Meadows Mental Health Policy Institute

Meadows Institute | Panhandle – Texas Panhandle Data Book | December 2024

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Contents

Executive Summary

Purpose and Context

The Texas Panhandle—a region characterized by its unique geography, culture, and economy—faces significant public health challenges, particularly in the realms of mental health and substance use. This data book provides a comprehensive summary of the behavioral health landscape in the Panhandle region.

Key Findings

Trends identified in this summary include:

- Deaths from suicide among Panhandle residents doubled between 2000 and 2022 (Figure 2).
- Following a spike in the rate of deaths from suicide in 2022, a small decline in the suicide rate was observed in 2023.[1] That said, the data still represents an increase of nearly 70% compared to 2000.
- The rate of deaths from suicide in the Panhandle region is considerably higher than the rate in Texas overall.
- The rate of deaths from drug overdose or accidental poisoning nearly tripled between 2000 and 2023.[2] Most of these deaths (76%) were in Randall and Potter Counties despite only representing 60% of the Panhandle population.
- The Panhandle region has fewer providers per resident than the statewide average for nearly all provider types (Table 14).[3]
- A smaller proportion of the population [youth with serious emotional disturbances (SED) and adults with severe mental illness (SMI) living in poverty; Table 6 and Table 10] were served by Texas Panhandle Centers compared to statewide.
- 40% of children and youth and 35% of adults received a level of care different from the assessed level of care in fiscal year (FY) 2023 (Table 13 and Table 12).
- More than 75% of children and youth were initially recommended for complex services (LOC3) but received a lower level of care. While 192 adults were recommended for assertive community treatment (ACT), only 25 of those adults received ACT (Table 11). Deviation may be due to patient preference, clinical recommendation, and/or capacity. This indicates a need for increased capacity to serve both children and youth and adults in higher levels of care.

[1] Provisional data are preliminary data that may not yet be complete. These data are subject to change as information continues to be collected and analyzed and may differ from the final counts released in late 2024.
[2] Most of this growth was in the last five years, rising from 10.3 per 100,000 in 2018 to 14.5 per 100,000 in 2023.
[3] The greatest shortages were observed among licensed psychiatrists, psychologists, chemical dependency counselors, and licensed marriage and family therapists. The number of providers available per resident in the Panhandle region was roughly equal to those available statewide for licensed clinical social workers, licensed professional counselors, and psychiatric/substance use registered nurses.

- Nearly 500 adults were assessed as ineligible but received services. Texas Panhandle Centers prioritizes creating access when capacity is available to all individuals in need of care based on level of functional impairment.
- Data indicates that Panhandle residents have sufficient licensed, inpatient psychiatric beds available locally to serve resident needs (Table 16). However, an average of nearly 175 Panhandle adult residents and 50 Panhandle child/youth residents per year must receive inpatient treatment outside the region traveling up to 300 miles from home. Additionally, Panhandle residents currently lack local access to state hospital beds, and, more specifically, forensic state hospital beds.

Summary

We have identified higher rates of death from suicide and drug overdose in the Panhandle compared to statewide rates and lower rates of residents with SMI and SED in poverty receiving care from Texas Panhandle Centers compared to the statewide average for local mental health authorities. Texas Panhandle Centers may also require additional capacity to serve residents in higher levels of care. In addition, an expanded workforce is needed to meet capacity needs. Finally, while the Texas Panhandle region appears to have sufficient licensed, inpatient psychiatric capacity to serve residents, the data reflecting over 200 residents displaced from the region for treatment indicates considerable barriers to access for some populations. Notably, 22% of adults receiving treatment outside of the region were placed in state hospital beds suggesting a need for long-term, high acuity treatment options.

Introduction

As part of Meadows Institute – Panhandle's regional behavioral health improvement efforts, this report establishes a firm foundation for understanding current population characteristics and system usage and flow. With the insight this data book provides, we will work with the Panhandle community to develop programmatic strategy, resource identification, potential policy focus areas, and exciting innovation opportunities for the region. Analytics for this data book were completed by the Meadows Institute's Research, Data & Analytics Team in summer and fall 2024 and finalized results will be shared in January 2025.

The Texas Panhandle—a region characterized by its unique geography, culture, and economy—faces significant public health challenges, particularly in the realms of mental health and substance use. This data book aims to provide Meadows Institute – Panhandle funding partners and the behavioral health provider community a comprehensive analysis of the behavioral health landscape in the Panhandle region, including the prevalence of mental illness and substance use disorders among its residents. By examining inpatient psychiatric hospital utilization trends, this report also highlights the health care system's response to the demand for mental health services.

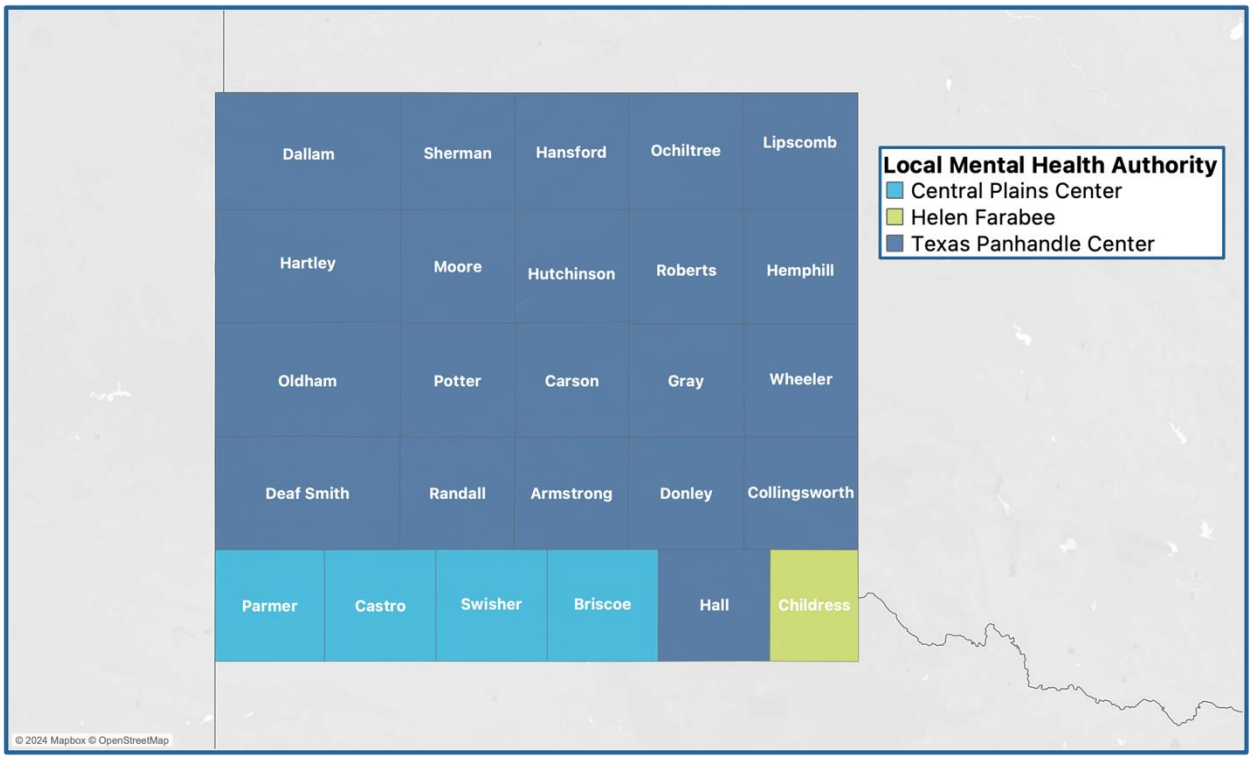
Additionally, insights from the local mental health authority (LMHA), Texas Panhandle Centers, on the usage of behavioral health services provide a clearer picture of the available support systems in addressing the population's needs. Furthermore, this data book analyzes the number of behavioral health providers in the region, offering valuable insight into the availability of mental health resources for Panhandle residents.

Texas Panhandle Region Description

The Texas Panhandle region consists of the following 26 counties: Dallam, Sherman, Hansford, Ochiltree, Lipscomb, Hartley, Moore, Hutchinson, Roberts, Hemphill, Oldham, Potter, Carson, Gray, Wheeler, Deaf Smith, Randall, Armstrong, Donley, Collingsworth, Parmer, Castro, Swisher, Briscoe, Hall, and Childress Counties.

Figure 1 displays the 26 Panhandle counties three LMHAs serve, including Texas Panhandle Centers (21 counties), Central Plains Center (four counties), and Helen Farabee (one county), with only part of the Central Plains Center and Helen Farabee service areas located within the Panhandle region.

Figure 1: Counties in the Texas Panhandle by Local Mental Health Authority[4]



Children and Youth (Ages 6-17)

Demographics

In Table 1, we present detailed 2022 population estimates of children and youth (6-17) living in the Panhandle region. Among the estimated 80,000 children and youth living in the region in 2022, the population was evenly divided between children (6-11) and youth (12-17), and there were slightly more males (41,000) than females (38,000). Most children and youth were Hispanic or Latino (45%) or non-Hispanic White (43%). Approximately 16,000 children and youth spoke Spanish at home, reflecting the substantial population of Hispanic and Latino families with potentially limited English proficiency.

[4] Central Plains Center service area also includes the following counties not in the Texas Panhandle region: Bailey, Lamb, Hale, Floyd, and Motley Counties. Helen Farabee service area also includes the following counties not included in the Texas Panhandle region: Cottle, Dickens, King, Stonewall, Hardeman, Foard, Knox, Haskell, Wilbarger, Baylor, Throckmorton, Wichita, Archer, Young, Clay, Jack, Montague, and Wise Counties.

Approximately 33,000 children and youth (41%) lived below 200% of the federal poverty level in 2022. Despite this, most (88%) had health insurance, with 37% enrolled in public coverage and 66% in private coverage.[5]

Table 1: Demographic Characteristics of Panhandle Children and Youth (2022)[6,7]

	Entire Panhandle
Children and Youth Ages 6-17	80,000
Age	
Ages 6–11	39,000
Ages 12–17	40,000
Sex	
Male	41,000
Female	38,000
Race/Ethnicity	
Non-Hispanic White	34,000
African American	4,100
Asian American	2,200
Native American	150
Multiple Races	2,400
Hispanic or Latino	36,000
Health Insurance[8]	
No Health Insurance	9,000
Any Health Insurance	70,000
Private Health Insurance	66%
Public Health Insurance	37%
Medicaid or Other Government Assistance Plans	*96%*
Language Spoken at Home	
Spanish Spoken at Home	16,000
Poverty	
Living in Poverty[9]	33,000

[5] Children and youth may be eligible for both private and public health insurance coverage, allowing for a more comprehensive approach to accessing health care services

[6] U.S. Census Bureau. (2023, December). American Community Survey 2018-2022 5-year data release. https://www.census.gov/data/developers/data-sets/acs-5year.2022.html

[7] All Texas population estimates are rounded to reflect uncertainty in the underlying American Community Survey estimates. Because of this rounding, row or column totals may not equal the sum of their rounded counterparts, and percentages may not always add up to 100%.

[8] In the U.S., individuals can have both public and private health insurance at the same time. For example, someone might have Medicare and also an employer-sponsored plan or Medicaid with private insurance. The two plans work together to provide broader coverage.

[9] "In poverty" refers to the estimated number of people living below 200% of the federal poverty level for the region. Poverty data obtained from the U.S. Census Bureau. (2023, December). Previously cited.

