

# Regional Needs Assessment

**REGION VI: THE COUNCIL ON RECOVERY** 

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# Part I – RNA Background and Methodology

# **Executive Summary**

# What is the Regional Needs Assessment (RNA)?

The Prevention Resource Center's (PRC) RNA is a document created by Christina Eyman and Jasmine Phillips along with Data Coordinators from PRCs across the State of Texas and supported by Texas Health and Human Services Commission (HHSC). The PRC 6 serves 13 counties in the Gulf Coast Region of Texas.

A needs assessment is the process of determining and addressing the "gaps" between the current conditions and desired conditions in a set environment or demographic.¹ This assessment was designed to aid PRCs, HHSC, and community stakeholders in long-term strategic prevention planning based on the most current information about the unique needs of Texas' diverse communities. This document will present summary statistics of risk and protective factors associated with substance use, consumption patterns, and public health consequences. In addition, this report will offer insight on gaps in behavioral health promotion and substance use prevention services and data in Texas.

### Who creates the RNA?

A team of Data Coordinators from all eleven PRCs has gathered national, state, regional, and local data through collaborative partnerships with diverse agencies from the CDC's twelve sectors for community change<sup>2</sup>:

- · youth and young adults
- parents
- business communities
- media
- schools
- organizations serving youth and young adults
- law enforcement agencies
- religious or fraternal organizations
- civic or volunteer groups
- healthcare professionals and organizations
- state, local, and tribal government agencies
- and other local organizations involved in promoting behavioral health and reducing substance use and non-medical use of prescription drugs, such as recovery communities, Education Services Centers, and Local Mental Health Authorities

PRC 6 recognizes those collaborators who contributed to the creation of this RNA.

# How is the RNA informed?

Qualitative data has been collected in the form of focus groups and interviews with key informants. Quantitative data has been collected from federal and state agencies to ensure reliability and accuracy. The information obtained through these partnerships has been analyzed and synthesized together in the form of this RNA.

<sup>1</sup> Ryan Watkins, R, et al., "A guide to assessing needs: Essential tools for collecting information, making decisions and achieving development results," World Bank Open Knowledge Repository, (2012).

<sup>2</sup> Centers for Disease Control and Prevention (CDC), "Drug-free communities support program," (2021).

# Main key findings from this assessment includes:

# **Demographics:**

Region 6 is comprised of 13 counties within the southeast section of Texas. The greater Houston metropolitan area is within this region, which is one of the most populous cities in the U.S. The total population of the region is approximately 7,223,944 with 50.11% being female and 49.89% being male. The majority of the region is ranging from 25-44 years old and the primary race is white.

### **Substance Use Behaviors:**

Within the region, trends are showing that alcohol and drug related arrests for juveniles has increased from 2021. Similarly, alcohol related arrests have been the highest for adults since 2018. In relation to substance use and schools, the trends show mild improvement. The number of students offered drugs on school property is decreasing and the number of students who reported never using substances has increased. However, the age of first use for substance is getting lower with the average age between 12-14 years old (middle school). Consumption patterns indicate that grades 7 and 8 have approximately 10-20% of students utilizing a substance where was 9-12 indicates approximately 40-60% use substances. Region 6 has continued to increase for overdose related deaths from 2018-2022. These behaviors show the importance of prevention programs at a younger age, school intervention, as well as local and regional intervention on substance use.

## **Underlying Risk Factors:**

Overall, the economic stability of the region is good with the vast majority of counties being over the Texas income level based on the ACS 5-Year estimates. Additionally, the overall unemployment rate is decreasing however; it is still above the state rate. Region 6 demonstrates that the population has a high level of high school graduates but higher education is of small proportions. In correlation, the absenteeism rate has been increasing but high school dropout rates is staying relatively the same or decreasing. Underlying risk factors includes family, community and surrounding environment. In Region 6, multiple counties have demonstrated an increase in parental depression.

# **Behavioral Health Disparities:**

A major behavioral health disparity is that of access to healthcare services. The uninsured rate for adolescents/children has mostly decreased however; the adult population has primarily increased. The impact of this is decreased access to behavioral healthcare and associated physical health conditions. This is significant due the fact the adolescent depression as well as parental depression are increasing within the region. Additionally, substance use treatment providers is trending downward over the past 5 years and is significantly lower for Region 6 compared to the state of Texas making accessibility more difficult.

# **Protective Factors and Community Strengths:**

Protective factors for the region include social associations, congregations, parental engagement, disapproval and support as well as decreased accessibility of substances and peer use. Social associations such as fitness centers, business organizations, golf clubs, etc. has shown a positive increase over the past three years which has been shown to have a positive impact on substance use and engagement for treatment. On the other hand, the number of congregations within the region is relatively high for multiple counties, which has also been considered a protective factor for substance use and recovery.

For adolescents specifically, protective factors are more about positive relationships, parental support and engagement, peer use as well as the ability to access substances. For substance use, parental disapproval for both marijuana and tobacco is over 70% for strong disapproval with over 50% strongly disapproving of alcohol. For perception of peer use, according to TSS, 60% have never heard of/none for alcohol, 71% for marijuana and 83% for tobacco. Parental disapproval and peer

use are protective factors for substance use. In addition, Texas, the percentage of students offered substances on a school property has significantly decreased from 2019 to 2021, approximately 10%.

Community strengths include the improvement on the number of alcohol-related vehicular fatalities, the overall increase in mental health providers compared to the population as well as the use of prevention and education for the juvenile population. Region 6 has initiatives in place to further impact the overall community substance use through hospitals, community based organization partnerships, education and awareness, trainings, recovery support programs, youth prevention and school programs as well as access to behavioral health providers.

# Introduction

The information presented in this RNA aims to contribute to program planning, evidence-based decision making, and community education. The RNA strives to increase knowledge of factors related to substance use and behavioral health. There are several guiding key concepts throughout the RNA, including a focus on the youth and young adult population and the use of an empirical, public health framework. All key concepts are outlined within their own respective sections later in this report.

The information in this needs assessment is based on three main data categories:

- 1. exploration of related risk and protective factors as defined by The Center for Substance misuse Prevention (CSAP);
- 2. exploration of drug consumption trends of adolescents with a primary focus on the statedelineated prevention priorities of alcohol (underage drinking), tobacco/nicotine, marijuana, and non-medical use of prescription drugs; and
- 3. broader public health and public safety consequences that result from substance use and behavioral health challenges

The report concludes with a collection of prevention resources in the region, an overview of the region's capacity to address substance use and other behavioral health challenges, and overall takeaways from the RNA.

# Prevention Resource Centers (PRCs)

PRCs are funded by the Texas Health and Human Services Commission (HHSC) to provide data and information related to substance use and to support prevention collaboration efforts in the community. There is one PRC located in each of the eleven Texas Public Health Service Regions (see Figure 1) to provide support to prevention providers located in their region with data, trainings, media activities, and regional workgroups.

PRCs focus on the state's overall behavioral health and the four prevention priorities:

- underage alcohol use
- underage tobacco and nicotine products use
- marijuana and other cannabinoids use
- non-medical use of prescription drugs

### PRCs have four fundamental objectives:

 collect data relevant to the state's prevention priorities, share findings with community partners, and ensure sustainability of a Regional Epidemiological Workgroup (REW) focused on identifying strategies related to data collection, gaps in data, and prevention needs

- coordinate regional behavioral health promotion and substance use prevention trainings
- conduct media awareness activities related to substance use prevention and behavioral health promotion
- conduct voluntary compliance checks on tobacco and e-cigarette retailers and provide education on state tobacco laws to these retailers

## Regions

Figure 1. Map of Public Health Service Regions serviced by a Prevention Resource Center:

Region 1 Region 2 Region 3 Region 4 Region 5 Region 6 Region 7 Region 8 Region 9 Region 10 Region 11	Panhandle and South Plains Northwest Texas Dallas/Fort Worth Metroplex Upper East Texas Southeast Texas Gulf Coast Central Texas Upper South Texas West Texas Upper Rio Grande Rio Grande Valley/Lower South Texas	1 2 3 4 7 5 8 6
		Image courtesy of HHSC.

# **How PRCs Help the Community**

PRCs provide information and education to other HHSC-funded providers, community groups, and other stakeholders through four core areas based around the four fundamental objectives: Data, Training, Media, and Tobacco. All the core areas work together to position the PRC as a regional hub of information and resources related to prevention, substance use, and behavioral health in general. PRCs work to educate the community on substance use and associated consequences through various data products, such as the RNA, media awareness activities, training, and retailer education. Through these actions, PRCs provide stakeholders with knowledge and understanding of the local populations they serve, help guide programmatic decision making, and provide community awareness and education related to substance use.

### Data

The PRC Data Coordinators serve as a primary resource for substance use and behavioral health data for their region. They lead an REW, compile and synthesize data, and disseminate findings to the community. The PRC Data Coordinators also engage in building collaborative partnerships with key community members who aid in securing access to information.

- Develop and maintain the REW.
- Conduct Key Informant Interviews (KII).
- Develop and facilitate at least one regionwide event based on RNA data findings.
- Conduct and attend meetings with community stakeholders to raise awareness and generate support to enhance data collection efforts of substance use and behavioral health data.
- Compile and synthesize data to develop an RNA to provide community organizations and stakeholders with region-specific substance use, behavioral health, and Social Determinants of Health (SDoH) information.
- Direct stakeholders to resources regarding data collection strategies and evaluation activities.

Disseminate findings to the community.

### Training

The Public Relations Coordinators are tasked with building the prevention workforce capacity through technical support and coordination of prevention trainings.

- Work directly with HHSC-funded training entity to identify training and learning needs
- Host and coordinate trainings for virtual and in-person trainings
- Provide monthly updates to HHSC-funded prevention providers within the region about the availability of substance use prevention trainings and related trainings offered by HHSCfunded training entity and other community-based organizations

### Media

The Public Relations Coordinators use social and traditional media to increase the community's understanding of substance use prevention and behavioral health promotion.

- Promote consistent statewide messaging by participating in HHSC's statewide media campaign
- Maintain organizational social media platforms required by HHSC to post original content, share other organizations posts, and HHSC media
- Promote prevention messages through media outlets including radio or television PSAs, media interviews, billboards, bus boards, editorials, or social media

### Tobacco

The PRC Tobacco Coordinators provide education and conduct activities that address retailer compliance with state law. The goal of these tobacco-related activities is to reduce minors' access to tobacco and other nicotine products. Tobacco Coordinators conduct retailer checks to verify retailers are complying with state and federal regulations regarding proper signage and placement of tobacco products. In addition, Tobacco Coordinators provide education on state and federal guidelines for tobacco sales.

- Conduct on-site, voluntary checks with tobacco retailers in the region
- Provide education to tobacco retailers in the region that require additional information on most current tobacco laws as they pertain to minor access
- Conduct follow-up voluntary compliance visits with all tobacco retailers who have been cited for tobacco-related violations

### Regional Epidemiological Workgroups

Each Data Coordinator develops and maintains a Regional Epidemiological Workgroup (REW) to identify substance use patterns focused on the State's four prevention priorities at the regional, county, and local level. Members of the REW are stakeholders that represent all twelve of the community sectors and different geographic locations within that region. The REW also works to identify regional data sources, data partners, and relevant risk and protective factors. Information relevant to identification of data gaps, analysis of community resources and readiness, and collaboration on region-wide efforts comes directly from those participating in the REWs. A minimum of four REW meetings are conducted each year to provide recommendations and develop strong prevention infrastructure support at the regional level.

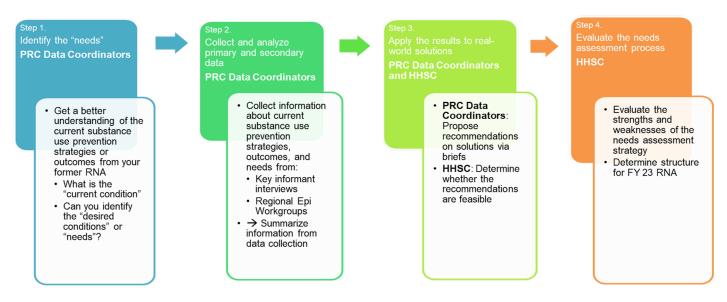
# The Regional Needs Assessment (RNA)

## Purpose/Relevance of the RNA

A needs assessment is a systematic process for determining and addressing "gaps" between current conditions and desired conditions.<sup>3</sup> The RNA is a specific needs assessment that provides community organizations and stakeholders with region-specific substance use and related behavioral health information. At the broadest level, the RNA can show patterns of substance use among adolescents and adults, monitor changes in substance use trends over time, and identify substance use and behavioral health issues that are unique to specific communities. It provides data to local providers to support grant-writing activities and provide justification for funding requests and to assist policymakers in program planning and policy decisions regarding substance use prevention, intervention, and treatment. The RNA can highlight gaps in data where critical substance use and behavioral health information is missing. It is a comprehensive tool for local providers to design relevant, data-driven prevention and intervention programs tailored to specific needs through the monitoring of county-level differences and disparities. Figure 2 below shows a visual representation of the overall steps and process of creating the RNA.

## Stakeholders/Audience

Figure 2. Steps, Processes, and Stakeholders Involved for RNA Creation



 $Image\ courtesy\ of\ HHSC.$ 

Stakeholders can use the information presented in this report to contribute to program planning, evidence-based decision making, and community education.

The executive summary found at the beginning of this report provides highlights of the report for those seeking a brief overview. Since readers of this report will come from a variety of backgrounds, a glossary of key concepts can be found at the end of this needs assessment. The core of the report focuses on risk factors and protective factors, consumption patterns, and public health and safety consequences.

<sup>3</sup> Watkins et al., "A guide to assessing needs," (2012).

Stakeholders within the twelve sectors both contribute to the RNA and benefit from the information within. These stakeholders participate in focus groups, qualitative interviews, Epi-Workgroup meetings, and collaborations with the PRC. Qualitative interviews were completed within all twelve community sectors in 2022 and 2023.<sup>4</sup> The information gathered in these interviews was compiled to create the 2022 RNA and will be utilized in the 2023 RNA. These twelve sectors are:

- youth and young adults
- parents
- business communities
- media
- schools
- organizations serving youth and young adults
- law enforcement agencies
- religious or fraternal organizations

- civic or volunteer groups
- healthcare professionals and organizations
- state, local, and tribal government agencies
- and other local organizations involved in promoting behavioral health and reducing substance use and non-medical use of prescription drugs such as recovery communities, Education Services Centers, and Local Mental Health Authorities

Each sector has a unique knowledge of substance use along with risk and protective factors in their communities.

## Regionwide Event

The Region 6 PRC was tasked by HHSC to develop and facilitate at least one region-wide event based on RNA data findings to bring targeted communities and stakeholders together to educate and promote collaboration on substance use related issues. Region 6 collaborated with agents from the Drug Enforcement Administration (DEA) and members of the community to hold a two-day summit about overdose awareness. Invitations were extended to families around Texas who have experienced an overdose death of a loved one. The summit included sessions to record their stories to be shared with others, discussions from law enforcement about the prevalence and consequences of drug use, discussions from political figures about opioid related legislature, and presentations about the available local resources and programs.

<sup>4</sup> CDC, "Drug-free communities support program," (2021).

# Methodology

This needs assessment reviews behavioral health data on substance use, substance use disorders, related risk and protective factors, and other negative public health and safety consequences that will aid in substance use prevention decision making at the county, regional, and state level.

# **Conceptual Framework**

The overall conceptual framework for this report is the use of epidemiological data to show the overall distribution of certain indicators that are associated with substance use and behavioral health challenges. Broadly, these indicators consist of documented risk and protective factors, such as the Social Determinants of Health (SDOH), Adverse Childhood Experiences (ACEs), and Positive Childhood Experiences (PCEs); consumption patterns; and public health and safety consequences related to substance use and behavioral health challenges. The indicators are organized by the domains (or levels) of the Social Ecological Model (SEM). For the purpose of strategic prevention planning, the report attempts to identify behavioral health disparities and inequities present in the region. For more information on these various frameworks and concepts, please see the "Key Concepts" section later in this report.

# **Process**

PRCs collaborate with HHSC's Data Specialist in the Prevention and Behavioral Health Promotion Unit, other PRC Data Coordinators, other HHSC staff, and regional stakeholders to develop a comprehensive data infrastructure for each PRC region.

HHSC staff met with the Data Coordinators via monthly conference calls to discuss the criteria for processing and collecting data. Primary data was collected from a variety of community stakeholders, and secondary data sources were identified as a part of the methodology behind this document. Readers can expect to find information from secondary data sources such as: the U.S. Census, American Community Survey, Texas Department of State Health Services, Texas Department of Public Safety, Texas School Survey of Drug and Alcohol Use, among others.

# **Quantitative Data Selection**

Quantitative data refers to any information that can be quantified, counted or measured, and given a numerical value. Quantitative data tells how many, how much, or how often and is gathered by measuring and counting then analyzing using statistical analysis. Quantitative indicators were selected after doing a literature review on causal factors and consequences that are most related to substance use and non-medical use of prescription drugs. Data sets were selected based on relevance, timeliness, methodological soundness, representativeness, and accuracy. Data used in this report was primarily gathered through established secondary sources including federal and state government agencies to ensure reliability and accuracy. Region-specific quantitative data collected through local law enforcement, community coalitions, school districts, and local-level governments is included to address the unique regional needs of the community.

While the data selection process was heavily informed by research and evidence on substance use, we caution readers against drawing any firm conclusions about the consequences of substance use from the data reported here. The secondary data we have drawn from does not necessarily show a causal relationship between substance use and consequences for the community.

# **Longitudinal Data**

To capture a richer depiction of possible trends in the data, multi-year data, referred to as longitudinal data, is reported where it is available from respective sources. Longitudinal data in this needs assessment consist of the most recently available data going back to 2018. For each indicator, there are a different number of data points due to differing frequencies of data collection. However, data from before 2018 will not be included in this needs assessment regardless of the number of data points available. Efforts are also made to present state-level data for comparison purposes with regional and county data. In some instances, there will be data gaps, and this is generally because the data was not available at the time of the data request.

# COVID-19 and Data Quality

One of the many impacts of the COVID-19 pandemic was a direct negative effect on the data collection efforts of many organizations and agencies. This in turn has left a lasting mark on the validity and reliability of any data that was collected during this time period. While this report will include data from the time of COVID-19, primarily the years of 2020 and 2021, it is important to keep in mind that these data points may not be truly accurate of what was going on during that time. As such, no firm conclusions should be drawn from data collected during those years and we caution again making direct comparisons of these years with the other years presented in this report, namely 2018 and 2022.

# Texas School Survey (TSS) and Texas College Survey (TCS)

The primary sources of quantitative data for substance use behaviors for this report are the Texas School Survey of Drug and Alcohol Use (TSS) and the Texas College Survey of Substance Use. TSS collects self-reported substance use data among students in grades 7 through 12 in Texas public schools while TCS collects similar information from college students across Texas. This includes tobacco, alcohol, marijuana, non-medical use of prescription drugs, and use of other illicit drugs. The surveys are sponsored by HHSC and administered by staff from the Department of Public Service and Administration (PSAA) at Texas A&M University. For TSS, PSAA actively recruits approximately 20% of Texas public schools with grades 7 through 12 to participate in the statewide assessment during the spring of even-numbered years. For TCS, PSAA recruits from a variety of college institutions including both 2-year colleges and 4-year colleges. They administer the assessment every odd-numbered year.

It is important to note that during the 2019-2020 school year, schools across Texas were closed from early March through the end of the school year due to the COVID-19 pandemic. Due to this sudden and unexpected closure, many schools that had registered for the survey were unable to complete it. Please note that both the drop in participation along with the fact that those that did complete did so before March may have impacted the data. Figures 3 and 4 provides more detail on context on recruitment and the number of usable surveys from 2018 through 2022, showcasing how 2020 caused a sizable drop in both campuses that participated and in usable surveys.

Figure 3. Number of Usable Surveys Included in State Sample for Texas School Survey 2018-2022

Number of Surveys Included in State Sample for TSS									
Report Year	Original Campuses Selected	Campuses Signed Up to Participate	Actual Participating Campuses	Total Non- Blank Surveys	Usable Surveys	Number Rejected	Percent Rejected		
2022	711	232	164	43,010	42,199	811	1.89%		
2020	700	224	107	28,901	27,965	936	3.2%		
2018	710	228	191	62,620	60,776	1,884	2.9%		

Figure 4. Texas School Survey Distribution Across Grades in 2020 and 2022

	Survey Distr TSS 20		Survey Distrib TSS 2020		Difference Between 2020* and 2022 TSS
Grade	# of Usable Surveys	%	# of Usable Surveys	%	# of Usable Surveys
Grade 7	10,759	25.5%	6,414	22.9%	4,345
Grade 8	11,056	26.2%	6,472	23.1%	4,584
Grade 9	5,345	12.7%	4,189	15.0%	1,156
Grade 10	5,268	12.5%	4,119	14.8%	1,149
Grade 11	4,948	11.8%	3,556	12.7%	1,392
Grade 12	4,823	11.4%	3,215	11.5%	1,608
Total	42,199	100.0%	27,965	100.0%	14,234

Information in these tables is from the Methodology Reports for the 2018, 2020, and 2022 Texas School Survey. These reports can be accessed here: https://www.texasschoolsurvey.org/Report.

# **Qualitative Data Selection**

Qualitative data is descriptive in nature and expressed in terms of language, interpretation, and meaning rather than numerical values and categorized based on traits and characteristics. Qualitative data tells the why or how behind certain behaviors by describing certain attributes and is gathered through observation and interviews then analyzed by grouping data into meaningful themes or categories.

Data Coordinators conducted key informant interviews with community members about what they believe their greatest needs and resources are in the region. These qualitative data collection methods provide additional context and nuance to the secondary data and often reveal additional potential key informants and secondary data sources.

# **Key Informant Interviews**

Data Coordinators conducted Key Informant Interviews (KII) with stakeholders that represent the twelve community sectors (please see the prior section on the Regionwide Event in the Introduction

for a table of these sectors) across each region. Most of these interviews occurred between September of 2021 and August of 2022 and a few others up through August of 2023.

Key Informants are individuals with specific local knowledge about certain aspects of the community because of their professional background, leadership responsibilities, or personal experience. Compared to quantitative data, the format of interviewing allows the interviewer to ask more openended questions and allows the Key Informant to speak rather than filling in pre-selected options. This results in data with richer insights and more in-depth understanding and clarification. The interviews focused on the informant's perceptions of their communities' greatest resources and needs and to determine how their communities are affected by substance use and behavioral health challenges Each participant was asked the following questions:

- 1. What substance use concerns do you see in your community?
  - a. What do you think are the greatest contributing factors, and what leads you to this conclusion?
  - b. What do you believe are the most harmful consequences of substance use/misuse, and what leads you to this conclusion?
- 2. How specifically does substance use affect the (insert sector here) sector?
- 3. What substance use and misuse prevention services and resources are you aware of in your community?
  - a. What do you see as the best resources in your community?
  - b. What services and resources does your community lack?
- 4. What services and resources specifically dedicated to promoting mental and emotional wellbeing are you aware of in your community?
  - a. What do you see as the best resources in your community?
  - b. What services and resources does your community lack?
- 5. What information does the (insert sector here) sector need to better understand substance use/misuse and mental and emotional health in your community?
- 6. What other questions should we be asking experts in this area?

Once the KII was complete, the Data Coordinator transcribed the audio from the interviews and then used coding techniques to analyze the data.<sup>5</sup> This involved categorizing the information by topics, themes, and patterns.

# **Key Concepts**

# **Epidemiology**

Epidemiology is defined as the study (scientific, systematic, and data-driven) of the distribution (frequency, pattern) and determinants (causes, risk factors) of health-related states or events (not just diseases) in specified populations (neighborhood, school, city, state, country, global). It is also the application of this study to the control of health problems.<sup>6</sup> This definition provides the theoretical framework that this assessment uses to discuss the overall impact of substance use. Epidemiology frames substance use as a preventable and treatable public health concern. The Substance misuse and Mental Health Services Administration (SAMHSA), the main federal authority on substance use,

<sup>5</sup> University of Illinois Urbana-Champagne Library, "LibGuides: Qualitative data analysis: Coding," (2023).

<sup>6</sup> Centers for Disease Control and Prevention, "Lesson 1: Introduction to epidemiology," *Principles of Epidemiology*, (2012).

utilizes epidemiology to identify and analyze community patterns of substance use and the contributing factors influencing this behavior.

### **Risk and Protective Factors**

One component shared by effective prevention programs is a focus on risk and protective factors that influence adolescents. Protective factors are characteristics associated with a lower likelihood of negative outcomes or that reduce a risk factor's impact. Examples include strong and positive family bonds, parental monitoring of children's activities, and access to mentoring. Risk factors are characteristics at the biological, psychological, family, community, or cultural level that precede and are associated with a higher likelihood of negative outcomes. Examples include unstable home environments, parental use of alcohol or drugs, parental mental illness, poverty, and failure in school performance. Risk and protective factors can exist in any of the domains of the Socio-Ecological Model, described more in the following section.<sup>7</sup>

# Social-Ecological Model

The Socio-Ecological Model (SEM) is a conceptual framework developed to better understand the multidimensional risk and protective factors that influence health behavior and to categorize health intervention strategies.<sup>8</sup> This RNA is organized using the four domains of the SEM (See Figure 5)<sup>9</sup> as described below:

- Societal Domain social and cultural norms and socio-demographics such as the economic status of the community
- Community Domain social and physical factors that indirectly influence youth including educational attainment of the community, community conditions like the physical built environment, experiences of poverty, the health care/service system, and retail access to substances
- Interpersonal Domain social and physical factors that indirectly impact youth including academic achievement and the school environment, family conditions and perceptions of parental attitudes, and youth perceptions of peer consumption and social access
- Individual Domain intrapersonal characteristics of youth such as knowledge, skills, attitudes, beliefs, and behaviors

The SEM proposes that behavior is impacted by all levels of influence, from the intrapersonal to the societal, and that prevention and health promotion programs become more effective when they intervene at multiple levels. Changes at the societal and community levels will create change in individuals, and the support of relevant stakeholders and community leaders in the population is essential for implementing environmental change at the community and societal level.

