetic narcotics possession
➢ 135 arrests for cocaine possession

Juvenile arrests for drugs in Region 6 are detailed below. The first chart shows juvenile drug related arrests as a ratio of total county population. The types of offense are detailed in the second and third charts. Note that in all counties, the number of adolescents arrested for drug possession or sales represents less than one-tenth of one percent of the total county population.

Juvenile drug-related arrest rates by county in Region 6 (FBI 2012) [56]:

Juvenile Arrest Rate for Drug Sale or Possession (2012) by County

■ Juvenile Drug Arrests / Total Population

County	Rate
Wharton	0.0830%
Brazoria	0.0623%
Harris	0.0616%
Galveston	0.0543%
Montgomery	0.0512%
Fort Bend	0.0503%
Chambers	0.0411%
Colorado	0.0235%
Matagorda	0.0213%
Walker	0.0188%
Liberty	0.0142%
Austin	0.0138%
Waller	0.0023%

Number of juvenile drug-related arrests in Region 6, by offense and county[57]:

Juvenile Drug Arrest Detail by County, 2012 (Excluding Harris Co.)

Legend: ■ DRG TOTAL ■ DRG POSS ■ MJ POSS ■ DRG SALE

	Waller	Austin	Colorado	Matagorda	Liberty	Chambers	Walker	Wharton	Galveston	Brazoria	Montgomery	Fort Bend
DRG TOTAL	1	4	5	8	11	13	13	35	168	202	236	283
DRG POSS	1	4	5	7	11	11	11	34	164	186	218	279
MJ POSS	1	4	5	4	5	9	11	27	130	150	126	235
DRG SALE	0	0	0	1	0	2	2	1	4	16	18	4
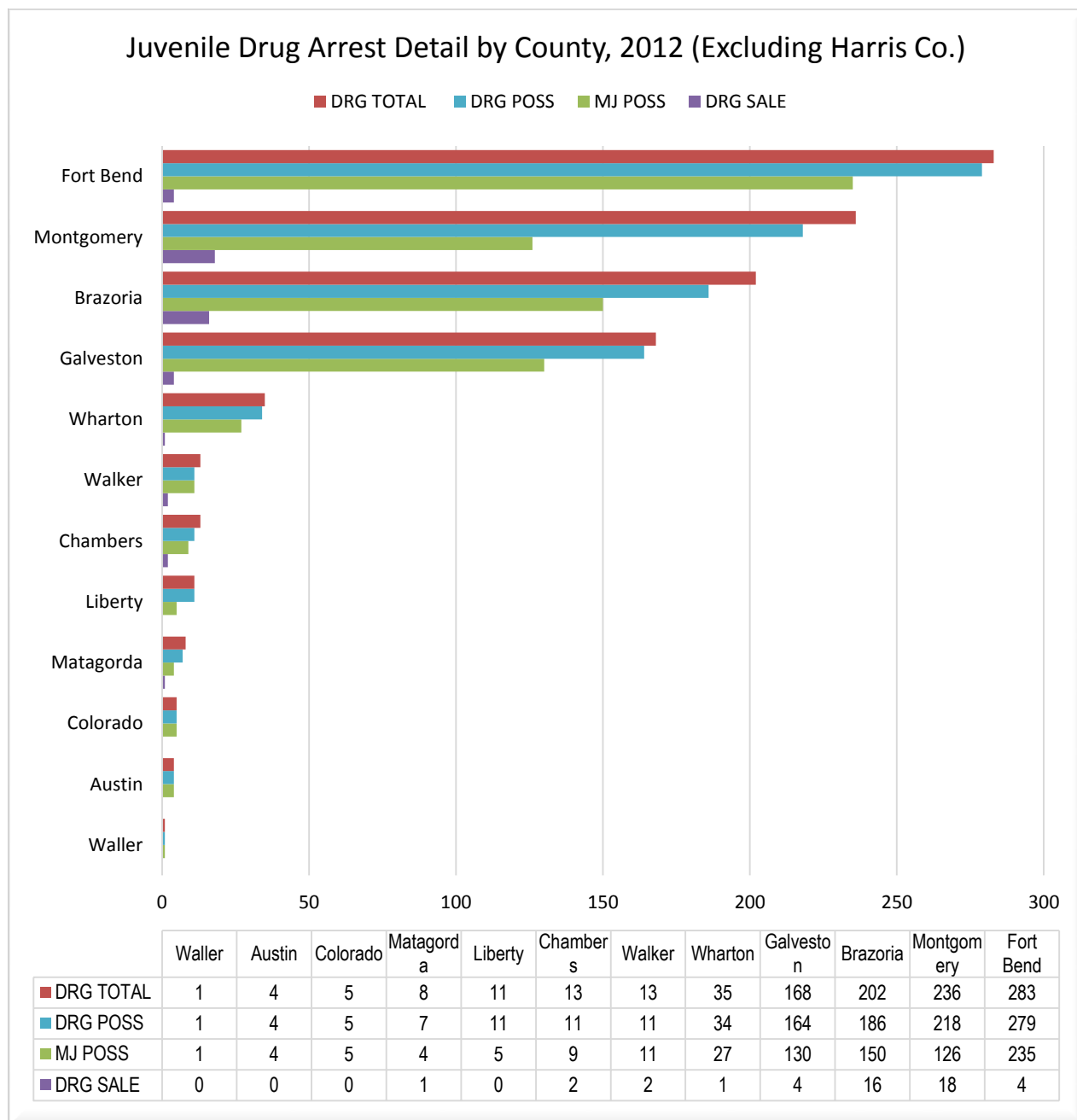
Harris County is shown separately due to scale. Marijuana possession is included to illustrate that the large majority of possession charges are marijuana, across all counties.

Juvenile Drug Arrest Detail, 2012 (Harris Co. Only)

■ DRG TOTAL   ■ DRG POSS   ■ MJ POSS   ■ DRG SALE

	Harris
■ DRG TOTAL	2,589
■ DRG POSS	2,563
■ MJ POSS	2,009
■ DRG SALE	26
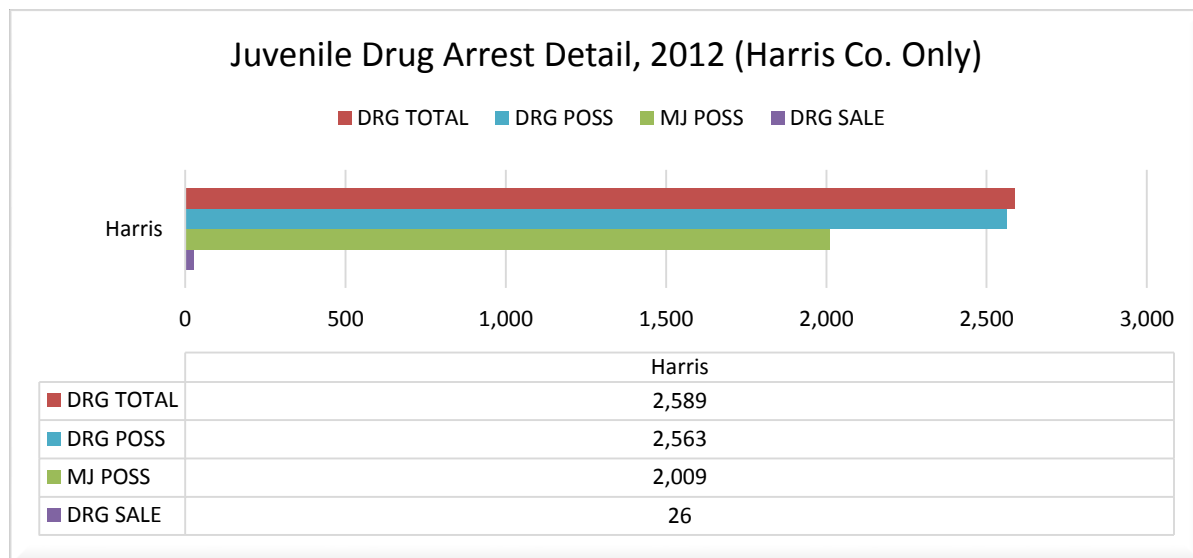
Thousands of adolescents are arrested annually in Region 6 for drug and alcohol offenses. In 2012, 4,785 minors were arrested for drug and alcohol offenses.[58] 75% of those arrests were for drug possession or sales, and 25% were for alcohol law violations, DUI, and public intoxication.