Mental Health and Substance Use Disorder Prevalence

The Meadows Institute uses community-level sociodemographic information and applies rigorously researched epidemiological data to estimate mental health needs. All prevalence estimates in this narrative are for the calendar year 2022 unless otherwise noted. Please see **Appendix B: Prevalence Estimation Methodology** for additional information on our proprietary prevalence estimation method**.**

The following section details the prevalence of mental illness and substance use disorders (SUD) among children and youth in the entire Texas Panhandle region. Additional breakouts of behavioral health prevalence among children and youth by LMHA and the top five most populous counties (Randall, Potter, Moore, Gray, and Hutchinson Counties) are available in **Appendix A: Supplemental Prevalence and Utilization Data.**

Table 2 shows our 12-month prevalence estimates of mental health needs and specific conditions for children and youth in the region in 2022. We estimate that 30,000 of the 80,000 children and youth in the region have a mental health need. Most (80%) of these children and youth had mild or moderate conditions that providers can often treat in an integrated primary care setting. However, approximately 6,000 children and youth had a serious emotional disturbance (SED) and may require intensive mental health services. Nearly 50% of those with SED were living in poverty.

We estimate that common disorders among children and youth include ADHD (11% of children; 14% of youth), anxiety (8% of children; 13% of youth), and depression (2% of children; 8% of youth). For more severe disorders, we estimate that 900 youth had bipolar disorder, and 50 youth had schizophrenia.

Table 2: Twelve-Month Mental Health Prevalence Among Panhandle Children and Youth (2022)[10,11]

	Age Range	Entire Panhandle
Total Population	**6–17**	**80,000**
Children Population	6–11	39,000
Youth Population	12–17	40,000

[10] Population data from U.S. Census Bureau. (2023, December). Previously cited.
[11] All Texas population estimates are rounded to reflect uncertainty in the underlying American Community Survey estimates. Because of this rounding, row or column totals may not equal the sum of their rounded counterparts, and percentages may not always add up to 100%.

	Age Range	Entire Panhandle
All Mental Health Needs (Mild, Moderate, and SED)	**6–17**	**30,000**
Mild Conditions[12]	6–17	17,000
Moderate Conditions[13]	6–17	7,000
Serious Emotional Disturbance (SED)[14]	6–17	6,000
SED in Poverty[15]	6–17	2,900
At Risk of Out-of-Home/Out-of-School Placement[16]	6–17	300
Adverse Childhood Experiences (ACEs)[17]		
Population with 1 ACE	6–17	21,000
Population with 2 or More ACEs	6–17	17,000
Specific Disorders – Youth		
Depression[18]	12–17	3,000
Anxiety[19]	12–17	5,000
Bipolar Disorder[20]	12–17	900
Attention-Deficit/Hyperactivity Disorder (ADHD)[21]	12–17	5,500
Schizophrenia[22]	12–17	50

[12] Kessler, R. C., Avenevoli, S., Costello, J., Green, J. G., Gruber, M. J., McLaughlin, K. A., Petukhova, M., Sampson, N. A., Zaslavsky, A. M., & Merikangas, K. R. (2012). Severity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication Adolescent Supplement. *Archives of general psychiatry, 69*(4), 381–389.
[13] Kessler, R. C., Avenevoli, S., Costello, J., Green, J. G., Gruber, M. J., McLaughlin, K. A., Petukhova, M., Sampson, N. A., Zaslavsky, A. M., & Merikangas, K. R. (2012). Previously cited.
[14] Holzer, C., Nguyen, H., & Holzer, J. (2024). *Texas county-level estimates of the prevalence of severe mental health need in 2022*. Dallas, TX: Meadows Mental Health Policy Institute.
[15] Holzer, C., Nguyen, H., & Holzer, J. (2024). Previously cited. Poverty data obtained from the U.S. Census Bureau. (2023, December). Previously cited.
[16] Based on our prior work in developing community-based service arrays in response to system assessments (in WA, MA, CT, NE, and PA), we estimate that one in 10 children with SED in poverty would require time-limited, intensive home and community-based services to reduce risk of out-of-home or out-of-school placement.
[17] Child and Adolescent Health Measurement Initiative. 2022 National Survey of Children's Health (NSCH) data query. Data Resource Center for Child and Adolescent Health supported by the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), and Maternal and Child Health Bureau (MCHB). Retrieved 05/02/2023 from www.childhealthdata.org
[18] Bitsko, R. H. (2022). Mental Health Surveillance Among Children—United States, 2013–2019 (underlying data from 2016-2019 National Survey of Children's Health). *MMWR supplements*, *71*. 10.15585/mmwr.su7102a1
[19] Bitsko, R. H. (2022). Previously cited.
[20] Kessler, R. C., Petukhova, M., Sampson, N. A., Zaslavsky, A. M., & Wittchen, H.-U. (2012). Twelve-month and lifetime prevalence and lifetime morbid risk of anxiety and mood disorders in the United States: Anxiety and mood disorders in the United States. *International journal of methods in psychiatric research*, *21*(3), 169–184.
[21] Child and Adolescent Health Measurement Initiative. (2022). *2022 National Survey of Children's Health (NSCH) data query* - Texas. Data Resource Center for Child and Adolescent Health supported by the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB).
[22] Frejstrup Maibing, C., Pedersen, C., Benros, M., & Brøbech, P., Dalsgaard, S., & Nordentoft, M. (2015). Risk of schizophrenia increases after all child and adolescent psychiatric disorders: A nationwide study. *Schizophrenia Bulletin, 41*(4), 963–970. 10.1093/schbul/sbu119

	Age Range	Entire Panhandle
Specific Disorders – Children		
Anxiety[23]	6–11	3,100
Depression[24]	6–11	800
ADHD[25]	6–11	4,200

Adults (Ages 18+)

Demographics

In Table 3, we provide detailed 2022 population estimates for adults in the Panhandle region. For a thorough analysis of the 23,000 veterans residing in the region, please see Table A11 in **Appendix A:**

[23] Bitsko, R. H. (2022). Previously cited.
[24] Bitsko, R. H. (2022). Previously cited.
[25] Child and Adolescent Health Measurement Initiative. (2022). Previously cited.

Veterans (Ages 17+)**.** In 2022, approximately 320,000 adults lived in the region, with a population evenly split between males and females. Most adults were in mid-adulthood (ages 25 to 44), and most identified as non-Hispanic White (59%). One-third of adults identified as Hispanic or Latino (31%), and 22% reported speaking Spanish at home.

One third of Panhandle region adults (100,000; 31%) lived below 200% of the federal poverty level, and 70,000 adults did not have health insurance (22%). Among those with health insurance, most (80%) adults had a private plan, while roughly a third had publicly funded health coverage.

Table 3: Demographic Characteristics of Panhandle Adults (2022)[26,27]

	Entire Panhandle
Adult Population	320,000
Age	
18–20	18,000
21–24	24,000
25–34	60,000
35–44	60,000
45–54	48,000
55–64	50,000
65+	65,000
Sex	
Male	160,000
Female	160,000
Race/Ethnicity	
Non-Hispanic White	190,000
African American	15,000
Asian American	6,500
Native American	1,300
Multiple Races	7,500
Hispanic/Latino	100,000
Health Insurance[28]	
No Health Insurance	70,000

[26] U.S. Census Bureau. (2024, December). Previously cited.
[27] All Texas population estimates are rounded to reflect uncertainty in the underlying American Community Survey estimates. Because of this rounding, row or column totals may not equal the sum of their rounded counterparts, and percentages may not always add up to 100%.
[28] In the U.S., individuals can have both public and private health insurance at the same time. For example, someone might have Medicare and also an employer-sponsored plan or Medicaid with private insurance. The two plans work together to provide broader coverage.

	Entire Panhandle
Any Health Insurance	250,000
Private Health Insurance	80%
Public Health Insurance	34%
Medicaid or Other Government Assistance Plans	*31%*
Language Spoken at Home	
Spanish Spoken at Home	70,000
Poverty	
Living in Poverty[29]	100,000

Adult Mental Health and Substance Use Disorder Prevalence

The following section details the prevalence of mental illness and SUDs among adults in the Texas Panhandle region. Additional breakouts of behavioral health prevalence among adults by LMHA, the top five most populous counties (Randall, Potter, Moore, Gray, and Hutchinson Counties), and the veteran status are available in **Appendix A: Supplemental Prevalence and Utilization Data.**

Table 4 presents our 12-month prevalence estimates of mental health needs and specific conditions for adults in the Panhandle region in 2022. We estimate that 75,000 of the 320,000 adults in the region have a mental health need. Most (81%) adults with mental health needs had mild or moderate conditions that providers can often treat in an integrated primary care setting. However, approximately 17,000 adults had a serious mental illness (SMI) in 2022 and may require intensive mental health services. Among the adults with SMI, nearly 50% were living in poverty.

We estimate that major depression was the most common diagnosis among adults (11% of adults), followed by specific phobias (6%), generalized anxiety disorder (5%), and post-traumatic stress disorder (5%). An estimated five thousand (5,000) adults had bipolar I disorder, 1,600 had schizophrenia, and 30 adults ages 18-34 were estimated to have a new, first episode of psychosis (FEP) in 2022.

[29] "In poverty" refers to the estimated number of people living below 200% of the federal poverty level for the region. Poverty data obtained from the U.S. Census Bureau. (2023, December). Previously cited.

Table 4: Twelve-Month Mental Health Prevalence Among Panhandle Adults (2022)[30,31]

	Entire Panhandle
Total Adult Population	**320,000**
Population in Poverty[32]	100,000
All Mental Health Needs (Mild, Moderate, and Severe)	**75,000**
Mild Conditions[33]	32,000
Moderate Conditions[34]	29,000
Serious Mental Illness (SMI)[35]	17,000
SMI in Poverty[36]	8,000
Specific Diagnoses[37]	
Major Depression	35,000
Bipolar I Disorder	5,000
Anxiety Disorders	
Generalized Anxiety Disorder	17,000
Panic Disorder	10,000
Social Phobia	9,500
Specific Phobia	18,000
Post-Traumatic Stress Disorder (PTSD)	15,000
Schizophrenia[38]	1,600
Eating Disorders	
Anorexia	1,500
Bulimia	450
Binge Eating	1,900

[30] Population data from U.S. Census Bureau. (2023, December). Previously cited.
[31] All Texas population estimates are rounded to reflect uncertainty in the underlying American Community Survey estimates. Because of this rounding, row or column totals may not equal the sum of their rounded counterparts, and percentages may not always add up to 100%.
[32] "In poverty" refers to the estimated number of people living below 200% of the federal poverty level for the region. Poverty data obtained from the U.S. Census Bureau, American Community Survey 2018-2022 Five-Year Public Use Microdata Sample (PUMS): https://www.census.gov/programs-surveys/acs/data/pums.html
[33] Kessler, R. C., Chiu, W. T., Demler, O., Merikangas, K. R., & Walters, E. E. (2005). Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of general psychiatry*, *62*(6), 617–627.
[34] Kessler, R. C., Chiu, W. T., Demler, O., Merikangas, K. R., & Walters, E. E. (2005). Previously cited.
[35] The Meadows Institute (2024). *Texas county-level mental health prevalence estimates, 2022*. See Appendix A for more information.
[36] The Meadows Institute (2024). Previously cited. Poverty data was obtained from the U.S. Census Bureau. (2023, December). Previously cited.
[37] Unless otherwise cited, prevalence rates were generated by The Meadows Institute (2024). Previously cited.
[38] Simeone, J. C., Ward, A. J., Rotella, P., Collins, J. & Windisch, R. (2015). An evaluation of variation in published estimates of schizophrenia prevalence from 1990–2013: A systematic literature review. *BMC Psychiatry*, *15*, 193. 10.1186/s12888-015-0578-7

	Entire Panhandle
First Episode Psychoses (FEP) Incidence (Ages 18-34)[39]	30

Mortality Trends

Below, we summarize trends in Panhandle resident deaths from suicide and drug overdose or accidental poisoning ("drug overdose") using finalized datasets from 2000 to 2022.[40] To include the latest data available, we supplemented this information with provisional (i.e., not yet finalized and verified) data for 2023.[41]

In 2023* there were **84** deaths from suicide and **63** deaths from drug overdose or accidental poisoning among Panhandle residents.
*Provisional data

As shown in Figure 2, the rate of death from suicide among Panhandle residents doubled between 2000 and 2022, from 11.4 per 100,000 to 22.3 per 100,000. While there was a slight decline in 2023, with the rate dropping to 19.3 per 100,000,[42] it still represents an increase of nearly 70% compared to 2000. This underscores the persistent and troubling upward trend in suicides in the Panhandle over the past two decades. These trends reflect the statewide fluctuations in the rates of death from suicide since 2018. Despite the 2023 decrease, the rate of deaths from suicide in the Panhandle region remains considerably higher than the rate in Texas overall (19.3 deaths per 100,000 in the region vs. 14.5 per 100,000 overall).