<sup>7</sup> Substance Abuse and Mental Health Services, "Risk and protective factors," (2019).

<sup>8</sup> CDC, "The Social-Ecological Model," (2022a).

<sup>9</sup> Elizabeth D'Amico et al., "Prevention and intervention in the school setting," *The Oxford Handbook of Substance Use and Substance Use Disorders* no. 2 (2016): 678

Figure 5. Social-Ecological Model for Substance Use, with Examples

	Risk Factors	Protective Factors
Society	Impoverishment	<ul> <li>Media literacy (resistance to pro-use messages)</li> </ul>
Jociety	Unemployment and underemployment	Decreased accessibility
	Discrimination	<ul> <li>Increased pricing through taxation</li> </ul>
	<ul> <li>Pro-AOD-use messages in the media</li> </ul>	<ul> <li>Raised purchasing age and enforcement</li> </ul>
		Stricter driving-under-the-influence laws
C	Availability of AOD	<ul> <li>Opportunities for participation as active members of the community</li> </ul>
Community	Community laws, norms favorable toward AOD	Decreasing AOD accessibility
	Extreme economic and social deprivation	Cultural norms that set high expectations for youth
	Transition and mobility	<ul> <li>Social networks and support systems within the community</li> </ul>
	Low neighborhood attachment and community	Opportunities for prosocial involvement
	disorganization	Rewards/recognition for prosocial involvement
	Academic failure beginning in elementary school	Healthy beliefs and clear standards for behavior
	Low commitment to school	Caring and support from teachers and staff
		Positive instructional climate
	Family history of AOD use	Bonding (positive attachments)
Interpersonal	Family management problems	Healthy beliefs and clear standards for behavior
	Family conflict	High parental expectations
	Parental beliefs about AOD	A sense of basic trust
	Association with peers who use or value AOD use	Positive family dynamics
	Association with peers who reject mainstream activities and	<ul> <li>Association with peers who are involved in school, recreation,</li> </ul>
	pursuits	service, religion, or other organized activities
	Susceptibility to negative peer pressure	Resistance to negative peer pressure
	Easily influenced by peers	Not easily influenced by peers
	Biological and psychological dispositions	Opportunities for prosocial involvement
Individual	Positive beliefs about AOD use	Rewards/recognition for prosocial involvement
marriada	Early initiation of AOD use	Healthy beliefs and clear standards for behavior
	Negative relationships with adults	Positive sense of self
	Risk-taking propensity/impulsivity	Negative beliefs about AOD
		Positive relationships with adults

# Social Determinants of Health (SDOH)

The U.S. Department of Health and Human Services, Health People 2030 defines the SDOH as the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.<sup>10</sup> The SDOH are grouped into 5 domains (see Figure 6): economic stability, education access and quality, health care access and quality, neighborhood and built environment, and social and community context. SDOH's have a major impact on health, well-being, and quality of life, and they also contribute to health disparities and inequities.

Social Determinants of Health Education Health Care Access and Access and Quality Quality and Built Stability Environment

Figure 6. Social Determinants of Health





Healthy People 2030, U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved 6/8/2023 from https://health.gov/healthypeople/objectives-and-data/social-determinants-health

### Adolescence

The American Psychological Association defines "adolescence" as a part of human development which begins at puberty (10-12 years of age) and ends with physiological and neurobiological maturity, reaching to at least 20 years of age. Brain development continues into an individual's mid-twenties. Adolescence is a period of major changes in physical characteristics along with significant effects on body image, self-concept, and self-esteem. Mental characteristics are also developing during this time. These include abstract thinking, reasoning, impulse control, and decision-making skills. 11 The World Health Organization (WHO) adds this period of growth poses a critical point in vulnerability where the

<sup>10</sup> U.S. Department of Health and Human Services, Offices of Disease Prevention and Health Promotion, "Social Determinants of Health," Healthy People 2030 (2023).

<sup>11</sup> American Psychological Association, "APA Dictionary of Psychology," (2023).

non-medical use of substances, or other risky behaviors can have long-lasting negative effects on future health and well-being. $^{12}$ 

A similar but slightly different term that is used in the justice system is "juvenile." The Texas Juvenile Justice System defines a juvenile as a person at least 10 years old but not yet 17 at the time he or she commits an act of "delinquent conduct" or "conduct in need of supervision". Delinquent conduct is generally conduct that could result in imprisonment or jail if committed by an adult. Conduct in Need of Supervision for juveniles includes truancy and running away from home. In the context of some indicators, juvenile will be used instead of adolescent to more precisely define the population of interest.

## Adverse Childhood Experiences (ACEs)

The CDC-Kaiser Permanente adverse childhood experiences (ACE) study from 1998 is one of the largest investigations of childhood abuse, neglect, and household challenges, and the effects on health and well-being later in life. ACEs are events that occur in children 0-17 years of age. The ACE questionnaire asks about experiences such as childhood abuse, neglect, and household dysfunction across seven different categories. The study showed that individuals with a score of 4 or more (meaning they experienced at least one event in four of the seven categories) have an increased risk for:

- Smoking, heavy alcohol use, and SUDs
- Mental health issues, such as depression and suicidal behavior
- Poor self-rated health
- Sexually transmitted disease
- Challenges with obesity and physical inactivity
- Heart disease
- Lung disease
- Risk for broken bones
- Multiple types of cancer

The study also showed that there is a dose-response relationship where experiencing ACEs in more categories is directly linked with an increasing risk for the above physical and behavioral health concerns. ACEs can also negatively impact job opportunities, education, and earning potential.

<sup>12</sup> World Health Organization, "Adolescent health," (2023).

<sup>13</sup> Texas Juvenile Justice Department, "The Juvenile Justice System in Texas," (2022).

<sup>14</sup> Vincent Felitti et al., "Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults," *American Journal of Preventive Medicine* no. 14 (1998):245-258

ACEs are common with the CDC reporting that approximately 61% of adults have experienced at least one type of ACE before the age of 18, and 1 in 6 reports having 4 or more. Women and other marginalized groups are at a higher risk for experiencing 4 or more types of ACEs. ACEs can, however, be prevented by creating safe, stable, and healthy relationships and environments. Preventing ACEs requires understanding and addressing the risk and protective factors that make these experiences more likely to occur. Figure 7 below describes the potential health and socioeconomic benefits in adulthood that could come from preventing ACEs in childhood.

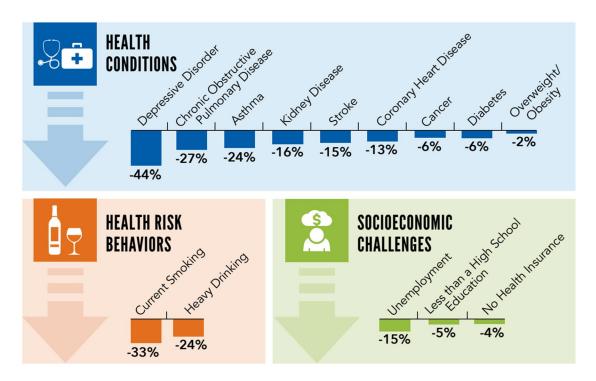


Figure 7. Potential reduction of negative outcomes in adulthood.

Accessed from: https://www.cdc.gov/vitalsigns/aces/pdf/vs-1105-aces-H.pdf. Original source: BRFSS 2015-2017, 25 states, CDC Vital Signs, November 2019.

### Positive Childhood Experiences (PCEs)

Unlike ACEs which have been researched for decades, Positive Childhood Experiences are still a relatively new and explored aspect of prevention. Dr. Christina Bethell from Johns Hopkins, one of the leading researchers on Positive Childhood Experiences (PCEs), defines a positive childhood experience as "feeling safe in our families to talk about emotions and things that are hard and feeling support during hard times." 16 Dr. Bethell and her colleagues conducted a similar study to the ACEs study in 2019 to determine the health impacts of positive childhood experiences. In this study, they identified seven distinct PCEs:

- 1. The ability to talk with family about feelings.
- 2. The sense that family is supportive during difficult times.
- 3. The enjoyment of participating in community traditions.

<sup>15</sup> CDC, "Fast facts: Preventing adverse childhood experiences," (2022b).

<sup>16</sup> Mary Kreitz, "Positive Childhood Experiences," Child & Adolescent Behavioral Health, (2023).

- 4. Feeling a sense of belonging in high school (this did not include those who did not attend school or were home schooled).
- 5. Feeling supported by friends.
- 6. Having at least 2 non-parent adults who genuinely cared about them.
- 7. Feeling safe and protected by an adult in the home. 17

The researchers used data from adults who responded to the 2015 Wisconsin Behavioral Risk Factor Survey (BRFS) and, like the ACEs study, also found that PCEs have a dose-response relationship with adult mental and behavioral health meaning that experiencing more PCEs was associated with better outcomes. This included a lower odd of depression and poor mental health and increased odds of reporting high amounts of social and emotional support in adulthood. The protective effects of PCE's remained even after adjusting for ACEs suggesting that promotion of PCEs may have a positive lifelong impact despite co-occurring adversities such as ACEs. <sup>18</sup>

# **Consumption Patterns**

This needs assessment follows the example of the <u>Texas School Survey</u> (TSS), the <u>Texas Youth Risk Surveillance System</u> (YRBSS), and the <u>National Survey on Drug Use and Health</u> (NSDUH), by organizing consumption patterns into three categories:

- lifetime use (has tried a substance, even if only once)
- school year use (past year use when surveying adults or youth outside of a school setting)
- current use (use within the past 30 days)

These three consumption patterns are used in the TSS to elicit self-reports from adolescents on their use of tobacco, alcohol, marijuana, and other illicit drugs, and their non-medical use of prescription drugs. The TSS therefore serves as the primary outcome measure of Texas youth substance use in this needs assessment.

<sup>17</sup> Pinetree Institute, "Positive Childhood Experiences," (2023).

<sup>18</sup> Christina Bethel et al., "Positive childhood experiences and adult mental and relational health in a statewide sample: Associations across adverse childhood experiences levels," *JAMA Pediatrics* no. 173 (2019).

# PART II – Geographical Area and Community Demographics

# Regional Demographics

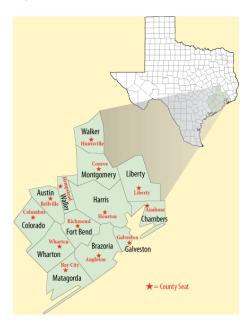
# Overview of Region

Region 6, also known as the Gulf Coast region, is located in southeast Texas. The region consists of diverse geographical areas ranging from rural small towns to large metropolitan cities to coastal shorelines. Large state parks, lakes, rivers, and wildlife habitats encompass the region. The region has one of the largest concentrations of correctional facilities. Most of the counties in the region were integral parts of Texas history. Region 6 has multiple major highways that run though the 13 counties, including interstate 10 and interstate 45. The northern most county, Walker County, was home to the first president (Sam Houston) of the Republic of Texas.

# Geographic Boundaries

Region 6's geographic boundaries are comprised of 13 counties. These counties include Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Harris, Liberty, Matagorda, Montgomery, Walker, Waller, and Wharton. Region 6 borders PRC regions 5, 7, and 8.

Figure 8. Region 6 location and boundaries



# Counties

Region 6 county descriptive information, identifiers, and zip codes are discussed below.

**Table 1.** Region 6 county level identifiers

County	State	Region	FIPS Code	State FIPS	County NS
Austin County	TX	6	48015	48	1383793
Brazoria County	TX	6	48039	48	1383805
<b>Chambers County</b>	TX	6	48071	48	1383821
Colorado County	TX	6	48089	48	1383830
Fort Bend County	TX	6	48157	48	1383864
Galveston County	TX	6	48167	48	1383869
Harris County	TX	6	48201	48	1383886
Liberty County	TX	6	48291	48	1383931
Matagorda County	TX	6	48321	48	1383943
Montgomery County	TX	6	48339	48	1383955
Walker County	TX	6	48471	48	1384021
Waller County	TX	6	48473	48	1384022
Wharton County	TX	6	48481	48	1384026

Retrieved from U.S. Census Bureau – American Community Survey 5-Year Estimates (2021)

Table 2. Region 6 county by zip codes

County	Zip Codes
Austin	78944, 77452, 78950, 77418, 78931, 77474, 77473, 78933
Brazoria	77566, 77577, 77578, 77581, 77584, 77583, 77422, 77463, 77480,
	77486, 77510, 77512, 77511, 77515, 77531, 77534, 77541
Chambers	77580, 77523, 77597, 77661, 77560, 77617, 77514
Colorado	78943, 77412, 78951, 77442, 77460, 77470, 78934, 77475, 78935
Fort Bend	77406, 77417, 77420, 77430, 77435, 77441, 77444, 77451, 77459,
	77461, 77464, 77469, 77471, 77476, 77478, 77477, 77479, 77481,
	77485, 77489, 77496, 77494, 77407, 77498, 77545
Galveston	77568, 77574, 77573, 77591, 77590, 77592, 77517, 77623, 77518,
	77539, 77650, 77551, 77550, 77553, 77552, 77555, 77554, 77563,
Harris	77002, 77004, 77003, 77006, 77005, 77008, 77007, 77010, 77009,
	77012, 77011, 77014, 77013, 77016, 77015, 77018, 77017, 77020,
	77019, 77022, 77021, 77024, 77023, 77026, 77025, 77028, 77027,
	77030, 77029, 77032, 77031, 77034, 77033, 77036, 77035, 77038,
	77037, 77040, 77039, 77042, 77041, 77044, 77043, 77046, 77045,
	77048, 77047, 77050, 77049, 77051, 77054, 77053, 77056, 77055,
	77058, 77057, 77060, 77059, 77062, 77061, 77064, 77063, 77066,
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	77083, 77086, 77085, 77088, 77087, 77090, 77089, 77092, 77091,
	77094, 77093, 77096, 77095, 77098, 77099, 77204, 77217, 77249,
	77248, 77251, 77266, 77268, 77271, 77284, 77289, 77336, 77339,
	77338, 77345, 77346, 77357, 77373, 77375, 77377, 77379, 77383,
	77389, 77388, 77396, 77401, 77410, 77429, 77433, 77447, 77450,
	77449, 77484, 77493, 77503, 77502, 77505, 77504, 77507, 77506,
	77521, 77520, 77530, 77532, 77536, 77546, 77547, 77562, 77571,
	77586, 77587, 77598
Liberty	77575, 77582, 77327, 77368, 77533, 77369, 77535, 77538, 77561,
NA . I . A I .	77564
Matagorda	77482, 77404, 77483, 77415, 77414, 77456, 77458, 77457, 77419,
Mandana	77428, 77465, 77468, 77440
Montgomery	77301, 77303, 77302, 77305, 77304, 77306, 77318, 77316, 77328,
	77333, 77354, 77356, 77355, 77362, 77365, 77372, 77873, 77378,
Molkor	77381, 77380, 77382, 77385, 77384, 77387, 77386
Walker	77320, 75852, 77367, 77334, 77341, 77340, 75862, 77343, 77831, 77342, 77349, 77358
Waller	77320, 75852, 77367, 77334, 77341, 77340, 75862, 77343, 77831,
waller	77342, 77349, 77358
Wharton	77448, 77454, 77488, 77453, 77455, 77467, 77432, 77434, 77436,
vviiaituii	77437, 77443
	11401,11440

## Major Metropolitan Areas

Located within Harris County, the City of Houston metropolitan area is one of the most populous cities in the United States. Houston is the fourth largest population city, largest city in the southern United States and Texas, and the most ethnically diverse metropolitan area in the United States. The Houston-The Woodlands-Sugar Land Metropolitan Statistical Area (Houston MSA) consists of 9 counties (Austin, Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller) which is shown in Figure 9. The Houston MSA covers 9,444 square miles, which is larger than some states. 19

Figure 9. The Houston MSA



# **Key Industries**

Region 6 consists of various industries that contribute to the economy of each county therein. Key industries include farming, cattle raising, lumber, shipping, oil and gas. Notable natural resources and crops include sugar, cotton, sulfur, rice, oak, clay, and corn<sup>20</sup>.

<sup>19</sup> City of Houston, "Facts and figures," (n.d.).

<sup>20</sup> Texas State Historical Association "Handbook of Texas," (n.d.).

# **Demographic Information**

# **Total Population**

Below is a description of the population estimates for each county within region 6. Harris County has the largest population in the region, whereas Colorado County has the smallest population.

Table 3. TOTAL POPULATION ESTIMATES BY COUNTY

County	Estimate
Austin	30,132
Brazoria	368,575
Chambers	45,257
Colorado	20,559
Fort Bend	806,497
Galveston	347,084
Harris	4,697,957
Liberty	89,948
Matagorda	36,323
Montgomery	607,999
Walker	76,506
Waller	55,505
Wharton	41,602
Total	7,223,944

Retrieved from U.S. Census Bureau - American Community Survey 5-Year Estimates (2021)

# Total Population by Sex and Age

Within Region 6, there are more females (50.11%) than males (49.89%) with the majority of the population (29%) averaging 25-44 years old.

**Table 4.** Total population categorized by sex, age and county

	Female					Male						
	0 - 17 Years	18 - 24 Years	25 - 44 Years	45 - 64 Years	65+ Years	Total	0 - 17 Years	18 - 24 Years	25 - 44 Years	45 - 64 Years	65+ Years	Total
Austin	3,388	1,128	3,287	4,070	3,064	14,937	3,791	1,225	3,402	3,944	2,833	15,195
Brazoria	47,402	14,993	51,154	44,707	23,389	181,645	49,789	15,814	54,270	46,794	20,263	186,930
Chambers	6,385	1,791	6,194	5,462	2,717	22,549	6,487	2,062	6,166	5,467	2,526	22,708
Colorado	2,527	826	1,925	2,693	2,376	10,347	2,389	881	2,261	2,575	2,106	10,212
Fort Bend	108,197	32,532	113,901	104,985	49,144	408,759	113,299	33,629	105,716	102,859	42,235	397,738
Galveston	41,273	14,204	46,697	46,395	27,086	175,655	43,125	14,963	45,175	45,131	23,035	171,429
Harris	615,670	212,989	701,989	550,390	275,481	2,356,519	639,211	219,631	716,011	542,788	223,797	2,341,438
Liberty	12,003	3,709	12,792	10,812	6,052	45,368	12,576	4,231	11,569	10,932	5,272	44,580
Matagorda	4,656	1,437	4,242	4,497	3,149	17,981	4,845	1,571	4,445	4,539	2,942	18,342
Montgomery	78,534	24,626	80,825	78,514	43,186	305,685	81,649	25,349	80,026	78,581	36,709	302,314
Walker	5,261	7,888	6,841	6,545	5,201	31,736	6,071	7,520	13,904	12,407	4,868	44,770
Waller	6,587	5,777	6,082	5,934	3,446	27,826	6,938	4,997	6,895	5,779	3,070	27,679
Wharton	5,229	1,851	5,031	4,992	3,811	20,914	5,698	2,022	4,810	4,922	3,236	20,688
Region 6	937,112	323,751	1,040,960	869,996	448,102	3,619,921	975,868	333,895	1,054,650	866,718	372,892	3,604,023

Retrieved from U.S. Census Bureau – American Community Survey 5-Year Estimates (2021)

# Total Population by Race (including Alone and in Combination)

In regards to race, White/Caucasian is the primary race within all counties; however, more so in Montgomery County (87%). Fort Bend County has the smallest White/Caucasian population at approximately 52%, and the largest Asian population (23%). Waller County has the largest Black/African American population (25%); whereas, Montgomery County has the smallest Black/African American population (6%). Regarding ethnicity, the population is mostly of non-Hispanic/Latino descent.

Austin Country Country Country Country Country Country Liberal Country Institute Country Waster Country Waster Country Waster Country Country Country Country Country Country Country Country Waster Country Waster Country Co

■ White ■ Black ■ American Indian and Alaska Native ■ Asian ■ Native Hawaiian and Pacific Islander ■ Other

Figure 10. Total population by race (alone and in combination) by county for 2021 5-year estimates

Retrieved from U.S. Census Bureau – American Community Survey 5-Year Estimates (2021)

### Total Population by Ethnicity by Race (Alone)

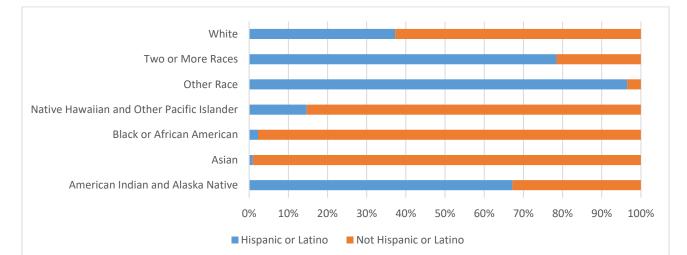


Figure 11. Total population by ethnicity for region 6 counties combined for 2021 5-year estimates

Retrieved from U.S. Census Bureau - American Community Survey 5-Year Estimates (2021)

## **Disability Status**

According to the CDC, **1** in **4** adults in the United States have some type of disability in the area of mobility, cognition, hearing, vision, self-care, and independent living<sup>21</sup>. The United States Social Security Administration reported that eight million people received social security benefits, this number included **6.9** million adults and **1.1** million children and adolescents. Within region 6, Matagorda County had the highest percentage of individuals who met criteria for a physical, cognitive, or mental disability based on a national level survey.



Table 5. Disability status for noninstitutionalized population for 2021 5-year estimates

County	<b>Total Population</b>	Percent		
Austin	29,896	14.10%		
Brazoria	356,529	9.30%		
Chambers	44,974	10.10%		
Colorado	20,289	11.90%		
Fort Bend	801,865	7.20%		
Galveston	342,347	12.80%		
Harris	4,674,380	9.60%		
Liberty	83,578	16.20%		
Matagorda	35,931	16.90%		
Montgomery	605,525	9.60%		
Walker	63,772	10.40%		
Waller	55,336	10.30%		
Wharton	41,300	14.90%		
Region 6 Total	7,155,722	9.64%		

Retrieved from U.S. Census Bureau - American Community Survey 5-Year Estimates (2021)

### LGBTQ+ population (Same-sex households)

Texas is comparable to the national level when examining the percentage of same sex-households. Texas has a slightly higher percentage of same-sex parent households where the couple is married compared to the national percentage.

Table 6. Same sex households (percentage and number) Texas compared to the U.S. 2021

Area	Total households		Total same-sex households				Percent of same-sex households that are married households	
	Number	S.E.	Number	S.E	Percent	S.E.	Percent	S.E.
Texas	10,796,247	11,613	103,565	4,052	1.0		61.3	1.8
United								
States	127,544,730	59,351	1,209,462	9,376	0.9		58.8	0.5

Retrieved from U.S. Census Bureau - American Community Survey

<sup>20</sup> CDC, "Disability and Health Data System," (2023).

# Limited English Language Proficiency and Languages Spoken in Home

The United States Census Bureau reported that <u>35.1%</u> of households in Texas spoke a language other than English. Regarding language proficiency in region 6, Harris County has the highest concentration of individuals who have limited English abilities compared to the other counties in the region.

Table 7. Limited English language proficiency (LEP) by county and percentage

Region 6	Total Households	Total LEP	Percent LEP
Austin County	11,841	196	1.66%
Brazoria County	124,284	4,208	3.39%
Chambers County	14,905	305	2.05%
Colorado County	6,999	197	2.81%
Fort Bend County	259,106	14,457	5.58%
Galveston County	131,877	3,663	2.78%
Harris County	1,658,503	189,886	11.45%
Liberty County	27,688	1,279	4.62%
Matagorda County	13,686	946	6.91%
Montgomery County	214,328	6,827	3.19%
Walker County	23,780	459	1.93%
Waller County	17,286	1,084	6.27%
Wharton County	14,991	551	3.68%

Retrieved from U.S. Census Bureau – American Community Survey 5-Year Estimates (2021)

# PART III - Risk Factors and Protective Factors

# Risk and Protective Factors

Risk and protective factors are factors that occur on various levels of the socio-ecological model and affect the chance of a particular outcome. For instance, a risk factor is a factor that might exacerbate the chances of adverse outcomes; whereas, a protective factor is a factor that mitigates the chances of an adverse outcome. Within the risk and resilience framework, risk and protective factors occur within the environment and genetics. The Center for Disease Control<sup>22</sup> has identified key risk and protective factors for substance use among adolescents:

Figure 13. Risk factors and prevention for high-risk substance use

# Risk Factors for High-Risk Substance Use

Risk factors for youth high-risk substance use can include:

- Family history of substance use
- Favorable parental attitudes towards the behavior
- Poor parental monitoring
- Parental substance use
- Family rejection of sexual orientation or gender identity
- Association with delinquent or substance using peers
- Lack of school connectedness
- Low academic achievement
- · Childhood sexual abuse
- Mental health issues

# High-Risk Substance Use Prevention

Research has improved our understanding of factors that help buffer youth from a variety of risky behaviors, including substance use.

These are known as protective factors. Some protective factors for high risk substance use include:

- Parent or family engagement
- Family support
- Parental disapproval of substance use
- Parental monitoring
- School connectedness

Retrieved from Center for Disease Control and Prevention (2022)

<sup>21</sup> CDC, "High risk substance use in youth," (2022c).