Currently in Region 6, arrest rates for marijuana possession are rising, while the perceived risk of marijuana is falling. As discussed earlier in this report, the Youth Risk Behavior Survey results indicate that the perceived risk of marijuana use has dropped among adolescents, and our qualitative research indicates that parents' perceived risk may be dropping as well. The fact remains, however, that marijuana is an illegal substance, and Region 6 juveniles are being arrested for its possession. Having an arrest record may affect a juvenile's future ability to obtain employment, qualify for student loans, and avoid criminal involvement.

Accessibility

Accessibility, or the extent to which adolescents can obtain alcohol and other drugs easily, is essential to understanding consumption rates among adolescents throughout the region.

Illegal Drugs on School Property

Many students have access to drugs brought onto school property by students or others. The findings below are taken from the Youth Risk Behavior Survey, which provides data for the state of Texas and the city of Houston[59]:

➢ 26.4% of high school students in Texas reported they were offered, sold, or given an illegal drug on school property.
➢ 32.2% of high school students in Houston reported they were offered, sold, or given an illegal drug on school property.

To contextualize these figures, the following comparisons are provided by the YRBS State/District and National Results comparison tool[60]:

➢ Nationally, 22.1% of high school students reported being offered or sold drugs on school property. The Texas rate of 26.4% is higher than the national rate.
➢ Houston's rate of 32.2% of students being offered or sold drugs on school property is comparable to, although higher than, other large urban areas of similar size, such as Chicago, IL (30.9%) and Los Angeles, CA (29.5%).

Alcohol Access

License Violations

The Texas Alcohol and Beverage Commission (TABC) regulates the alcoholic beverage industry in Texas. TABC regulates the sale, taxation, importation, manufacturing, transporting and advertising of beverages. Violations from the TABC are relevant to underage drinking because adolescents often access alcohol from retailers who commit alcohol license violations.

Findings from the TABC[61]:

➢ Between April 2013 and April 2014, TABC reported 1,003 alcohol permit violations from retailers throughout Region 6.

Alcohol from Others

The findings in this section are taken from the Youth Risk Behavior Survey.[62] At this time, we only have data available for the state of Texas and the city of Houston.

➢ 42.1% of high school students in the state of Texas who drank alcohol, reported that they usually obtained alcohol by someone giving it to them.
➢ 35.3% of high school students in Houston who drank alcohol, reported that they usually obtained alcohol by someone giving it to them.

Adolescent Perceptions of Access

The data for this section are taken from the 2012 Texas School Survey. Currently, we only have statewide data available from the TSS. Nonetheless, this data serves as a useful illustration of adolescents' perceptions of how it easy it would be to access alcohol and other drugs.

Alcohol Access Perceptions

Findings from the Texas School Survey[63]:

➢ In 2012, 38.8% of Texas students in grades 7-12, reported that it would be "very easy" for them to access alcohol products.

Students Reporting it is "Very Easy" to Access Alcohol

Grade	Percent
7th	20.8%
8th	29.5%
9th	39.8%
10th	46.7%
11th	50.5%
12th	48.9%
All	38.8%

Marijuana Access Perceptions

Findings from the Texas School Survey[64]:

➢ In 2012, 25.7% of Texas students in grade 7-12, reported that it would be "very easy" for them to access marijuana.

Students Reporting it is "Very Easy" to access marijuana

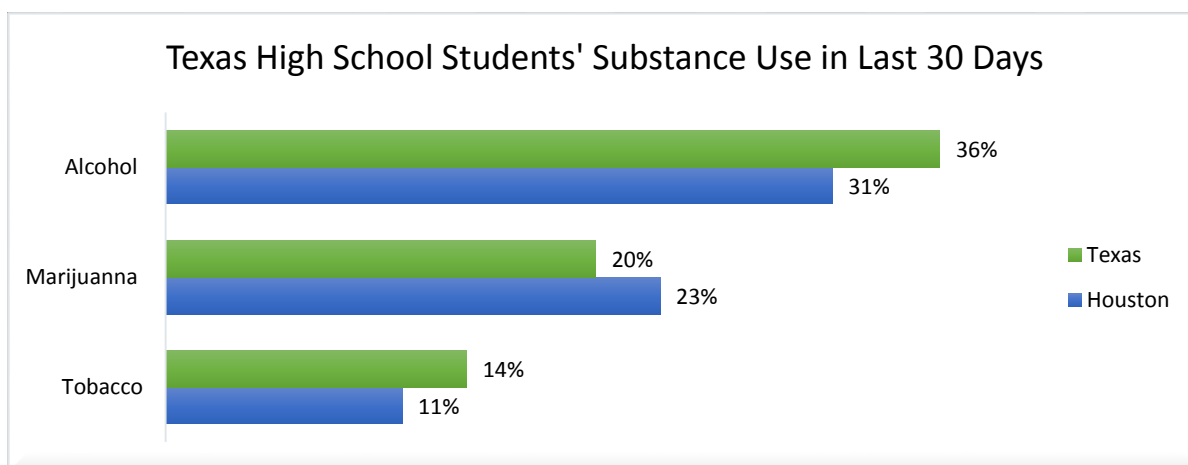| Grade	Percent
7th	7.1%
8th	13.9%
9th	25.3%
10th	32.7%
11th	38.1%
12th	41.7%
All	25.7%

Regional Consumption Data

This section of the RNA focuses on consumption rates of alcohol, marijuana, prescription drugs, tobacco and other drugs among adolescents. This data was compiled from three major state and national surveys:

- The Texas School Survey (TSS);
- The Youth Risk Behavior Survey (YRBS); and
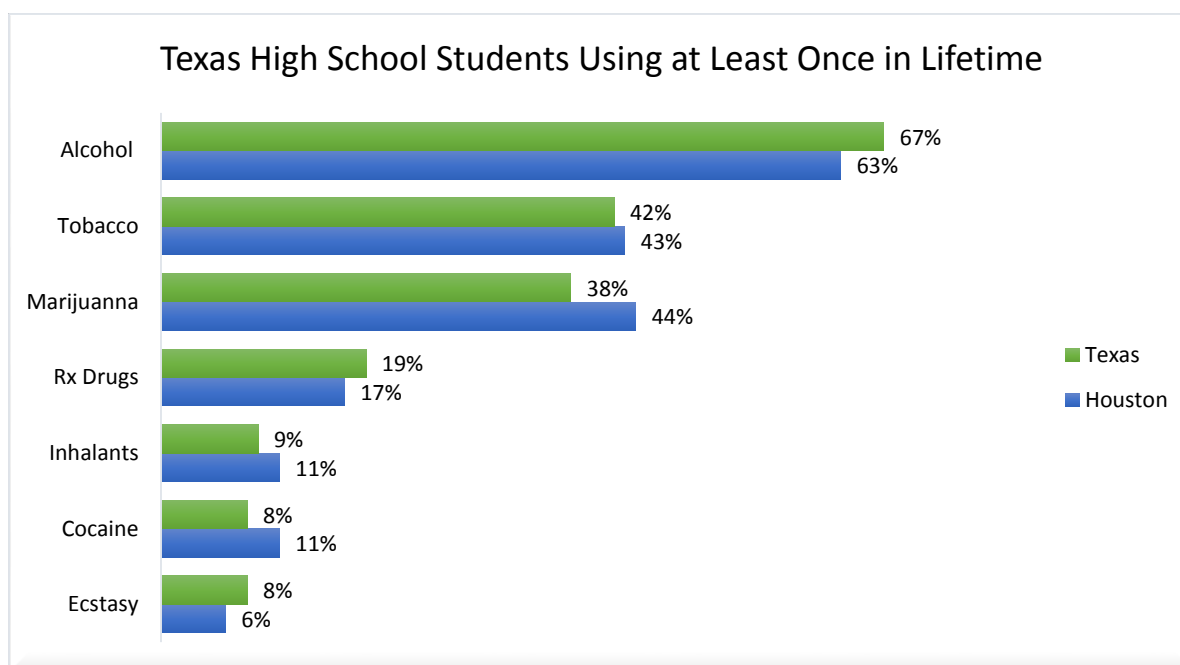- The National Survey on Drug Use and Health (NSDUH).

Currently, only 2012 statewide data is available for the TSS, and those findings are included in this report. The YRBS data provides statewide data as well as Houston area data from 2013. NSDUH provides regional level data for Region 6 as well as statewide data. The NSDUH data offers aggregate data that covers years spanning 2002 up to 2012.

The two following charts are provided to give the reader a high-level, comparative picture of consumption in Texas. The first reflects students who reported having used substances during the 30 days prior to the survey. The second shows students who reported having used the listed substances at least once in their lifetimes, which could include any rate from once to regularly.