In 2023, 24% of suicide deaths occurred among adults ages 35-44, and 82% of decedents were male.[43] More deaths from suicide were observed in the two most populous Panhandle counties, Randall and Potter Counties, than projected given the population size. Specifically,

[39] We considered seven articles that attempted to quantify the incidence of FEP across different samples and using different methodologies. We have chosen to continue using the same study we used historically (Kirkbride et al.), as we believe these are the most conservative estimates that provide a baseline for decision making and action. Kirkbride, J. B., et al. (2017). The epidemiology of first-episode psychosis in early intervention in psychosis services: Findings from the Social Epidemiology of Psychoses in East Anglia [SEPEA] study. *American Journal of Psychiatry, 174,* 143–153. 10.1176/appi.ajp.2016.16010103

[40] Centers for Disease Control and Prevention, National Center for Health Statistics. (2024, September). Data are from the final Multiple Cause of Death Files, 2000-2022, and from provisional data for years 2023, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. http://wonder.cdc.gov/mcd-icd10.html.

[41] Provisional data are preliminary as of September 2024. These data are subject to change as information continues to be collected and analyzed and may differ from the final counts released in late 2024.

[42] Provisional data are preliminary as of September 2024. These data are subject to change as information continues to be collected and analyzed and may differ from the final counts released in late 2024.

[43] Provisional data are preliminary as of September 2024. These data are subject to change as information continues to be collected and analyzed and may differ from the final counts released in late 2024.

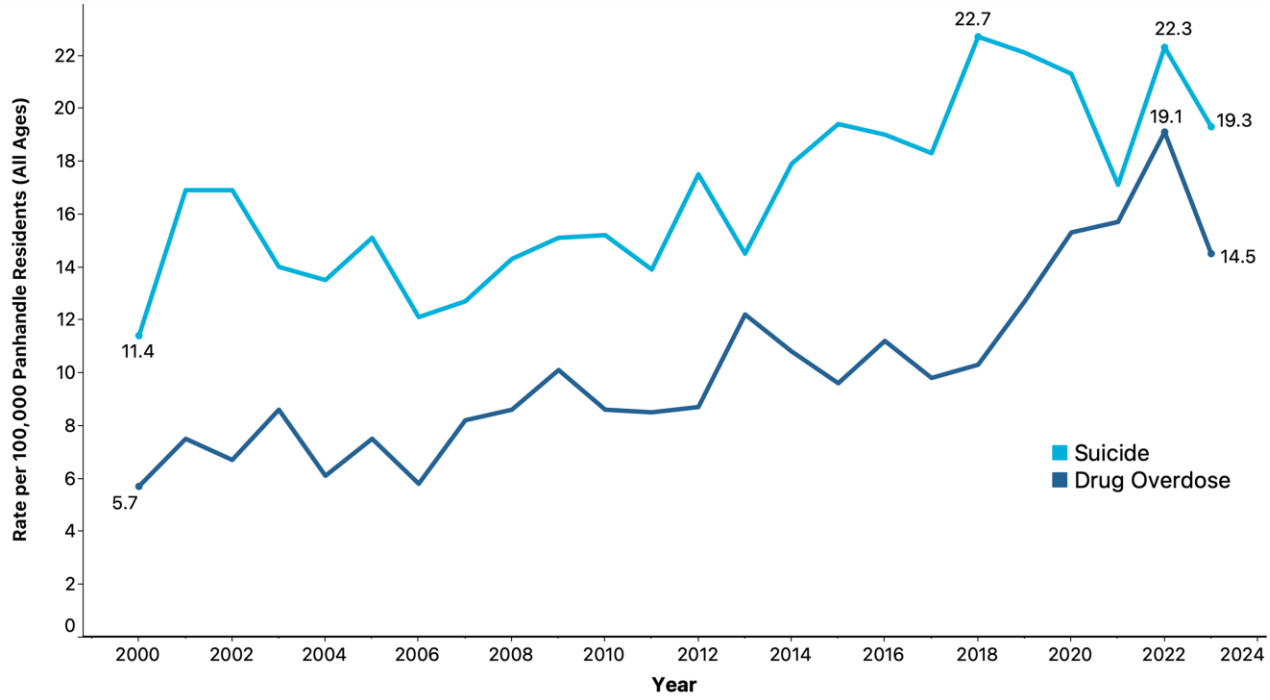
seven in ten (68%) deaths from suicide occurred in these two counties, despite only 60% of the Panhandle residents living in these counties.[44]

The rate of deaths from drug overdose also showed substantial growth and more than tripled between 2000 and 2022 (from 5.7 per 100,000 in 2000 to 19.1 per 100,000 in 2022; Figure 2). Like the trends in death from suicide, the rate of deaths from drug overdose declined slightly in 2023, to 14.5 per 100,000, but remains elevated compared to the past two decades.[45]

All deaths from drug overdose in 2023 were among adults ages 18 and older. Specifically, six in ten deaths from drug overdose in 2023 (62%) were among young adults between the ages of 25 and 44, and 75% of decedents were male. Deaths from drug overdose were overrepresented in Randall and Potter Counties. Specifically, three in four (76%) deaths from drug overdose occurred across these counties, despite representing only 60% of the Panhandle residents.[46]

[44] Provisional data are preliminary as of September 2024. These data are subject to change as information continues to be collected and analyzed and may differ from the final counts released in late 2024.
[45] Provisional data are preliminary as of September 2024. These data are subject to change as information continues to be collected and analyzed and may differ from the final counts released in late 2024.
[46] Provisional data are preliminary as of September 2024. These data are subject to change as information continues to be collected and analyzed and may differ from the final counts released in late 2024.

Figure 2: Rate of Death from Suicide and Drug Overdose or Accidental Poisoning Among Texas Panhandle Residents (All Ages), 2000–2023[47,48,49]



Local Mental Health Authority Utilization

To assess trends in local mental health authority (LMHA) service utilization, we gather data reported to the Texas Health and Human Services Commission each fiscal year. In this section, we focus on the 21 counties within the Texas Panhandle Centers service area, excluding the Panhandle region counties outside of the service area (i.e., Parmer, Castro, Swisher, Briscoe, and Childress Counties).

Children and Youth Utilization (Ages <18)

Table 5 presents the trend in children and youth served at Texas Panhandle Centers between FY 2019 and FY 2023. In FY 2023, Texas Panhandle Centers served 1,197 children and youth, representing 44% of the total children and youth estimated to have serious emotional disturbance (SED) and living in poverty, the target population. The number of children and

[47] Centers for Disease Control and Prevention, National Center for Health Statistics. (2024, August). Previously Cited. Deaths from suicide are classified using underlying cause-of-death ICD-10 codes U03, X60–X84, and Y87.0. Overdose/accidental poisoning deaths are classified using underlying cause-of-death ICD-10 codes: X40–44, X60–64, X85, and Y10–Y14. http://wonder.cdc.gov/mcd-icd10.html.
[48] Provisional data are preliminary data that may not yet be complete. These data are subject to change as information continues to be collected and analyzed and may differ from the final counts released in late 2024.
[49] Causes of death are not mutually exclusive. Therefore, the rates and number of deaths should not be added together, as there is overlap between the causes.

youth Texas Panhandle Centers served decreased by 8% between FY 2019 and FY 2023. Still, the proportion of the population with SED in poverty served has remained relatively constant.

Table 5: Children and Youth Served by Texas Panhandle Centers (FY 2019–FY 2023)[50]

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Total Children and Youth with SED in Poverty[51,52]	2,800	2,800	2,700	2,800	2,700
Total Children and Youth Texas Panhandle Centers Served	**1,306**	**1,261**	**1,108**	**1,203**	**1,197**
Percent of Children and Youth with SED in Poverty Texas Panhandle Centers Served	47%	45%	41%	43%	44%

As shown in Table 6, Texas Panhandle Centers serves fewer children and youth with SED in poverty than LMHAs statewide. Within Texas, an estimated 57% of children and youth with SED in poverty received treatment at an LMHA during FY 2023, compared to 44% at Texas Panhandle Centers.

Table 6: Comparison of the Percentage of Children with SED in Poverty Served by Texas Panhandle Centers and in Texas Statewide (FY 2023)[53]

	Texas Panhandle Centers	Texas (Statewide)
Total Children with SED in Poverty[54,55]	2,700	190,000
Total Children and Youth Served	**1,197**	**109,227**
Percent of Children and Youth with SED in Poverty Served	44%	57%

Table 7 shows utilization patterns among children and youth at Texas Panhandle Centers by level of care (LOC). Of the 1,197 children and youth who received services in FY 2023, 96% received non-crisis services, and 4% received crisis services. In non-crisis services, six in ten (61%) of children and youth received targeted services (LOC 2) to address an emotional or

[50] Unduplicated utilization data were obtained from Texas Health and Human Services Commission and represent fiscal years 2019 to 2023.
[51] Holzer, C., Nguyen, H., & Holzer, J. (2024). Previously cited. Poverty data obtained from the U.S. Census Bureau. (2023, December). Previously cited.
[52] The total number of children and youth with SED in poverty refers to the calendar year (CY) at the start of the LMHA's fiscal year (e.g., prevalence from CY 2022 is provided for the LMHA's FY 2023).
[53] Texas Health and Human Services Commission (2019 – 2023). Previously Cited.
[54] Holzer, C., Nguyen, H., & Holzer, J. (2024). Previously cited. Poverty data obtained from the U.S. Census Bureau. (2023, December). Previously cited.
[55] The total number of children and youth with SED in poverty refers to the calendar year (CY) at the start of the LMHA's fiscal year (e.g., prevalence from CY 2022 is provided for the LMHA's FY 2023).

behavioral need through targeted counseling or skills training. Less than a third of children who accessed services received complex care (LOC 3; 19%), which aimed to serve children and youth with both behavioral and emotional treatment needs who may be at risk of justice involvement, school expulsion, or out-of-home placement.[56]

Texas Panhandle Centers provided crisis services to 45 unduplicated children and youth previously unassigned to a level of care (LOC 0), with four youth receiving care at residential treatment centers (LOC RTC). No children and youth were provided transitional services (LOC 5) as upon initial contact with individuals and families children and youth are immediately enrolled into the necessary level of care and services commence.