# Societal Domain

The societal level of the SEM model corresponds to the macrosystem of Bronfenbrenner's predating theory<sup>23</sup>. The macrosystem includes policies, programming, and structure of the larger society that effect an individual's personal development and behavior patterns<sup>24</sup>. Societal level risk factors for increased substance use include housing, income, unemployment, and availability of resources (e.g., welfare services).

# Economic Income

Region 6 average income is \$69,861, which is above the overall state average for Texas (\$67,321). Seven counties (Colorado, Harris, Liberty, Matagorda, Walker, Waller and Wharton) are below the state average. Fort Bend County has the highest income, and Walker County has the lowest average income.

Societal (policy programs economy)

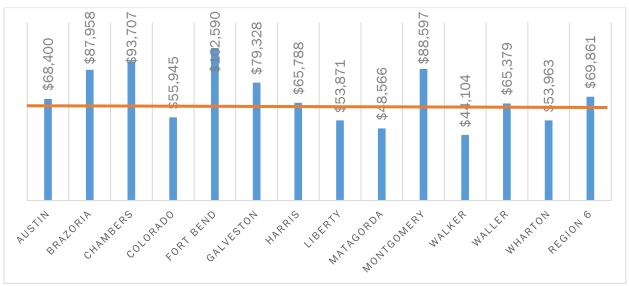
Community

Interpersonal

Individual

Figure 14. Socioeconomic model (SEM)

Figure 15. Income by county compared to Texas 2021 5-year estimates



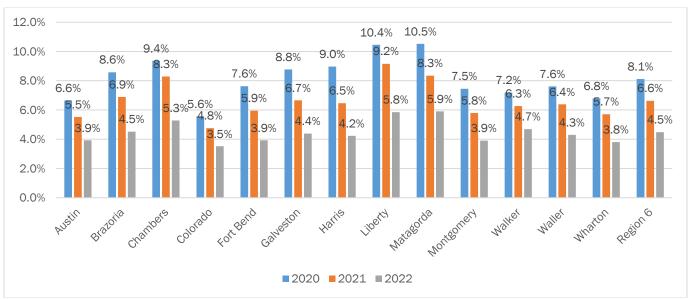
Retrieved from U.S. Census Bureau - American Community Survey 5-Year Estimates (2021)

<sup>22</sup> Jill Kilanowski, "Breadth of the socio-ecological model," *Journal of Agromedicine* no. 22 (2017): 295-297. 23 Phyllis Raynor, "An exploration of the factors influencing parental self-efficacy for parents recovering from substance use disorders using the social ecological framework," *Journal of Addictions Nursing* no. 2 (2013): 91-99.

## **Unemployment Rates**

The unemployment rate within region 6 appears to be decreasing across counties. The majority of the counties have a less than 10% employment rate. Matagorda County had the highest rate of unemployment, while Colorado County had the lowest in 2022.

Figure 16. Unemployment rates (%) by county over three years (2020-2022)



Retrieved from the U.S. Bureau of Labor Statistics

## TANF recipients

The Texas Temporary Assistance for Needy Families (TANF) program provides financial assistance for essential needs to impoverished children and parents<sup>25</sup>. The number of TANF cases appeared to decrease from 2021 to 2022. Liberty County



had the highest number of TANF cases and Chambers and Austin Counties were tied for the lowest number of TANF cases in 2022.

Figure 18. Median TANF cases per 100 households per county (2021)

Figure 19. Median TANF cases per 100 households per county (2022)



Retrieved from Texas Health and Human Services - Temporary Assistance for Needy Families

<sup>24</sup> Texas Health and Human Services, "Temporary Assistance for Needy Families" (TANF), (n.d.).



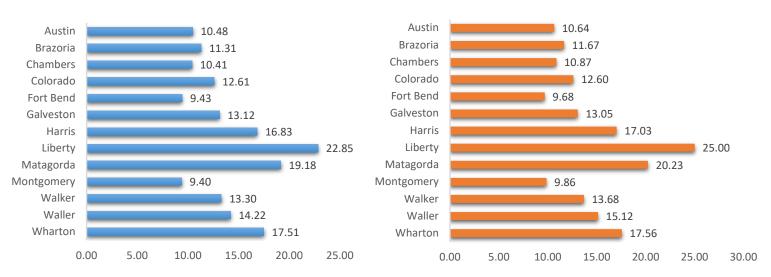
## SNAP recipients

The Supplemental Nutrition Assistance Program (SNAP), is a federally funded program that provides food benefits to low-income families<sup>26</sup>. With the exception of two counties (Galveston & Colorado), most of the counties in region 6 saw an increase in the number of SNAP cases from 2021 to 2022. Liberty County had the highest number of SNAP cases in 2021 and 2022. Montgomery County had

the lowest number of SNAP cases in 2021; however, Fort Bend County had the lowest number in 2022.

Figure 21. Median SNAP case per 100 households per county (2021)

Figure 22. Median SNAP case per 100 households per county (2022)



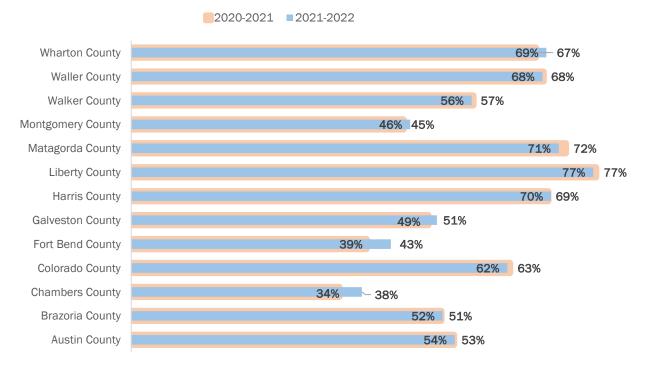
Retrieved from Texas Health and Human Services - Supplemental Nutritional Assistance Program (SNAP)

<sup>25</sup> Texas Health and Human Services, "Supplemental Nutritional Assistance Program" (SNAP), (n.d.).

## Free/Reduced Lunch

The United States Department of Agriculture (USDA) provides child nutrition programs in schools for low-income households. In order to be eligible for the program, the household income must meet the designated threshold. Individuals who are apart of TANF and SNAP are automatically eligible for the program. In region 6, Liberty County has the highest percentage of eligible households; whereas Chambers County had the lowest percentage.

Figure 23. Eligibility for free/reduced lunch in percentage by county compared from 2020-2021 to 2021-2022



Retrieved from U.S. Department of Education - National Center for Education Statistics

## Students Experiencing Homelessness

On the state level, the rate of homelessness has increased from 2020-2021 to 2022-2023. Conversely, region 6 evidenced an increase in the rate of homeless students from 2021-2022 to 2022-2023, but a decrease from 2020-2021 to 2022-2023. Walker County had the highest and Montgomery County had the lowest rate of homeless students in 2023.

Table 8. Homeless rate per 1,000 for three years (2020-2023)

	2020 - 2021		2021	- 2022	2022 -	2022 - 2023	
	Total Homeless	Homeless Rate per 1,000	Total Homeless	Homeless Rate per 1,000	Total Homeless	Homeless Rate per 1,000	
Austin	36	6.2	23	4.0	52	8.7	
Brazoria	943	13.1	848	11.6	866	11.6	
Chambers	79	8.5	51	5.2	67	6.4	
Colorado	75	21.5	60	16.9	31	8.6	
Fort Bend	847	7.1	972	7.8	1,089	8.4	
Galveston	1,281	15.8	1,129	13.9	1,431	17.5	
Harris	7,896	9.0	11,206	12.7	13,459	15.1	
Liberty	325	16.1	294	13.1	381	16.2	
Matagorda	105	15.1	112	15.9	104	14.7	
Montgomery	697	6.0	743	6.1	645	5.1	
Walker	283	22.9	196	11.7	315	24.4	
Waller	137	11.7	116	9.2	99	7.6	
Wharton	73	9.2	92	11.5	84	10.7	
Region 6	12,777	12.5	15,842	10.8	18,623	11.9	
Texas	57,580	10.7	61,362	11.3	71,639	13.0	

Retrieved from Texas Education Agency

## **Community Domain**

The community level is consistent with the mesosystem from Bronfenbrenner's social-ecological theory, which considers the individuals direct interaction with the environment (e.g., work, school, neighborhood, church). The community domain includes community context and social networks that promote positive or negative health behaviors<sup>27</sup>. Research suggests that community disorganization, geographic conditions, availability of substances, treatment accessibility, medication disposal services, cultural attitudes and norms related to substance use, community level violence, and racism/discrimination contribute to rates of substance use<sup>28</sup>. Community support and cohesion have been identified as protective factors for substance misuse<sup>29</sup>.

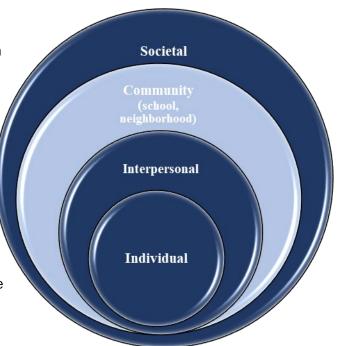


Figure 24. Socioeconomic Model (SEM)

<sup>26</sup> Kilanowski, "Breadth of the socio-ecological model"; Raynor, "An exploration of the factors influencing parental self-efficacy."

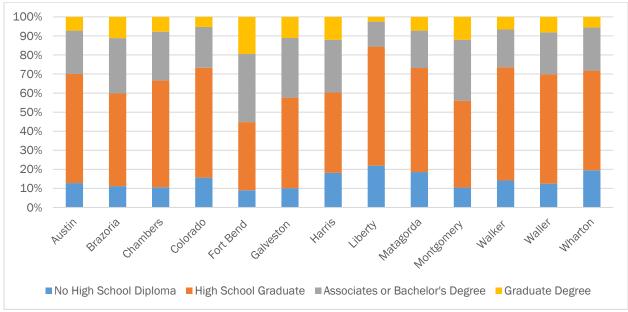
<sup>27</sup> Christian Connell et al., "Social-ecological influences on patterns of substance use among non-metropolitan high school students," *American Journal of Community Psychology* no.1 (2010): 36–48; Mohammed Jalali et al., "The opioid crisis: A contextual, social-ecological framework," *Health Research Policy and Systems* no. 87 (2020): 1–9.

<sup>28</sup> Raynor, "An exploration of the factors influencing parental self-efficacy."

## Educational Attainment of Community (25 and Older)

Region 6 educational attainment appears to be relatively equal across counties. The majority of the county populations have at least a high school diploma.

Figure 25. Educational attainment for 2021 by county for population 25 and older



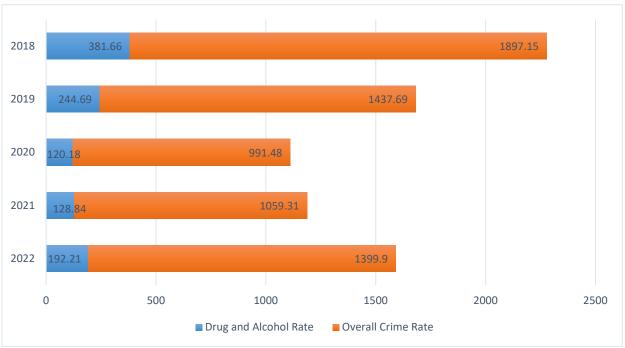
Retrieved from United States Census Bureau

## **Community Conditions**

Community conditions, such as level of neighborhood violence, crime, and disorganization contribute to the prevalence of negative health outcomes. Literature notes that substance use disorders are prevalent among justice-involved individuals.<sup>30</sup> Individuals who were released from incarceration have higher rates of overdose deaths. In Texas more than 50,000 juveniles are arrested or referred to the juvenile probation system each year. Region 6 experienced an increase in the number of drug and alcohol offenses for juveniles from 2021 to 2022 (see Figure 26). Adult arrest data shows that the majority of arrests since 2018 have been for alcohol related offenses; however, these rates have decreased since 2021. Surprisingly, there has been an increase in the rate of property crimes for adults from 2021 to 2022 (see Figure 27).

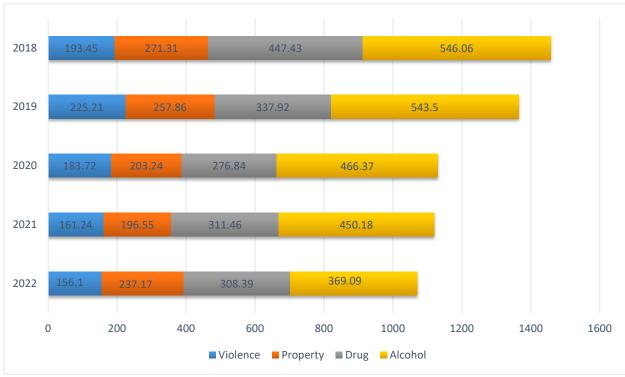
<sup>30</sup> Jalali et al., "The opioid crisis."

Figure 26. Region arrest data for juvenile population per 100k



Retrieved from Texas Department of Public Safety's Uniform Crime Reporting

Figure 27. Region arrest data for adult population per 100k



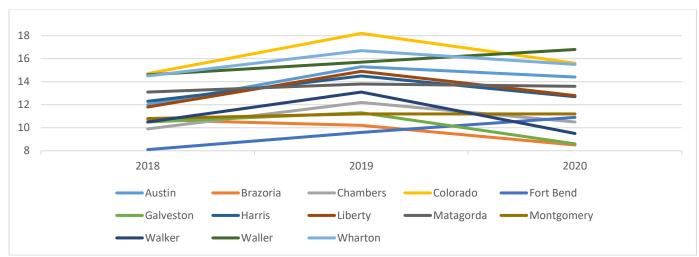
Retrieved from Texas Department of Public Safety's Uniform Crime Reporting

## Health Care/Service System

Availability and access to treatment are important when examining the risk of negative health outcomes. The number of people who have insurance coverage is directly related to the number of people who have access to treatment<sup>31</sup>. Within region 6, the number of uninsured youths (under 19 years old) and adults (19 -64 years old) appears to have mostly increased from 2018 to 2020. Waller and Wharton counties have the highest rate of uninsured persons, while Brazoria and Chambers have the lowest.

#### **Uninsured Children**

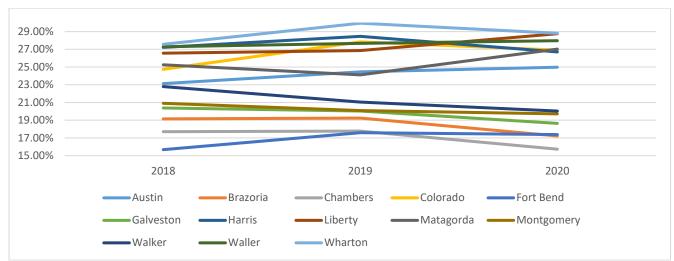
Figure 28. Uninsured under age 19 by county trending from 2018 to 2020



Retrieved from US Census Bureau - Small Area Health Insurance Estimates

#### Uninsured 19-64

Figure 29. Uninsured ages 19-64 by county trending from 2018 to 2020



Retrieved from US Census Bureau - Small Area Health Insurance Estimates

<sup>31</sup> Jalali et al., "The opioid crisis."

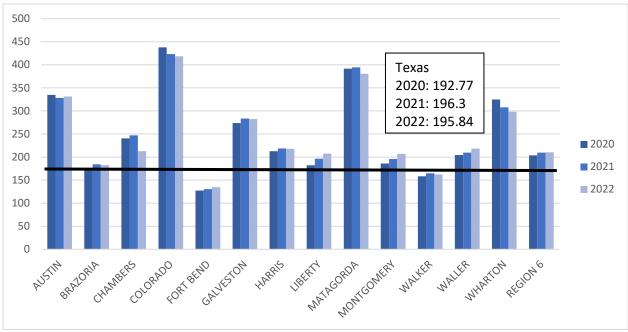
#### Retail Access

Increase in supply and demand increases the need for community retailers. The availability of and access to certain substances through prescriptions, online markets, and street vendors exacerbates the risk of substance misuse<sup>32</sup>.

## Alcohol retail density

The Texas Alcoholic Beverage Commission (TABC) monitors the number of establishments that sell alcohol based on active alcohol retail licenses. The figure below depicts the rate of retailers within region 6. It appears the rate of alcohol retailers has increased for the majority of the counties. Moreover, the region has a higher density than the state of Texas.

Figure 30. Alcohol retailers by county per 100,000 population compared to Texas from 2020-2022



Retrieved from Texas Alcoholic Beverage Commission (TABC)

<sup>32</sup> Connell et al., "Social-ecological influences on patterns of substance use"; Jalali et al., "The opioid crisis."

## Tobacco Retail Density

Data gathered from the Texas Comptroller on tobacco retail licenses and permits indicated that tobacco retail density has increased across the region from 2020 to 2022.

450.00 Texas 400.00 2020: 115.49 350.00 2021: 132.28 300.00 2022: 205.92 250.00 200.00 150.00 100.00 50.00 0.00 MONIGONIET COLORADO MATAGORDA FORT BEIND LIBERTY WALKER WALLER CHAMBERS HARRIS WHARTON REGIONS **■** 2020 **■** 2021 **■** 2022

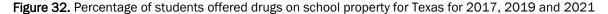
Figure 31. Tobacco retail density by county per 100,000 population from 2020-2022

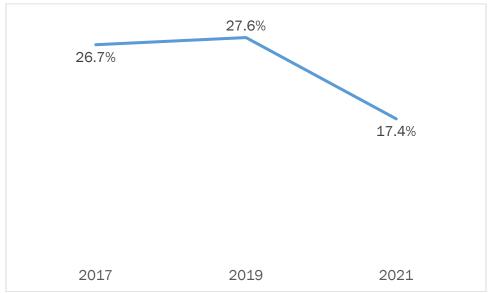
 $Retrieved\ from\ Texas\ Comptroller\ referred\ to\ Data. Texas. Gov$ 

#### **School Conditions**

Social institutions, such as churches and schools are pertinent to the healthy development of youth<sup>33</sup>. Schools are where adolescents spend most of their time. In schools where there is a lack of resources (e.g., teachers and education material), lack of connectedness (e.g., discrimination), lack of structure, and violence, students are more likely to be at risk of poor health behaviors<sup>34</sup>. Schools where there is an encouraged higher level of achievement, social support, teacher support, and mental health promotion are less likely to have high levels of substance use<sup>3</sup>. The presence of drugs on school property can exert a great influence on the potential for substance use. The Youth Risk Behavior Surveillance System (YRBSS) is a set of surveys that asks questions regarding behaviors that increase risk of negative health outcomes for adolescents (CDC). Based on the results from the YRBSS for Texas, the percentage of students offered drugs on school property lowered by 9.3% from 2017 to 2021.

## Students Offered Drugs on School Property





Retrieved from Texas Department of State Health Services - Center for Disease Control and Prevention, YRBSS

<sup>33</sup> Kilanowski, "Breadth of the socio-ecological model." 34 UNICEF, "Brief on the Social Ecological Model," (n.d.).

#### **Protective Factors**

Community level protective factors include community resources, access to recovery programs and support, attitudes toward substance use, engagement of community leaders, and interagency collaboration<sup>35</sup>.

Accessibility to drugs through prescriptions can increase the likelihood of misuse, particularly when certain drugs are overprescribed. Research indicated that interventions and programs aimed at improving prescribing processes result in decreases in substance misuse<sup>36</sup>.

## Prescription Drug Monitoring Program

The Texas Prescription Monitoring Program (PMP) is a database that maintains information regarding rates of prescriptions from licensed pharmacies for all Schedule II, III, IV, and V Controlled Substances (CS). This program includes pharmacies in and out of the state of Texas that prescribe to a Texas resident. The PMP also monitors patient prescription history for practitioners prior to prescribing controlled and frequently misused substances (e.g., opioids, benzodiazepines, barbiturates, or carisoprodol).<sup>37</sup>

Fueled by the Controlled Substances Act, the Drug Enforcement Administration (DEA) and the Food and Drug Administration (FDA) categorized drugs into various schedules depending on their potential of abuse or dependency.<sup>38</sup>

#### Schedule I

Schedule I drugs, substances, or chemicals are drugs with no currently accepted medical use and a high potential for abuse or addiction (heroin, lysergic acid diethylamide (LSD), marijuana ecstasy, Quaaludes, and bath salts).

## Schedule II

Schedule II drugs, substances, or chemicals are drugs with some medically acceptable use, but with a high potential for abuse or dependence (Vicodin, cocaine, methamphetamine, methadone, morphine, meperidine (Demerol), oxycodone (OxyContin), fentanyl, Adderall, and Ritalin).

#### Schedule III

Schedule III drugs, substances, or chemicals are drugs with a low to moderate potential for abuse or dependence. These are drugs that can be acquired through a prescription, but are still dangerous (Tylenol with codeine, ketamine, suboxone, anabolic steroids, and testosterone).

#### Schedule IV

Schedule IV drugs, substances, or chemicals have a medical use and a low potential for abuse and dependence (Xanax, Soma, Darvon, Darvocet, Valium, Ativan, Talwin, Ambien, and Tramadol).

<sup>35</sup> Raynor, "An exploration of the factors influencing parental self-efficacy."

<sup>36</sup> Jalali et al., "The opioid crisis,"

<sup>37</sup> Texas State Board of Pharmacy, "Texas Prescription Monitoring Program," (2023).

<sup>38</sup> Marisa Crane, "Drug Scheduling & Classifications (schedule I-V controlled drugs)," *Addiction Centers*, (2023); Drug Enforcement Administration, "Drug Scheduling," (n.d.).

## Schedule V

Schedule V drugs, substances, or chemicals have lower potential for abuse or dependence. Schedule V drugs have a defined medical use, such as antidiarrheal, antitussive, and analgesic purposes (cough syrup (Robitussin), Lomotil, Motofen, Lyrica, Parepectolin).

The table below depicts the rate of prescriptions based on the specific schedule that were dispensed in Texas or to Texas residents from other pharmacies. Within region 6, the rate of prescriptions increased for schedule 2 and 5 drugs, but decreased for schedule 3 and 4 drugs. This trend is similar to the state totals.

**Table 9.** Prescription drug monitoring program by drug scheduled for Region 6 vs. Texas 2020-2022 per 100,000 population

	Region 6 Rates per 100,000			Texas	Rates per 100,000		
	2020	2021	2022	2020	2021	2022	
2	38,860.37	40,428.23	42,183.56	41,572.75	43,207.23	45,318.61	
3	16,561.32	14,593.12	14,354.39	17,326.69	15,745.16	15,554.14	
4	48,801.21	45,200.03	43,511.89	54,935.96	51,513.69	49,556.51	
5	5,301.83	5,145.25	5,526.49	6,577.81	6,333.47	6,671.55	
*	303.40	164.64	175.02	229.35	123.30	138.88	

Note: the asterisk indicates "other" types of drugs or drug schedule.

Retrieved from Texas Prescription Monitoring Program – Texas State Board of Pharmacy

#### Mental Health Providers

The availability and accessibility to mental health treatment is critical for individuals experiencing substance use disorders and co-occurring mental health disorders<sup>39</sup>. For the purpose of this data, mental health providers include psychiatrists, licensed clinical social workers, counselors, marriage and family therapists, mental health providers that treat alcohol and other drug misuse, and advanced practice nurses specializing in mental health care. The figure below depicts the ratio of the population size to available mental health providers. Matagorda County had the most significant increase in the ratio of population to available providers; thus, depicting an increase in the population size or number of people to whom one mental health provider would be available. The other counties in region 6 had reduction in the size of the population to available providers.

Wharton Waller 4599 Walker 1625 Montgomery 967 Matagorda 9645 Liberty 3905 Harris 660 Galveston 754 Fort Bend Colorado Chambers Brazoria 1052 Austin 2762 0 2000 4000 6000 8000 10000 12000 2020 MH Ratio 2023 MH Ratio

Figure 33. Ratio (x=population: 1 provider) for mental health providers by county 2020 vs. 2023

Retrieved from Center for Medicare and Medicaid Services, National Provider Identification

<sup>39</sup> Jalali et al., "The opioid crisis."

## Social Associations

Positive social supports and networks has been extensively revered as a protective and preventive factor for substance use. Social support can also be important for recovery, as having social support helps individuals who have developed a substance use disorder seek and engage in treatment<sup>40</sup>. Data was collected from the US Census Bureau on the number of membership organizations per county. These organizations included, civic organizations, bowling centers, golf clubs, fitness centers, sports organizations, religious organizations, political organizations, labor organizations, business organizations, and professional organizations. Within region 6, Wharton County had the highest rate of social organizations compared to population size.

18.00 16.00 14.90 14.00 13.10 12.49 12.00 11.34 10.00 8.00 6.75 6.00 5.50 4.61 4.50 4.00 2.00 0.00 2021 2022

Figure 34. Social association rate by county per 10,000 population for 2021-2023

Retrieved from U.S Census Bureau - County Business Patterns

<sup>49</sup> Jalali et al., "The opioid crisis."



Figure 35. Socioeconomic Model (SEM)

## Interpersonal Domain

The interpersonal level is consistent with the microsystem of Bronfenbrenner's social-ecological theory<sup>41</sup>. The microsystem examines the interpersonal relationships within an individual's environment that has the most influence on their development and behavioral responses<sup>38</sup>. Interpersonal level risk factors for substance use include loss of caregiver/family member, family history of mental illness, parental mental illness, aversive family environment, economic stress, trauma, abuse and neglect. Interpersonal level protective factors, include parental support and monitoring, positive family functioning, positive home environment, good parental mental stability, and peer social support<sup>42</sup>.