From the Youth Risk Behavior Survey (2013) [65]:

Texas High School Students' Substance Use in Last 30 Days

	Texas	Houston
Alcohol	36%	31%
Marijuanna	20%	23%
Tobacco	14%	11%

From the Youth Risk Behavior Survey (2013), continued[66]:

Texas High School Students Using at Least Once in Lifetime

Substance	Texas	Houston
Alcohol	67%	63%
Tobacco	42%	43%
Marijuanna	38%	44%
Rx Drugs	19%	17%
Inhalants	9%	11%
Cocaine	8%	11%
Ecstasy	8%	6%

It appears the critical age of initiation across substances is 13 years old. The mean age of first use of substances among Texas adolescents age 12-17 is provided by SAMHSA, based on state-level data from the National Survey of Drug Use and Health (NSDUH)[67]:

Mean Age of Initiation to Substances in Texas (2008-2012)

Age	Substance
13.7	Marijuana
13.5	Alcohol
13.1	Cigarettes
13.1	Non-medical Prescription Drugs

The following sections examine each substance individually to provide details on early initiation, current use, lifetime consumption, and qualitative data gathered for this report.

Alcohol Consumption

Early Initiation

Findings from the Texas School Survey[68]:

➢ In 2012, 7th graders in the state of Texas reported on average that they took their first drink of alcohol by age 10.

Texas Students' Average Age of Initiation to Alcohol Use, by Grade

	7th Graders	8th Graders	9th Graders	10th Graders	11th Graders	12th Graders
Average Age of initiation	10.5	11.2	12.1	12.9	13.5	14.1

Findings from the Youth Risk Behavior Survey[69]:

➢ 18.1% of high school students across the state of Texas reported having their first drink of alcohol before age 13.
➢ 21% of high school students in the city of Houston reported having their first drink of alcohol before age 13.

In this category, boys reported a higher rate of initiation before age 13 than girls. 22.8% of boys reported having their first drink of alcohol before age 13, compared with 19.4% of girls.

Current Use

Findings from the Youth Risk Behavior Survey[70]:

➢ 36% of high school students in Texas reported having at least one drink of alcohol on at least one day during the 30 days before the survey.
➢ 31% of high school students in Houston reported having at least one drink of alcohol on at least one day during the 30 days before the survey.

In this category, girls' consumption rates are higher than boys'. 32.4% of Houston girls reported having at least one drink of alcohol in the last 30 days, compared with 29.2% of boys.

Lifetime Use

Findings from the Youth Risk Behavior Survey[71]:

➢ 67% of high school students in Texas reported having at least one drink of alcohol on at least one day of their life.
➢ 63% of high school students in Houston reported having at least one drink of alcohol on at least one day of their life.

Girls report a higher rate than boys of drinking alcohol at least once in their lifetime. 64.9% of girls report having at least one drink of alcohol during their lifetime, compared with 61.4% of boys.

Qualitative Data

The results of our interviews with stakeholders and focus groups with prevention providers and adolescents are consistent with the quantitative findings in this report. Alcohol is one of the most widely used drugs among adolescents, perhaps because it is one of the most accessible. Adolescents are often given alcoholic beverages by other adolescents at parties. In some cases, alcohol is permitted at the parties by parents who perceive that there is no risk in allowing adolescents to drink as long as they are supervised. On college campuses, the underage drinking becomes more of a problem. Many of the freshman have the perception that all other college students are drinking. Therefore, students arrive on the college campus, expecting that in order to have fun at college parties, alcohol must be present.

Another notable finding from the focus groups is the gender difference in alcohol consumption. Some stakeholders suggested that alcohol consumption appears to be the drug of choice for high school girls whereas boys gravitate toward marijuana. This notion is supported by the Youth Risk Behavior Survey findings that, while boys may initiate drinking alcohol at an earlier age, girls have higher current rates and lifetimes rates of alcohol use when compared with boys.

Marijuana Consumption

Age of Initiation

Findings from the Texas School Survey[72]:

Texas Students' Average Age of Initiation of Marijuana, by Grade

	7th Graders	8th Graders	9th Graders	10th Graders	11th Graders	12th Graders
Average Age of Initiation	11.6 years	12.3 years	12.9 years	13.7 years	14.3 years	14.9 years

Early Initiation

Findings from the Youth Risk Behavior Survey[73]:

➢ 8.2% of high school students in Texas reported having tried Marijuana before age 13.
➢ 12.7% of high school students in Houston reported having tried Marijuana before age 13.

Current Use

Findings from the Youth Risk Behavior Survey[74]:

➢ 20.5% of high school students in Texas reported using marijuana one or more times during the 30 days before the survey.
➢ 23% of high school students in Houston reported using marijuana one or more times during the 30 days before the survey.

In this category, boys report higher rates of marijuana use than girls. 25% of high school males in Houston reported using marijuana one or more times during the 30 days before the survey, compared with 21.9% of females.

Lifetime Use
Findings from the Youth Risk Behavior Survey[75]:

- 37.5% of high school students in Texas report using marijuana one or more times during their life.
- 43.6% of high school students in Houston reported using marijuana one or more times during their life.
  - This is one percent higher than those reporting cigarette use once or more.

Qualitative Data
One consistent finding from stakeholder interviews and focus groups is the impact of marijuana legalization on adolescents' perception of risk. Although the medicinal use of marijuana has been legalized in a small number of states, and the recreational use of marijuana in only two states, the debates surrounding the legalization of marijuana has become widespread. As a result, many adolescents perceive marijuana use as "natural" or "medicinal." Therefore, adolescents see little harm in marijuana use, according to our research participants. (See the Perceived Risk of Harm section of this report for additional data.)

Stakeholders suggest that this is a dangerous presumption for adolescents because they are not aware of the danger posed by various synthetic mixtures of marijuana that are potentially lethal. Additionally, adolescents appear to be taking even greater risk when mixing marijuana with other substances. It has been common for adolescents to mix marijuana with alcohol and tobacco. However, the combinations are becoming more intense, with adolescents mixing marijuana with other drugs such as cocaine and methamphetamines.

Prescription Drugs
The Centers for Disease Control and Prevention have named prescription drug abuse a national public health epidemic.[76] Unfortunately, current reported rates of prescription drug misuse in Texas vary widely across data sources. The questioning techniques on this particular topic are not consistent across student surveys. The authors of this RNA chose to omit potentially confusing data sets and focus on those that differentiate between prescription drug *misuse* and prescribed use.

Lifetime Use
Findings on prescription drug misuse from the Youth Risk Behavior Survey (2013)[77]:

- 19% of high school students across the state of Texas reported taking a prescription drug without a doctor's prescription (such as OxyContin, Percocet, Vicodin, codeine, Adderall, Ritalin, or Xanax), one or more times in their life.
  - The national rate is 17.8%.[78]
- 17.4% of high school students in Houston reported taking a prescription drug without a doctor's prescription (such as OxyContin, Percocet, Vicodin, codeine, Adderall, Ritalin, or Xanax) one or more times in their life.

The prescription drugs of primary concern are opioids, a class of synthetic narcotic psychoactive drugs that are prescribed for pain relief and can be addictive. Opioids are the leading contributing factor to deaths by overdose in the U.S., more than heroin and cocaine combined.[79,80]

Findings on prescription drug misuse from the National Survey on Drug Use and Health (2012), including adults[81]:

➢ 44.4% of survey participants ages 12 *and older* living in the state of Texas reported that they have used prescription pain relievers that were not prescribed for them, taking them only for the experience or feeling that they caused.

➢ 40.7% of survey participants age 12 *and older* living in Texas Region 6 reported that they have used prescription pain relievers that were not prescribed for them, taking them only for the experience or feeling that they caused.

Also according to the National Survey on Drug Use and Health, female adolescents are now more likely than male adolescents to misuse prescription drugs: "In 2012, females aged 12 to 17 were more likely than males to be current nonmedical users of psychotherapeutic drugs (3.2 vs. 2.4 percent)."[82] This trend was observed across the United States, not just Texas, and is inverse from the trend of the last ten years in which males were more likely than females to use illicit drugs or misuse prescription drugs. However, mortality rates in Region 6 due to opioid overdose are higher among males than females.[83]

Qualitative Data

According to data collected through interviews and focus groups, prescription drugs are a commonly used drug among adolescents, mostly because they are accessible through parents and friends. NSDUH's report that 40.7% of Region 6 residents ages 12 and older have used prescription drugs recreationally also reflects commonality of misuse and probable ease of accessibility.

One trend that was discussed in focus groups are parties in which each adolescent brings any type of prescription drug, the pills are pooled and mixed together, and poured into shot glasses. Each guest at the party is given a shot glass with mixed pills. The adolescents perceive that there is little risk in taking these pills in combination.