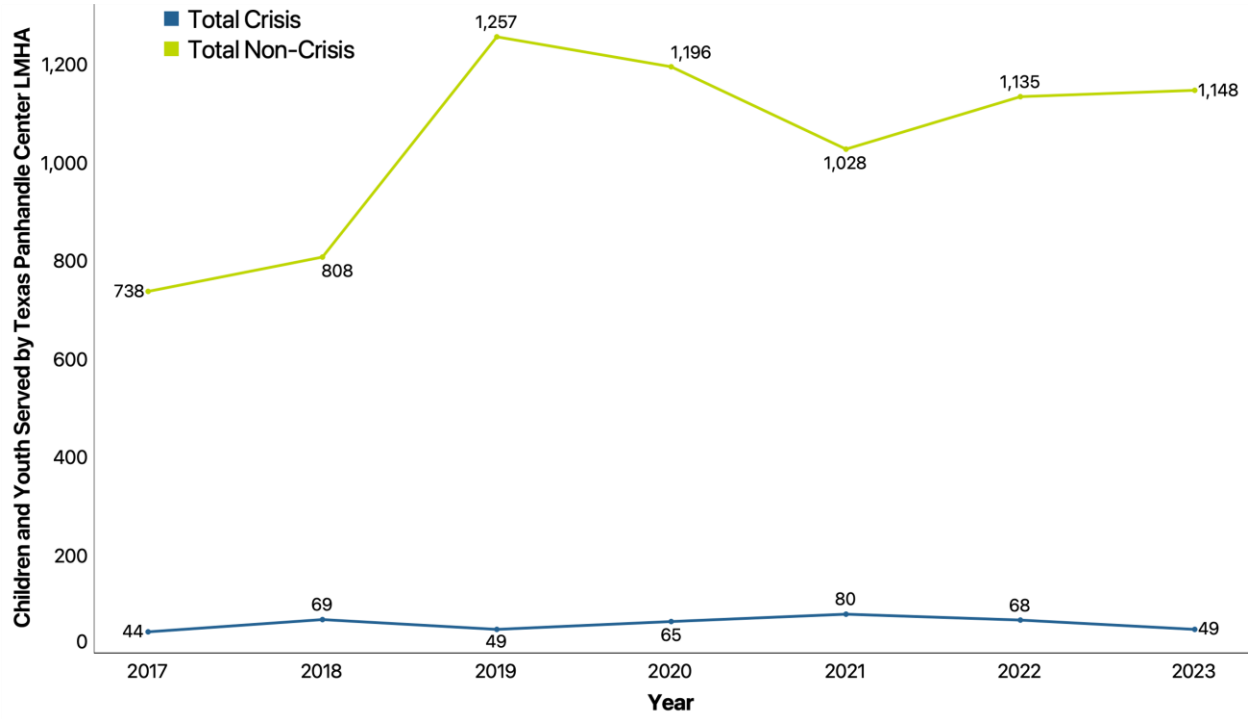
Table 7: Children and Youth Served by Texas Panhandle Centers (FY 2023)[57]

Ideal System Category	Level of Care	Number Served
Outpatient	Medication Management (LOC 1)	157
Outpatient & Rehabilitation	Targeted Services (LOC 2)	702
Rehabilitation	Complex Services (LOC 3)	215
	Intensive Family Services (LOC 4)	1
	Early Onset Psychosis (LOC EO)	0
	Young Child Services (LOC YC)	50
	YES Waiver (LOC YES)	23
	Transition Age Youth (LOC TAY)	0
Crisis	Residential Treatment Centers (LOC RTC)	4
	Crisis (LOC 0)	45
	Transitional Services (LOC 5)	0
Total Children and Youth Served		**1,197**
Total Non-Crisis		**1,148**
Total Crisis		**49**

Figure 3 illustrates the crisis and non-crisis service utilization trends among children and youth Texas Panhandle Centers served between FY 2017 and FY 2023. While the number of children and youth who received crisis services fluctuated slightly over time, there was a 56% increase in non-crisis services between FY 2017 and FY 2023. Each year, non-crisis care accounted for 92% or more of all services provided to children and youth.

[56] Texas Department of State Health Services. (2016). *Texas resilience and recovery – utilization management guidelines: Child and adolescent services.* https://www.hhs.texas.gov/providers/behavioral-health-services-providers/behavioral-health-provider-resources/utilization-management-guidelines-manual
[57] Texas Health and Human Services Commission (2019 – 2023). Previously Cited.

Figure 3: Trends in the Number of Children and Youth Served by Texas Panhandle Centers (FY 2017–FY 2023)[58]



[58] Texas Health and Human Services Commission (2019 – 2023). Previously Cited.

As shown in Table 8, 474 children and youth (40%) received a level of care that deviated from the assessed recommended level of care in FY 2023. Of these deviations, over three fourths (78%, or 337 children and youth) were initially recommended for complex services (LOC 3) but received a lower level of care. The majority of deviations (92%) were to targeted services (LOC 2) or medication management (LOC 1), the lowest levels of care available. Deviations may be due to patient preference, clinical recommendation, and/or capacity. Additionally, this may indicate a need for increased capacity to provide higher levels of care.

Table 8: Child and Youth Deviations at Texas Panhandle Centers by Level of Care (FY 2023)[59]

Ideal System Category	Level of Care	Number Recommended	Number Administered
Outpatient	Medication Management (LOC 1)	7	99
Outpatient & Rehabilitation	Targeted Services (LOC 2)	82	337
Rehabilitation	Complex Services (LOC 3)	369	3
	Intensive Family Services (LOC 4)	14	0
	Early Onset Psychosis (LOC EO)	0	0
	Young Child Services (LOC YC)	0	0
	YES Waiver (LOC YES)	0	30
	Transition Age Youth (LOC TAY)	0	0
Crisis	Residential Treatment Centers (LOC RTC)	0	5
	Crisis (LOC 0)	0	0
	Transitional Services (LOC 5)	0	0
Not Eligible (C9)		2	0
Total		**474**	**474**

[59] Texas Health and Human Services Commission (2019 – 2023). Previously Cited.

Adult Utilization (Ages 18+)

Table 9 includes trends in the number of adults Texas Panhandle Centers served between FY 2019 and FY 2023. In FY 2023, Texas Panhandle Centers served 3,911 adults, representing half (52%) of the total adults estimated to have serious mental illness (SMI) and living in poverty, the target population.

Table 9: Adults Served by Texas Panhandle Centers (FY 2019–FY 2023)[60]

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Total Adults with SMI in Poverty[61,62]	7,500	7,500	7,500	7,500	7,500
Total Texas Panhandle Centers Served	**3,460**	**3,541**	**3,734**	**3,921**	**3,911**
Percent of Adults with SMI in Poverty Served	46%	47%	50%	52%	52%

As shown in Table 10, Texas Panhandle Centers serves fewer adults with SMI in poverty than LMHAs statewide. Within Texas, an estimated 66% of adults with SMI in poverty received treatment at an LMHA during FY 2023, compared to the 52% served at Texas Panhandle Centers.

Table 10: Comparison of the Percentage of Adults with SMI in Poverty Served Across Texas Panhandle Centers and Texas Statewide (FY 2023)[63]

	Texas Panhandle Centers	Texas (Statewide)
Total Adults with SMI in Poverty[64,65]	7,500	480,000
Total Served	**3,911**	**316,346**
Percent of Adults with SMI in Poverty Served	52%	66%

Table 11 displays the number of adults who used Texas Panhandle Centers services in FY 2023 according to the level of care administered. Of the 3,911 adults who received service in FY 2023, 94% received non-crisis services, and 6% received crisis services. In non-crisis services, eight in ten (79%) adults received skill training (A1S) for additional support via medication,

[60] Texas Health and Human Services Commission (2019 – 2023). Previously Cited.
[61] The Meadows Institute (2024). Previously cited. Poverty data was obtained from the U.S. Census Bureau. (2023, December). Previously cited.
[62] The total number of adults with SMI in poverty refers to the calendar year (CY) at the start of the LMHA's fiscal year (e.g., prevalence from CY 2022 is provided for the LMHA's FY 2023).
[63] Texas Health and Human Services Commission (2019 – 2023). Previously Cited.
[64] The Meadows Institute (2024). Previously cited. Poverty data was obtained from the U.S. Census Bureau. (2023, December). Previously cited.
[65] The total number of adults with SMI in poverty refers to the calendar year (CY) at the start of the LMHA's fiscal year (e.g., prevalence from CY 2022 is provided for the LMHA's FY 2023).

rehabilitation, and educational services. Seven percent, or 259 adults, received intensive services through psychosocial therapy and case management (A3), and 25 (<1%) received assertive community treatment (ACT) (A4). Both levels of care A3 and A4 involve treatment for adults with considerable functional impairment.[66]

Texas Panhandle Centers provided crisis services to more than 200 unduplicated adults previously unassigned to a level of care (A0), and 18 adults received transitional services (A5) intended to prevent future crisis episodes.

Table 11: Adults Texas Panhandle Centers Served, by Level of Care (FY 2023)[67]

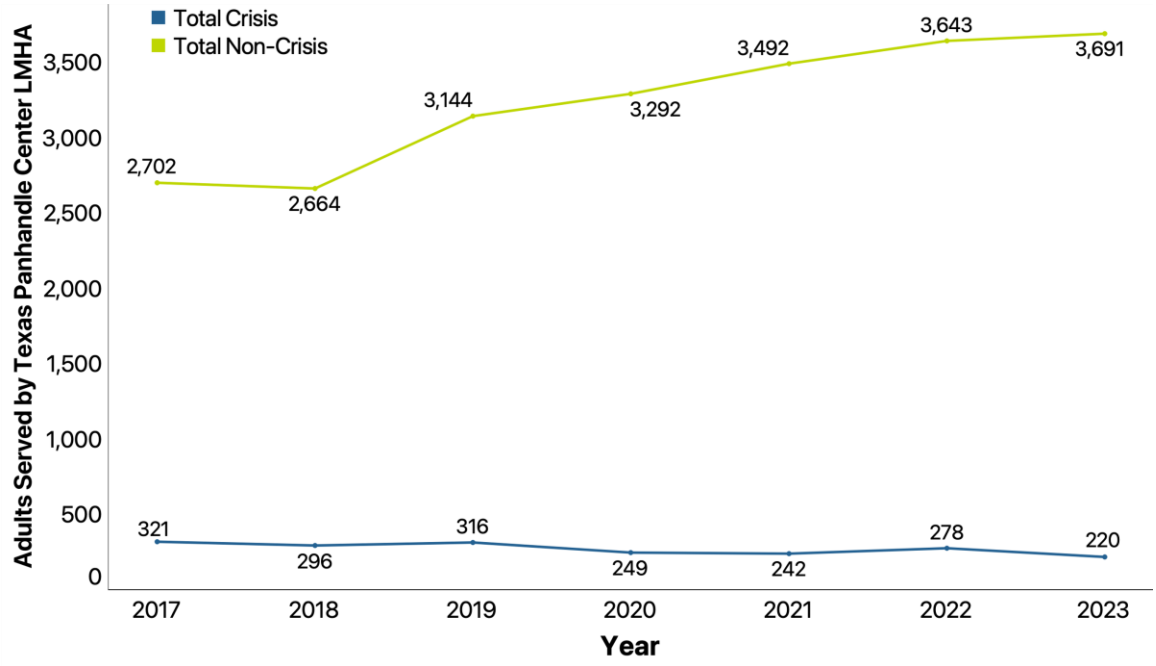
Ideal System Category	Level of Care	Number Served
Outpatient	Medication Management (A1M)	0
	Medication Management & Skills Training (A1S)	2,920
	Medication Management & Therapy (A2)	480
Rehabilitation	Psychosocial Therapy & Case Management (A3)	259
	Assertive Community Treatment (ACT) (A4)	25
	Early Onset Psychosis Services (AEO)	7
	Adult Transition Age Youth (ATAY)	0
Crisis	Crisis Services (A0)	202
	Transitional Services (A5)	18
Total Adults Served		**3,911**
Total Non-Crisis		**3,691**
Total Crisis		**220**

[66] Texas Department of State Health Services. (2017, April). *Texas resilience and recovery – utilization management guidelines: Adult mental health services.* https://www.hhs.texas.gov/sites/default/files/documents/doing-business-with-hhs/provider-portal/behavioral-health-provider/um-guidelines/trr-utilization-management-guidelines-adult.pdf.

[67] Texas Health and Human Services Commission (2019 – 2023). Previously Cited.

In Figure 4, we describe the crisis and non-crisis service utilization trends among adults between FY 2017 and FY 2023. While the number of adults receiving crisis services decreased by 31% from FY 2017 to FY 2023, the number of adults receiving non-crisis care increased by 37% during the same period. Each year, adults in non-crisis care accounted for 90% or more of all the adults receiving services at Texas Panhandle Centers.

Figure 4: Trends in Adults Served by Texas Panhandle Centers (FY 2017–FY 2023)[68]



[68] Texas Health and Human Services Commission (2019 – 2023). Previously Cited.