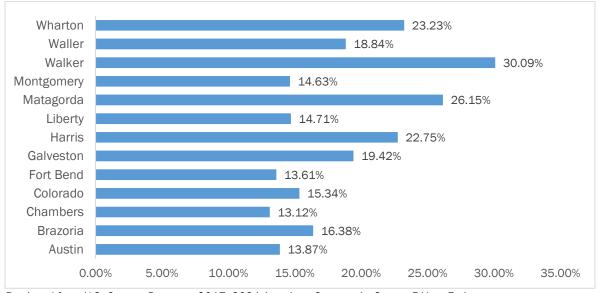
<sup>40</sup> Semra Aytur et al., "Social-ecological theory, Substance Misuse, Adverse Childhood Experiences, and adolescent suicidal ideation: Applications for community–academic partnerships," *Journal of Community Psychology* no. 1 (2022):265-284; Kilanowski, "Breadth of the socio-ecological model." 48 UNICEF, "Brief on the Social Ecological Model"; Sudhinaraset et al., "Social and Cultural Contexts of Alcohol Use"; Connell et al., "Social-ecological influences on patterns of substance use."

## Family Environment

## Single-parent households

In the United States, the rate of single-mothers (29%) was higher than the rate of single-fathers (10%) in 2021<sup>43</sup>. Previous research has postulated that children raised in single-parent households have worse health outcomes (e.g., physical health, mental health, and educational attainment) than children raised in two-parent, married households<sup>44</sup>. It is believed that single-parents have limited finances, spend less quality time with their children, and have difficulty disciplining their children leading to increased risk of poor behavior outcomes<sup>45</sup>. However, this research is limited and has been criticized to be inaccurate. Within region 6, Walker County had the highest percentage of single-parent households, while Chambers County had the lowest percentage.

Figure 36. Percentage of single parent households by county for 2021 5-year estimates



Retrieved from U.S. Census Bureau - 2017 -2021 American Community Survey 5 Year Estimates

<sup>41</sup> Corrine Wiborg, "Solo" and "nonsolo" single-parent households in the U.S., 2021," *Family Profiles*, (2022). 42 Irina Lut et al., "Health outcomes, healthcare use and development in children born into or growing up in single-parent households: a systematic review study protocol," *BMJ* no. 11 (2021): 1-5. 43 Connell et al., "Social-ecological influences on patterns of substance use."

## Family Violence Crime Rate

Family environment is another key factor when investigating the risk of substance use, as they are at a critical age where their minds are malleable. The situations and events they witness in the home model how they should behave and interact with others. Additionally, traumatic events experienced by youths contribute to the development of coping strategies for said trauma. Research indicates that children that experience low levels of parental warmth, high levels of parental hostility, and parental rejection are at a higher risk of developing substance use disorders<sup>46</sup>. According to crime data, the rate of family violence was dynamic across the three years. Matagorda County had the highest rate, but Colorado County had the lowest in 2022.

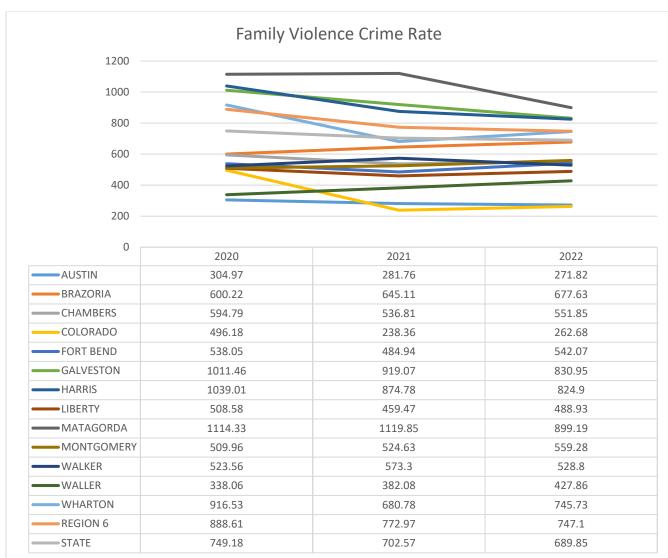


Figure 37. Family violence crime rate per county trends and numbers 2020-2022

Retrieved from Texas Department of Safety's Uniform Crime Reporting Data Portal

<sup>44</sup> Jordan Davis et al., "Social Ecological Determinants of substance use treatment entry among serious juvenile offenders from adolescence through emerging adulthood," *Journal of Substance Abuse Treatment*, (2016): 8-15.

#### Victims of Maltreatment

Within region 6, the trend for the rates of victims of maltreatment increased in 2021 and then decreased in 2022 for many of the counties. Brazoria, Matagorda, and Wharton counties maintained a steady decrease in maltreatment across the three years. Matagorda had the highest rate of maltreatment and Fort Bend had the lowest in 2022.

		2020			2021			2022	
	Victims	Total Under 18 Population	Child Victim Rate (per 1000 children)	Victims	Total Under 18 Population	Child Victim Rate (per 1000 children)	Victims	Total Under 18 Population	Child Victim Rate (per 1000 children)
Austin	47	7,179	6.5	65	7,179	9.1	50	7,179	7.0
Brazoria	634	97,191	6.5	514	97,191	5.3	493	97,191	5.1
Chambers	56	12,872	4.4	75	12,872	5.8	54	12,872	4.2
Colorado	28	4,916	5.7	47	4,916	9.6	27	4,916	5.5
Fort Bend	498	221,496	2.2	527	221,496	2.4	535	221,496	2.4
Galveston	639	84,398	7.6	757	84,398	9.0	659	84,398	7.8
Harris	6,882	1,254,881	5.5	7,405	1,254,881	5.9	5,622	1,254,881	4.5
Liberty	187	24,579	7.6	253	24,579	10.3	162	24,579	6.6
Matagorda	142	9,501	14.9	115	9,501	12.1	103	9,501	10.8
Montgomery	826	160,183	5.2	950	160,183	5.9	982	160,183	6.1
Walker	58	11,332	5.1	86	11,332	7.6	72	11,332	6.4
Waller	55	13,525	4.1	79	13,525	5.8	63	13,525	4.7
Wharton	116	10,927	10.6	72	10,927	6.6	52	10,927	4.8

Table 10. Victims of maltreatment (e.g., abuse and neglect) by county 2020-2022

Retrieved from DFPS Data and Decision Support

#### Children in Foster Care

Children without stable housing or definitive parental figures have a higher likelihood of developing negative health outcomes due to a sense of feeling a lack of safety, stability, and connectedness (CDC). The percentage of children in foster care in region 6 decreased from 2020 to 2022.

Table 11. Children in foster care, number and percentage, for Region 6 total 2020-2022

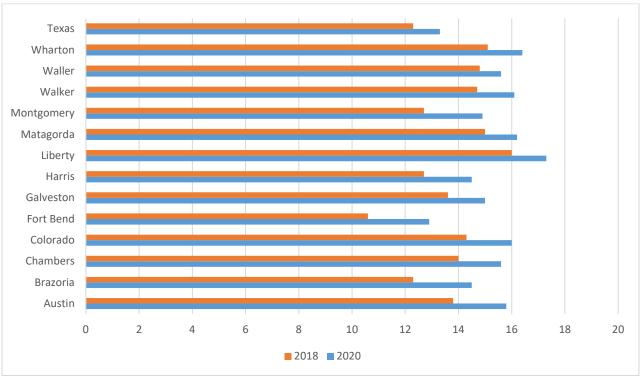
Region 6	2020	2021	2022
Total in Foster Care	3,855	3,743	2,835
Total Population	1,872,318	1,872,318	1,872,318
%	0.21%	0.20%	0.15%

Retrieved from DFPS - CPS

## Parental Depression

Parents who experience a severe level of mental illness are less likely able to effectively complete their parental duties, leading to negative outcomes for the children of these parents. Data from the CDC noted the percentage of parents with depression increased across all counties in the region and state-wide from 2018 to 2020. Liberty County had the highest percentage of parents endorsing depression in 2020.

Figure 38. Parental depression by percentage by county compared to Texas 2018 vs. 2020



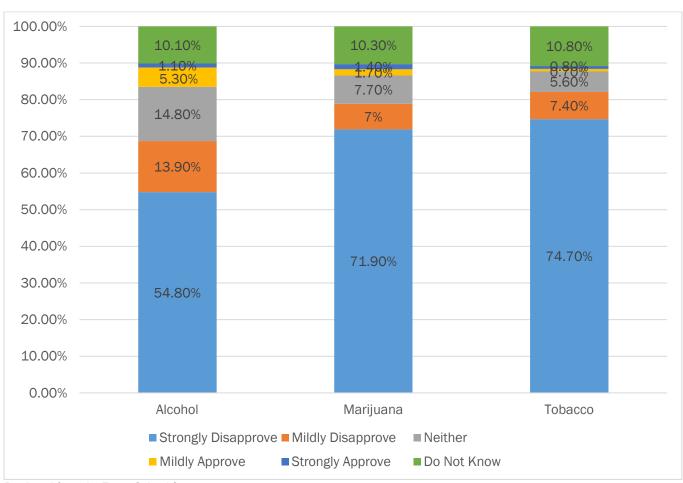
Retrieved from Centers for Disease Control and Prevention (CDC)

## Perceptions of Parental Attitude

Strong influences on adolescent substance use come from interactions with peers and family members. Research has found that higher levels of alcohol use among parents and peers is associate with increased substance use for adolescents<sup>47</sup>. The literature reflects a time sensitive period for which group (i.e. peers of parents) has a greater influence. According to Sudhinaraset and colleagues, parent alcohol use prior to age 15 is a greater factor for adolescent use compared to after the age of 15. Research indicates that adolescents who had parents that disapproved of alcohol use consumed less alcohol<sup>45</sup>.

The Texas School Survey (TSS) asked students to rate their perceptions of their parents' attitude toward substance use. Majority of adolescents in regions 6 and 7 endorsed their parents disapprove the use of substances.

Figure 39. Parent's disapproval of alcohol, tobacco and marijuana, all grade levels, Region 6 and 7 combined for 2022



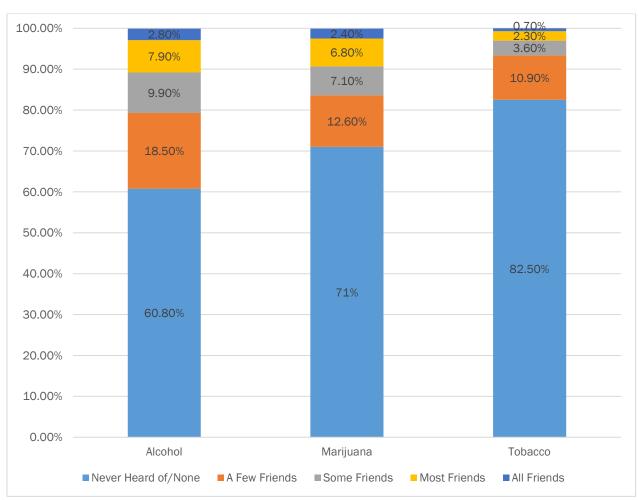
<sup>45</sup> May Sudhinaraset et al., "Social and Cultural Contexts of Alcohol Use: Influences in a Social-Ecological Framework," *Alcohol Research* no. 1 (2016):35-45; Connell et al., "Social-ecological influences on patterns of substance use"; Jalali et al., "The opioid crisis."

## Perceptions of Peer Use

As adolescents tend to move from the home into the community, they place more significance on approval of their peers than their parents. Adolescents receive more normalized messages about alcohol use through media and witness socializing with substances through peers. Increased exposure to peer alcohol use and perceived peer use is associated with increased individual alcohol use Research has found that resilience towards pressure of substance use and better quality of friendships can reduce the likelihood of substance misuse among adolescents.

The Texas School Survey (TSS) asked students to rate their perceptions of peer substance use. Majority of adolescents in regions 6 and 7 indicated that they never heard of the substance listed or believed that none of their friends used the substance.

**Figure 40.** Perceptions of peer use for alcohol, tobacco and marijuana, all grade levels, Regions 6 and 7 combined, for 2022



<sup>46</sup> Sudhinaraset et al., "Social and Cultural Contexts of Alcohol Use"; Connell et al., "Social-ecological influences on patterns of substance use."

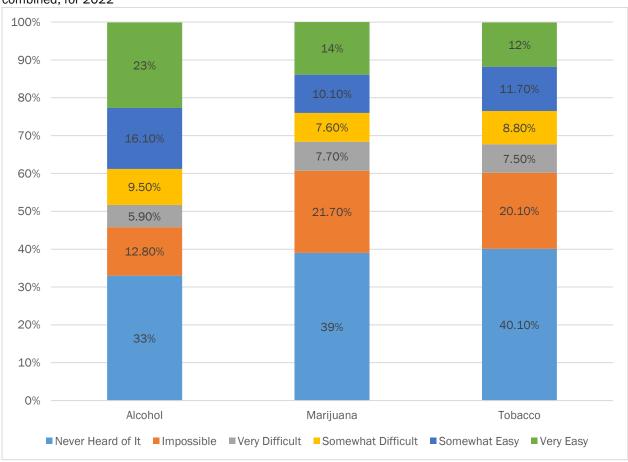
<sup>47</sup> Davis et al., "Social Ecological Determinants of substance use."

## Perceived Substance Availability

The availability of substances in an individual's immediate environment, whether that is perceived ability to obtain substances or actual presence of substances, has a positive association with the risk of substance use. Based on the TSS, majority (33 - 40%) of the adolescents in region 6 and 7 indicated they had never heard of the substance that was asked about. Yet, alcohol appeared to be the easiest substance to obtain based on student responses.

## Social Access

**Figure 41.** Perceived ease of access to alcohol, tobacco and marijuana, all grade levels, Region 6 and 7 combined, for 2022



## Presence of a Substance at Parties

Exposure to alcohol through social means appears to be a robust predictor of substance use for adolescents. Based on the TSS, the majority of adolescents in region 6 and 7 stated that there have never been any substances at parties they have attended.

Figure 42. Presence of a substance at parties, all grade levels, Region 6 and 7 combined vs. Texas, for 2022

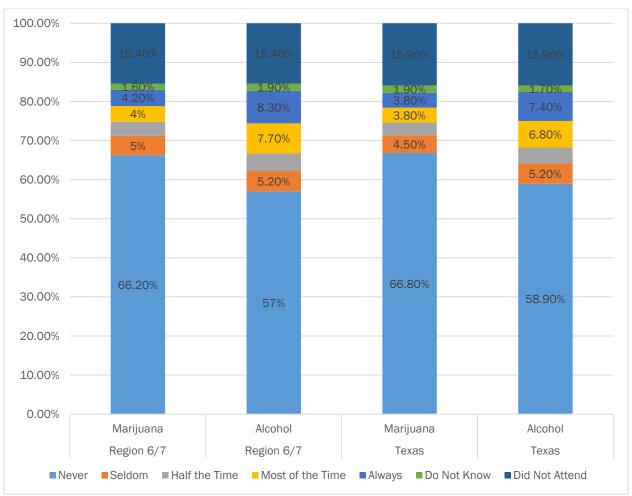




Figure 43. Socioeconomic Model (SEM)

## Individual Domain

The individual or intrapersonal level consists of innate characteristics, genetics, personality, and demographic factors (e.g., race/ethnicity, age, and gender) that are associated with the risk of substance use. Research has identified academic achievement, work ethic, coping styles, self-esteem, religiosity, and access to care as protective individual level factors for substance use. <sup>50</sup>

<sup>50</sup> Connell et al., "Social-ecological influences on patterns of substance use."; Davis et al., "Social Ecological Determinants of substance use"; Jalali et al., "The opioid crisis."

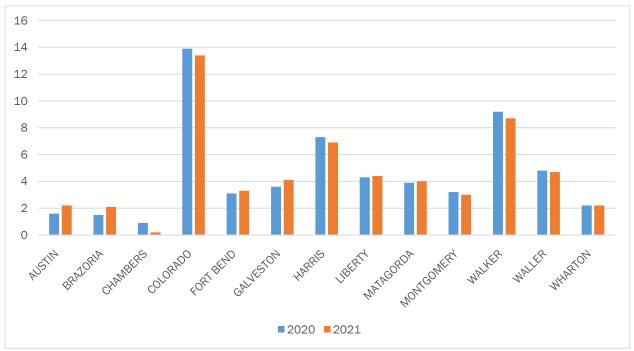
## Academic Achievement - TEA

The Texas Education Agency (TEA) is the state agency that oversees primary and secondary education. The TEA collects data from Texas public schools regarding educational attainment.

## High School Dropout

Based on data retrieved from the TEA database, Colorado County had the highest but Chambers County had the lowest percentage rate of high school dropouts in 2020 and 2021.

Figure 44. High school dropout percentage rates by county 2020 v. 2021



Retrieved from Texas Education Agency

## Absenteeism

The data from TEA indicated that total absences were the highest among Harris County and the lowest among Colorado County. All counties in the region evidenced an increase in absenteeism from 2020 to 2022. Of note, these are totals that are not adjusted for population size.

Table 12. Absenteeism by county and Region 6 total for 2020-2021 v. 2021-2022

	2020-2021	2021-2022
AUSTIN	45,908	57,323
BRAZORIA	429,276	788,755
CHAMBERS	63,290	93,306
COLORADO	33,239	37,047
FORT BEND	714,486	1,300,509
GALVESTON	703,384	1,042,644
HARRIS	7,863,192	11,510,587
LIBERTY	218,410	305,140
MATAGORDA	71,703	82,455
MONTGOMERY	920,188	1,384,852
WALKER	93,948	102,190
WALLER	103,628	177,076
WHARTON	83,602	95,626
REGION 6 TOTAL	11,344,252	16,977,507

Retrieved from Texas Education Agency

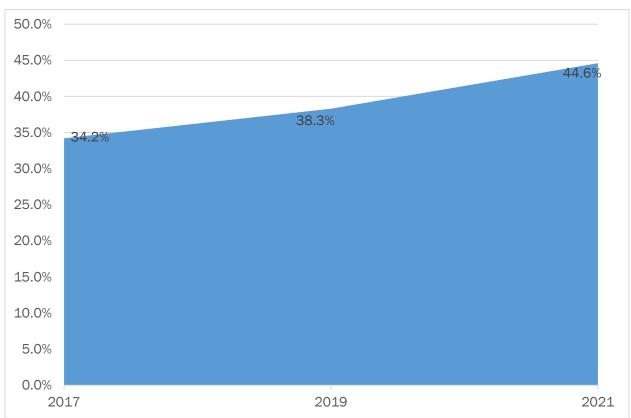
#### Youth Mental Health

Mental illness is often bi-directionally associated with substance use. Research suggests that depression, posttraumatic stress disorder, anxiety, and hopelessness are positively correlated with substance use<sup>51</sup>. The literature states that individuals who have a history of severe levels of mental illness are less likely to engage and complete substance use treatment<sup>52</sup>.

## Adolescent Depression

The YRBSS data indicated that feelings of depression and hopeless have increased among adolescents in Texas from 2017 to 2021.

Figure 45. Percentage of adolescent feelings of depression and hopelessness in Texas for 2017, 2019, 2021



Retrieved from the YRBSS

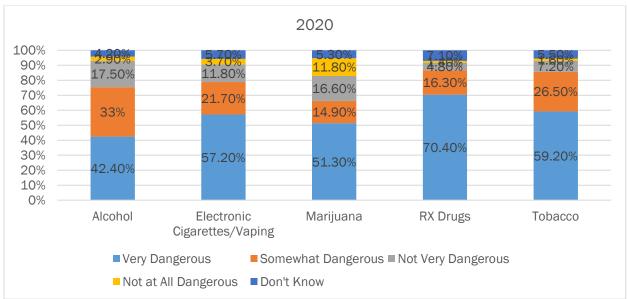
<sup>51</sup> Connell et al., "Social-ecological influences on patterns of substance use"; Davis et al., "Social Ecological Determinants of substance use"; Jalali et al., "The opioid crisis."

<sup>52</sup> Davis et al., "Social Ecological Determinants of substance use."

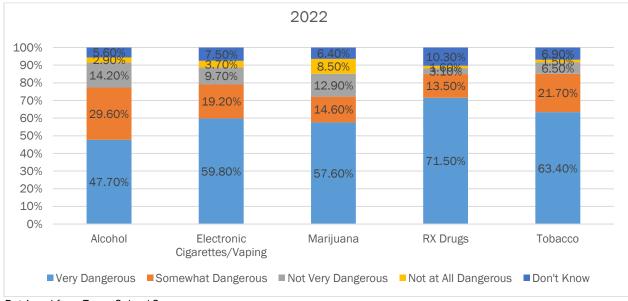
## Youth Perception of Risk/Harm

Youth who recognize the risk and harm of substance use are less likely to engage in it<sup>53</sup>. Results from the TSS indicate that majority of adolescents believe that substances are "Very Dangerous." The percentage of students who believe substances are "Very Dangerous" has increased from 2020 to 2022. Interestingly, the percentage of students who believed substances were "Not Very Dangerous" or "Not at All Dangerous" has decreased from 2020 to 2022.

**Figure 46 and 47.** Perception of risk/harm for all grades (7-12), Region 6 and 7 combined, 2020 vs. 2022 for alcohol, electronic cigarettes/vaping, marijuana, RX drugs and tobacco



Retrieved from Texas School Survey

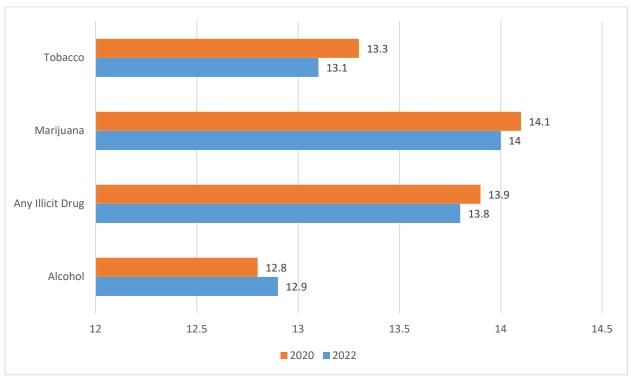


<sup>54</sup> Connell et al., "Social-ecological influences on patterns of substance use."

## Early Initiation of Use

Early age of onset of substance use can predict substance use in adolescents<sup>54</sup>. Within region 6 and 7, the age of initiation matured for alcohol between 2020 and 2022. All other substances saw a decline in age of initiation in region 6 and 7.

**Figure 48.** Age of first use for alcohol, tobacco, marijuana and any illicit drugs, 2020 v. 2022, all grades (7-12) for Region 6 and 7 combined



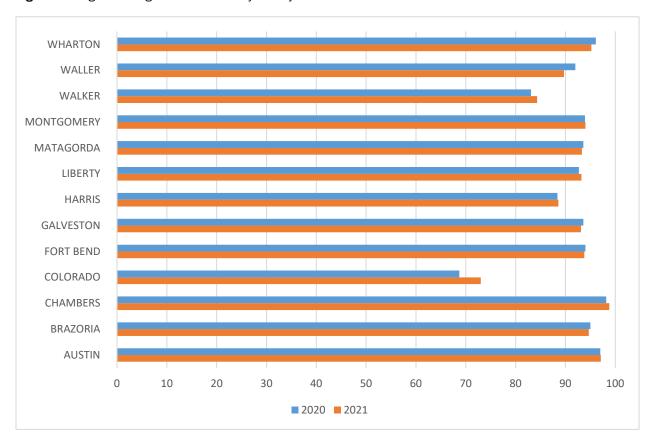
<sup>55</sup> David Hodge et al., "Religion and substance use among youths of Mexican heritage: A Social Capital Perspective," *Social Work Research* no. 3 (2011): 137-146; Davis et al., "Social Ecological Determinants of substance use"; Jalali et al., "The opioid crisis."

## **Protective Factors**

## High School Graduation

A greater level of academic achievement and commitment is a protective factor for substance use<sup>55</sup>. Obtaining a high school diploma increases opportunities to develop positive social networks and stability; thus, reducing risk for substance misuse among adolescents. Based on data retrieved from the TEA database, Chambers County had the highest graduation rate, while Colorado County had the lowest. Nine out of the 13 counties met a 90% high school graduation rate in 2021.

Figure 49. High school graduation rates by county 2020 vs. 2021



Retrieved from Texas Education Agency

<sup>56</sup> Connell et al., "Social-ecological influences on patterns of substance use."

## Spirituality

Spirituality and religion can serve as protective factors for substance use among various groups<sup>56</sup>. It has been suggested that religion or spirituality serves as a conduit to positive health outcomes through a sense of community and promotion of positive coping strategies<sup>57</sup>. However, the degree of involvement in religious institutions has been reviewed as a moderator of the effect of religiosity on substance use<sup>58</sup>. The figures below depict the number of congregations, which includes churches, mosques, temples, or other meeting places as well as the number of adherents, who are people affiliated with a congregation. Data obtained from the US Religion Census indicated that Colorado County had the highest number of religious congregations; however, Wharton had the highest rate of adherents in the region.