Tobacco Consumption

Age of Initiation

Findings from the Texas School Survey[84]:

Texas Students' Average Age of Initiation of any Tobacco Use, by Grade (Including cigarettes and smokeless tobacco)

	7th Graders	8th Graders	9th Graders	10th Graders	11th Graders	12th Graders
Average Age of Initiation	10.8	11.5	12.4	13.1	13.9	14.6

Early Initiation

Findings from the Youth Risk Behavior Survey[85]:

➢ 8.5% of High School students in Texas reported smoking a whole cigarette before age 13.

➢ 10.6% of High School students in Houston reported smoking a whole cigarette before age 13.

Current Use

Findings from the Youth Risk Behavior Survey[86]:

➢ 14.1% of High School students in Texas reported that they smoked cigarettes on at least 1 day during the 30 days before the survey.
➢ 11.3% of High School students in Houston reported that they smoked cigarettes on at least 1 day during the 30 days before the survey.

Lifetime Use

Findings from the Youth Risk Behavior Survey[87]:

➢ 42.1% of High School students in Texas reported trying cigarette smoking, even one or two puffs, during their lifetime.
➢ 43.1% of High School students in Houston reported trying cigarette smoking, even one or two puffs, during their lifetime.

Qualitative Data

A notable trend that is increasing nationwide as well as in Texas Region 6 is the use of e-cigarettes. Through interviews and focus groups, we learned that e-cigarettes are increasing in popularity with adolescents because they are smokeless and can go easily undetected at school. Adolescents are even going so far as to create new ways of ingesting the liquid nicotine from the e-cigarettes. One of these creations is the "gummy smoke." To make gummy smokes, adolescents inject the liquid nicotine into gummy bears and then ingest them. The perception is that liquid nicotine isn't harmful, and the adolescents see no risk in mixing the liquid nicotine with gummy bears.

Other Drugs

Lifetime Use of Other Drugs

Findings regarding other harmful or illegal substances, from the Youth Risk Behavior Survey[88]:

Inhalants

➢ 9.5% of students in Texas reported that they sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high, one or more times during their life.
➢ 11.3% of students in Houston reported that they sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high, one or more times during their life.

Cocaine

➢ 8.3% of students in Texas reported using any form of cocaine, such as powder, crack, or freebase, one or more times during their life.
➢ 11.2% of students in Houston reported using any form of cocaine, such as powder, crack, or freebase, one or more times during their life.

Ecstasy

➢ 8.5% of high school students in Texas reported having used ecstasy (also called MDMA) one or more times during their life.
➢ 9.4% of high school students in Houston reported having used ecstasy (also called MDMA) one or more times during their life.

Regional Strengths/Protective Factors

Region 6 has a wealth of social and preventative services in Houston and surrounding areas. However, rural areas, especially in the eastern and northern parts of our region, are experiencing a gap in social and preventative services. In this section we discuss protective factors and regional resources that serve to protect adolescents from risky behaviors such as substance use.

Protective Factors

The following data reflect regional and state protective factors, such as education, parental involvement, positive peer influence, and having someone to confide in or turn to for help.

Preventative Education

Preventative education is present in Texas schools but could be increased. Approximately half of Texas students reported receiving educational information on the risk of alcohol and drugs from school sources. Findings from the Texas School Survey[89]:

- ➢ 57% of Texas adolescents grades 7-12 reported receiving information on alcohol and drugs from any school source.
- ➢ 46% of Texas adolescents grades 7-12 reported receiving alcohol and drug information in health class or general assembly.

Parental Involvement

Findings on parental involvement and attitudes regarding drugs and alcohol, in Region 6 and statewide, from the National Survey of Drug Use and Health[90]:

- ➢ 57% of adolescents across the state of Texas reported that they have talked to at least one of their parents in the last year about the dangers of drugs and alcohol.
- ➢ 55% of adolescents in Region 6 reported that they have talked to at least one of their parents in the last year about the dangers of drugs and alcohol.
- ➢ 88% of adolescents across the state of Texas reported that they think their parents would strongly disapprove of their child having 1 or 2 drinks nearly every day.
- ➢ 88% of adolescents in Region 6 also reported that they think their parents would strongly disapprove of their child having 1 or 2 drinks nearly every day.
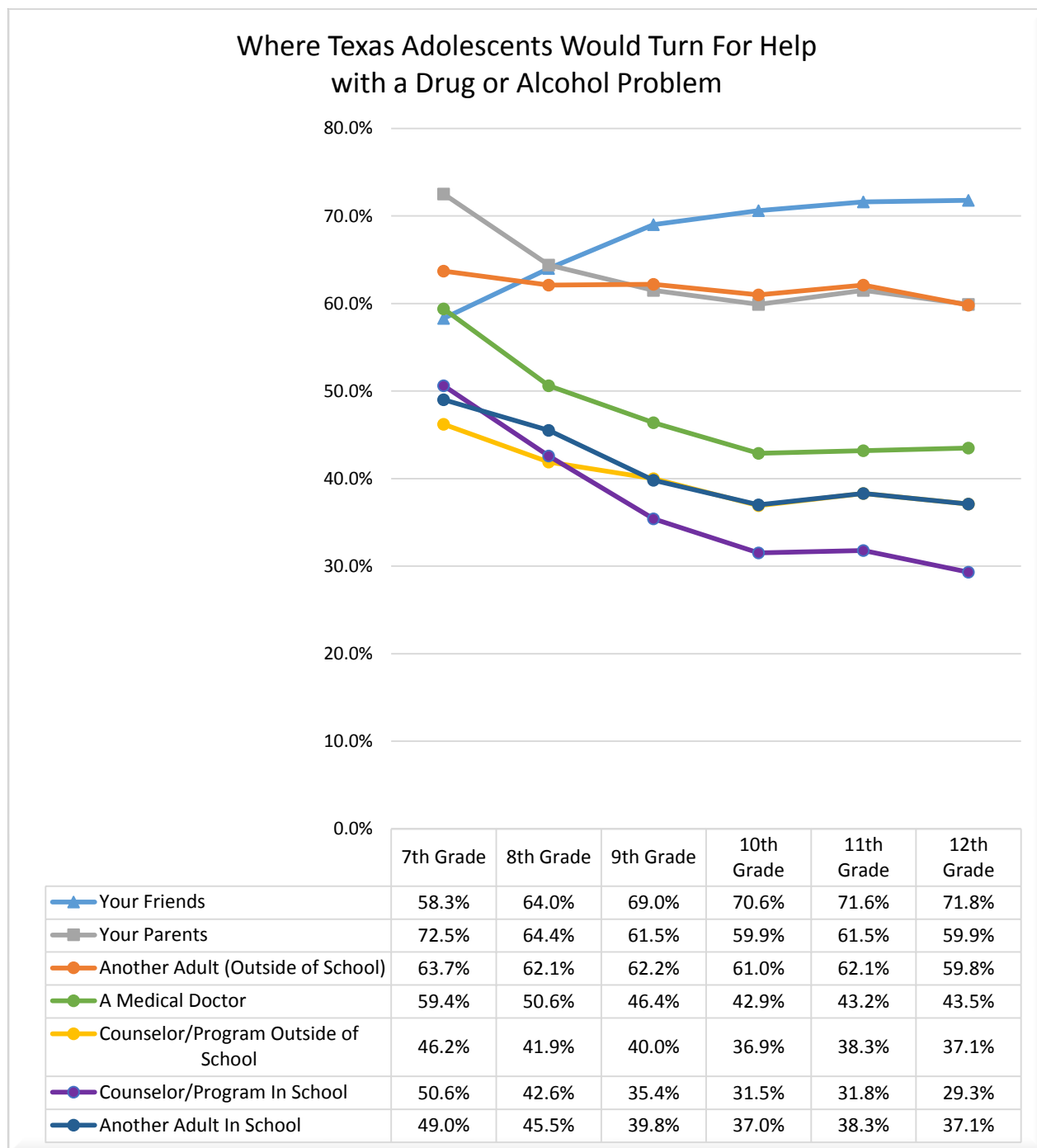
Peer Attitudes

Findings on peer attitudes toward alcohol, in Region 6 and statewide, from the National Survey on Drug Use and Health[91]:

- ➢ 85.7% of adolescents across the state of Texas reported that their close friends would strongly or somewhat disapprove of having one or two alcoholic beverages nearly every day.
- ➢ 86% of adolescents in Region 6 reported that their close friends would strongly or somewhat disapprove of having one or two alcoholic beverages nearly every day.