As shown in Table 12, 1,350 adults (35% of all adults served) received a level of care that deviated from the assessed recommended level of care in FY 2023. Of these deviations, nearly 500 adults (37%) were initially deemed ineligible for services but ultimately received a service. Deviation may be due to patient preference, clinical recommendation due to level of functional impairment, and/or capacity. More than half (57%) of all deviations were to medication management and skills training (A1S) instead of the recommended level of care. Additionally, adults often deviated to a lower level of care when recommended for LOC 4. As previously shown in Table 11, only 25 adults received ACT, while 192 additional adults were recommended for but did not receive ACT (Table 12). Of note, eight of the 25 individuals who ultimately were administered ACT were originally recommended a different level of care or considered not eligible. This indicates a need for increased capacity to service higher levels of care.

Table 12: Adults Deviations at Texas Panhandle Centers by Level of Care (FY 2023)[69]

Ideal System Category	Level of Care	Number Recommended	Number Administered
Outpatient	Medication Management (A1M)	0	0
	Medication Management & Skills Training (A1S)	366	766
	Medication Management & Therapy (A2)	272	285
Rehabilitation	Psychosocial Therapy & Case Management (A3)	23	266
	Assertive Community Treatment (ACT) (A4)	192	8
	Early Onset Psychosis Services (AEO)	0	7
	Adult Transition Age Youth (ATAY)	0	0
Crisis	Crisis Services (A0)	0	0
	Transitional Services (A5)	0	18
Not Eligible (A9)		497	0
Total		**1,350**	**1,350**

[69] Texas Health and Human Services Commission (2019 – 2023). Previously Cited.

State Hospital Admissions from Local Mental Health Authorities

As shown in Table 13, there were fewer than 274 admissions to state hospitals from Texas Panhandle Centers between FY 2019 and FY 2023—roughly 55 admissions per year. A slight decline in admissions was observed between FY 2020 and FY 2021, but admissions rebounded to their highest level in 2023 (<70). More than half (about 54%) of admissions were forensic.

Table 13: Number of State Hospital Admissions from Texas Panhandle Centers by Year and Commitment Type, All Ages (FY 2019–FY 2023)

Fiscal Year	Overall	Commitment Type	
		Civil/Voluntary	Forensic
2019	60	21	39
2020	61	17	44
2021	44	25	19
2022	39	21	18
2023[70]	<70	<41	<29
Total	**<274**	**<125**	**<149**

Behavioral Health Providers

Table 14 compares the number of behavioral health providers available to Panhandle residents with residents across Texas. The Panhandle region has fewer providers per resident than the statewide average for nearly all provider types, with the most significant shortages observed in licensed psychiatrists, psychologists, chemical dependency counselors, and licensed marriage and family therapists. Notably, the region only has 31 behavioral health physicians and 20 psychologists, resulting in 13,000 and 20,000 residents per provider, respectively. This is nearly half the state's rate for behavioral health physicians and less than one-third the rate for psychologists.

The number of providers available per resident in the Panhandle region is roughly equal to those available statewide for licensed clinical social workers, licensed professional counselors, and psychiatric/substance use registered nurses.

[70] As of 2024 Texas Health and Human Services Commission is labeling values between 1 and 2 as "<3" to ensure patient confidentiality.

Table 14: Behavioral Health Providers in the Texas Panhandle Region (2024, unless otherwise noted)[71,72]

Provider Type	Texas Panhandle Region		Texas (Statewide)	
	Number of Providers	Average Residents/ Provider[73]	Number of Providers	Average Residents/ Provider[74]
Licensed Behavioral Health Physicians[75]	31	13,000	3,671	7,500
Licensed Psychiatrists[76]	29	14,000	3,470	8,000
Licensed Children and Youth Behavioral Health Physicians[77]	10	8,000[78]	1,034	5,000[79]
Licensed Psychologists[80]	20	20,000	4,449	6,000
Licensed Chemical Dependency Counselors[81]	42	9,500	5,823	4,700
Licensed Clinical Social Workers[82]	292	1,400	21,309	1,300

[71] All Texas population estimates are rounded to reflect uncertainty in the underlying American Community Survey estimates. Because of this rounding, row or column totals may not equal the sum of their rounded counterparts, and percentages may not sum to 100%.
[72] Population data were obtained from the U.S. Census Bureau, American Community Survey 2018-2022 Five-Year Public Use Microdata Sample (PUMS): https://www.census.gov/programs-surveys/acs/data/pums.html
[73] The calculated rate used the number of residents ages six and older unless otherwise specified.
[74] The calculated rate used the number of residents ages six and older unless otherwise specified.
[75] Number of licensed physicians from Texas Medical Board Open Records. (2024, April). *Licensed Physician Database.* https://orssp.tmb.state.tx.us/Main.aspx. Providers were considered "behavioral health providers" if their primary or secondary specialty included: psychiatry, child and adolescent psychiatry, pediatric psychiatry, neurology and psychiatry, addiction medicine, addiction psychiatry, addictive diseases, addiction medicine – IM, addiction medicine – FP, forensic psychiatry, neurodevelopmental disabilities (psychiatry and neurology), geriatric psychiatry, pain medicine (psychiatry), internal med – psychiatry, family practice/psychiatry, developmental-behavioral pediatrics, psychoanalysis, psychosomatic medicine, and/or behavioral neurology. There were an additional 1,243 out-of-state providers that may serve Texas residents.
[76] Texas Medical Board Open Records. (2024, April). Previously cited. There were an additional 1,165 out of state providers that may be able to serve Texas residents.
[77] Texas Medical Board Open Records. (2024, April). Previously cited. There were an additional 296 out-of-state providers that may be able to serve Texas residents.
[78] Population data were abstracted for children and youth ages 6-17 only.
[79] Population data were abstracted for children and youth ages 6-17 only.
[80] Number of licensed behavioral health providers obtained from Texas Behavioral Health Executive Council Records and represent point-in-time estimates from April 2024. There were an additional 567 out of state providers and 1,060 with no identified county listed that may be able to serve Texas residents.
[81] Number of licensed chemical dependency counselors from Texas Health and Human Services. (2024, April). *Licensed Chemical Dependency Counselor Roster.* https://www.hhs.texas.gov/business/licensing-credentialing-regulation/professional-licensing-certification-compliance/licensed-chemical-dependency-counselor-program. There were an additional 339 out of state providers that may be able to serve Texas residents.
[82] Texas Behavioral Health Executive Council Records. (2024, April). Previously cited. There were an additional 2,568 out of state providers and 6,460 with no identified county listed that may be able to serve Texas residents.

Provider Type	Texas Panhandle Region		Texas (Statewide)	
	Number of Providers	Average Residents/ Provider[73]	Number of Providers	Average Residents/ Provider[74]
Licensed Professional Counselors[83]	271	1,500	20,475	1,300
Licensed Marriage and Family Therapists[84]	23	17,000	2,635	10,000
Licensed Specialists in School Psychology[85]	33	12,000	3,268	8,500
Psychiatric Nurse Practitioners[86]	14	29,000	1,148	24,000
Psychiatric/Substance Use Registered Nurses[87]	101	4,000	6,996	3,900

Inpatient Utilization and Capacity

In this section, we analyze the use of inpatient (IP) beds and service capacity for:

- Panhandle region residents with mental health and/or substance use disorders (SUD); and
- Use of Panhandle region beds among residents of all Texas counties.

These data were based on discharge records obtained from the Texas Health Care Information Collection (THCIC) database, which includes patient-level discharge records for hospitals operating throughout the state. Each discharge record included details about the client's age, length of stay, county of residence, diagnosis, and disposition, among other variables.

Data included in this report represent calendar years 2020 to 2022, unless otherwise noted. These years were selected because our prior research detected no persistent decline in inpatient psychiatric bed use attributable to the pandemic.[88,89]

[83] Texas Behavioral Health Executive Council Records. (2024, April). Previously cited. There were an additional 1,981 out of state providers and 6,243 with no identified county that may be able to serve Texas residents.
[84] Texas Behavioral Health Executive Council Records. (2024, April). Previously cited. There were an additional 545 out-of-state providers and 786 with no identified county listed that may be able to serve Texas residents.
[85] Texas Behavioral Health Executive Council Records. (2024, April). Previously cited. There were an additional 188 out-of-state providers and 770 providers with no identified county that may be able to serve Texas residents.
[86] Number of psychiatric nurse practitioners obtained from the Texas Board of Nursing. (2020, June). *APRN: Nurse Practitioner – Breakdown by County.* There were an additional 291 providers with an unknown address who may be able to serve Texas residents. https://www.bon.texas.gov/reports_and_data_nursing_statistics.asp.html.
[87] Texas Board of Nursing. (2023, September). *RN By Clinical Practice County*. There were an additional 402 providers with an unknown address that may be able to serve Texas residents. https://www.bon.texas.gov/reports_and_data_nursing_statistics.asp.html.
[88] Carpenter, C., Thomas, P., Jetelina, K., Tennant, P., Marcolina, R., & Reingle Gonzalez, J. G. (2024, February). *COVID-19's impact on emergency and inpatient encounters for mental illnesses and substance use disorders*. Dallas, Texas. https://data.mmhpi.org/covid/COVIDImpactsHospitalizations.pdf
[89] See Appendix C for details on how COVID-19 impacted hospital utilization statewide.

Table 15 includes the number of available psychiatric beds in the Panhandle region. Three hospitals contain psychiatric units in the region; all are located in the Texas Panhandle Centers service area. Northwest Texas Hospital, located in Amarillo, operated 70% of the region's 120 available psychiatric beds in 2022. Only eight psychiatric beds were outside Amarillo at Pampa Regional Medical Center.

Table 15: Number of Hospitals with Psychiatric Units in the LMHA Catchment Area (2021, 2022)[90]

Local Mental Health Authority/Hospital	Number of Psychiatric Units Located in Each Region		Number of Psychiatric Beds	
	2021	2022	2021	2022
Texas Panhandle Centers	3	3	124	120
Pampa Regional Medical Center	*1*	*1*	*8*	*8*
Northwest Texas Hospital (Amarillo)	*1*	*1*	*88*	*84*
Oceans Behavioral Hospital of Amarillo	*1*	*1*	*28*	*28*
Central Plains Center	0	0	-	-
Helen Farabee	0	0	-	-
Total	**3**	**3**	**124**	**120**

Table 16 details the utilization of IP psychiatric beds among adult residents of the Panhandle region and adult non-Panhandle residents admitted to regional psychiatric beds. Between 2020 and 2022, Panhandle resident adults accounted for 8,572 psychiatric bed admissions, with 94% occurring at regional hospitals, including Northwest Texas Hospital, Oceans Behavioral Hospital of Amarillo, and Pampa Regional Medical Center. Northwest Texas Hospital was the most widely used facility for psychiatric care among Panhandle residents, accounting for 82% of all Panhandle resident admissions across the state. Notably, the number of admissions to Panhandle region psychiatric beds increased by about 9% annually.

A comparatively small (and declining) number of Panhandle residents were admitted to non-Panhandle psychiatric beds for care, averaging 174 admissions per year. Nearly a quarter (22%) of the adults admitted to hospitals outside the region were admitted to state hospitals. These adults traveled an average distance of 227 miles, with the farthest facility where adults received care being in Houston.

The number of admissions to state hospitals among Panhandle residents declined by 44% between 2020 and 2022. Between 2020 and 2022, fewer than 1,154 non-Panhandle residents

[90] Texas Hospital Association's Annual Survey of Hospitals (2021- 2022).

were admitted to Panhandle region psychiatric beds. Most of these non-resident admissions (87%) occurred at Northwest Texas Hospital.

Overall, these data indicate that the Panhandle residents have sufficient licensed, inpatient psychiatric beds available to serve resident needs. However, the data reflecting almost 175 adult residents displaced from the region for treatment indicates considerable barriers to access for some populations. Most notably, those in need of long-term, high acuity treatment at a state hospital.