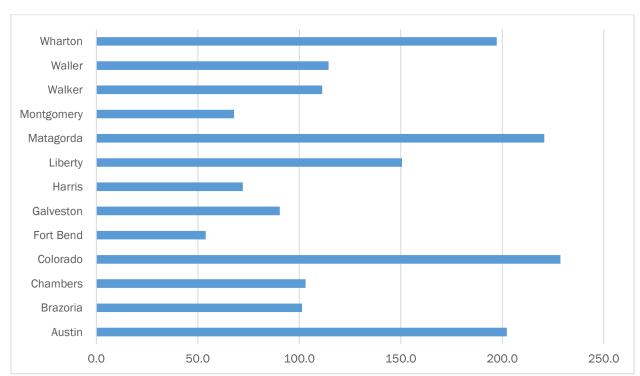


Figure 50. Congregations per 100,000 population by county (2020)

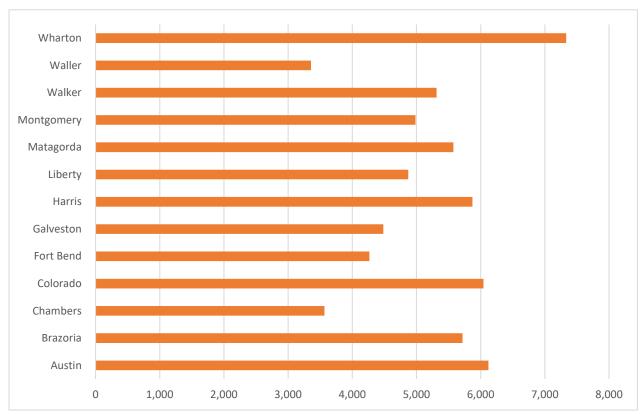
Retrieved from U.S. Religion Census (2020)

<sup>57</sup> Katrina Debnam et al., "The moderating role of spirituality in the association between stress and substance use among adolescents: Differences by gender," *Journal of Youth and Adolescence* no. 4 (2018): 818–828; Stephen Kulis et al.,"Spirituality and religion: Intertwined protective factors for substance use among urban American Indian Youth," *The American Journal of Drug and Alcohol Abuse* no.5 (2012): 444–449; Arden Moscati and Briana Mezuk, "Losing faith and finding religion: Religiosity over the life course and substance use and abuse," *Drug and Alcohol Dependence*, (2014): 127–134; Hodge et al., "Religion and substance use among youths."

<sup>58</sup> Debnam et al., "The moderating role of spirituality."

<sup>59</sup> Hodge et al., "Religion and substance use among youths"; Kulis et al., "Spirituality and religion."

Figure 51. Adherents per 10,000 population by county (2020)



Retrieved from U.S. Religion Census (2020)

# **PART IV - Consumption Patterns**

## Patterns of Consumption

## Youth Substance Use (Region 6 and 7 Combined)

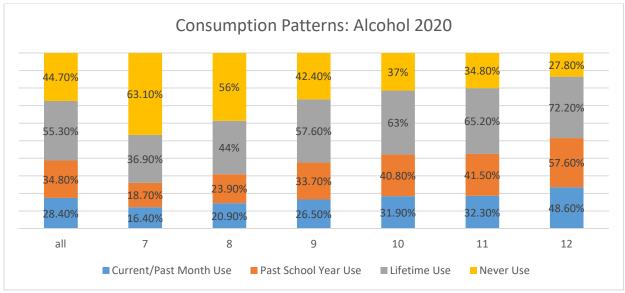
According to the Substance Abuse and Mental Health Services Administration's (SAMHSA) 2021 National Survey on Drug Use and Health (NSDUH), 161.8 million people aged 12 and older used substances (e.g., tobacco, alcohol, drugs)<sup>59</sup>. To measure trends of consumption, the TSS asked students how recently they had used various substances. The anchors included "Never Heard of it/Never Used It", "Used at least Once in the Past Month", "Used at least Once School Began in the Fall", and "Used at least Once in Lifetime."

<sup>60</sup> Center for Behavioral Health Statistics, "2021 National Survey on Drug Use and Health," (2022).

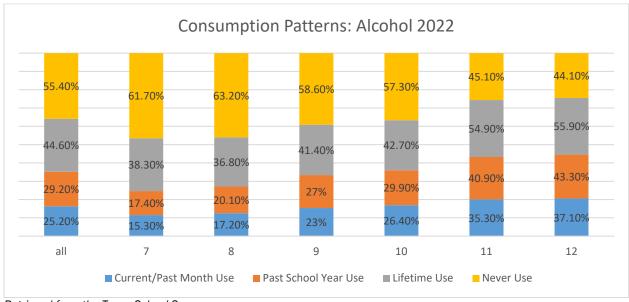
#### Alcohol

The figures below indicate the percentage of youth that indicated frequency of alcohol use for 2020 and 2022. There was an increase in "Never Use" from 2020 to 2022 for 8<sup>th</sup> to 12<sup>th</sup> grade. Seventh grade students evidenced a decrease in "Never Use." There was a decrease in "Current, Past School Year, and Lifetime Use" for 8<sup>th</sup> to 12<sup>th</sup> graders. Increases were shown for 7<sup>th</sup> grade "Lifetime Use" and 11<sup>th</sup> grade "Current/Past Month Use".

Figure 52 and 53. Consumption patterns by grade level, Region 6 and 7 combined, for 2020 vs. 2022



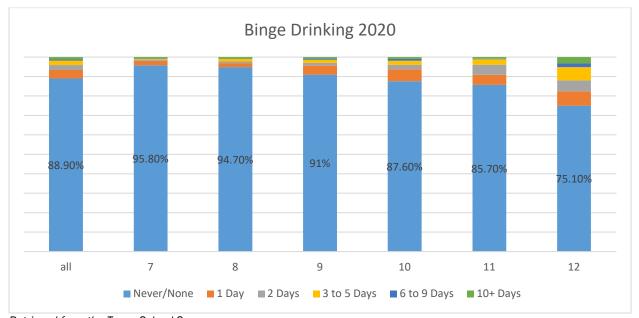
Retrieved from the Texas School Survey



#### Binge Drinking

In order to assess binge drinking the TSS asked students to rate the number of drinks they consumed at one time (Q1) and the number of days they have consumed more than five drinks in a two-hour period (Q2). The figures (Figure 54 and 55) below show the percentage of student responses to the questions for 2020 and 2022. Results indicated that youth in grades 7 to 12 have mostly never engaged in binge drinking. Further the percentage of students who endorsed never engaging in binge drinking increased from 2020 to 2022.

Figure 54 and 55. Binge drinking by grade level, Region 6 and 7 combined, for 2020 vs. 2022



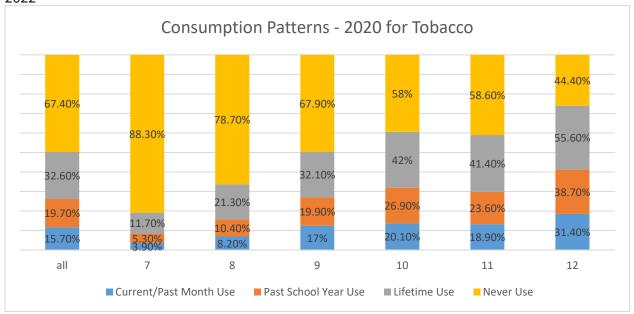
Retrieved from the Texas School Survey



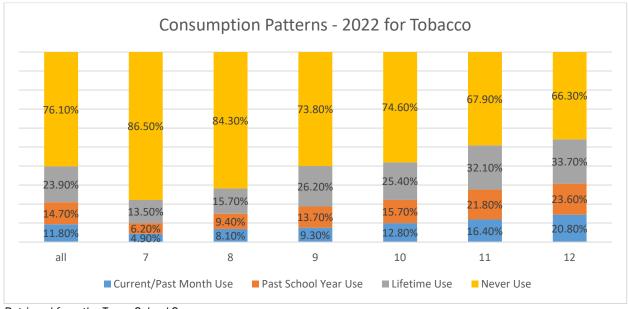
#### Tobacco

The figures below depict the percentage of youth in grades 7-12th that indicated the defined frequency of tobacco use (e.g., past month, past school year, lifetime, and never) for 2020 and 2022. There was an increase in "Never Use" from 2020 to 2022 for 8<sup>th</sup> to 12<sup>th</sup> graders. Seventh grade students evidenced a decrease in "Never Use." The percentage of "Current, Past School Year, and Lifetime Use" decreased for students in 8<sup>th</sup> to 12<sup>th</sup> grade. Seventh grade responses depicted an increase in all areas from 2020 to 2022.

**Figure 56 and 57.** Consumption patterns for tobacco by grade level, Region 6 and 7 combined, for 2020 vs. 2022



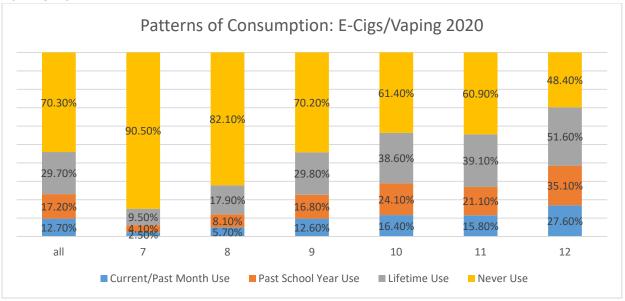
Retrieved from the Texas School Survey



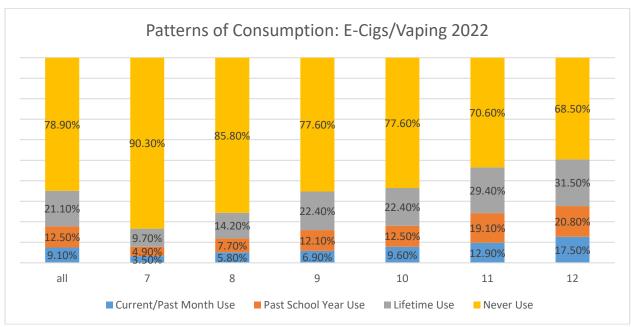
#### E-Cigs/Vaping Products

The figures below depict the percentage of youth in grades 7-12 that indicated the defined frequency (e.g., past month, past school year, lifetime, and never) of using e-cigarettes and vapes in 2020 and 2022. There was an increase in "Never Use" from 2020 to 2022 for 8th to 12th grade, but seventh grade student percentages evidenced a decrease. The percentages decreased for "Current, Past School Year, and Lifetime Use" in 8th to 12th grade. Increases were shown for 7th grade "Past School Year and Current/Past Month Use." There was a slight increase (+0.20%) for 7th grade "Lifetime Use" and a slight increase (+0.10%) for 8th grade "Current Use."

**Figure 58 and 59.** Consumptions patterns for e-cigarettes/vaping by grade level, Region 6 and 7 combined, for 2022 vs. 2022



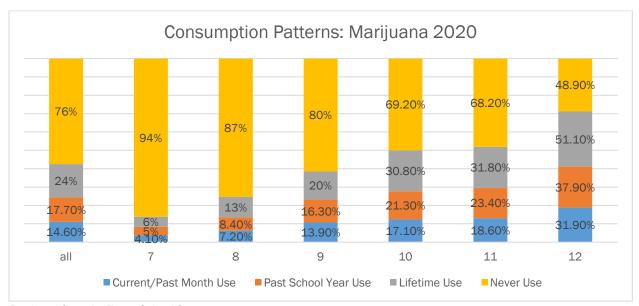
Retrieved from the Texas School Survey



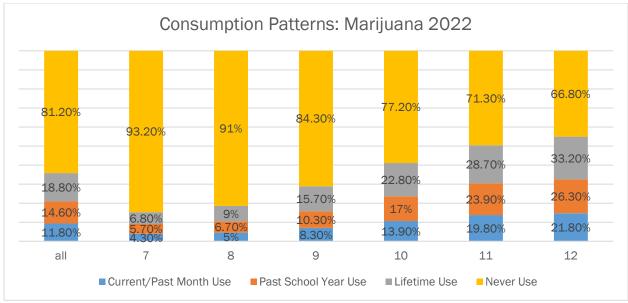
#### Marijuana

The figures below depict the percentage of youth in grades 7-12 that indicated the defined frequency (e.g., past month, past school year, lifetime, and never) of marijuana use in 2020 and 2022. There was increase in "Never Use" for 8<sup>th</sup> to 12<sup>th</sup> grade, but a decrease for seventh grade students. There was a decrease in "Current, Past School Year, and Lifetime Use" for 8<sup>th</sup> to 12<sup>th</sup> grade. Increases were shown for 7<sup>th</sup> grade "Past School Year and Lifetime Use," and 11<sup>th</sup> grade "Current/Past Month Use and Past Year Use." A slight (+0.20%) increase was shown for 7<sup>th</sup> grade "Current/Past Month Use."

**Figure 60 and 61.** Consumption patterns for marijuana by grade level, Region 6 and 7 combined, for 2020 vs. 2022



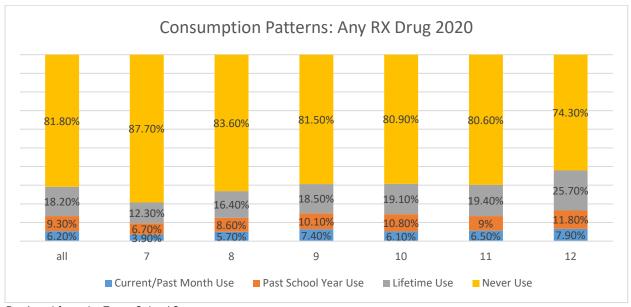
Retrieved from the Texas School Survey



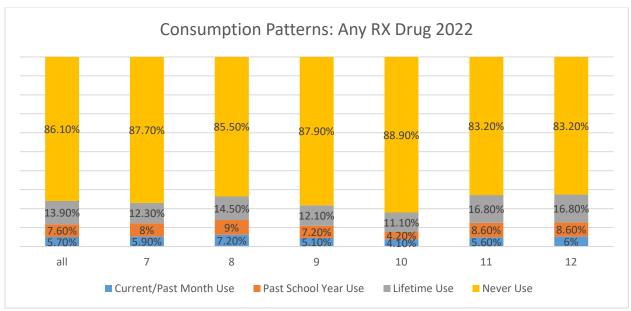
#### Prescription (RX) drugs

The figures below depict the percentage of youth in grades 7-12 that indicated the defined frequency (e.g., past month, past school year, lifetime, and never) of prescription drug use in 2020 and 2022. Student responses reflected an increase in "Never Use" for prescription drugs; however, 7th graders remained equal for "Never Use" from 2020 to 2022. There was a decrease in "Lifetime Use" for 8th to 12th graders; while, 7th graders remained equal across the years. Increases were shown for 7th and 8th grade "Current/Past Month and Past School Year Use"

**Figure 62 and 63.** Consumption patterns for RX drugs by grade level, Region 6 and 7 combined, for 2020 vs. 2022



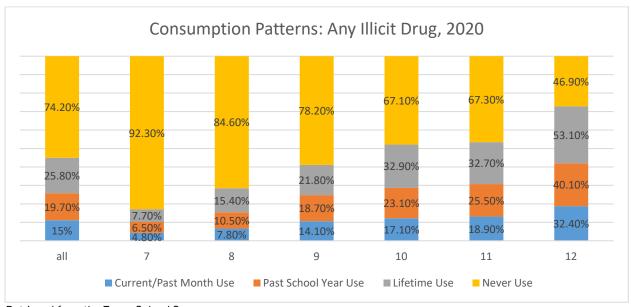
Retrieved from the Texas School Survey



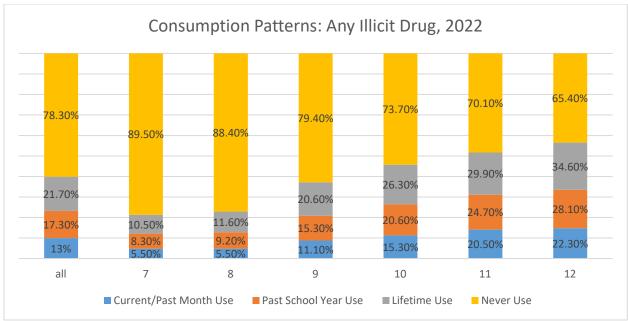
#### Illicit drugs

The figures below depict the percentage of youth in grades 7-12 that indicated the defined frequency (e.g., past month, past school year, lifetime, and never) of illicit drug use in 2020 and 2022. There was an increase in "Never Use" for illicit drugs for 8th to 12th grade, but a decrease for seventh grade students. There was a decrease in "Lifetime, Past School Year, and Current/Past Month Use" for 8th to 12th grade. Increases were shown for 7th grade "Lifetime, Current/Past Month, and Past School Year Use" and 8th grade "Current Use."

**Figure 64 and 65.** Consumption patterns for illicit drugs by grade level, Region 6 and 7 combined, for 2020 vs. 2022



Retrieved from the Texas School Survey



#### College Student Consumption

College campuses are notorious for high rates of substance misuse due to the normalization of substance use and easy accessibility of substances on campus. According to the NSDUH, the highest percentage of vape use, alcohol use, illicit drug use, and substance use disorders was among young adults aged 18 to 25. Substance use among college students is associated with negative outcomes, such as poor academic functioning and higher likelihood of unemployment<sup>60</sup>. The rate of college student substance use was measured using the Texas College Survey, which asked students to indicate the frequency (e.g., 30 days, past school year, and lifetime) they have used certain substances in 2021.

The figure below shows the estimated percentage of use for college students in Texas for each of the following substance categories: alcohol, tobacco, marijuana, synthetic marijuana, inhalants, DXM, cocaine, and other illicit and prescription medications.

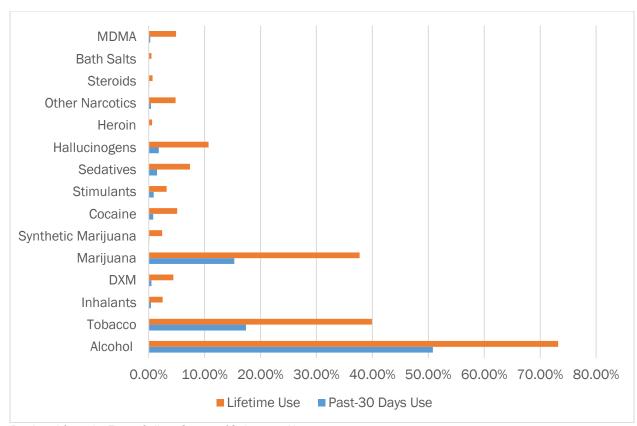


Figure 66. College student consumption by substance, lifetime use vs. past 30 days for Texas, 2021

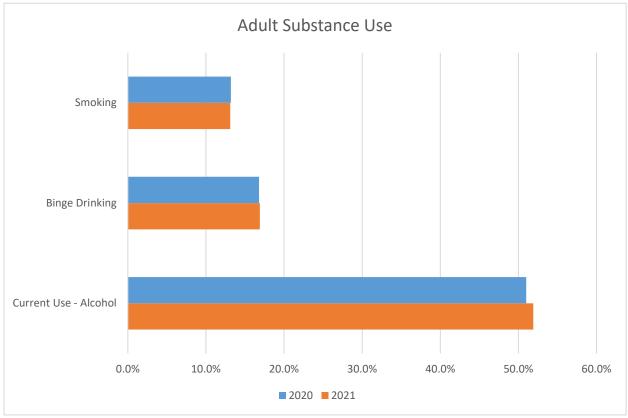
Retrieved from the Texas College Survey of Substance Use

<sup>61</sup> Justine Welsh et al., "Substance Use Among College Students," *American Psychiatric Publication* no. 2 (2019):117-127.

#### Adult Substance Use

The figure below displays the percentage of adults in Texas that had engaged in smoking, binge drinking, and current alcohol use in 2020 versus 2021. It appears the rate of use was relatively equal across the two years for each group.

**Figure 67.** Percentage of adult substance use for smoking, binge drinking and current use of alcohol for 2020 vs. 2021



Retrieved from the Texas College Survey of Substance Use

# PART V - Public Health and Safety

## Consequences of Substance Use/Misuse

Substance use comes with many potential short-term and long-term effects to the body and the brain. Additionally, chronic substance use can increase the possibility of developing co-occurring medical and mental health conditions. Substance use is correlated with a higher risk of heart disease, stroke, cancer, HIV/AIDS, Hepatitis B and C, endocarditis, cellulitis, lung disease, encephalopathy, kidney disease, and liver disease<sup>61</sup>. Regarding mental health disorders, bipolar disorder, anxiety, attention-deficit/hyperactivity disorder (ADHD), major depressive disorder, psychotic disorders, and personality disorders are the most co-occurring disorders related to substance use<sup>62</sup>.

#### Mortality

Using drugs knowingly or unknowingly can be fatal. According to NIDA, drug overdose deaths involving stimulants, cocaine, or psychostimulants have significantly increased since 2015 from 12,122 to 53,495 in 2021.

#### Overdose deaths

The figure below depicts the trend in rate of overdose deaths for region 6. The numbers indicate that the rate of overdose deaths has increased similarly to the national statistics mentioned above.

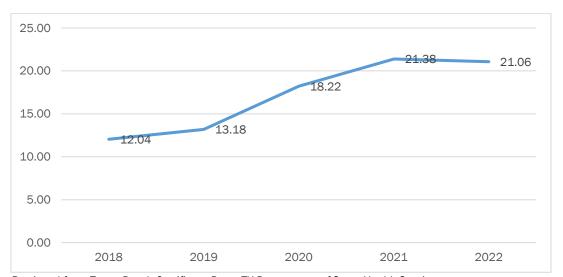


Figure 68. Overdose death rate per 100,000 population for Region 6 trending 2018 - 2022

Retrieved from Texas Death Certificate Data, TX Department of State Health Services

<sup>62</sup> Laura Dorwat, "The effects of drug addiction on the brain and body," *Verywell Health*, (2022); National Institute on Drug Abuse (NIDA), "Drugs, Brains, and Behavior: The Science of Addiction," (2020). 63 NIDA, "The Connection Between Substance Use Disorders and Mental Illness," (2022).



#### Suicide Rates (Adolescent and All)

As previously discussed, the rate of mental illness is high within the population that misuses substances. Disorders such as depression, hopelessness, and anxiety are correlates of suicide. Therefore, it is unsurprising that the rates of mental illness are consistent with the increase in suicide rates (see below). Of note, adolescents and young adults appear to have a much higher suicide rate.

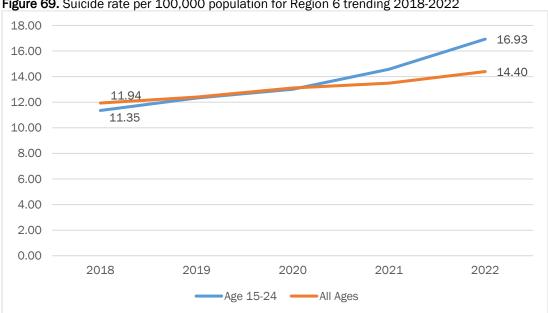


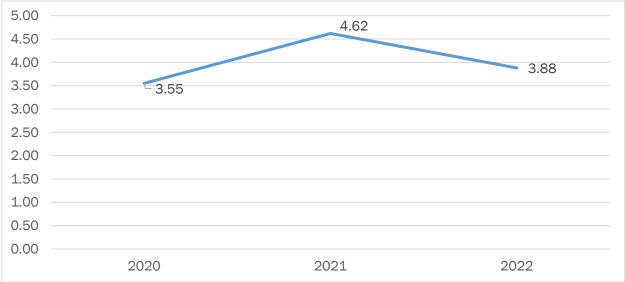
Figure 69. Suicide rate per 100,000 population for Region 6 trending 2018-2022

Retrieved from Texas Death Certificate Data, TX Department of State Health Services

#### Alcohol-Related Vehicular Fatalities

Consuming alcohol affects a person's inhibition, control, and judgement. Individuals who consume alcohol are at increased risk of harm to themselves and others. The National Highway Traffic Safety Administration reported that in 2021, 13,384 people died in alcohol-related traffic deaths, which was a 14% increase from 2020. The figure below shows that region 6 has decreased in the rate of vehicular fatalities from 2021 to 2022, but it is still higher than the rate in 2020.

Figure 70. Alcohol related vehicular fatalities rate per 100,000 for Region 6 trending 2020-2022

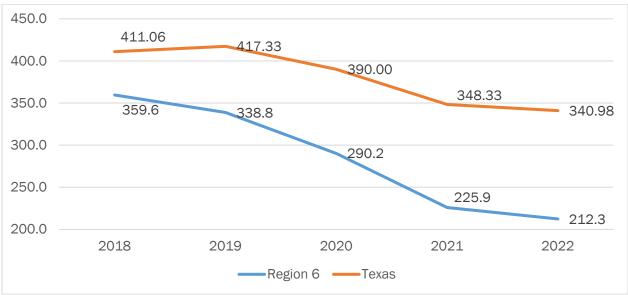


Retrieved from Texas Department of Transportation

#### Healthcare

The cost of substance use treatment for the individual can be substantial. According to SAMHSA, 43.7 million people aged 12 or older needed substance use treatment in the past year. However, SAMHSA noted that of the millions of people who needed treatment based on problematic drug and alcohol use, 96.8% did not feel that they needed treatment and 2.1% felt that they needed treatment but did not attempt to get treatment. This concept of underestimating the utility of treatment can be seen in the downward trend of individuals receiving treatment from 2018 to 2022 both in Texas and in the Region. Notably, region 6 has lower rates of treatment seeking than Texas as a whole.

Figure 71. All individuals receiving SUD treatment rate per 100,000 Region 6 vs. Texas trending 2018-2022



Retrieved from Texas Health and Human Services Commission

#### **Economic**

#### Estimated economic impact of underage drinking/drug use/misuse

Note: Tobacco & Alcohol based off 2010, Illicit Drugs based off 2007, Prescription Opioids based off 2013

Figure 72. Economic impact - Healthcare spend by substance in Billions nationally

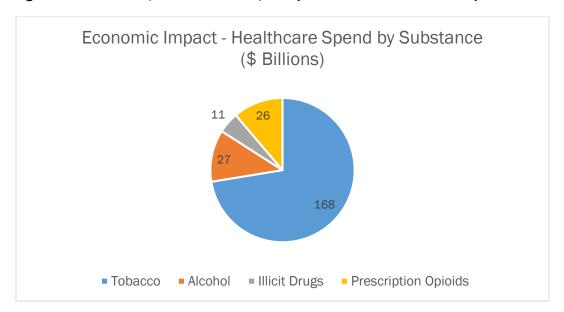
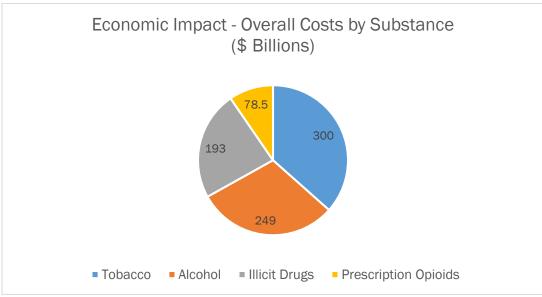


Figure 73. Economic impact - Overall costs by substance in billions nationally



Retrieved from NIDA

#### **Emerging Trends**

There are many drugs that have rose to prominence in the last decade within Texas. Of these drugs there are a select few that have notoriously caused the most damage financially and had the most casualties. These drugs include methamphetamine, opioids, and synthetic drugs.