Confidants

The majority of adolescents in Texas in grades 7-12 reported that they would turn to parents, other adults, and friends for help if they had a drug or alcohol problem. Public health research suggests that adolescents who share good communication and bonds with an adult are less likely to engage in risky behaviors.[92,93]

Findings from the Texas School Survey (2012)[94]:

Where Texas Adolescents Would Turn For Help with a Drug or Alcohol Problem

	7th Grade	8th Grade	9th Grade	10th Grade	11th Grade	12th Grade
Your Friends	58.3%	64.0%	69.0%	70.6%	71.6%	71.8%
Your Parents	72.5%	64.4%	61.5%	59.9%	61.5%	59.9%
Another Adult (Outside of School)	63.7%	62.1%	62.2%	61.0%	62.1%	59.8%
A Medical Doctor	59.4%	50.6%	46.4%	42.9%	43.2%	43.5%
Counselor/Program Outside of School	46.2%	41.9%	40.0%	36.9%	38.3%	37.1%
Counselor/Program In School	50.6%	42.6%	35.4%	31.5%	31.8%	29.3%
Another Adult In School	49.0%	45.5%	39.8%	37.0%	38.3%	37.1%

Prevention Services

Region 6 is home to many agencies and coalitions that provide prevention services for the community, especially adolescents. The following list of providers offer a number of services including individual counseling and school-based prevention classes. The coalitions and collaborative groups listed serve the community on a macro level, advocating for the changing of laws, social policies and social norms in an effort to reduce substance use in youth and young adults.

It would require more space than is available in this needs assessment to describe the vital efforts of each of the service providers and community coalitions listed here.

REGION 6 PREVENTION SERVICES

Prevention Service Providers

- Association for Advancement of Mexican Americans
- Bay Area Council on Drugs and Alcohol
- Community Family Centers
- DePelchin Children's Center
- Change Happens
- Family Services of Greater Houston
- Fort Bend Regional Council on Substance Abuse, Inc.
- Santa Maria Hostel
- Palmer Drug Abuse Program
- Phoenix House of Texas, Inc.
- The Gulf Coast Center
- The Council on Alcohol and Drugs Houston
- Tri-County Services
- Unlimited Visions Aftercare, Inc.

Community Coalition Programs and Other Community Advocacy Groups

- Bay Area Alliance for Youth and Families
- Bay Area Council on Alcohol and Drug Abuse
- Brazoria County Community Coalition
- City of Houston Public Safety Advisory Committee
- Coalition of Behavioral Health Services
- Coalition of Substance Abuse Prevention
- Fort Bend Community Prevention Coalition
- Galveston County Community Coalition
- Hello Hempstead
- Higher Dimension Substance Abuse Prevention - Westwood Coalition
- Houston Galveston Area Council
- Phoenix House Coalition for Behavioral Health
- Roots of Change
- Southeast Harris County Community Coalition
- Tri-County Community Coalition

The Houston Galveston Area Council (HGAC) fosters community development across Region 6's 13 counties. HGAC facilitates local community planning groups, which include youth substance abuse prevention, and publishes individual community plans on their web site as a resource.[95]

Gaps in Services

Under-served Counties

Although some areas of our region are rich in prevention and treatment services for adolescents, some gaps in services still remain. This is the case especially in the northern and eastern counties of Region 6, which are rural and have very few service providers and coalitions. The prevention providers and coalitions who are in these areas are often understaffed and suffer from a lack of financial resources. Thus, the existing providers are challenged with trying to provide services across wide geographic areas to fill in gaps in services. Another challenge is for the prevention providers in these areas to garner support from their local governments and stakeholders who often may not understand the severity of substance use in their areas.

If the reader would like additional county-specific information on localized priorities and gaps in services, county community plans can be reviewed in tandem with this RNA.[96] The plans offer localized insight and priority of needs. For example, Waller County's Community Plan ranks their public safety needs for juveniles, and the number-one item listed in order of need and priority is: "Substance use/abuse prevention and intervention services."[97]

Parent Education

Throughout the region, prevention providers are challenged to find effective strategies for reaching parents. During focus groups, prevention specialists stated they feel limited in how much they can influence the drug attitudes and behaviors of adolescents when parents are unsupportive of these changes. The specialists noted that some parents are too quick to dismiss the idea that their child is at risk for using drugs and alcohol. Other parents may see nothing wrong with providing adolescents with alcohol and other drugs as long as they are being supervised by an adult. Many parents also are unaware of dangerous combinations of drugs and how adolescents learn about such risky practices online. Prevention specialists feel that parent education is a critical gap in service that they would like to have more time and resources to fill.

School-based Services

The prevention specialists throughout the region who provide school-based services noted that over the past few years, as school violence unfortunately has become more frequent in our nation's schools, substance abuse prevention has become less of a priority. However, prevention specialists have suggested that new strategies can be created to address the full spectrum of risk behaviors, including violence and substance use. A strategy that addresses all risk behaviors would offer more opportunities and resources for alternative activities, which help providers develop more personal and long-term relationships with students. Such activities and relationships serve as protective factors against all adolescence risk behaviors.

There are also gaps in school-based services for adolescents in recovery from drug and alcohol abuse. Region 6 currently has recovery services which could be expanded upon. For example, we have two recovery high schools in our region. A national study of the impacts on adolescent substance abuse recovery in sober schools, including Houston's Archway Academy, found "significant reduction in substance use as well as in mental health symptoms among the students."[98] Archway Academy and Three Oaks Academy, also in Houston, are private charter high schools that provide education and support to students in recovery within a sober environment.[99,100] Three Oaks Academy also requires its students to participate in alternative peer groups, such as Lifeway. Region 6 could benefit from additional recovery schools, to support more adolescents in recovery and increase the likelihood that these adolescents will continue to lead sober lives.

Gaps in Data

Continuing the pattern that we see with services, some areas of Region 6, specifically the urban areas of Harris County, are rich in data, while smaller towns and counties are currently lacking data. The Houston Independent School District, for example, participates in the Youth Risk Behavior Survey, along with many other schools throughout the state and nation. Thus, we have detailed data on substance use trends in Houston but unfortunately not for the entire region.

Our region would benefit from the rich data that would result from more schools participating in the Texas School Survey and the Youth Risk Behavior Survey. If every randomly selected school in our region chose to participate, we would have a more comprehensive view of adolescent substance use in Region 6. Schools can also opt-in to the annual Texas School Survey directly from the TSS web site.[101]

Prescription drug misuse among adolescents is a priority for the Prevention Resource Centers. More data and greater consistency across data sets are needed regarding adolescent misuse of prescription drugs. Inconsistencies across surveys create conflicting findings on this topic. For example, not all surveys differentiate between prescribed use and recreational use; some surveys use only the clinical names of drugs, which adolescents may not recognize; and, age of first use is not available. Additional data is also needed on the growing problem of synthetic drugs. Gaps can be addressed by ongoing revisions to surveys or by developing additional local data collection tools. Lastly, we were unable to obtain data on non-fatal overdoses of prescription drugs or synthetic drugs.

Over the next year, the Prevention Resource Center plans to fill in gaps in data by conducting more primary research with parents and adolescents throughout our region, as well as developing and administering our own quantitative surveys. In the next year we will also seek additional secondary data sources regarding adolescent prescription drug and synthetic drug consumption and overdose rates in our region.

Conclusion

Texas Region 6 is a diverse area where resources, challenges, and successes vary widely from county to county. Specific attention has been paid to Harris County (Houston, TX) in this report, for two reasons: 67% of the total population of our 13-county region live in this one county; and, Houston schools opted to participate in state and national surveys, which makes local data available to analyze and disseminate. Our aim, however, has been to present a narrative of the entire region.

Three key trends appeared in Region 6's data analysis. First, marijuana use among adolescents is increasing, while perceived risk of harm from marijuana use is decreasing. As discussed in the Consequences section, there is a visible result of this dichotomy in the form of marijuana-related arrests. It may be necessary to increase focus on raising awareness of marijuana risk and consequences in our region's prevention services.

Second, new tactics are emerging rapidly for camouflaging nicotine, alcohol, and synthetic drugs. This report's qualitative research, along with new reports on drug trends in Texas, indicate that masking substances with candies or candy flavors is a current trend that prevention providers, educators, and parents may need to be aware of if they are not already. As discussed in the Accessibility section, 34% of high school students in Houston and 26.4% across Texas report being sold or offered illegal drugs on school grounds. Continued awareness of concealment tactics may help reduce these numbers.