Table 16: Adult Inpatient Psychiatric Unit Admissions at Panhandle Region Hospitals, by Resident Status (2020–2022)[91,92]

	Average Length of Stay (Days)	2020	2021	2022	Total
Texas Panhandle Residents					
Admissions Within Texas Panhandle					
Northwest Texas Hospital	7	2,416	2,249	2,346	**7,011**
Oceans Behavioral Hospital of Amarillo[93]	13	-	327	385	**712**
Pampa Regional Medical Center	7	95	105	127	**327**
Within-Panhandle Region Total	**7**	**2,511**	**2,681**	**2,858**	**8,050**
Admissions Outside the Texas Panhandle					
Non-State Hospitals Admission	12	163	151	91	**405**
State Hospital Admissions	103	53	35	29	**117**
Outside of Panhandle Region Total	**32**	**216**	**186**	**120**	**522**
Statewide Total	**9**	**2,727**	**2,867**	**2,978**	**8,572**
Non-Texas Panhandle Residents					
Northwest Texas Hospital	7	387	311	306	**1,004**
Oceans Behavioral Hospital of Amarillo[94]	13	-	44	76	**120**
Pampa Regional Medical Center	11	<10	<10	<10	**<30**
Non-Resident Admissions Total	**8**	**<397**	**<365**	**<392**	**<1,154**

[91] Texas Health Care Information Collection (THCIC) 2020 to 2022 discharge records.
[92] Data in this table is limited to Texas Panhandle Region hospitals and patients listed as residents of counties other than in the Texas Panhandle. Record counts include psychiatric specialty encounters identified by the THCIC according to billing data. All values between 1 and 9 are labeled as "< 10" to protect confidentiality.
[93] Oceans Behavioral Hospital of Amarillo opened on January 19, 2021.
[94] Oceans Behavioral Hospital of Amarillo opened on January 19, 2021.

Table 17 displays the number of psychiatric encounters among children and youth under age 18 for Panhandle residents and non-residents. Northwest Texas Hospital was the only Panhandle region facility with pediatric inpatient psychiatric beds. Between 2020 and 2022, Panhandle resident youth represented 82% of youth admissions to Northwest Texas Hospital (2,035 Panhandle region resident children and 436 non-residents). As Northwest Texas Hospital is the only option for Panhandle children with 19 pediatric beds, on average, over 50 children and youth had to receive inpatient psychiatric care outside the region each year. These youth traveled an average distance of 300 miles, with the farthest facility where youth received care being in Corpus Christi.

The limited capacity of pediatric psychiatric beds within the community results in children and youth who are hospitalized being placed in other areas of the state, creating multiple challenges for their families, their personal sense of continuity, and for their return home; studies show familial support can be critical to a child or youth's long-term success.[95,96] Traveling long distances for treatment is especially problematic for low-income and working families who may lack the transportation or flexibility to transport or visit their children. We know that it is not uncommon for families to reject inpatient services because of the distance to the facility.

Table 17: Youth Inpatient Psychiatric Unit Admissions at Panhandle Region Hospitals, by Resident Status (2020–2022)[97,98]

	Average Length of Stay (Days)	2020	2021	2022	Total
Texas Panhandle Residents					
Admission Within Texas Panhandle					
Northwest Texas Hospital	5	626	729	680	**2,035**
Admissions Outside of the Texas Panhandle Region					
Non-State Hospitals Admission	8	28	57	54	**139**
State Hospital Admissions	129	<10	<10	0	**<20**

[95] Dowell, K. A., & Ogles, B. M. (2010). The effects of parent participation on child psychotherapy outcome: A meta-analytic review. *Journal of Clinical Child and Adolescent Psychology: The Official Journal for the Society of Clinical Child and Adolescent Psychology, American Psychological Association, Division 53*, *39*(2), 151–162. https://doi.org/10.1080/15374410903532585

[96] Fawley-King, K., Haine-Schlagel, R., Trask, E. V., Zhang, J., & Garland, A. F. (2013). Caregiver participation in community-based mental health services for children receiving outpatient care. *The Journal of Behavioral Health Services & Research*, *40*(2), 180–190. https://doi.org/10.1007/s11414-012-9311-1

[97] Texas Health Care Information Collection (THCIC) 2020 to 2022 discharge records.

[98] Data in this table is limited to Texas Panhandle Region hospitals and patients listed as residents of counties other than in the Texas Panhandle. Record counts include psychiatric specialty encounters identified by the THCIC according to billing data. All values between 1 and 9 are labeled as "< 10" to protect confidentiality.

	Average Length of Stay (Days)	2020	2021	2022	Total
Outside of Panhandle Region Total	**13**	**<38**	**<67**	**54**	**<159**
Statewide Total	**6**	**657**	**788**	**734**	**2,179**
Non-Texas Panhandle Residents					
Northwest Texas Hospital	**5**	**122**	**169**	**145**	**436**

Figure 5 shows admissions versus capacity at the three Panhandle region hospitals with psychiatric units. In Table 18, we present the average daily census of psychiatric units in the Panhandle region. Both Northwest Texas Hospital and Pampa Regional Medical Center reduced their capacity to serve psychiatric patients between 2020 and 2022. Despite these reductions, their units experienced typical fluctuations in their daily census. These units both operated under 75% capacity on average, a reasonable operational capacity level. While operational, Oceans Behavioral Hospital of Amarillo experienced a dip in psychiatric unit admissions at the start of 2022.[99] It likely experienced this dip due to data-quality issues in the Texas Health Care Information Collection (THCIC) database at the beginning of 2022, which would artificially reduce its utilization and average daily census.[100] However, it quickly regained its patients by the middle of the year and operated close to capacity in the second half of 2022.

[99] Oceans Behavioral Hospital of Amarillo's temporary decrease in psychiatric admissions between December 2021 and March 2022 was likely due to data quality issues. During this period, the specialty unit variables on most records, which we use to define psychiatric admissions, were left blank. Outside of this period, psychiatric admissions defined by the specialty unit variable accounted for 99% of admissions. Furthermore, total admissions did not decrease temporarily during this period.

[100] Oceans Behavioral Hospital of Amarillo's temporary decrease in psychiatric admissions between December 2021 and March 2022 was likely due to data quality issues. During this period, the specialty unit variables on most records, which we use to define psychiatric admissions, were left blank. Outside of this period, psychiatric admissions defined by the specialty unit variable accounted for 99% of admissions. Furthermore, total admissions did not decrease temporarily during this period.

Figure 5: Admissions to Psychiatric Units in Texas Panhandle Region Hospitals (January 2020–December 2022)[101,102]

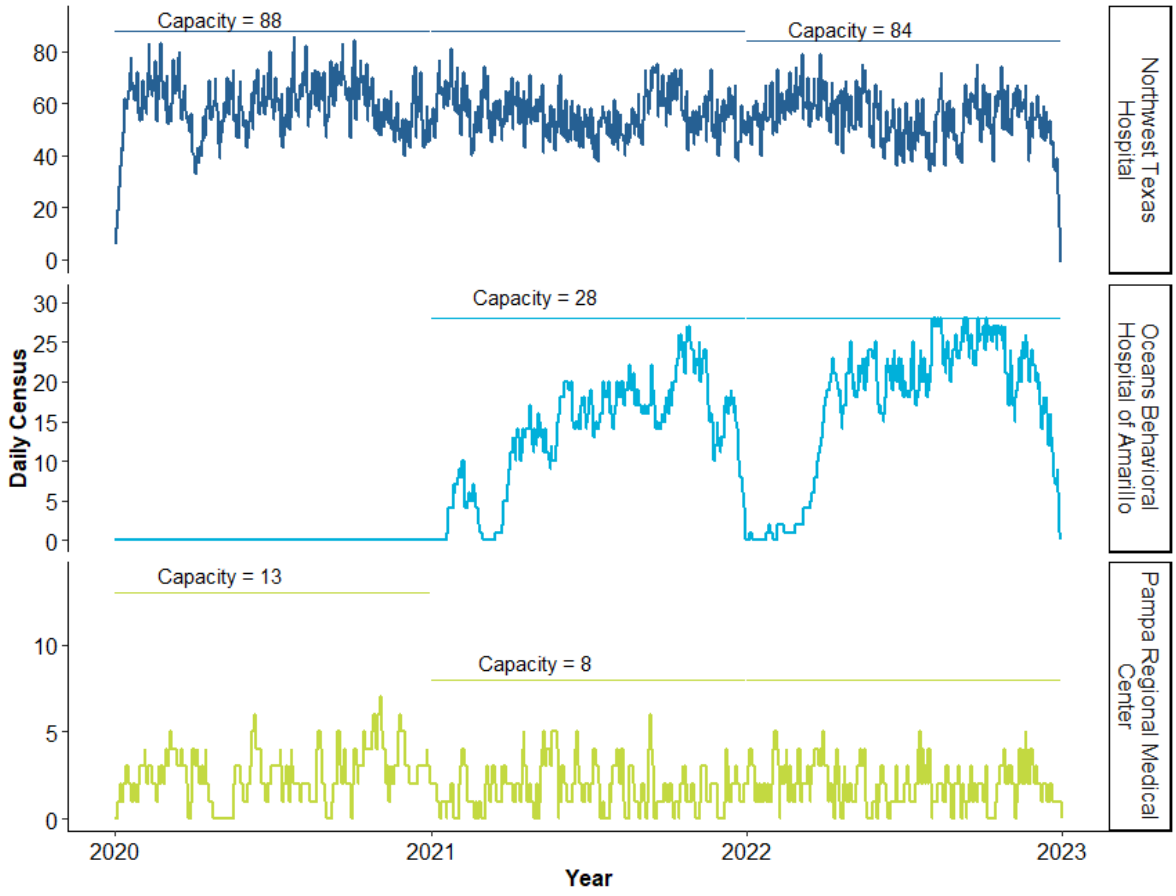


Table 18: Capacity and Average Daily Census of Psychiatric Units in Texas Panhandle Region Hospitals (2020–2022)[103,104]

	2020	2021	2022
Northwest Texas Hospital			
Capacity	88	88	84
Average Daily Census (ADC)	59	56	54
ADC as % of Capacity	*67%*	*64%*	*65%*