#### Methamphetamines

The rates of methamphetamine use and overdose deaths continues to rise. Methamphetamine has been trafficked into Texas via the border. The drug is reportedly brought in through Mexico in a liquid state and then transformed into a solid state in Texas. <sup>63</sup> Literature indicates that the increase in use of methamphetamine can be linked to the decrease in price. There have also been demographic changes in terms of who uses methamphetamine. In the past, older Caucasian adults had the highest rates of methamphetamine use; however, there has been a shift to higher rates of racial/ethnic minority use, particularly African Americans and individuals aged 18-23 years old. <sup>64</sup>

#### **Opioids**

Opioid use continues to be detrimental in Texas. Though there has been an increase in funds to opioid-use targeted programs, rates of use continue to rise within the state. The Texas Workforce Commission noted that the counties with the highest rate of opioid related overdose deaths in 2020 were <u>Harris</u>, Dallas, Tarrant, Bexar, and Travis. Research indicates the lack of specialized opioid use treatment, such as medication assisted treatment (MAT), contributes to low rates of treatment utilization and success in Texas.

#### Synthetic Drugs

Synthetic drugs are drugs that are not naturally occurring, they are man-made through combining various chemicals to give the same effects as normal drugs. These drugs often have severe effects that can cause long-term damage worse than normal drugs.

#### Fentanyl

Fentanyl has been the biggest contributor to the opioid crisis in the nation as well as Texas. Fentanyl is a synthetic drug that was initially used in other opioids; however, it has now been found in cocaine, methamphetamine, and prescription pain medication. Research indicates that fentanyl is 50 times more potent than heroin and has more adverse outcomes. The concern with fentanyl is that often times it can be made to look like regular prescription drugs which makes it hard to detect. The Texas Department of Public Safety stated that fentanyl related deaths increased by 89% from 2020 to 2021.

<sup>64</sup> Jane Maxwell, "Drug Trends in Texas 2021: A Report to the National Drug Early Warning System," *Addiction Research Institute*, (2021).

<sup>65</sup> U.S. Department of Health and Human Services, "Trends in U.S. methamphetamine use and associated deaths," (2021).

#### Synthetic Cannabinoids

Synthetic cannabinoids were prominent in the early 2010s; however, their deleterious effects led to swift action by the government to outlaw these substances. Examples of synthetic cannabinoids, include spice, K2, Kush and Delta 8. The Office of the Attorney General noted that 60% of people admitted to the hospital for the use of synthetic cannabinoids were aged 12 and older. Texas reportedly ranked second among all the US states in poison control calls for synthetic cannabinoids. Despite their criminalization, the rates of synthetic cannabinoids remain steady. There was a documentary filmed in Texas in 2018 called "The Last High" about the dangerousness of synthetic cannabinoids.

#### Other Drugs

A new drug or more popularized drug on the scene is Xylazine referred to as "tranq or zombie drug." Xylazine's initial use was as a tranquilizer; however, it is emerging as another drug used to "cut" other drugs. The concern with the increase in xylazine use is due to the ineffectiveness of Narcan on its effects. Xylazine has been related to four deaths in Texas, but the numbers are sure to increase.

#### Impact of COVID-19 on Behavioral Health

The emergence of COVID-19 put mental health and substance use in public light. Through isolation, changing environments, illness and death as well as other impacts on an individual's social determinants of health, this spurred an increase in mental health conditions as well as substance use. This increase has continued even three years after the start of the pandemic. The detrimental impact of COVID-19 included increased deaths related to drug overdose, increased alcohol-induced deaths, heightened symptoms of anxiety and depression as well as increased rates of suicide<sup>65</sup>.

COVID-19 not only had an impact on physical conditions, it also impacted and continues to impact the behavioral health workforce and service delivery. As more people experienced behavioral health conditions, more obstacles became apparent when accessing services one of which is a workforce shortage.

Some positive impacts of the pandemic include initiatives being enacted to ensure increased access to care and enhanced service delivery. One of the positive outcomes included that of Telehealth services. This allowed for better access to care, increased utilization in rural areas as well as an expansion of behavioral health services through these means. Flexibilities occurred specifically with opioid use disorder and the elimination of the X-waiver for buprenorphine. Additional impacts of the pandemic on behavioral health include the initiation of a crisis number, 988. This phone number acts as a hotline for suicide and behavioral health crisis and can provide resources, referral and counseling services. Integration efforts have also become more common as schools, primary care and other healthcare services are working to achieve better accessibility for the population<sup>67.</sup>

<sup>67</sup> Nirmita Panchal et al., "The Implications of COVID-19 for Mental Health and Substance Use," (2023).

## PART VI - Region in Focus

## **Prevention Resources and Capacities**

Region 6 appears to have a vast number of coalitions and organizations aimed at alleviating the rate of substance use on the community as well as educating the public about its detrimental effects.

#### Substance Use/Misuse and Behavioral Health Community Coalitions

#### Bay Area Council on Drugs & Alcohol (BACODA)

The Bay Area Council on Drugs and Alcohol is a nonprofit organization that seeks to provide programming and psychoeducation for drug and alcohol misuse in the Bay Area. Services include crisis counseling, motivational counseling, assessment, and state mandated educational classes all of which are provided by licensed and certified professionals.

### Fort Bend Community Prevention Coalition

The Fort Bend Community Prevention Coalition (FBCPC) is a program within the Fort Bend Regional Council on Substance misuse. The FBCPC is comprised of members within the community that have various backgrounds, expertise and commitment to substance misuse programming. The focus of the FBCPC is to reduce access to substances, address factors related to substance misuse, and enact community changes.

#### Southeast Harris Community Coalition

The Southeast Harris Community Coalition (SEHCCC) is a program under BACODA. The purpose of the coalition is to prevent and reduce the impact of substance use on youth in the community. The community coalition is comprised of individuals from various sectors of the community, including businessmen, volunteer groups, religious leader, government employees, healthcare professionals, law enforcement, school officials, and many more. The Drug-Free Communities (DFC) Support Program is one of the main federally funded programs that provide grants to community coalitions to assist with their goals of reducing substance use.

### Community Programs and Services

#### Change Happens

Change Happens is a community development corporation that aides with construction and renovation of homes for families in underserved communities. These homes are priced in a range that is affordable to the families in these neighborhoods that they might not ordinarily be able to live.

#### The Turning Point Center

The Turning Point Center is a nonprofit organization that provides housing, food, clothing, and counseling services to homeless individuals aged 50 and above in the community. Individuals are referred to the center from local churches, hospitals, housing authorities, homeless shelters, and other agencies.

#### Texas A & M AgriLife Extension Service

The Texas A&M Agriculture Life Extension Service has been active since 1915. The service is meant to provide resources from universities to local areas. These resources include agriculture, natural resources, and healthcare. The service attempts to provide training, research, and programs to local communities in order to improve access to these resources.

#### Other State/Federally Funded Prevention

#### Federally Qualified Health Center

Federally Qualified Health Centers (FQHCs) are community organizations that provided health services to marginalized communities, such as uninsured individuals. The FQHCs provided work on a sliding scale fee based on family size and income and do not deny individuals service due to financial limitations. These centers receive funding from federal and state grants and donations in order to provide the community with services.

#### **SUD Treatment Providers**

#### Phoenix House

Phoenix House is an organization that provides outpatient substance misuse treatment, school-based prevention services, and community programming. Phoenix House uses strengths- and evidence-based treatment methods to address individual needs. They are located in Dallas, Austin, Houston, San Antonio, and Round Rock.

#### Santa Maria Hostel

Santa Maria Hostel is an organization that serves underserved women and children of Houston metropolitan areas with history of trauma, criminal justice involvement, and homelessness. These women typically are in a stage of recovery and experience co-occurring mental illnesses. Santa Maria Hostel is unique in that the organization served pregnant women and single mothers and their children. Services include substance use treatment, parenting skills, life skills, job skills, and case management.

#### **Houston Recovery Center**

The Houston Recovery Center is an institution that provides a short-term place for intoxicated individuals to sober themselves. The center serves as an alternative to jail or emergency departments. The center lowers court and jail costs as well as healthcare costs for the community and the individual. The Houston Recovery Center serves individuals of underserved populations through early intervention. Individuals are monitored, assessed for substance misuse, and provided community resources for recovery by peer recovery specialists. Clients are admitted voluntarily and referred by law enforcement, hospitals, emergency departments, and public areas (e.g., airports).

#### **MH Treatment Providers**

#### The Harris Center for Mental Health and Intellectual Developmental Disability (IDD)

The Harris Center for Mental Health and Intellectual Developmental Disability (IDD) is the largest mental health provider in Texas. The Harris Center provides mental and behavioral health services to community members though outpatient, residential, and telehealth methods. Their services include behavioral health services, intellectual and developmental disability services, crisis services, justice system services, outreach, and healthcare services.

#### The Menninger Clinic

The Menninger Clinic is a psychiatric hospital that provides inpatient and outpatient treatment to adults, young adults, adolescents, and children with severe mental illness and substance misuse. The Menninger Clinic is affiliated with Baylor College of Medicine and is a member of the Texas Medical Center. The clinic conducts clinical research in order to understand mental illness and identify effective treatments. Of note, the clinic is currently conducting a clinical trial investigating brain changes in adults with opioid use.

#### Tri- County Behavioral Healthcare

Tri- County Behavioral Healthcare is a community center that provides behavioral health services and mental health services. Tri-County has locations in Conroe, Cleveland, Huntsville, and Liberty. Tri-County serves adults, children, and adolescents. Tri-County has inpatient and outpatient programs focusing on psychosocial rehabilitation, skills training, crisis management, medication management, peer support, case management, supported housing, and supported employment.

#### **Healthcare Providers**

#### El Centro de Corazon

El Centro de Corazon is a FQHC and non-profit healthcare organization that provides healthcare to uninsured and underinsured individuals in the Houston area. The services offered include primary care, preventative care, dental services, women's health as well as behavioral health services (mental health, substance use, food insecurity, etc.). Additionally, El Centro offers programs through the community that focus on wellness, preventative screenings and has partnerships with healthcare organizations to ensure quality of care. The clinic has three locations located within the east side of Houston.

#### **HOPE Clinic**

HOPE Clinic is a community healthcare clinic and FQHC that was established by the Asian American Health Coalition. The HOPE clinic is a non-profit clinic that serves uninsured, underinsured, low-income, and limited English-speaking individuals. Services include primary care, specialty care, pediatrics, vision, behavioral health, and dental. The clinic has multiple locations in Aldine, Alief, West Chase, and Chinatown.

#### **YP Programs**

Youth Prevention (YP) programs are funded through the Texas Health and Human Services Commission. These programs provide prevention services for youth in the community and at school,

as well as serve parents of youth. These programs are established based on evidence-based curriculum endorsed by the Substance misuse and Mental Health Services Administration aimed at reducing risk of negative health outcomes. YP programs are divided into three main areas, including YP universal, YP selective, and YP indicated.

YP Universal (YPU) is programming that is generalized to all youth regardless of age. The YPU program in region 6 is the Life Skills program. This program is provided to youth in the 3<sup>rd</sup> to 5<sup>th</sup> grade and facilitated in a classroom setting. The Life Skills program aims to build social skills, self-esteem, coping skills, and resistance to pressure of substance use.

YP Selective (YPS) is programming that is offered to youth that are at a higher risk for substance use. The YPS program in region 6 is the All Stars Core program. The All Stars Core program is a research-based program that aims to delay the onset of problematic behaviors. These behaviors include alcohol use, tobacco use, marijuana use, opioid use, inhalant use, fighting, bullying, and early sexual behaviors. The All Stars Core program is administered to those in the 5th to 8th grade.

YP Indicated (YPI) is programming that is given to youth who have evidenced problematic behaviors and potential substance use. The YPS program in region 6 is the Youth Connection program, which is a part of the Curriculum Based Support Group (CBSG) program. CBSG is an evidence-based, manualized prevention program that provides coping, social, and substance misuse prevention skills in a group setting. The group is facilitated by a trained and certified CBSG program facilitator. The CBSG group can be provided in a school setting, community setting, or faith-based setting.

#### **Overview of Community Readiness**

The data coordinator for region 6 conducted interviews in 2022 with 17 individuals who the PRC region 6 staff work and collaborate with as a result of community level meetings. These individuals were representatives from each of the 12 community sectors defined by HHSC for the purpose of this project. The individuals were asked six semi-structured interview questions about their concern regarding substance use in the community, effect of substance use on the community, availability to resources within the community, and community needs. The data coordinator participated in eight regional epidemiology workgroup meetings with individuals from various sectors of the community. At the conclusion of each meeting, the attendants answered five questions regarding their community readiness. The key information from both sources are summarized below.

#### **Community Priorities**

The representatives believed the availability of treatment and recovery services was one of the best things region 6 had to offer. Highlighted organizations included Houston High Intensity Drug Trafficking Area, Celebrate Recovery, The Council on Recovery, Houston Recovery Initiative/Recovery Oriented Systems of Care, Alcohol Drug and Psychological Treatment (ADAPT), Adolescent Recovery Oriented Systems of Care, Lifespan Prevention Epidemiology Workgroup, Liberty County Family and Community Health Advisory Board, Behavioral Health Suicide Prevention Task Force, Fort Bend Regional Council, University of Texas School of Public Health, HEROES program, Integra program, Salvation Army, BeWell, Unitus network, STAR court, and Houston Crackdown. The representatives noted that specialty programs and trainings, such as harm reduction services, naloxone trainings, and recovery programs in high schools were beneficial to mitigating the risk of negative outcomes in the community. Next, media, such as documentary films, were highlighted as a positive addition to the community. Mental Health services emerged as significant factors in regards to community readiness for prevention and education. The representatives stated that organizations that provide sliding scale services or do not require insurance made a difference in terms of service utilization.

Telehealth methods increased the use of treatment for community members who otherwise would not be able to obtain such resources. Visibility of mental health awareness and openness in schools was an added benefit to community readiness to address the problems within the community. Similarly, the addition of mental health student organizations and clubs within schools helped to combat the stigma regarding mental illness. Finally, the availability and close proximity of hospitals within the Texas Medical Center and other areas in the region were an added benefit to those who require immediate medical attention as a result of substance use/misuse.

#### Opportunities for Prevention and Behavioral Health Promotion

The information from the interviews and workgroups highlighted multiple areas of improvement for prevention and healthcare. First, the use of various substances within region 6 remains high. Region 6 representatives appear to have concerns regarding increased fentanyl use (knowingly or unknowingly) leading to poisoning and overdose deaths. Additional substances noted within region 6 included alcohol, tobacco nicotine products, marijuana, prescription medication, crack cocaine, methamphetamines, cocaine, and vape pens. Second, the fact that substances are readily available to youth is a perpetuating factor for negative outcomes within the community. Substances are easily accessible through the mail and at school. Low prices of certain drugs are incentives for youth to continue to buy these products. The legalization of certain drugs and drug strands within the region have made them more accessible and normalized leading to increased substance use.

The representatives believed that more programming for substance misuse within the community was needed. This programming would consist of programming at schools and crisis intervention. Consistent with school programming, representatives identified school conditions (e.g., climate, culture, community) were related to factors that increased suicide risk, and should be addressed in programming. On the community level, representatives believed there was a need for more collaboration between agencies, including law enforcement, schools, mental health professionals, medical professionals, lawyers, EMTs, and faith-based communities. There was a need identified for more treatment programs, specifically aimed at adolescents and more funding for specialized programs. Other environmental factors included the home environment. Representatives believed there was a need for more education about the effect of their use and perceptions of use on the risk of youth use. Parental mental health was identified as an area that is frequently neglected during the process of substance use identification and treatment. Finally, representatives identified the lack of research and data regarding overdoses and lack of measurable outcomes for prevention as a hindrance to lowering rates of substance use.

Another major area that arose as a potential area of improvement was prevention and behavioral healthcare. The information from the interview and workgroups noted various barriers to treatment, including lack of transportation, lack of accessibility, limited providers, and limited availability of open spots at treatment centers, healthcare costs, lack of health insurance, and lack of knowledge about available resources. Representatives noted the need for recovery and treatment within rural communities in the region, which requires more outreach efforts to these areas. Many of the representatives discussed the need for more psychoeducation when it comes to substance use for school officials, law enforcement, medical professionals, and law enforcement. Topics included warning signs of substance misuse, harm reduction strategies, drug trafficking, use of naloxone, and use of medication assisted treatment/recovery. The representatives believed there needed to be a shift to focusing on person-centered and trauma-informed care for individuals with substance use disorders.

The representatives noted the negative social impact that people who have substance use disorders experience within the general community and health community. Stigma was highlighted as one of

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the most prominent problems for individuals within the community. This stigma appears to drive negative outcomes, such as shunning and poor employability. Therefore, it becomes difficult for people with substance use histories to rebuild their lives during the recovery period due to the stigma seen within the community. A way to minimize stigma and the negative affects therein, is with more psychoeducation about the onset, course, duration, and deleterious effects of substance use.

## PART VII – Putting it all Together

Adolescents and adults within the region appear to be consuming substances on a level lower than that of other regions and the state. However, there are areas of concern when it comes to the rates of use among 7th graders in the region. It appears for most of the substances, 7th grade current, lifetime, and past year use increased where the other grades mostly decreased. Notably, lifetime use rates had the most change in the high school grades. The decrease in lifetime use could be attributed to programming in schools and the community or the lack of acceptability of substance use among friends and family. However, these rates appear to remain higher than one would like for children aged as young as 12 years old. As with the aforementioned mild decrease in age of initiation, it might be time that the region develop school-based programming that is aimed at younger aged children. Further, there were notable increases for 8th grade prescription drug use and 11th grade marijuana and illicit drug use. It might benefit youth prevention programs to use more curriculums that target drug-specific use in order to decrease rates. It is possible that the current programs are too generalized and therefore not targeting substances that are not historically popular.

The rates of alcohol use remains high among college students, with marijuana and tobacco use following closely behind. College culture encourages dangerous rates of substance use that appears to be resistant to programming. The region as well as the state might benefit from more strict substance use laws and citations for individuals using substances on these campuses as well as reducing the availability of these substances in neighboring cities. Consequences of these relatively high rates of use are associated with the increased rates of overdose deaths and suicide in the community. There are initiatives focused on suicide and overdose rates; however, further awareness may prevent an avoidable death. With the emergence of fatal opioids such as fentanyl and xylazine, community as well as regional efforts to combat this are necessary. This can include NARCAN (Naloxone) training, prevention efforts within schools, or more community education regarding the impact of these drugs. Focusing on suicide rates is equally as important by educating families and loved ones on what to look for, training the community and providers on suicide intervention, and providing resources such as the crisis hotline to anyone who may need it.

Regarding risk and protective factors, Region 6 appears to have more room for improvement. There has been progress on reducing the rate of some of the prevalent risk factors. Region 6 saw a decline in societal level risk factors, such as unemployment rates, TANF cases, and homelessness. However, there was an increase in the rate of SNAP cases for the region and student homelessness in the largest county (Harris) in the region. It appears Region 6 would benefit from policy and programming aimed at economic factors that could likely influence the risk of negative health outcomes.

Community level risk factors followed the same trend, as some rates have improved and others have worsened. Notably, there was an increase in the rate of drug and alcohol offenses for juveniles from 2021 to 2022. This positive trend in crime rate presents as a major concern, as individuals who are involved in the criminal justice system are more likely to engage in substance use. It would be beneficial for more programming such as after-school, mentor, or sports programs to help monopolize adolescents' time so that they do not have availability to engage in crime.

The availability of substances within the community appears to be a major risk factor that has not been remedied. The number of alcohol and tobacco retailers has increased from 2020 to 2022. Region 6 has more alcohol retailers when compared to Texas as a whole. Liberty and Matagorda counties increased the most with the number of alcohol and tobacco retailers, respectively. Availability can also occur in the form of prescriptions. Region 6 as a whole as well as Texas had an increase in the number of Schedule II and IV prescriptions. Schedule II drugs have a high potential for misuse or dependence with examples being narcotics and fentanyl. A silver lining in regards to availability of substances is that the rate of students offered drugs on school property has

decreased. This decreased rate could be related to the available youth prevention programming that is abundant in the region. More programming provided to schools in rural areas would benefit the currently decreasing rates of use.

With respect to the home environment, it appears the rate of single-parent households remains moderate throughout the region, with the exception of Walker County which is much higher than the other counties. As we have learned from recent research, the effect of living in single-parent households on health outcomes varies. The rate of violent environments has decreased across the region as well as the rate of children in foster care in the last year. This appears to be more of a robust factor when examining the impact of the immediate environment on development and coping styles. The region is doing well with ameliorating any risk of future trauma based on these trends. Of note, the rate of parental depression increased across the region from 2018 to 2020. As these numbers are three years old, it could be that the pandemic was driving this trend and not necessarily environmental conditions. More recent data is needed to discuss the importance of parental mental health and the necessary resources needed to reduce these rates.

On the individual level, the rate of high school dropouts remains relatively steady from 2020 to 2021. Conversely, the rate of absenteeism increased across the region, with Harris County having the highest rate. This presents as a concern as most of adolescents' time is spent in school and on school property. If they are not attending school, it is more likely that they are engaging in delinquent behaviors that can be linked to substance use. More resources within the schools, such as resource officers and more attention to attendance paid by school officials is needed. Perhaps a program where student must be signed in or use identification cards to digitally be accounted for. Additionally, depression among adolescents appeared to increase drastically from 2017 to 2021. Again, this data is two years old, but it appears that youth might be experiencing a level of mental distress that does not relate directly to home environment. Taken with the low rates of school attendance, these results indicate a need for more resources for youth in the community who might be experiencing an internal dilemma driving their mental distress. Though adolescents appear to be becoming more depressed, they do not appear to be using substances as a coping skill as evidenced in the general decrease in use.

Considering the drastic increase in levels of depression and rates of death, there appears to be an obvious relation to behavioral health disparities spanning the region. The availability of resources appears to be a recurring problem within the region. There was an increase in the number of uninsured adolescents and adults in the region. More healthcare clinics that accept various health insurance or self-pay are needed, in addition to more affordable healthcare programs. Healthcare is directly linked to treatment utilization for individuals with a substance use or mental health disorder. If individuals do not have insurance, they are less likely to use these services leading to more adverse health outcomes. Region 6 depicted a much lower rate of treatment utilization compared to the state, and this trend continues to decrease as the years progress. Similar to the lack of healthcare use, is the lack of mental health providers in the region. Within region 6, we have a very poor ratio of population to mental health providers. Although most of the counties have slightly improved this number, Matagorda County appears to have worsened. The region would benefit from making behavioral health a prominent factor when it comes to funding and developing programs within the community through the various coalitions. Combining the initiative of substance use and mental health might help to alleviate these drastic disparities when it comes to substance use rates and mental health disorders.

Region 6 is doing well with respect to the protective factor of education. Most of the region appears to put education as a priority as most of the region have obtained at least a high school diploma.

Additionally, most of the counties have a 90% graduation rate which remains relatively steady from 2020 to 2021.

On the community level, there appear to be a number of social organizations within the region: however, that number appeared to slightly decrease within the region. This data does not appear to have the best validity as the number of available organizations does not directly correlate with engagement in said organization. Better data points and means of collecting data are needed to properly identify the impact of social association on substance use within the region. Similar to social association, the measure used to assess the construct of spirituality is flawed. The information from the US Religion Census indicated a high number of religious organizations in Colorado County, but a low number in Fort Bend County. The data from this dataset also highlighted "adherents," which was defined as people associated with the congregations. Though better than the number of religious organizations, this measure does not directly correlate to individual spirituality or religiosity. Just because there is a large number of churches in an area does not mean a large number of the population attends or commits to the principals within that religion. A better measure is needed to examine the association of spirituality on substance use within the region. Therefore, it is unclear whether these protective factors are actually contributing to the rates of substance use or lack thereof in the region. More data is needed as well as more concrete evidence-based protective factors for this specific region.

On the interpersonal level, student perceptions of parents and peers appear to mostly condemn the use of substance, which has a strong influence on the rates of substance use within the region. Many of the adolescents appear to have social networks that do not engage in substance use and have negative perceptions toward it, minimizing risk of engaging in substance misuse. Similarly, most of the adolescents in the region stated that substances are not easily accessible or visible at parties.

Overall, the mitigation of prominent risk factors appears to have a more significant impact on the rates of substance use and misuse than the protective factors within the region.