Third, some of Region 6 counties have a high prevalence of risk factors and stretched prevention services. Readers involved with county-level planning are encouraged to find their counties in the charts presented here and consider indicators specific to their areas that may influence or reflect adolescent substance abuse. For example: substance-related arrests; access to healthcare and SUD treatment; school dropout and truancy rates; and accessibility of drugs, alcohol, and tobacco to youth. The Prevention Resource Center will support local analysis and planning wherever possible.

One of the authors' primary hopes moving forward is that more schools and organizations in our other counties will opt to participate in school surveys or other local data collection efforts, so that we can better represent their youths' experiences in this report in the coming years. The Prevention Resource Center of Region 6 is eager to partner with more coalitions and schools outside of Harris County, encourage them to participate in data collection, and support their prevention needs and successes.

With the conclusion of this first PRC-6 Regional Needs Assessment, we look forward to expanding our efforts in the coming years as the RNA grows. Our goal, again, is to gather data from around the region and provide it as a resource to community stakeholders, residents, policy makers, and program planners. Your continued efforts to celebrate the accomplishments of those in recovery and to reduce the incidence of adolescent substance abuse are appreciated. Thank you for joining us as a partner in addressing this preventable and treatable public health concern.

Appendix A
PRC Regions and Counties

PRC Region	Counties
1	Armstrong, Bailey, Briscoe, Carson, Castro, Childress, Cochran, Collingsworth, Crosby, Dallam, Deaf Smith, Dickens, Donley, Floyd, Garza, Gray, Hale, Hall, Hansford, Hartley, Hemphill, Hockley, Hutchinson, King, Lamb, Lipscomb, Lubbock, Lynn, Moore, Motley, Ochiltree, Oldham, Parmer, Potter, Randall, Roberts, Sherman, Swisher, Terry, Wheeler, and Yoakum (41)
2	Archer, Baylor, Brown, Callahan, Clay, Coleman, Comanche, Cottle, Eastland, Fisher, Foard, Hardeman, Haskell, Jack, Jones, Kent, Knox, Mitchell, Montague, Nolan, Runnels, Scurry, Shackelford, Stonewall, Stephens, Taylor, Throckmorton, Wichita, Wilbarger, and Young (30)
3	Collin, Cooke, Dallas, Denton, Ellis, Erath, Fannin, Grayson, Hood, Hunt, Johnson, Kaufman, Navarro, Palo Pinto, Parker, Rockwall, Somervell, Tarrant, and Wise (19)
4	Anderson, Bowie, Camp, Cass, Cherokee, Delta, Franklin, Gregg, Harrison, Henderson, Hopkins, Lamar, Marion, Morris, Panola, Rains, Red River, Rusk, Smith, Titus, Upshur, Van Zandt, and Wood (23)
6	Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Harris, Liberty, Matagorda, Montgomery, Walker, Waller, and Wharton (13)
7	Bastrop, Bell, Blanco, Bosque, Brazos, Burleson, Burnet, Caldwell, Coryell, Falls, Fayette, Freestone, Grimes, Hamilton, Hays, Hill, Lampasas, Lee, Leon, Limestone, Llano, Madison, McLennan, Milam, Mills, Robertson, San Saba, Travis, Washington, and Williamson (30)
8	Atacosa, Bandera, Bexar, Calhoun, Comal, DeWitt, Dimmit, Edwards, Frio, Gillespie, Goliad, Gonzales, Guadalupe, Jackson, Karnes, Kendall, Kerr, Kinney, La Salle, Lavaca, Maverick, Medina, Real, Uvalde, Val Verde, Victoria, Wilson, and Zavala (28)
9	Andrews, Borden, Coke, Concho, Crane, Crockett, Dawson, Ector, Gaines, Glasscock, Howard, Irion, Kimble, Loving, Martin, Mason, McCulloch, Menard, Midland, Pecos, Reagan, Reeves, Schleicher, Sterling, Sutton, Terrell, Tom Green, Upton, Ward, and Winkler (30)
10	Brewster, Culberson, El Paso, Hudspeth, Jeff Davis, and Presidio (6)
11	Aransas, Bee, Brooks, Cameron, Duval, Hidalgo, Jim Hogg, Jim Wells, Kenedy, Kleberg, Live Oak, McMullen, Nueces, Refugio, San Patricio, Starr, Webb, Willacy, and Zapata (19)

Contact Information of Evaluators

PRC Evaluators	Contact
Statewide Evaluator: Albert Yeung	Albert.Yeung@dshs.state.tx.us
Region 1 : Bob Schafer	Bob.Schafer@mccaod.com
Region 2: Jenna Sheldon	Jenna.Sheldon@arcadatx.org
Region 3: Lauren Roth	LRoth@dallascouncil.org
Region 4: Chris Carpenter	CCarpenter@etcada.com
Region 6: Alicia LaChapelle-Friday and Emily Breeding	ALaChapelle-Friday@council-houston.org EBreeding@council-houston.org
Region 7: Tiberio Garza	TGarza@bvcasa.org
Region 11: Violeta Davila	VDavila@rgvcouncil.org

Suggested Citation

To reference this report, we suggest the following citation (shown in AMA style):

The Council on Alcohol and Drugs Houston. *Regional Needs Assessment: Prevention Resource Center 6*. Austin, TX: Texas Department of State Health Services; 2014.

Appendix B
Glossary of Terms

30 Day Use	The percentage of people who have used a substance in the 30 days before they participated in the survey.
ATOD	Alcohol, tobacco, and other drugs.
Adolescent	An individual between the ages of 12 and 17 years.
DSHS	Department of State Health Services
Epidemiology	Epidemiology is concerned with the distribution and determinants of health and diseases, sickness, injuries, disabilities, and death in populations.
Evaluation	Systematic application of scientific and statistical procedures for measuring program conceptualization, design, implementation, and utility; making comparisons based on these measurements; and the use of the resulting information to optimize program outcomes.

Incidence	The occurrence, rate, or frequency of a disease or crime.
Opioids	Synthetic psychoactive narcotic drugs prescribed for pain relief which resemble morphine or other naturally occurring opiates in their pharmacological effects.
PRC	Prevention Resource Center
Prevalence	The proportion of the population within the region found to already have a certain substance abuse problem.
Protective Factor	Conditions or attributes (skills, strengths, resources, supports or coping strategies) in individuals, families, communities or the larger society that help people deal more effectively with stressful events and mitigate or eliminate risk in families and communities.
Risk Factor	Conditions, behaviors, or attributes in individuals, families, communities or the larger society that contribute to or increase the risk in families and communities.
Substance Abuse	When alcohol or drug use adversely affects the health of the user or when the use of a substance imposes social and personal costs. Abuse might be used to describe the behavior of a person who has four glasses of wine one evening and wakes up the next day with a hangover.
Substance Misuse	The use of a substance for a purpose not consistent with legal or medical guidelines. This term often describes the use of a prescription drug in a way that varies from the medical direction, such as taking more than the prescribed amount of a drug or using someone else's prescribed drug for medical or recreational use.
Substance Use	The consumption of low and/or infrequent doses of alcohol and other drugs such that damaging consequences may be rare or minor. Substance use might include an occasional glass of wine or beer with dinner, or the legal use of prescription medication as directed by a doctor to relieve pain or to treat a behavioral health disorder.
SUD	Substance Use Disorder

References

[i] U.S. Department of Health and Human Services. Healthy People 2020: Adolescent health. http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=2. Accessed July 9, 2014.

[ii] American Psychological Association. Developing adolescents: A guide for professionals. http://www.apa.org/pi/families/resources/develop.pdf. Accessed July 9, 2014.

[iii] Texas Administrative Code 441, rule 25.

[iv] American Psychological Association. Developing adolescents: A guide for professionals. http://www.apa.org/pi/families/resources/develop.pdf. Accessed July 9, 2014.

[v] World Health Organization. Adolescent development. http://www.who.int/maternal_child_adolescent/topics/adolescence/dev/en/. Accessed July 9, 2014.

[vi] Johnson S, Blum R, Giedd J. Adolescent maturity and the brain: The promise and pitfalls of neuroscience research in adolescent health policy. *Journal of Adolescent Health.* 2009;45(3):216-221. doi:10.1016/j.jadohealth.2009.05.016.

[vii] Simpson R for the Massachusetts Institute of Technology (MIT) Parenting Education and Research program. Young adult development project: What the research tells us. http://hrweb.mit.edu/worklife/youngadult/youngadult_ppt.pdf. Accessed July 10, 2014.

[viii] World Health Organization. Epidemiology. http://www.who.int/topics/epidemiology/en/. Accessed July 9, 2014.

[ix] Substance Abuse and Mental Health Services Administration. Key features of risk and protective factors. http://captus.samhsa.gov/prevention-practice/prevention-and-behavioral-health/key-features-risk-protective-factors/1. Accessed July 10, 2014.