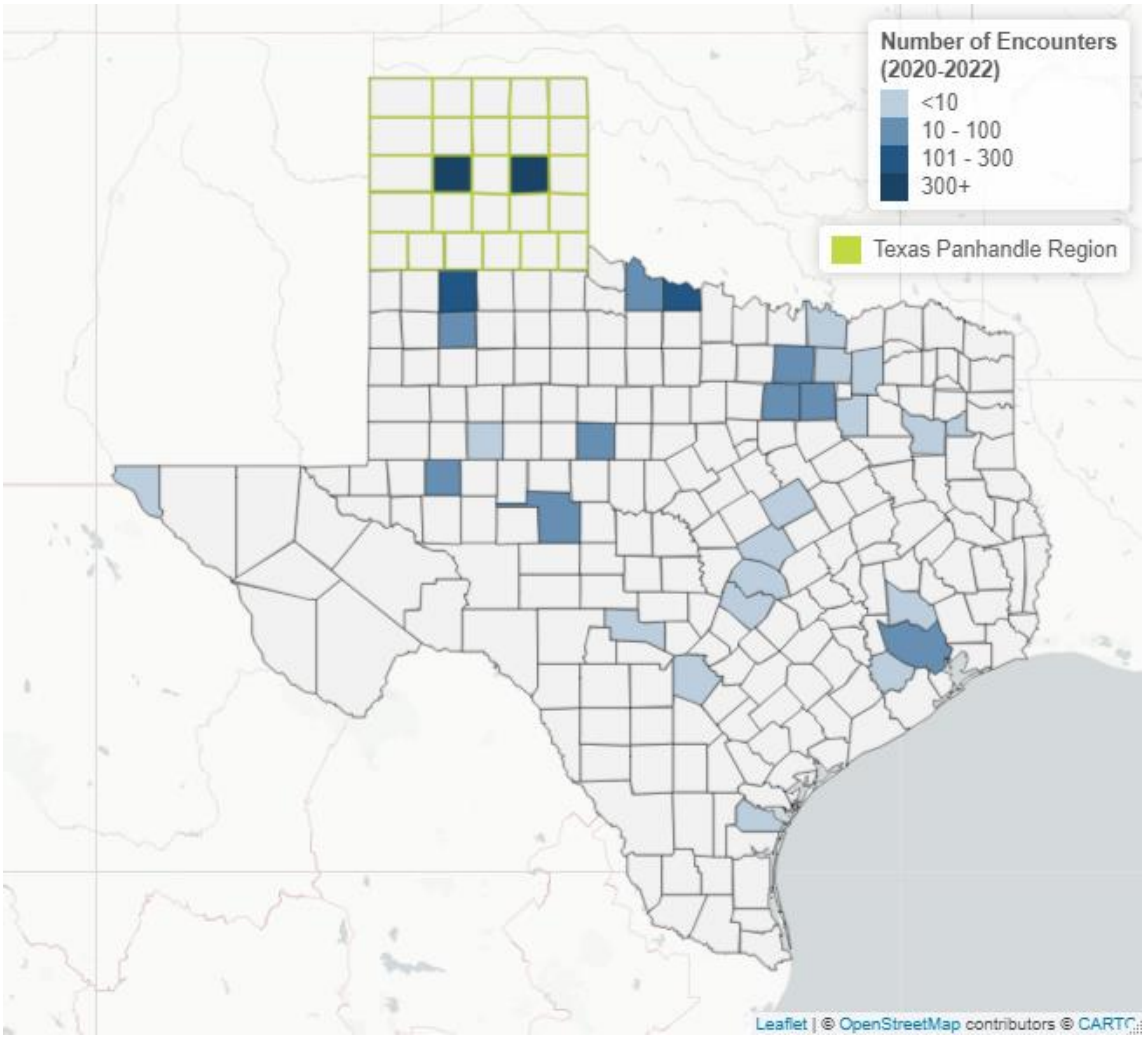
[101] Texas Health Care Information Collection (THCIC) 2016 to 2020 discharge records.
[102] Data in this figure is from the Inpatient THCIC research data file and is limited to hospitals located in the Texas Panhandle Region and encounters designated (according to billing records) as part of the psychiatric specialty unit.
[103] Texas Health Care Information Collection (THCIC) 2020 to 2022 discharge records.
[104] Psychiatric unit capacity from the Texas Hospital Association's Annual Survey of Hospitals (2020-2022).

	2020	2021	2022
Oceans Behavioral Hospital of Amarillo[105]			
Capacity	-	28	28
Average Daily Census (ADC)	-	13	17
ADC as % of Capacity	-	*47%*	*59%*
Pampa Regional Medical Center			
Capacity	13	8	8
Average Daily Census (ADC)	3	2	2
ADC as % of Capacity	*19%*	*22%*	*25%*

[105] Oceans Behavioral Hospital of Amarillo opened on January 19, 2021.

As previously shown in Table 16 and Table 17, most residents' admissions were to hospitals in the Panhandle region, either in Potter County[106] or Gray County.[107] Figure 6 displays the counties where the roughly 227 annual Panhandle residents were admitted to psychiatric beds outside of the Panhandle region. Most Panhandle residents admitted to non-Panhandle psychiatric beds were admitted to Wichita County (162 admissions between 2020 and 2022), home of North Texas State Hospital and Red River Hospital, and Hale County (139 admissions between 2020 and 2022), home of Allegiance Behavioral Health Center-Plainview.

Figure 6: Admissions to Psychiatric Beds Among Texas Panhandle Residents by Hospital County (2020–2022)[108]



[106] Northwest Texas Hospital and Oceans Behavioral Hospital of Amarillo are located in Potter County.
[107] Pampa Regional Medical Center is located in Gray County.
[108] Texas Health Care Information Collection (THCIC) 2020 to 2022 discharge records.

Table 19 presents the top five primary diagnoses for which Panhandle region residents were admitted to psychiatric hospitals between 2020 and 2022. Depressive disorders were the most common diagnosis and accounted for 54% of all Panhandle resident admissions, followed by schizophrenia spectrum and other psychotic disorders (19% of admissions) and bipolar and related disorders (13% of admissions).

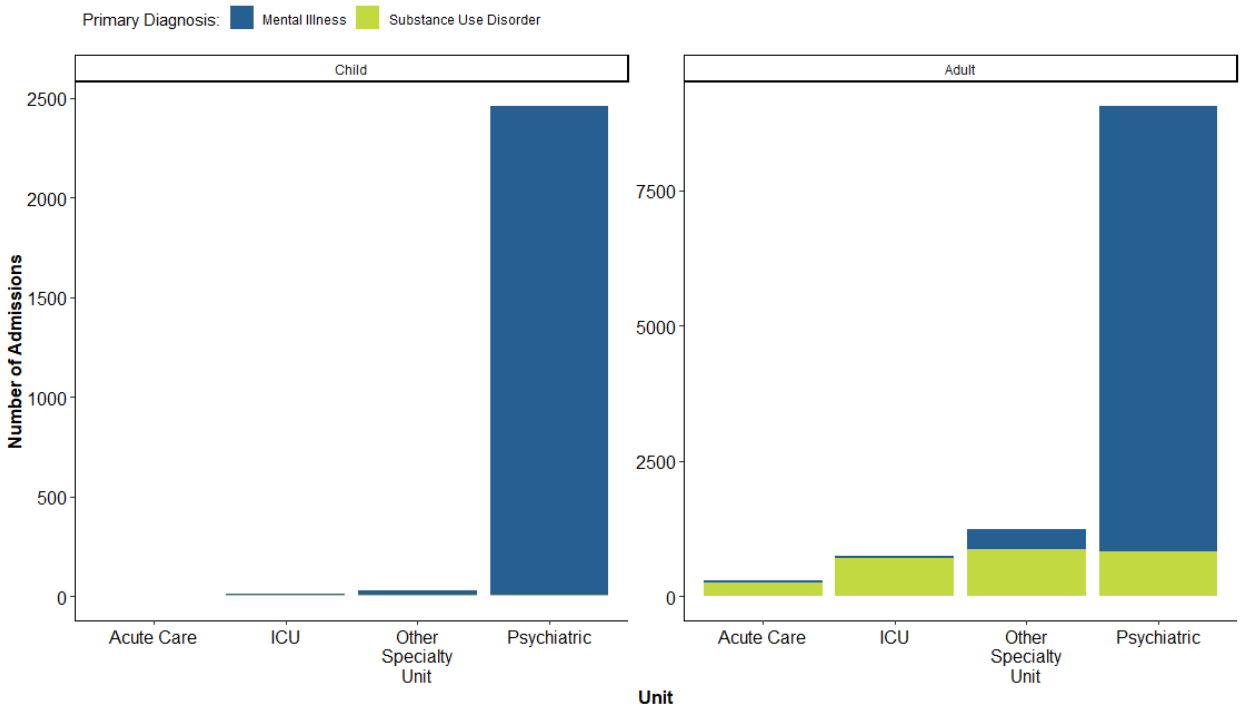
Table 19: Residents of the Texas Panhandle Region, Top Five Primary Diagnoses Associated with Admissions to Local and Non-Local Psychiatric Beds – All Ages (2020–2022)[109]

Rank	All Admissions to Inpatient Psychiatric Beds N = 10,751	Admissions to Inpatient Beds in the Texas Panhandle Region N = 10,085	Admissions to Non-Local Inpatient Beds N = 666
	Top Primary Diagnoses (Admissions)	Top Primary Diagnoses (Admissions)	Top Primary Diagnoses (Admissions)
1	Depressive disorders (N = 5,830)	Depressive disorders (N = 5,588)	Depressive disorders (N = 242)
2	Schizophrenia spectrum and other psychotic disorders (N = 2,034)	Schizophrenia spectrum and other psychotic disorders (N = 1,852)	Schizophrenia spectrum and other psychotic disorders (N = 182)
3	Bipolar and related disorders (N = 1,382)	Bipolar and related disorders (N = 1,293)	Bipolar and related disorders (N = 89)
4	Alcohol-related disorders (N = 449)	Alcohol-related disorders (N = 439)	Disruptive, impulse-control and conduct disorders (N = 22)
5	Other specified and unspecified mood disorders (N = 215)	Other specified and unspecified mood disorders (N = 194)	Other specified and unspecified mood disorders (N = 21)

[109] Texas Health Care Information Collection (THCIC) 2020 to 2022 discharge records.

Figure 7 displays the total number of inpatient admissions for primary mental illness or SUD-related diagnoses at Texas Panhandle regional hospitals, broken down by diagnosis, unit, and age. Between 2020 and 2022, most child/youth and adult admissions were mental illness-related and treated in psychiatric units. Adult SUD-related admissions occurred with similar frequency across psychiatric units, intensive care units (ICUs), and other specialty units. SUD-related admissions among children were rare.

Figure 7: Total Number of Psychiatric and SUD Admissions to Texas Panhandle Hospitals by Primary Diagnosis, Unit, and Age Group (2018–2022)[110]



[110] Texas Health Care Information Collection (THCIC) 2018 to 2022 discharge records. All cells with values between 1 and 9 are labeled as "< 10" to ensure patient confidentiality.

Table 20 details the number of hospitals in the Panhandle region that provided inpatient psychiatric or SUD treatment for Panhandle residents in 2021. In total, 12 hospitals provided these inpatient treatments, only five of which had child and youth (under 18) admissions. Only one hospital was outside of the Texas Panhandle Centers service area.

Table 20: Number of Hospitals that Served Panhandle Residents for a Primary Psychiatric or SUD Inpatient Admission by Hospital and Resident LMHA (2021)[111]

Hospital LMHA	Age Group	Resident LMHA			
		Texas Panhandle Centers	Central Plains Center	Helen Farabee	Total
Texas Panhandle Centers[112]	Adults	11	4	3	**11**
	Children and Youth	5	1	1	**5**
	Total	**11**	**4**	**3**	**11**
Central Plains Center	Adults	0	**0**	0	**0**
	Children and Youth	0	**0**	0	**0**
	Total	**0**	**0**	**0**	**0**
Helen Farabee[113]	Adults	1	0	**1**	**1**
	Children and Youth	0	0	**0**	**0**
	Total	**1**	**0**	**1**	**1**
Total	Adults	12	4	4	**12**
	Children and Youth	5	1	1	**5**
	Total	**12**	**4**	**4**	**12**

[111] Texas Health Care Information Collection (THCIC) 2021 discharge records.
[112] Hospitals in the Texas Panhandle Centers service area that provided inpatient psychiatric or SUD treatment included: Baptist St Anthonys Hospital, Ochiltree General Hospital, Parkview Hospital, Memorial Hospital, Coon Memorial Hospital & Home, Northwest Texas Hospital, Hereford Regional Medical Center, Golden Plains Community Hospital, Pampa Regional Medical Center, Vibra Rehabilitation Hospital Amarillo, Oceans Behavioral Hospital of Amarillo
[113] Childress Regional Medical Center provided inpatient psychiatric or SUD treatment in the Helen Farabee service area.

Table 21 includes a detailed summary of admission patterns for primary mental illness or SUD-related diagnoses. Most adults from the Panhandle region were admitted to psychiatric units, primarily at Northwest Texas Hospital or Oceans Behavioral Hospital of Amarillo. However, ICUs and acute care units also handled admissions, particularly for SUD, as highlighted above in Figure 7. The average length of stay for psychiatric units ranged from seven to 13 days, depending on the hospital, which was longer than admissions to the ICU or acute care units (four days on average).

Children rarely had SUD-related admissions between 2020 and 2022, and psychiatric units were typically used in mental illness-related admissions. Most (87%) of these admissions were to Northwest Texas Hospital, where the children stayed an average of five days. Admissions to hospitals outside of the Panhandle region were more common for children than adults, given that only Northwest Texas Hospital has pediatric psychiatric beds. Hospitals in Wichita Falls and West Texas were the next most frequently used facilities for children's mental illness or SUD-related admissions.