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## **Appendix**

## **Data Source Tables**

## Part II: Geographical Area and Community Demographics

**Table 1.** Region 6 county level identifiers

County	State	Region	FIPS Code	State FIPS	County NS	
Austin County	TX	6	48015	48	1383793	
Brazoria County	TX	6	48039	48	1383805	
Chambers County	TX	6	48071	48	1383821	
Colorado County	TX	6	48089	48	1383830	
Fort Bend County	TX	6	48157	48	1383864	
Galveston County	TX	6	48167	48	1383869	
Harris County	TX	6	48201	48	1383886	
Liberty County	TX	6	48291	48	1383931	
Matagorda County	TX	6	48321	48	1383943	
Montgomery County	TX	6	48339	48	1383955	
Walker County	TX	6	48471	48	1384021	
Waller County	TX	6	48473	48	1384022	
Wharton County	TX	6	48481	48	1384026	

Retrieved from U.S. Census Bureau – American Community Survey 5-Year Estimates (2021)

Table 2. Region 6 county by zip codes

County	Zip Codes
Austin	78944, 77452, 78950, 77418, 78931, 77474, 77473, 78933
Brazoria	77566, 77577, 77578, 77581, 77584, 77583, 77422, 77463, 77480,
	77486, 77510, 77512, 77511, 77515, 77531, 77534, 77541
Chambers	77580, 77523, 77597, 77661, 77560, 77617, 77514
Colorado	78943, 77412, 78951, 77442, 77460, 77470, 78934, 77475, 78935
Fort Bend	77406, 77417, 77420, 77430, 77435, 77441, 77444, 77451, 77459,
	77461, 77464, 77469, 77471, 77476, 77478, 77477, 77479, 77481,
	77485, 77489, 77496, 77494, 77407, 77498, 77545
Galveston	77568, 77574, 77573, 77591, 77590, 77592, 77517, 77623, 77518,
	77539, 77650, 77551, 77550, 77553, 77552, 77555, 77554, 77563,
Harris	77002, 77004, 77003, 77006, 77005, 77008, 77007, 77010, 77009,
	77012, 77011, 77014, 77013, 77016, 77015, 77018, 77017, 77020,
	77019, 77022, 77021, 77024, 77023, 77026, 77025, 77028, 77027,
	77030, 77029, 77032, 77031, 77034, 77033, 77036, 77035, 77038,
	77037, 77040, 77039, 77042, 77041, 77044, 77043, 77046, 77045,
	77048, 77047, 77050, 77049, 77051, 77054, 77053, 77056, 77055,
	77058, 77057, 77060, 77059, 77062, 77061, 77064, 77063, 77066,
	77065, 77068, 77067, 77070, 77069, 77072, 77071, 77074, 77073,
	77076, 77075, 77078, 77077, 77080, 77079, 77082, 77081, 77084,
	77083, 77086, 77085, 77088, 77087, 77090, 77089, 77092, 77091,
	77094, 77093, 77096, 77095, 77098, 77099, 77204, 77217, 77249,
	77248, 77251, 77266, 77268, 77271, 77284, 77289, 77336, 77339,

77338, 77345, 77346, 77357, 77373, 77375, 77377, 77379, 77383,
77389, 77388, 77396, 77401, 77410, 77429, 77433, 77447, 77450,
77449, 77484, 77493, 77503, 77502, 77505, 77504, 77507, 77506,
77521, 77520, 77530, 77532, 77536, 77546, 77547, 77562, 77571,
77586, 77587, 77598
77575, 77582, 77327, 77368, 77533, 77369, 77535, 77538, 77561,
77564
77482, 77404, 77483, 77415, 77414, 77456, 77458, 77457, 77419,
77428, 77465, 77468, 77440
77301, 77303, 77302, 77305, 77304, 77306, 77318, 77316, 77328,
77333, 77354, 77356, 77355, 77362, 77365, 77372, 77873, 77378,
77381, 77380, 77382, 77385, 77384, 77387, 77386
77320, 75852, 77367, 77334, 77341, 77340, 75862, 77343, 77831,
77342, 77349, 77358
77320, 75852, 77367, 77334, 77341, 77340, 75862, 77343, 77831,
77342, 77349, 77358
77448, 77454, 77488, 77453, 77455, 77467, 77432, 77434, 77436,
77437, 77443

**Table 3.** Total population estimates by county for 2021 5-year estimates

County	Estimate					
Austin	30,132					
Brazoria	368,575					
Chambers	45,257					
Colorado	20,559					
Fort Bend	806,497					
Galveston	347,084					
Harris	4,697,957					
Liberty	89,948					
Matagorda	36,323					
Montgomery	607,999					
Walker	76,506					
Waller	55,505					
Wharton	41,602					
Total	7,223,944					

Retrieved from U.S. Census Bureau – American Community Survey 5-Year Estimates (2021)

**Table 4.** Total population categorized by sex, age and county 2021 5-year estimates

	Female							Male						
	0 - 17 Years	18 - 24 Years	25 - 44 Years	45 - 64 Years	65+ Years	Total	0 - 17 Years	18 - 24 Years	25 - 44 Years	45 - 64 Years	65+ Years	Total		
Austin	3,388	1,128	3,287	4,070	3,064	14,937	3,791	1,225	3,402	3,944	2,833	15,195		
Brazoria	47,402	14,993	51,154	44,707	23,389	181,645	49,789	15,814	54,270	46,794	20,263	186,930		
Chambers	6,385	1,791	6,194	5,462	2,717	22,549	6,487	2,062	6,166	5,467	2,526	22,708		
Colorado	2,527	826	1,925	2,693	2,376	10,347	2,389	881	2,261	2,575	2,106	10,212		
Fort Bend	108,197	32,532	113,901	104,985	49,144	408,759	113,299	33,629	105,716	102,859	42,235	397,738		
Galveston	41,273	14,204	46,697	46,395	27,086	175,655	43,125	14,963	45,175	45,131	23,035	171,429		
Harris	615,670	212,989	701,989	550,390	275,481	2,356,519	639,211	219,631	716,011	542,788	223,797	2,341,438		
Liberty	12,003	3,709	12,792	10,812	6,052	45,368	12,576	4,231	11,569	10,932	5,272	44,580		
Matagorda	4,656	1,437	4,242	4,497	3,149	17,981	4,845	1,571	4,445	4,539	2,942	18,342		
Montgomery	78,534	24,626	80,825	78,514	43,186	305,685	81,649	25,349	80,026	78,581	36,709	302,314		
Walker	5,261	7,888	6,841	6,545	5,201	31,736	6,071	7,520	13,904	12,407	4,868	44,770		
Waller	6,587	5,777	6,082	5,934	3,446	27,826	6,938	4,997	6,895	5,779	3,070	27,679		
Wharton	5,229	1,851	5,031	4,992	3,811	20,914	5,698	2,022	4,810	4,922	3,236	20,688		
Region 6	937,112	323,751	1,040,960	869,996	448,102	3,619,921	975,868	333,895	1,054,650	866,718	372,892	3,604,023		

Retrieved from U.S. Census Bureau – American Community Survey 5-Year Estimates (2021)

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Reference Table for Figure 10. Total population by race (alone and in combination) by percentage for 2021 5-year estimates

Race	Austin	Brazoria	Chambers	Colorado	Fort Bend	Galveston	Harris	Liberty	Matagorda	Montgomery	Walker	Waller	Wharton
White	79.35%	72.22%	85.24%	70.36%	52.47%	81.06%	62.57%	80.89%	69.10%	87.37%	73.65%	60.19%	81.57%
Black	10.29%	15.80%	8.80%	13.87%	21.77%	13.94%	20.43%	9.87%	11.04%	6.39%	23.92%	24.80%	15.05%
American Indian and Alaska Native	0.82%	1.26%	0.80%	0.34%	1.19%	1.35%	1.28%	0.94%	1.00%	1.14%	0.72%	1.25%	0.18%
Asian	0.94%	7.67%	1.50%	0.74%	22.66%	4.16%	8.01%	0.78%	1.86%	4.05%	1.32%	1.63%	0.57%
Native Hawaiian and Pacific Islander	0.10%	0.12%	0.11%	0.00%	0.13%	0.16%	0.18%	0.03%	0.33%	0.14%	0.31%	0.04%	0.01%
Other	12.98%	12.15%	10.17%	17.33%	10.90%	8.97%	19.27%	16.66%	23.41%	9.83%	5.71%	18.45%	10.96%

Retrieved from U.S. Census Bureau – American Community Survey 5-Year Estimates (2021)

**Reference Table for Figure 11.** Total population by ethnicity for Region 6 counties combined 2021 5-year estimates

	Hispanic or Latino	Not Hispanic or Latino
American Indian and Alaska Native	21735	10608
Asian	5210	554413
Black or African American	27994	1211429
Native Hawaiian and Other Pacific Islander	594	3454
Other Race	582368	21373
Two or More Races	582676	159785
White	1505715	2536590

Retrieved from U.S. Census Bureau – American Community Survey 5-Year Estimates (2021)

 Table 5. Disability status for noninstitutionalized population 2021 5-year estimates

County	Total Population	Percent
Austin	29,896	14.10%
Brazoria	356,529	9.30%
Chambers	44,974	10.10%
Colorado	20,289	11.90%
Fort Bend	801,865	7.20%
Galveston	342,347	12.80%
Harris	4,674,380	9.60%
Liberty	83,578	16.20%
Matagorda	35,931	16.90%
Montgomery	605,525	9.60%
Walker	63,772	10.40%
Waller	55,336	10.30%
Wharton	41,300	14.90%
Region 6 Total	7,155,722	9.64%

Retrieved from U.S. Census Bureau – American Community Survey 5-Year Estimates (2021)

**Table 6.** Same sex households in Texas vs. United States (2021)

Area	Total house	eholds	Total same-sex households				Percent of same- sex households that are married households	
	Number	S.E.	Number	S.E	Percent	S.E.	Percent	S.E.
Texas	10,796,247	11,613	103,565	4,052	1.0	-	61.3	1.8
United States	127.544.730	59.351	1,209,462	9,376	0.9		58.8	0.5

Retrieved from U.S. Census Bureau - American Community Survey

Table 7. Limited English language proficiency (LEP) by county and percentage 2021 5-year estimates

County	Total Households	Total LEP	Percent LEP
Austin County	11,841	196	1.66%
Brazoria County	124,284	4,208	3.39%
Chambers County	14,905	305	2.05%

Colorado County	6,999	197	2.81%
Fort Bend County	259,106	14,457	5.58%
Galveston County	131,877	3,663	2.78%
Harris County	1,658,503	189,886	11.45%
Liberty County	27,688	1,279	4.62%
Matagorda County	13,686	946	6.91%
Montgomery County	214,328	6,827	3.19%
Walker County	23,780	459	1.93%
Waller County	17,286	1,084	6.27%
Wharton County	14,991	551	3.68%

Retrieved from U.S. Census Bureau – American Community Survey 5-Year Estimates (2021)

Part III: Risk Factors and Protective Factors

Reference Table for Figure 15. Income by county compared to Texas 2021 5-year estimates

County	Median HH Income
Texas	\$67,321
Austin	\$68,400
Brazoria	\$87,958
Chambers	\$93,707
Colorado	\$55,945
Fort Bend	\$102,590
Galveston	\$79,328
Harris	\$65,788
Liberty	\$53,871
Matagorda	\$48,566
Montgomery	\$88,597
Walker	\$44,104
Waller	\$65,379
Wharton	\$53,963
Region 6	\$69,861

Retrieved from U.S. Census Bureau – American Community Survey 5-Year Estimates (2021)

Reference Table for Figure 16. Unemployment rates (%) by county over three years (2020-2022)

County	2020	2021	2022
Austin	6.6%	5.5%	3.9%
Brazoria	8.6%	6.9%	4.5%
Chambers	9.4%	8.3%	5.3%
Colorado	5.6%	4.8%	3.5%
Fort Bend	7.6%	5.9%	3.9%
Galveston	8.8%	6.7%	4.4%
Harris	9.0%	6.5%	4.2%
Liberty	10.4%	9.2%	5.8%
Matagorda	10.5%	8.3%	5.9%
Montgomery	7.5%	5.8%	3.9%
Walker	7.2%	6.3%	4.7%
Waller	7.6%	6.4%	4.3%
Wharton	6.8%	5.7%	3.8%
Region 6	8.1%	6.6%	4.5%

Retrieved from the U.S. Bureau of Labor Statistics

**Reference Table for Figure 18 and 19.** Median TANF cases per 100 households per county for Region 6 2021 vs. 2022

County	2021	2022
Austin	0.04	0.02
Brazoria	0.06	0.03
Chambers	0.04	0.02
Colorado	0.05	0.04
Fort Bend	0.05	0.03
Galveston	0.09	0.06
Harris	0.08	0.05
Liberty	0.17	0.1
Matagorda	0.1	0.05
Montgomery	0.07	0.04
Walker	0.09	0.07
Waller	0.06	0.06
Wharton	0.09	0.07

Retrieved from Texas Health and Human Services – Temporary Assistance for Needy Families

**Reference Table for Figure 21 and 22. Median** SNAP cases per 100 households per county for Region 6 2021 vs. 2022

County	2021	2022
Austin	10.48	10.64
Brazoria	11.31	11.67
Chambers	10.41	10.87
Colorado	12.61	12.60
Fort Bend	9.43	9.68
Galveston	13.12	13.05
Harris	16.83	17.03
Liberty	22.85	25.00
Matagorda	19.18	20.23
Montgomery	9.40	9.86
Walker	13.30	13.68
Waller	14.22	15.12
Wharton	17.51	17.56

Retrieved from Texas Health and Human Services - Supplemental Nutritional Assistance Program (SNAP)

**Reference Table for Figure 23.** Eligibility for free/reduced lunch in percentage by county compared from 2020-2021 to 2021-2022

County Name [Public School]	2020-2021	2021-2022
Austin County	53%	54%
Brazoria County	51%	52%
Chambers County	34%	38%
Colorado County	63%	62%
Fort Bend County	39%	43%
Galveston County	49%	51%
Harris County	69%	70%
Liberty County	77%	77%
Matagorda County	72%	71%
Montgomery County	45%	46%
Walker County	57%	56%
Waller County	68%	68%
Wharton County	67%	69%

Retrieved from U.S. Department of Education - National Center for Education Statistics

Table 8. Student homeless rate per 1,000 for three years (2020-2023)

	2020 - 2021		2021	2021 - 2022		-2023
	Total Homeless	Homeless Rate per 1,000	Total Homeless	Homeless Rate per 1,000	Total Homeless	Homeless Rate per 1,000
Austin	36	6.2	23	4.0	52	8.7
Brazoria	943	13.1	848	11.6	866	11.6
Chambers	79	8.5	51	5.2	67	6.4
Colorado	75	21.5	60	16.9	31	8.6
Fort bend	847	7.1	972	7.8	1,089	8.4
Galveston	1,281	15.8	1,129	13.9	1,431	17.5
Harris	7,896	9.0	11,206	12.7	13,459	15.1
Liberty	325	16.1	294	13.1	381	16.2
Matagorda	105	15.1	112	15.9	104	14.7
Montgomery	697	6.0	743	6.1	645	5.1
Walker	283	22.9	196	11.7	315	24.4
Waller	137	11.7	116	9.2	99	7.6
Wharton	73	9.2	92	11.5	84	10.7
Region 6	12,777	12.5	15,842	10.8	18,623	11.9
Texas	57,580	10.7	61,362	11.3	71,639	13.0

Retrieved from Texas Education Agency

**Table for Figure 25.** Educational attainment by county for population 25 and older (2021)

	No High School	High School	Associates or	Graduate
	Diploma	Graduate	Bachelor's Degree	Degree
Austin	2,634	11789	4694	1,483
Brazoria	26,922	116956	69946	26,753
Chambers	3,019	16018	7265	2,230
Colorado	2,179	8038	2983	736
Fort Bend	46,630	185604	185548	101,058
Galveston	23,682	110931	73092	25,814
Harris	545,847	1270239	834152	360,218
Liberty	12,602	35856	7541	1,430
Matagorda	4,434	12980	4687	1,713
Montgomery	41,383	181539	127141	47,778
Walker	7,039	29557	9888	3,282
Waller	3,895	17897	6866	2,548
Wharton	5,219	14025	6043	1,515

Retrieved from United States Census Bureau

Reference Table for Figure 26. Juvenile arrest rates 2018-2022

Year	Drug and Alcohol Rate	Overall Rate
2018	381.66	1897.15
2019	244.69	1437.69
2020	120.18	991.48
2021	128.84	1059.31
2022	192.21	1399.9

Retrieved from Texas Department of Public Safety's Uniform Crime Reporting

Reference Table for Figure 27. Adult arrest rates 2018-2022

Region	Year	Violent Rate	Property Rate	Drug Rate	Alcohol Rate
6	2018	193.45	271.31	447.43	546.06
6	2019	225.21	257.86	337.92	543.5
6	2020	183.72	203.24	276.84	466.37
6	2021	161.24	196.55	311.46	450.18
6	2022	156.1	237.17	308.39	369.09

Retrieved from Texas Department of Public Safety's Uniform Crime Reporting

## Reference Table for Figure 28. Percentage of uninsured under age 19 by county from 2018 to 2020

	Austin	Brazoria	Chambers	Colorado	Fort Bend	Galveston	Harris	Liberty	Matagorda	Montgomery	Walker	Waller	Wharton
2018	12	10.7	9.9	14.7	8.1	10.5	12.3	11.8	13.1	10.8	10.5	14.6	14.5
2019	15.3	10.2	12.2	18.2	9.6	11.3	14.5	14.9	13.8	11.2	13.1	15.7	16.7
2020	14.4	8.5	10.5	15.6	10.9	8.6	12.7	12.8	13.6	11.2	9.5	16.8	15.5

Retrieved from US Census Bureau – Small Area Health Insurance Estimates

## Reference Table for Figure 29. Percentage of uninsured ages 19-64 by county from 2018 to 2020

	Austin	Brazoria	Chambers	Colorado	Fort Bend	Galveston	Harris	Liberty	Matagorda	Montgomery	Walker	Waller	Wharton
2018	23.13	19.16	17.70	24.75	15.68	20.38	27.22	26.57	25.26	20.91	22.80	27.29	27.57
2019	24.46	19.25	17.77	27.84	17.59	20.04	28.47	26.87	24.12	20.10	21.05	27.67	29.95
2020	24.98	17.22	15.73	26.92	17.39	18.64	26.71	28.76	27.03	19.72	20.04	27.98	28.81

Retrieved from US Census Bureau – Small Area Health Insurance Estimates

**Reference Table for Figure 30.** Alcohol retailers by county per 100,000 population from 2020-2022 compared to Texas

	2020	2021	2022
Austin	334.8	328.17	331.49
Brazoria	174.18	184.12	182.51
Chambers	240.49	246.93	212.58
Colorado	437.81	423.21	418.35
Fort bend	127.49	130.41	134.79
Galveston	273.75	283.45	282.31
Harris	212.74	218.57	217.9
Liberty	182.26	196.45	207.36
Matagorda	391.67	394.43	380.64
Montgomery	185.83	195.67	206.63
Walker	158.38	164.92	162.3
Waller	204.25	209.53	218.33
Wharton	324.75	307.91	298.29
Region 6	203.63	209.73	210.41
Texas	192.77	196.3	195.84

Retrieved from Texas Alcoholic Beverage Commission (TABC)

Reference Table for Figure 31. Tobacco retail density by county per 100,000 population from 2020-2022

	2020	2021	2022
Austin	172.37	202.21	328.17
Brazoria	96.50	110.21	187.62
Chambers	184.66	195.40	311.35
Colorado	248.09	262.68	408.62
Fort bend	67.33	78.64	136.61
Galveston	145.43	165.96	262.92
Harris	127.22	145.99	233.09
Liberty	158.25	178.98	306.67
Matagorda	231.69	264.79	394.43
Montgomery	102.67	113.63	192.93
Walker	112.57	125.65	218.59
Waller	146.14	160.23	241.22
Wharton	199.66	218.91	305.51
Region 6	153.28	171.02	271.36

Retrieved from Texas Comptroller referred to Data.Texas.Gov

Reference Table for Figure 32. Percentage of students offered drugs on school property for Texas for 2017, 2019. 2021

2010, 202	Percent
2017	26.7%
2019	27.6%
2021	17.4%

Retrieved from Texas Department of State Health Services - Center for Disease Control and Prevention, YRBSS

Table 9. Prescription drug monitoring program by drug schedule for Region 6 vs. Texas 2020-2022

	Region	6 Rates per 10	0,000	Texas Rates per 100,000			
	2020	2021	2022	2020	2021	2022	
2	38,860.37	40,428.23	42,183.56	41,572.75	43,207.23	45,318.61	
3	16,561.32	14,593.12	14,354.39	17,326.69	15,745.16	15,554.14	
4	48,801.21	45,200.03	43,511.89	54,935.96	51,513.69	49,556.51	
5	5,301.83	5,145.25	5,526.49	6,577.81	6,333.47	6,671.55	
*	303.40	164.64	175.02	229.35	123.30	138.88	

Retrieved from Texas Prescription Monitoring Program – Texas State Board of Pharmacy

**Reference Table for Figure 33.** Ratio (x=population: 1 provider) for mental health providers by county 2020 vs. 2023

County	2020 MH Ratio	F2023 MH Ratio
Austin	2999	2762
Brazoria	1487	1052
Chambers	3859	3759
Colorado	5304	4126
Fort Bend	1422	1047
Galveston	901	754
Harris	849	660
Liberty	5395	3905
Matagorda	2437	9645
Montgomery	1216	967
Walker	1812	1625
Waller	4427	4599
Wharton	2448	1987

Retrieved from Center for Medicare and Medicaid Services, National Provider Identification

Reference Table for Figure 34. Social association rate by county per 10,000 population 2021 - 2023

	2021	2022	2023
Austin	11.30	11.30	11.34
Brazoria	6.40	6.50	6.75
Chambers	5.40	4.80	4.61
Colorado	12.70	12.60	12.49
Fort Bend	4.70	4.70	4.70
Galveston	7.50	7.10	6.60
Harris	5.40	5.50	5.50
Liberty	8.60	8.20	8.00
Matagorda	8.10	8.10	13.10
Montgomery	5.80	5.90	5.70
Walker	6.60	6.30	6.40

Waller	5.80	4.70	4.50
Wharton	15.40	15.40	14.90

Retrieved from U.S Census Bureau - County Business Patterns

Reference Table for Figure 36. Percentage of single parent households by county 2021 5-Year estimates

County	Percentage
Austin	13.87%
Brazoria	16.38%
Chambers	13.12%
Colorado	15.34%
Fort Bend	13.61%
Galveston	19.42%
Harris	22.75%
Liberty	14.71%
Matagorda	26.15%
Montgomery	14.63%
Walker	30.09%
Waller	18.84%
Wharton	23.23%

Retrieved from U.S. Census Bureau – 2017 -2021 American Community Survey 5 Year Estimates

Reference Table for Figure 37. Family violence crime rate per county 2020-2022

County	2020	2021	2022
Austin	304.97	281.76	271.82
Brazoria	600.22	645.11	677.63
Chambers	594.79	536.81	551.85
Colorado	496.18	238.36	262.68
Fort bend	538.05	484.94	542.07
Galveston	1011.46	919.07	830.95
Harris	1039.01	874.78	824.9
Liberty	508.58	459.47	488.93
Matagorda	1114.33	1119.85	899.19
Montgomery	509.96	524.63	559.28
Walker	523.56	573.3	528.8
Waller	338.06	382.08	427.86
Wharton	916.53	680.78	745.73
Region 6	888.61	772.97	747.1
State	749.18	702.57	689.85

Retrieved from Texas Department of Safety's Uniform Crime Reporting Data Portal

**Table 10.** Victims of maltreatment (abuse and neglect) by county 2020-2022

		2020			2021			2022	
	Victims	Total Under 18 Population	Child Victim Rate (per 1000 children)	Victims	Total Under 18 Population	Child Victim Rate (per 1000 children)	Victims	Total Under 18 Population	Child Victim Rate (per 1000 children)
Austin	47	7,179	6.5	65	7,179	9.1	50	7,179	7.0
Brazoria	634	97,191	6.5	514	97,191	5.3	493	97,191	5.1
Chambers	56	12,872	4.4	75	12,872	5.8	54	12,872	4.2
Colorado	28	4,916	5.7	47	4,916	9.6	27	4,916	5.5
Fort Bend	498	221,496	2.2	527	221,496	2.4	535	221,496	2.4
Galveston	639	84,398	7.6	757	84,398	9.0	659	84,398	7.8
Harris	6,882	1,254,881	5.5	7,405	1,254,881	5.9	5,622	1,254,881	4.5
Liberty	187	24,579	7.6	253	24,579	10.3	162	24,579	6.6
Matagorda	142	9,501	14.9	115	9,501	12.1	103	9,501	10.8
Montgomery	826	160,183	5.2	950	160,183	5.9	982	160,183	6.1
Walker	58	11,332	5.1	86	11,332	7.6	72	11,332	6.4
Waller	55	13,525	4.1	79	13,525	5.8	63	13,525	4.7
Wharton	116	10,927	10.6	72	10,927	6.6	52	10,927	4.8

Retrieved from DFPS Data and Decision Support

Table 11. Children in foster care, number and percentage, for Region 6 total 2020-2022

Region 6	2020	2021	2022
Total in Foster Care	3,855	3,743	2,835
Total Population	1,872,318	1,872,318	1,872,318
%	0.21%	0.20%	0.15%

Retrieved from DFPS - CPS

Reference Table for Figure 38. Parental depression by percentage by county compared to Texas 2018 vs. 2020

County	2018	2020
Austin	13.8	15.8
Brazoria	12.3	14.5
Chambers	14	15.6
Colorado	14.3	16
Fort Bend	10.6	12.9
Galveston	13.6	15
Harris	12.7	14.5
Liberty	16	17.3
Matagorda	15	16.2
Montgomery	12.7	14.9
Walker	14.7	16.1
Waller	14.8	15.6
Wharton	15.1	16.4
Texas	12.3	13.3

Retrieved from Centers for Disease Control and Prevention (CDC)