[x] Hawkins J, Catalano R, Miller J. Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychological Bulletin.* 1992;112(1):64-105.

[xi] Substance Abuse and Mental Health Services Administration. Key features of risk and protective factors. http://captus.samhsa.gov/prevention-practice/prevention-and-behavioral-health/key-features-risk-protective-factors/1. Accessed July 10.

[xii] Centers for Disease Control and Prevention. Injury prevention and control: Adverse childhood experiences (ACE) study. http://www.cdc.gov/violenceprevention/acestudy/. Accessed July 8, 2014.

[xiii] World Health Organization. Global status report on alcohol and health: 2014. http://www.who.int/substance_abuse/publications/global_alcohol_report/msb_gsr_2014_1.pdf?ua=1. Accessed July 9, 2014.

[14] Substance Abuse and Mental Health Services Administration. Strategic prevention framework. http://beta.samhsa.gov/spf. Accessed July 10, 2014.

[15] Texas Comptroller of Public Accounts. Texas in focus: Gulf Coast region. March 2010. http://www.window.state.tx.us/specialrpt/tif/gulf/pdf/GulfCoastFullReport.pdf. Accessed July 31, 2014.

[16] Makun P,Wilson S. *Population Distribution and Change: 2000-2010*. Washington, DC: U.S. Census Bureau; 2011.

[17] Office of the Governor. Overview of the Texas economy: Current state economic and demographic trends. Austin, Texas: Office of the Governor Economic Development and Tourism; 2014.

[18] Texas State Data Center. Age, sex, race/ethnicity population estimates, state and all counties. http://txsdc.utsa.edu/Data/TPEPP/Estimates/Tool.aspx?fid=E5FF76FCB3F84962BAE90F4266F3EA56. Accessed May 16, 2014.

[19] Makun P,Wilson S. *Population Distribution and Change: 2000-2010*. Washington, DC: U.S. Census Bureau; 2011.

[20] Texas State Center Data Center. Age, sex, race/ethnicity population estimates, state and all counties. http://txsdc.utsa.edu/Data/TPEPP/Estimates/Tool.aspx?fid=E5FF76FCB3F84962BAE90F4266F3EA56. Accessed May 16, 2014.

[21] Community Action Partnership Association. Community needs assessment online tool. http://www.communityactioncna.org/. Accessed February 19, 2014.

[22] Texas State Center Data Center. Age, sex, race/ethnicity population estimates, state and all counties. http://txsdc.utsa.edu/Data/TPEPP/Estimates/Tool.aspx?fid=E5FF76FCB3F84962BAE90F4266F3EA56. Accessed May 16, 2014.

[23] Community Action Partnership Association. Community needs assessment online tool. http://www.communityactioncna.org/. Accessed February 19, 2014.

[24] Texas State Data Center. Age, sex, race/ethnicity population estimates, state and all counties. http://txsdc.utsa.edu/Data/TPEPP/Estimates/Tool.aspx?fid=E5FF76FCB3F84962BAE90F4266F3EA56. Accessed May 16, 2014.

[25] Houston Galveston Area Council. 2012 Poverty and median household income estimates for the H-GAC region. https://www.h-gac.com/community/socioeconomic/census/documents/Poverty_Income(SAIPE).pdf. Accessed May 23, 2014.

[26] Houston Galveston Area Council. 2012 Poverty and median household income estimates for the H-GAC region. https://www.h-gac.com/community/socioeconomic/census/documents/Poverty_Income(SAIPE).pdf. Accessed May 23, 2014.

[27] Workforce Solutions. Labor market information: Regional unemployment rates, Gulf Coast. http://www.wrksolutions.com/employer/lmi/unemploymentrate.html. Accessed July 21, 2014.

[28] U.S. Department of Labor, Bureau of Labor Statistics. Unemployment rate. http://data.bls.gov/timeseries/LNS14000000. Accessed July 21, 2014.

[29] Houston Galveston Area Council. Existing conditions: Our region. March 2013. http://www.ourregion.org/ExistingConditionsReport.html. Accessed May 23, 2014.

[30] Workforce Solutions. Labor market information: Regional unemployment rates, Gulf Coast. http://www.wrksolutions.com/employer/lmi/unemploymentrate.html. Accessed July 21, 2014.

[31] U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD). Local education agency (school district) universe survey, 2011-12. Washington, DC: U.S. Department of Education; 2012.

[32] Centers for Disease Control and Prevention. Behavioral Risk Factors Surveillance system by selected area. Atlanta, GA: Centers for Disease Control and Prevention; 2012.

[33] U.S. Census Bureau. Small area health insurance estimates: 2011. http://www.census.gov/did/www/sahie/. Accessed May 23, 2014.

[34] Texas Department of State Health Services. Texas School Survey: 2012. Austin, TX: Texas Department of State Health Services; 2012.

[35] Texas Department of State Health Services. Texas School Survey: 2012. Austin, TX: Texas Department of State Health Services; 2012.

[36] Texas Department of Transportation. DUI driver fatalities by county and age: 2012. http://www.txdot.gov/government/enforcement/annual-summary.html. 2013. Accessed April 23, 2014.

[37] Center for Substance Abuse Treatment. Substance abuse and suicide prevention: Evidence and implications - a white paper. DHHS Pub. No. SMA-08-4352. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2008.

[38] Texas Department of State Health Services. Suicide by county. Austin, TX: Texas Department of State Health Services; 2011.

[39] Centers for Disease Control. Youth Risk Behavior Surveillance System: 2013. http://nccd.cdc.gov/youthonline/App/Default.aspx. Accessed May 23, 2014

[40] National Institute on Drug Abuse. Drug facts: Prescription and over-the-counter medication. http://www.drugabuse.gov/publications/drugfacts/prescription-over-counter-medications. Accessed July 30, 2014.

[41] Texas Department of State Health Services. Vital Statistics Unit. October 25, 2013. http://www.dshs.state.tx.us/vs/default.shtm. Accessed March 10, 2014.

[42] Texas Education Agency. Dropout by county 2011-2012. Austin, TX: Texas Education Agency; 2012.

[43] Texas Education Agency. Region level annual discipline summary 2012-2013. Austin, TX: Texas Education Agency; 2013.

[44] Texas Department of State Health Services. Texas School Survey: 2012. Austin, TX: Texas Department of State Health Services; 2012.

[45] Centers for Disease Control. Youth Risk Behavior Surveillance System: 2013. http://nccd.cdc.gov/youthonline/App/Default.aspx. Accessed May 23, 2014

[46] Prevention Research Center at the University of Texas School of Public Health. 2011 Teen birth rate maps by Harris County school district. https://sph.uth.edu/tprc/2013/08/14/texas-teen-birth-rate-maps-harris-county-school-district/. Accessed June 1, 2014.

[47] Rao, U. Links between depression and substance abuse in adolescents: Neurobiological mechanisms. *American Journal of Prevention Medicine* 2006;6(1):S161-174.

[48] Brière FN, Rohde P, Seeley JR, Klein D, Lewinsohn P. Comorbidity between major depression and alcohol use disorder from adolescence to adulthood. *Comprehensive Psychiatry.* 2014; 55(3):526-33. doi: 10.1016/j.comppsych.2013.10.007. Epub 2013 Oct 22.

[49] Centers for Disease Control. Youth Risk Behavior Surveillance System: 2013. http://nccd.cdc.gov/adolescentsonline/App/Default.aspx. Accessed May 23, 2014.

[50] Bureau of Justice Statistics. 2012 FBI arrest data for adults and juveniles by county. Washington, DC: Bureau of Justice Statistics; 2012.

[51] Bureau of Justice Statistics. 2012 FBI arrest data for adults and juveniles by county. Washington, DC: Bureau of Justice Statistics; 2012.

[52] Bureau of Justice Statistics. 2012 FBI arrest data for adults and juveniles by county. Washington, DC: Bureau of Justice Statistics; 2012.

[53] Bureau of Justice Statistics. 2012 FBI arrest data for adults and juveniles by county. Washington, DC: Bureau of Justice Statistics; 2012.

[54] Bureau of Justice Statistics. 2012 FBI arrest data for adults and juveniles by county. Washington, DC: Bureau of Justice Statistics; 2012.

[55] Bureau of Justice Statistics. 2012 FBI arrest data for adults and juveniles by county. Washington, DC: Bureau of Justice Statistics; 2012.

[56] Bureau of Justice Statistics. 2012 FBI arrest data for adults and juveniles by county. Washington, DC: Bureau of Justice Statistics; 2012.

[57] Bureau of Justice Statistics. 2012 FBI arrest data for adults and juveniles by county. Washington, DC: Bureau of Justice Statistics; 2012.

[58] Bureau of Justice Statistics. 2012 FBI arrest data for adults and juveniles by county. Washington, DC: Bureau of Justice Statistics; 2012.

[59] Centers for Disease Control. Youth Risk Behavior Surveillance System: 2013. http://nccd.cdc.gov/youthonline/App/Default.aspx. Accessed May 23, 2014.

[60] Centers for Disease Control. Youth risk behavior survey: Compare state/district and national results. http://www.cdc.gov/healthyyouth/yrbs/factsheets/index.htm#compare. Accessed July 28, 2014.

[61] Texas Alcoholic Beverage Commission. Permit violations April 2013-April 2014. Austin, TX: Texas Alcoholic Beverage Commission; 2014.

[62] Centers for Disease Control. Youth Risk Behavior Surveillance System: 2013. http://nccd.cdc.gov/youthonline/App/Default.aspx. Accessed May 23, 2014.

[63] Texas Department of State Health Services. Texas School Survey: 2012. Austin, TX: Texas Department of State Health Services; 2012.

[64] Texas Department of State Health Services. Texas School Survey: 2012. Austin, TX: Texas Department of State Health Services; 2012.

[65] Centers for Disease Control. Youth Risk Behavior Surveillance System: 2013. http://nccd.cdc.gov/youthonline/App/Default.aspx. Accessed May 23, 2014.

[66] Centers for Disease Control. Youth Risk Behavior Surveillance System: 2013. http://nccd.cdc.gov/youthonline/App/Default.aspx. Accessed May 23, 2014.

[67] Substance Abuse and Mental Health Services Administration. Behavioral health barometer: Texas 2013. http://www.samhsa.gov/data/StatesInBrief/2k14/Texas_BHBarometer.pdf. Accessed July 23, 2014.

[68] Texas Department of State Health Services. Texas School Survey: 2012. Austin, TX: Texas Department of State Health Services; 2012.

[69] Centers for Disease Control. Youth Risk Behavior Surveillance System: 2013. http://nccd.cdc.gov/youthonline/App/Default.aspx. Accessed May 23, 2014.

[70] Centers for Disease Control. Youth Risk Behavior Surveillance System: 2013. http://nccd.cdc.gov/youthonline/App/Default.aspx. Accessed May 23, 2014.

[71] Centers for Disease Control. Youth Risk Behavior Surveillance System: 2013. http://nccd.cdc.gov/youthonline/App/Default.aspx. Accessed May 23, 2014.

[72] Texas Department of State Health Services. Texas School Survey: 2012. Austin, TX: Texas Department of State Health Services; 2012.

[73] Centers for Disease Control. Youth Risk Behavior Surveillance System: 2013. http://nccd.cdc.gov/youthonline/App/Default.aspx. Accessed May 23, 2014.

[74] Centers for Disease Control. Youth Risk Behavior Surveillance System: 2013. http://nccd.cdc.gov/youthonline/App/Default.aspx. Accessed May 23, 2014.

[75] Centers for Disease Control. Youth Risk Behavior Surveillance System: 2013. http://nccd.cdc.gov/youthonline/App/Default.aspx. Accessed May 23, 2014.

[76] Texas Poison Center Network. Prescription drug abuse: A national epidemic. http://www.poisoncontrol.org/docs/fact-sheets/prescription-drugs.pdf. Accessed July 28, 2014.

[77] Centers for Disease Control. Youth Risk Behavior Surveillance System: 2013. http://nccd.cdc.gov/youthonline/App/Default.aspx. Accessed May 23, 2014.

[78] Centers for Disease Control. Youth risk behavior survey: Compare state/district and national results. http://www.cdc.gov/healthyyouth/yrbs/factsheets/index.htm#compare. Accessed July 28, 2014.

[79] Medical News Today. More drug overdose deaths from prescription pain killers than cocaine or heroin in the US. July 26, 2006. Adapted from Paulozzi, L et. al. Increasing deaths from opioid analgesics in the United States. *Pharmacoepidemiology and Drug Safety*. DOI: 10.1002/pds.1276. http://www.medicalnewstoday.com/releases/47945.php. Accessed August 1, 2014.

[80] McGill University. Death by prescription painkiller. [Press release] June 18, 2014. Adapted from King NB, Fraser V, Boikos C, Richardson R, Harper S. Determinants of increased opioid-related mortality in the U.S. and Canada, 1990-2013: A systematic review. *American Journal of Public Health.* 2014; 104(8):e32-e42. doi: 10.2105/AJPH.2014.301966. http://www.mcgill.ca/newsroom/channels/news/death-prescription-painkiller-237140. Accessed August 1, 2014.

[81] Substance Abuse and Mental Health Services Administration. National Survey on Drug Use and Health: 10-year substrate R-DAS (2002-2011). 2013. http://www.icpsr.umich.edu/icpsrweb/SAMHDA/studies/34947/datasets/1/sda. Accessed April 11, 2013.

[82] Substance Abuse and Mental Health Services Administration. *Results from the 2012 National Survey on Drug Use and Health: Summary of national findings*. NSDUH Series H-46, HHS Pub No. (SMA) 13-4795. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2013.

[83] Texas Department of State Health Services. Vital Statistics Unit. October 25, 2013. http://www.dshs.state.tx.us/vs/default.shtm. Accessed March 10, 2014.

[84] Texas Department of State Health Services. Texas School Survey: 2012. Austin, TX: Texas Department of State Health Services; 2012.

[85] Centers for Disease Control. Youth Risk Behavior Surveillance System: 2013. http://nccd.cdc.gov/youthonline/App/Default.aspx. Accessed May 23, 2014.

[86] Centers for Disease Control. Youth Risk Behavior Surveillance System: 2013. http://nccd.cdc.gov/youthonline/App/Default.aspx. Accessed May 23, 2014.

[87] Centers for Disease Control. Youth Risk Behavior Surveillance System: 2013. http://nccd.cdc.gov/youthonline/App/Default.aspx. Accessed May 23, 2014.

[88] Centers for Disease Control. Youth Risk Behavior Surveillance System: 2013. http://nccd.cdc.gov/youthonline/App/Default.aspx. Accessed May 23, 2014.

[89] Texas Department of State Health Services. Texas School Survey: 2012. Austin, TX: Texas Department of State Health Services; 2012.

[90] Substance Abuse and Mental Health Services Administration. National Survey on Drug Use and Health: 10-year substrate R-DAS (2002-2011). 2013. http://www.icpsr.umich.edu/icpsrweb/SAMHDA/studies/34947/datasets/1/sda. Accessed April 11, 2013.

[91] Substance Abuse and Mental Health Services Administration. National Survey on Drug Use and Health: 10-year substrate R-DAS (2002-2011). 2013. http://www.icpsr.umich.edu/icpsrweb/SAMHDA/studies/34947/datasets/1/sda. Accessed April 11, 2013.

[92] U.S. Department of Health and Human Services. Healthy People 2020: Adolescent health. http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=2. Accessed July 9, 2014.

[93] Resnick M, Bearman P, Blum R, et al. Protecting adolescents from harm: Findings from the national longitudinal study on adolescent health. *Journal of the American Medical Association.* 1997;278(10):823-832. doi:10.1001/jama.1997.03550100049038.

[94] Texas Department of State Health Services. Texas School Survey: 2012. Austin, TX: Texas Department of State Health Services; 2012.

[95] Houston-Galveston Area Council. Planning groups. http://www.h-gac.com/safety/justice-planning/planning.aspx. Accessed July 23, 2014.

[96] Houston-Galveston Area Council. Planning groups. http://www.h-gac.com/safety/justice-planning/planning.aspx. Accessed July 23, 2014.

[97] Waller County Texas Community Planning Team. Waller County criminal justice community plan 2013-2014. http://www.h-gac.com/safety/justice-planning/documents/2014/Waller-County-Community-Plan-2013-2014.docx. Accessed July 23, 2014.

[98] Moberg DP, Finch A. Recovery high schools: A descriptive study of school programs and students. *Journal of Groups in Addiction and Recovery.* 2008;2:128-161. Doi:10.1080/15560350802081314.

[99] Archway Academy. About Archway Academy. http://www.archwayacademy.net/about-us/about-archway-academy/. Accessed July 22, 2014.

[100] Three Oaks Academy. About Three Oaks Academy and frequently asked questions. http://threeoaksacademy.org/fq/. Accessed July 30, 2014.

[101] Texas School Survey. Register online. http://www.texasschoolsurvey.org/register/. Accessed July 30, 2014.