**Reference Table for Figure 39.** Parent's disapproval of alcohol, tobacco and marijuana, all grade levels, Region 6 and 7 combined for 2022

Substance	Alcohol	Marijuana	Tobacco
Strongly Disapprove	54.80%	71.90%	74.70%
Mildly Disapprove	13.90%	7%	7.40%
Neither	14.80%	7.70%	5.60%
Mildly Approve	5.30%	1.70%	0.70%
Strongly Approve	1.10%	1.40%	0.08%
Do Not Know	10.10%	10.30%	10.80%

Retrieved from the Texas School Survey

**Reference Table for Figure 40.** Perceptions of peer use for alcohol, tobacco and marijuana, all grade levels, Regions 6 and 7 combined, for 2022

Substance	Alcohol	Marijuana	Tobacco
Never Heard of/None	60.80%	71%	82.50%
A Few Friends	18.50%	12.60%	10.90%
Some Friends	9.90%	7.10%	3.60%
Most Friends	7.90%	6.80%	2.30%
All Friends	2.80%	2.40%	0.70%

**Reference Table for Figure 41.** Perceived ease of access to alcohol, tobacco and marijuana, all grade levels, Region 6 and 7 combined, for 2022

Substance	Alcohol	Marijuana	Tobacco
Never Heard of It	33%	39%	40.10%
Impossible	12.80%	21.70%	20.10%
Very Difficult	5.90%	7.70%	7.50%
Somewhat Difficult	9.50%	7.60%	8.80%
Somewhat Easy	16.10%	10.10%	11.70%
Very Easy	23%	14%	12%

Retrieved from the Texas School Survey

**Reference Table for Figure 42.** Presence of a substance at parties, all grade levels, Region 6 and 7 combined vs. Texas, for 2022

Region	Region 6/7	Region 6/7	Texas	Texas
Substance	Marijuana	Alcohol	Marijuana	Alcohol
Never	66.20%	57%	66.80%	58.90%
Seldom	5%	5.20%	4.50%	5.20%
Half the Time	3.60%	4.50%	3.30%	4.10%
Most of the Time	4%	7.70%	3.80%	6.80%
Always	4.20%	8.30%	3.80%	7.40%
Do Not Know	1.60%	1.90%	1.90%	1.70%
Did Not Attend	15.40%	15.40%	15.90%	15.90%

Retrieved from the Texas School Survey

Reference Table for Figure 44. High school dropout rates 2020 v. 2021 by county

County	2020	2021
Austin	1.6	2.2
Brazoria	1.5	2.1
Chambers	0.9	0.2
Colorado	13.9	13.4
Fort bend	3.1	3.3
Galveston	3.6	4.1
Harris	7.3	6.9
Liberty	4.3	4.4
Matagorda	3.9	4
Montgomery	3.2	3
Walker	9.2	8.7
Waller	4.8	4.7
Wharton	2.2	2.2

Retrieved from Texas Education Agency

**Table 12.** Absenteeism by county & region 6 total for 2020-2021 v. 2021-2022

County	2020-2021	2021-2022
Austin	45,908	57,323
Brazoria	429,276	788,755

Chambers	63,290	93,306
Colorado	33,239	37,047
Fort bend	714,486	1,300,509
Galveston	703,384	1,042,644
Harris	7,863,192	11,510,587
Liberty	218,410	305,140
Matagorda	71,703	82,455
Montgomery	920,188	1,384,852
Walker	93,948	102,190
Waller	103,628	177,076
Wharton	83,602	95,626
Region 6 Total	11,344,252	16,977,507

Retrieved from Texas Education Agency

Reference Table for Figure 45. Percentage of Adolescent depression in Texas for 2017, 2019, 2021

Year	Adolescent Depression
2017	34.2%
2019	38.3%
2021	44.6%

Retrieved from the YRBSS

**Reference Table for Figure 46 and 47.** Perception of risk/harm for all grades (7-12), Region 6 and 7 combined, 2020 vs. 2022 for alcohol, electronic cigarettes/vaping, marijuana, RX drugs and tobacco

		2020						
			RX					
Substance	Alcohol	Cigarettes/Vaping	Marijuana	Drugs	Tobacco			
Very Dangerous	42.40%	57.20%	51.30%	70.40%	59.20%			
Somewhat Dangerous	33%	21.70%	14.90%	16.30%	26.50%			
Not Very Dangerous	17.50%	11.80%	16.60%	4.80%	7.20%			
Not at All Dangerous	2.90%	3.70%	11.80%	1.40%	1.60%			
Don't Know	4.20%	5.70%	5.30%	7.10%	5.50%			
		202	2					
		Electronic		RX				
Substance	Alcohol	Cigarettes/Vaping	Marijuana	Drugs	Tobacco			
Very Dangerous	47.70%	59.80%	57.60%	71.50%	63.40%			
Somewhat Dangerous	29.60%	19.20%	14.60%	13.50%	21.70%			
Not Very Dangerous	14.20%	9.70%	12.90%	3.10%	6.50%			
Tiot very burigerous								
Not at All Dangerous	2.90%	3.70%	8.50%	1.60%	1.50%			

Retrieved from Texas School Survey

**Reference Table for Figure 48.** Age of first use for alcohol, tobacco, marijuana and any illicit drugs, 2020 v. 2022, all grades (7-12) for Region 6 and 7 combined

Substance	2020	2022
Alcohol	12.8	12.9
Any Illicit Drug	13.9	13.8
Marijuana	14.1	14

Tobacco	13.3	13.1
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Reference Table for Figure 49. High school graduation rates by county 2020 vs. 2021

		6 6
County	2020	2021
Austin	97	97.1
Brazoria	95	94.7
Chambers	98.2	98.8
Colorado	68.7	73
Fort bend	94	93.8
Galveston	93.6	93.1
Harris	88.4	88.6
Liberty	92.7	93.2
Matagorda	93.6	93.3
Montgomery	93.9	94
Walker	83.1	84.3
Waller	92	89.7
Wharton	96.1	95.2

Retrieved from Texas Education Agency

Reference Table for Figure 50. Congregations per 100,000 population by county 2020

County	Congregations Per 100,000 Population		
Austin	202.2		
Brazoria	101.3		
Chambers	103.1		
Colorado	228.6		
Fort Bend	53.8		
Galveston	90.4		
Harris	72.2		
Liberty	150.6		
Matagorda	220.7		
Montgomery	67.9		
Walker	111.3		
Waller	114.4		
Wharton	197.3		

Retrieved from U.S. Religion Census (2020)

Reference Table for Figure 51. Adherents per 10,000 population by county 2020

County	Adherents per 10k population
Austin	6,121
Brazoria	5,716
Chambers	3,566

Colorado	6,043
Fort Bend	4,265
Galveston	4,482
Harris	5,872
Liberty	4,871
Matagorda	5,575
Montgomery	4,984
Walker	5,314
Waller	3,357
Wharton	7,332

Retrieved from U.S. Religion Census (2020)

Part IV: Patterns of Consumption

**Reference Table for Figures 52 and 53.** Consumption patterns for alcohol by grade level, Region 6 and 7 combined, for 2020 & 2022

combined, for 2020 & 202	_								
		2020 - ALCOHOL							
Grade Level	all	7	8	9	10	11	12		
Current/Past Month Use	28.40%	16.40%	20.90%	26.50%	31.90%	32.30%	48.60%		
Past School Year Use	34.80%	18.70%	23.90%	33.70%	40.80%	41.50%	57.60%		
Lifetime Use	55.30%	36.90%	44%	57.60%	63%	65.20%	72.20%		
Never Use	44.70%	63.10%	56%	42.40%	37%	34.80%	27.80%		
			20:	22 - ALCOH	HOL				
Grade Level	all	7	8	9	10	11	12		
Current/Past Month									
Use	25.20%	15.30%	17.20%	23%	26.40%	35.30%	37.10%		
Past School Year Use	29.20%	17.40%	20.10%	27%	29.90%	40.90%	43.30%		
Lifetime Use	44.60%	38.30%	36.80%	41.40%	42.70%	54.90%	55.90%		
Never Use	55.40%	61.70%	63.20%	58.60%	57.30%	45.10%	44.10%		

Retrieved from the Texas School Survey

Reference Table for Figures 54 and 55. Binge drinking by grade level, Region 6 and 7 combined, for 2020 & 2022

2022									
	2020 - BINGE DRINKING								
Grade Level	all	7	8	9	10	11	12		
Never/None	88.90%	95.80%	94.70%	91%	87.60%	85.70%	75.10%		
1 Day	4.40%	2.30%	2.10%	4.60%	6.10%	5.20%	7.40%		
2 Days	2.50%	0.70%	0.80%	1.40%	2.30%	5.20%	5.60%		
3 to 5 Days	2.30%	0.40%	1.30%	1.60%	2.10%	2.80%	6.80%		
6 to 9 Days	0.60%	0.20%	0.20%	0.60%	0.90%	0.20%	1.90%		
10+ Days	1.20%	0.70%	0.80%	0.80%	1%	0.90%	3.30%		
		2022 - BINGE DRINKING							
Grade Level	all	7	8	9	10	11	12		

Never/None	90.90%	97.10%	95.40%	92.10%	91.60%	86.20%	80.80%
1 Day	2.90%	0.50%	2.40%	2.60%	2.10%	4.70%	5.90%
2 Days	2.40%	0.80%	1.20%	2.50%	1.80%	3.20%	5.30%
3 to 5 Days	1.80%	0.40%	0.90%	1.60%	2%	2.50%	4.20%
6 to 9 Days	1%	0.40%	0%	0.70%	1.60%	1.50%	2%
10+ Days	1%	0.80%	0.10%	0.50%	0.90%	2%	1.90%

**Reference Table for Figures 56 and 57.** Consumption patterns for tobacco by grade level, Region 6 and 7 combined, for 2020 & 2022

	2020 - TOBACCO							
Grade Level	all	7	8	9	10	11	12	
Current/Past Month Use	15.70%	3.90%	8.20%	17%	20.10%	18.90%	31.40%	
Past School Year Use	19.70%	5.30%	10.40%	19.90%	26.90%	23.60%	38.70%	
Lifetime Use	32.60%	11.70%	21.30%	32.10%	42%	41.40%	55.60%	
Never Use	67.40%	88.30%	78.70%	67.90%	58%	58.60%	44.40%	
			20:	22 - TOBAC	cco			
Grade Level	all	7	8	9	10	11	12	
Current/Past Month Use	11.80%	4.90%	8.10%	9.30%	12.80%	16.40%	20.80%	
Past School Year Use	14.70%	6.20%	9.40%	13.70%	15.70%	21.80%	23.60%	
Lifetime Use	23.90%	13.50%	15.70%	26.20%	25.40%	32.10%	33.70%	
Never Use	76.10%	86.50%	84.30%	73.80%	74.60%	67.90%	66.30%	

Retrieved from the Texas School Survey

Reference Table for Figures 58 and 59. Consumption patterns for e-cigs/vaping by grade level, Region 6 and 7 combined, for 2020 & 2022

		2020 - ECIGS/VAPING							
Grade Level	all	7	8	9	10	11	12		
Current/Past Month									
Use	12.70%	2.50%	5.70%	12.60%	16.40%	15.80%	27.60%		
Past School Year Use	17.20%	4.10%	8.10%	16.80%	24.10%	21.10%	35.10%		
Lifetime Use	29.70%	9.50%	17.90%	29.80%	38.60%	39.10%	51.60%		
Never Use	70.30%	90.50%	82.10%	70.20%	61.40%	60.90%	48.40%		
			2022 -	- ECIGS/VA	PINGS				
Grade Level	all	7	8	9	10	11	12		
Current/Past Month									
Use	9.10%	3.50%	5.80%	6.90%	9.60%	12.90%	17.50%		
Past School Year Use	12.50%	4.90%	7.70%	12.10%	12.50%	19.10%	20.80%		
Lifetime Use	21.10%	9.70%	14.20%	22.40%	22.40%	29.40%	31.50%		
Never Use	78.90%	90.30%	85.80%	77.60%	77.60%	70.60%	68.50%		

Retrieved from the Texas School Survey

**Reference Table for Figures 60 and 61.** Consumption patterns for marijuana by grade level, Region 6 and 7 combined, for 2020 & 2022

		2020 - MARIJUANA					
Grade Level	all	7	8	9	10	11	12
Current/Past Month							
Use	14.60%	4.10%	7.20%	13.90%	17.10%	18.60%	31.90%
Past School Year Use	17.70%	5%	8.40%	16.30%	21.30%	23.40%	37.90%
Lifetime Use	24%	6%	13%	20%	30.80%	31.80%	51.10%
Never Use	76%	94%	87%	80%	69.20%	68.20%	48.90%
			202	22 - MARIJI	JANA		
Grade Level	all	7	8	9	10	11	12
Current/Past Month							
Use	11.80%	4.30%	5%	8.30%	13.90%	19.80%	21.80%
Past School Year Use	14.60%	5.70%	6.70%	10.30%	17%	23.90%	26.30%
Lifetime Use	18.80%	6.80%	9%	15.70%	22.80%	28.70%	33.20%
Never Use	81.20%	93.20%	91%	84.30%	77.20%	71.30%	66.80%

**Reference Table for Figure 62 and 63.** Consumption patterns for RX drugs by grade level, region 6 and 7 combined, for 2020 & 2022

combined, for 2020 & 202							
			2020	- ANY RX	DRUG		
Grade Level	all	7	8	9	10	11	12
Current/Past Month							
Use	6.20%	3.90%	5.70%	7.40%	6.10%	6.50%	7.90%
Past School Year Use	9.30%	6.70%	8.60%	10.10%	10.80%	9%	11.80%
Lifetime Use	18.20%	12.30%	16.40%	18.50%	19.10%	19.40%	25.70%
Never Use	81.80%	87.70%	83.60%	81.50%	80.90%	80.60%	74.30%
		2022 - ANY RX DRUG					
Grade Level	all	7	8	9	10	11	12
Current/Past Month							
Use	5.70%	5.90%	7.20%	5.10%	4.10%	5.60%	6%
Past School Year Use	7.60%	8%	9%	7.20%	4.20%	8.60%	8.60%
Lifetime Use	13.90%	12.30%	14.50%	12.10%	11.10%	16.80%	16.80%
Never Use	86.10%	87.70%	85.50%	87.90%	88.90%	83.20%	83.20%

Retrieved from the Texas School Survey

**Reference Table for Figure 64 and 65.** Consumption patterns for illicit drugs by grade level, region 6 and 7 combined, for 2020 & 2022

		2020 - ANY ILLICIT DRUG					
Grade Level	all	7	8	9	10	11	12
Current/Past Month							
Use	15%	4.80%	7.80%	14.10%	17.10%	18.90%	32.40%
Past School Year Use	19.70%	6.50%	10.50%	18.70%	23.10%	25.50%	40.10%
Lifetime Use	25.80%	7.70%	15.40%	21.80%	32.90%	32.70%	53.10%
Never Use	74.20%	92.30%	84.60%	78.20%	67.10%	67.30%	46.90%
		2022 - ANY ILLICIT DRUG					
Grade Level	all	7	8	9	10	11	12
Current/Past Month							
Use	13%	5.50%	5.50%	11.10%	15.30%	20.50%	22.30%
Past School Year Use	17.30%	8.30%	9.20%	15.30%	20.60%	24.70%	28.10%
Lifetime Use	21.70%	10.50%	11.60%	20.60%	26.30%	29.90%	34.60%
Never Use	78.30%	89.50%	88.40%	79.40%	73.70%	70.10%	65.40%

**Reference Table for Figure 66.** College student consumption by substance, lifetime use vs. past 30 days for Texas, 2021

Drug	Past-30 Days Use	Lifetime Use
Alcohol	50.80%	73.20%
Tobacco	17.40%	39.90%
Inhalants	0.40%	2.50%
DXM	0.50%	4.40%
Marijuana	15.30%	37.70%
Synthetic Marijuana	0.10%	2.40%
Cocaine	0.80%	5.10%
Stimulants	0.90%	3.20%
Sedatives	1.50%	7.40%
Hallucinogens	1.80%	10.70%
Heroin	0.00%	0.60%
Other Narcotics	0.40%	4.80%
Steroids	0.10%	0.70%
Bath Salts	0.00%	0.50%
MDMA	0.30%	4.90%

Retrieved from the Texas College Survey of Substance Use

**Reference Table for Figure 67.** Percentage of adult substance use for smoking, binge drinking and current use of alcohol for 2020 vs. 2021

SUD Type	2020	2021
Current Use - Alcohol	51.0%	51.9%
Binge Drinking	16.8%	16.9%
Smoking	13.2%	13.1%

Part V: Public Health and Public Safety

Reference Table for Figure 68. Overdose death rate per 100,000 population for region 6 trending 2018-2022

Year	Total Rate per 100,000
2018	12.04
2019	13.18
2020	18.22
2021	21.38
2022	21.06

Retrieved from Texas Death Certificate Data, TX Department of State Health Services

Reference Table for Figure 69. Suicide rate per 100,000 population for region 6 trending 2018-2022

Year	Age 15-24	All Ages
2018	11.35	11.94
2019	12.33	12.41
2020	13.02	13.11
2021	14.58	13.49
2022	16.93	14.40

Retrieved from Texas Death Certificate Data, TX Department of State Health Services

Reference Table for Figure 70. Alcohol related vehicular fatalities per 100,000 for Region 6 2020-2022

Year	Rate
2020	3.55
2021	4.62
2022	3.88

Retrieved from Texas Department of Transportation

**Reference Table for Figure 71.** All individuals receiving SUD treatment rate per 100,000 Region 6 vs. Texas, 2018-2022

Year	Region 6	Texas
2018	359.6	411.06
2019	338.8	417.33
2020	290.2	390.00
2021	225.9	348.33
2022	212.3	340.98

Retrieved from Texas Health and Human Services Commission

**Reference Table for Figures 72 and 73.** Economic impact – Healthcare spend by substance and overall costs by substance

Substance	Healthcare	Overall
Tobacco	168	300
Alcohol	27	249
Illicit Drugs	11	193
Prescription Opioids	26	78.5

Retrieved from NIDA

## **Glossary of Terms**

Glossary of Helpful Terms and Definitions

nossary of Heipful Terms and Definitions		
ACES	Adverse Childhood Experiences. Potentially traumatic events that occur in childhood (0-17 years) such as experiencing violence, abuse, or neglect; witnessing violence in the home; and having a family member attempt or die by suicide. Also included are aspects of the child's environment that can undermine their sense of safety, stability, and bonding such as growing up in a household with substance use, mental health problems, or instability due to parental separation or incarceration of a parent, sibling, or other member of the household.  May also refer to adverse community experiences – such as concentrated poverty, segregation from opportunity, and community violence – contribute to community trauma, which can exacerbate adverse childhood experiences (ACEs).  Please see the beginning the report for more information on ACEs.	
Adolescent	An individual ranging between the ages of 10 and 20 years depending on what health organization you reference. For a more in-depth description and definition, see the "Adolescence" section in "Key Concepts" in the beginning of the RNA.	
ATOD	Acronym for alcohol, tobacco, and other drugs.	
BRFSS	Behavioral Risk Factor Surveillance System. Health-related telephone survey that collects state data about U.S. residents regarding their health-related behaviors, chronic health conditions, and use of preventive services.	
Counterfeit Drug	A medication or pharmaceutical item which is fraudulently produced and/or mislabeled then sold with the intent to deceptively represent its origin, authenticity, or effectiveness. Counterfeit drugs include drugs that contain no active pharmaceutical ingredient (API), an incorrect	

	amount of API, an inferior-quality API, a wrong API, contaminants, or repackaged expired products.
DSHS	The Texas Department of State Health Services. The agency's mission is to improve the health, safety, and well-being of Texans through good stewardship of public resources and a focus on core public health functions.
Drug	A medicine or other substance which has a physiological and/or psychological effect when ingested or otherwise introduced into the body. Drugs can affect how the brain and the rest of the body work and cause changes in mood, awareness, thoughts, feelings, or behavior.
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. The primary purpose is to gain insight to assist in future change.
HHS	The United States Health and Human Services. The mission of the U.S. Department of Health and Human Services is to enhance the health and well-being of all Americans, by providing for effective health and human services and by fostering sound, sustained advances in the sciences underlying medicine, public health, and social services.
Incidence	The proportion, rate, or frequency of new occurrences of a disease, crime, or something else undesirable. In the case of substance use, it is a measure of the risk for new substance use behaviors and new substance use disorder cases within a community.
LGBTQIA+	An inclusive term referring to people of marginalized gender identities and sexual orientations and their allies. Examples include lesbian, gay, bisexual, transgender, non-

	binary, genderqueer, questioning, queer, intersex, asexual, demisexual, and pansexual.
Justice-Impacted	Justice-impacted individuals include those who have been incarcerated or detained in a prison, immigration detention center, local jail, juvenile detention center, or any other carceral setting, those who have been convicted but not incarcerated, those who have been charged but not convicted, and those who have been arrested.
MAT/MOUD	Medication-Assisted Treatment. The use of medications, in combination with counseling and behavioral therapies, to provide a "whole patient" approach to the treatment of substance use disorders.
Neurotoxin	Synthetic or naturally occurring substances that damage, destroy, or impair nerve tissue and the function of the nervous system. They inhibit communication between neurons across a synapse.
Person-Centered Language or Person-First Language	Language that puts people first. A person's identity and self-image are closely linked to the words used to describe them. Using person-centered language is about respecting the dignity, worth, unique qualities, and strengths of every individual. It reinforces the idea that people are more than their substance use disorder, mental illness, or disability.  Please note: some people do prefer the use of language that is not person-centered to self-identify, e.g., in Alcoholics Anonymous (AA) and Narcotics Anonymous (NA), some people prefer to self-identify as an "addict" rather than a "person with addiction" even though this is not person-centered language. It is best practice to use the language that a person asks you to use when referring to them.
PRC	Prevention Resource Center. Prevention Resource Centers provide information about substance use to the general community and help track substance use problems. They provide trainings, support community programs and tobacco prevention activities, and connect people with community resources related to substance use. The

	beginning of the RNA includes significantly more details on the purpose and functions of the PRCs.
Prevalence	The current proportion, rate, or frequency of a disease, crime, or other event or health state with a given community. In the case of substance use, it refers to the current rates of substance use, and the current rate of substance use disorders within a given community.
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.
Recovery	A process of change through which individuals struggling with behavioral health challenges improve their health and wellness, live a self-directed life, and strive to reach their full potential.
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.
Self-Directed Violence	Anything a person does intentionally that can cause injury to self, including death.
SPF	Strategic Prevention Framework. SPF is a model created by the Substance misuse and Mental Health Services Administration (SAMHSA) to assist communities with implementing effective plans to prevent substance use. The idea behind the SPF is to use findings from public health research and community assessment, such as this RNA, along with evidence-based prevention programs to build a robust and sustainable prevention system. This, in turn, promotes resilience and decreases risk factors in individuals, families, and communities. More information can be found here:  https://www.samhsa.gov/sites/default/files/20190620-samhsa-strategic-prevention-framework-guide.pdf

Stigma	The stigma of substance use—the mark of disgrace or infamy associated with the disease—stems from behavioral symptoms and aspects of substance use disorder. The concept of stigma describes the powerful, negative perceptions commonly associated with substance use and misuse. Stigma has the potential to negatively affect a person's self-esteem, damage relationships with loved ones, and prevent those suffering from substance use and misuse from accessing treatment.
SDoH	Social Determinants of Health. These refer to the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. See the beginning of the RNA for more details.
Substance misuse	When substance use adversely affects the health of an individual or when the use of a substance imposes social and personal costs.  Please note: This is an antiquated term that should be avoided as it contributes to the stigma surrounding substance use and substance use disorders. The term "abuse" has been found to have a high association with negative judgments and punishment and can prevent people seeking treatment. More information can be found here: <a href="https://nida.nih.gov/research-topics/addiction-science/words-matter-preferred-language-talking-about-addiction">https://nida.nih.gov/research-topics/addiction-science/words-matter-preferred-language-talking-about-addiction</a>
Substance Dependence	An adaptive biological and psychological state that develops from repeated drug administration, and which results in withdrawal upon cessation of substance use.
Substance Misuse or Non-Medical Substance Use	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 any drugs such as prescription medications, alcohol, tobacco, and other illicit drugs. Substance use is an inclusive, umbrella term that includes everything from an occasional glass of wine with dinner or the legal use of prescription medication as directed by a doctor all the way to use that causes harm and becomes a substance use disorder (SUD).
SUD	Substance Use Disorder. A condition in which there is uncontrolled use of a substance despite harmful consequences. SUDs occur when the recurrent use of alcohol and/or drugs causes clinically significant impairment, including health problems, disability, and failure to meet major responsibilities at work, school, or home.
Telehealth	The use of electronic information and telecommunications technologies to support and promote long-distance clinical health care, patient and professional health-related education, public health, and health administration. Technologies include videoconferencing, the internet, store-and-forward imaging, streaming media, and terrestrial and wireless communications.
TCS	Texas College Survey of Substance Use. A survey that collects self-reported data related to alcohol and drug use, mental health status, risk behaviors, and perceived attitudes and beliefs among college students in Texas. More information on the TCS can be found in the beginning of the RNA.
TSS	Texas School Survey of Drug and Alcohol Use. A survey that collects self-reported data on tobacco, alcohol, and other substance use among students in grades 7 through 12 in Texas public schools. More information on TSS can be found in the beginning of the RNA.
YRBS	Youth Risk Behavior Surveillance Survey. an American biennial survey of adolescent health risk and health protective behaviors such as smoking, drinking, drug use, diet, and physical activity conducted by the Centers for

Disease Control and Prevention. It surveys students in grades 9–12.