Table 21: Primary Diagnosis of Psychiatric and SUD Admissions of Texas Panhandle Region Residents by Hospital, Age Group, and Unit (2018–2022)[114,115]

Rank	Hospital	Hospital City	Unit	Total Admissions	Average Length of Stay (Days)	LOS of 3 or Fewer Days	% LOS of 3 or Fewer Days
Adults (Ages 18+)							
1	Northwest Texas Hospital	Amarillo	Psychiatric	6,946	7	1,325	19%
2	Oceans Behavioral Hospital of Amarillo[116]	Amarillo	Psychiatric	690	13	68	10%
3	Northwest Texas Hospital	Amarillo	ICU	425	4	226	53%
4	Baptist St. Anthonys Hospital	Amarillo	Acute Care	313	4	207	66%
5	Pampa Regional Medical Center	Pampa	Psychiatric	304	7	100	33%
Other Texas Panhandle Hospitals		**605**			**28**	**103**	**17%**
Other Out-of-Region Hospitals				**1,344**	**5**	**792**	**59%**
Total				**10,627**	**8**	**2,821**	**27%**

[114] Texas Health Care Information Collection (THCIC) 2018 to 2022 discharge records.
[115] Data in this table is from the Inpatient THCIC research data file and is limited to patients listed as Texas Panhandle Region residents. This table is additionally limited to hospitals receiving at least 10 such admissions in 2018, 2019, 2020, 2021, or 2022. Record counts reported in this table include encounters that had a primary diagnosis of MI/SUD, were labeled as psychiatry specialty unit (by the THCIC according to billing data), or both. All cells with values between 1 and 9 are labeled as "< 10" to ensure patient confidentiality.
[116] Oceans Behavioral Hospital of Amarillo opened on January 19, 2021.

Rank	Hospital	Hospital City	Unit	Total Admissions	Average Length of Stay (Days)	LOS of 3 or Fewer Days	% LOS of 3 or Fewer Days
Children and Youth (Ages <18)							
1	Northwest Texas Hospital	Amarillo	Psychiatric	2,026	5	314	15%
2	Red River Hospital	Wichita Falls	Psychiatric	36	9	<10	<28%
3	River Crest Hospital	San Angelo	Psychiatric	23	5	<10	<43%
4	Oceans Behavioral Hospital of the Permian Basin	Midland	Psychiatric	18	8	<10	<56%
5	Oceans Behavioral Hospital Abilene	Abilene	Psychiatric	17	8	<10	<59%
Other Texas Panhandle Hospitals				**71**	**18**	**10**	**14%**
Other Out-of-Region Hospitals				**40**	**2**	**36**	**90%**
Total				**2,231**	**6**	**372**	**17%**

Appendix A: Supplemental Prevalence and Utilization Data

Children and Youth (Ages 6-17) by Local Mental Health Authority (LMHA)

In Table A1, we present our 2022 poverty and serious emotional disturbance (SED) estimates of children and youth (6-17) living in the Panhandle region. The three LMHA service areas had an even distribution of poverty and SED prevalence, but most children and youth lived in the Texas Panhandle Centers service area.

Table A1: Children and Youth Population, Poverty, and Serious Emotional Disturbance by LMHA (2022)[117,118]

Local Mental Health Authority	Total Population	Population in Poverty[119]	Population With SED[120]	Population With SED in Poverty
Texas Panhandle Centers	75,000	30,000	5,500	2,700
Central Plains Center[121]	4,800	2,200	350	200
Helen Farabee[122]	1,300	600	100	50

[117] U.S. Census Bureau. (2023, December). Previously cited.
[118] All Texas population estimates are rounded to reflect uncertainty in the underlying American Community Survey estimates. Because of this rounding, row or column totals or may not equal the sum of their rounded counterparts, and percentages may not always add up to 100%. Values between 1 and 9 are rounded to "<10."
[119] "In poverty" refers to the estimated number of people living below 200% of the federal poverty level for the region. Poverty data obtained from the U.S. Census Bureau. (2023, December). Previously cited.
[120] Holzer, C., Nguyen, H., & Holzer, J. (2024*).* Previously cited.
[121] These estimates only include the counties within both the Texas Panhandle region and the Central Plains Center service area: Parmer, Castro, Swisher, and Briscoe Counties.
[122] These estimates only include the county within both the Texas Panhandle region and the Helen Farabee service area: Childress County.

Table A2 shows our 12-month prevalence estimates of mental health needs and specific conditions for Panhandle children and youth by LMHA service area in 2022. We estimate that of the 30,000 children and youth in the region with a mental health need: 28,000 (93%) fall in the Texas Panhandle Centers service area; 1,900 (6%) fall in the Central Plains Center service area; and the remaining 500 (1%) fall in the Helen Farabee service area.

Table A2: Twelve-Month Mental Health Prevalence Among Children and Youth by LMHA (2022)[123,124]

	Age Range	Local Mental Health Authority		
		Texas Panhandle Centers	Central Plains Center	Helen Farabee
Total Population	**6–17**	**75,000**	**4,800**	**1,300**
Children Population	6–11	36,000	2,400	650
Youth Population	12–17	37,000	2,400	650
All Mental Health Needs (Mild, Moderate, and SED)	**6–17**	**28,000**	**1,900**	**500**
Mild Conditions[125]	6–17	16,000	1,100	300
Moderate Conditions[126]	6–17	6,500	400	100
Serious Emotional Disturbance (SED)[127]	6–17	5,500	350	100
SED in Poverty[128]	6–17	2,700	200	50
At Risk of Out-of-Home / Out-of-School Placement[129]	6–17	250	20	<10
Adverse Childhood Experiences (ACEs)[130]				
Population with 1 ACE	6–17	19,000	1,300	350

[123] Population data from U.S. Census Bureau. (2023, December). Previously cited.
[124] All Texas population estimates are rounded to reflect uncertainty in the underlying American Community Survey estimates. Because of this rounding, row or column totals may not equal the sum of their rounded counterparts, and percentages may not always add up to 100%. Values between 1 and 9 are rounded to "<10."
[125] Kessler, R. C., Avenevoli, S., Costello, J., Green, J. G., Gruber, M. J., McLaughlin, K. A., Petukhova, M., Sampson, N. A., Zaslavsky, A. M., & Merikangas, K. R. (2012). Previously cited.
[126] Kessler, R. C., Avenevoli, S., Costello, J., Green, J. G., Gruber, M. J., McLaughlin, K. A., Petukhova, M., Sampson, N. A., Zaslavsky, A. M., & Merikangas, K. R. (2012). Previously cited.
[127] Holzer, C., Nguyen, H., & Holzer, J. (2024*).* Previously cited.
[128] Holzer, C., Nguyen, H., & Holzer, J. (2024*).* Previously cited; Meadows Mental Health Policy Institute. Poverty data obtained from the U.S. Census Bureau. (2023, December). Previously cited.
[129] Based on our prior work in developing community-based service arrays in response to system assessments (in WA, MA, CT, NE, and PA), we estimate that one in 10 children with SED in poverty would require time-limited, intensive home and community-based services to reduce risk of out-of-home or out-of-school placement.
[130] Child and Adolescent Health Measurement Initiative. 2022 National Survey of Children's Health (NSCH) data query. Data Resource Center for Child and Adolescent Health supported by the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), and Maternal and Child Health Bureau (MCHB). Retrieved 05/02/2023 from www.childhealthdata.org

	Age Range	Local Mental Health Authority		
		Texas Panhandle Centers	Central Plains Center	Helen Farabee
Population with 2 or More ACEs	6–17	16,000	1,000	300
Specific Disorders – Youth				
Depression[131]	12–17	2,700	200	50
Anxiety[132]	12–17	4,600	300	80
Bipolar Disorder[133]	12–17	850	60	10
Attention-Deficit/Hyperactivity Disorder[134]	12–17	5,000	350	90
Schizophrenia[135]	12–17	50	<10	<10
Specific Disorders – Children				
Anxiety[136]	6–11	2,800	200	50
Depression[137]	6–11	750	50	10
Attention-Deficit/Hyperactivity Disorder[138]	6–11	3,900	250	70

[131] Bitsko, R. H. (2022). Mental Health Surveillance Among Children—United States, 2013–2019 (underlying data from 2016-2019 National Survey of Children's Health). *MMWR Supplements*, *71*. https://doi.org/10.15585/mmwr.su7102a1

[132] Bitsko, R. H. (2022). Previously cited.

[133] Kessler, R. C., Petukhova, M., Sampson, N. A., Zaslavsky, A. M., & Wittchen, H.-U. (2012). Previously cited.

[134] Child and Adolescent Health Measurement Initiative. (2022). *2022 National Survey of Children's Health (NSCH) data query* - Texas. Data Resource Center for Child and Adolescent Health supported by the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB).

[135] Frejstrup Maibing, C., Pedersen, C., Benros, M., & Brøbech, P., Dalsgaard, S., & Nordentoft, M. (2015). Risk of schizophrenia increases after all child and adolescent psychiatric disorders: A nationwide study. *Schizophrenia Bulletin, 41(4)*, 963–970. 10.1093/schbul/sbu119

[136] Bitsko, R. H. (2022). Previously cited.

[137] Bitsko, R. H. (2022). Previously cited.

[138] Child and Adolescent Health Measurement Initiative. (2022). Previously cited.

Table A3 details our estimates of the number of youth (12-17) with a substance use disorder (SUD) in the Panhandle region by LMHA. In 2022, of the 3,100 youth with any SUD, 90% fell within the Texas Panhandle Centers service area. The number of adults who needed SUD treatment but did not receive it in 2022 was consistent across the three LMHA service areas (61% Texas Panhandle Centers, 50% Central Plains Center, and 61% Helen Farabee).

Table A3: Twelve-Month Substance Use Disorder Prevalence Among Youth by LMHA (2022)[139,140]

	Local Mental Health Authority		
	Texas Panhandle Centers	**Central Plains Center**	**Helen Farabee**
Total Population	**37,000**	**2,400**	**650**
Population in Poverty[141]	14,000	1,000	300
Any Substance Use Disorder (SUD)[142]	**2,800**	**200**	**50**
In Poverty with SUD[143]	1,400	100	30
Needing but Not Receiving Treatment for Substance Use[144]	1,700	100	30
Comorbid Major Depressive Episode and SUD[145]	1,300	80	20

[139] Population data from U.S. Census Bureau. (2023, December). Previously cited.
[140] All Texas population estimates are rounded to reflect uncertainty in the American Community Survey estimates. Because of this rounding, row or column totals may not equal the sum of their rounded counterparts, and percentages may not always add up to 100%. Values between 1 and 9 are rounded to "<10."
[141] "In poverty" refers to the estimated number of people living below 200% of the federal poverty level for the region. Poverty data obtained from the U.S. Census Bureau. (2023, December). Previously cited.
[142] Substance Abuse and Mental Health Services Administration. (2024). *2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 22. https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2022
[143] The percentage of youth in poverty with an SUD is based on UD5ILALMIS (Illicit Drug or Alcohol Use Disorder - Past Year Misusers) x Poverty Cross-tabulation, National Survey on Drug Use and Health, 2022. The percentage was applied to the estimated number of youth in poverty in Texas. Poverty estimates are based on the PUMs 2022 poverty proportions, applied to the American Community Survey estimates.
[144] Substance Abuse and Mental Health Services Administration. (2024). *2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 22 and 30.
[145] The local prevalence of co-occurring major depressive episodes (MDE) and substance use disorders among youth are based on the intersection between the national prevalence rate of MDE and substance use disorder, from the *2022 National Survey on Drug Use and Health: Detailed Tables* – Tables 7.21 and 7.26. https://www.samhsa.gov/data/release/2022-national-survey-drug-use-and-health-nsduh-releases, and the Texas-based estimates of MDE from the *2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 34. https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2022

	Local Mental Health Authority		
	Texas Panhandle Centers	Central Plains Center	Helen Farabee
Alcohol-Related SUD[146,147]	**1,200**	**80**	**20**
Mild	750	50	10
Moderate	350	20	<10
Severe	150	<10	<10
Drug-Related SUD[148]	**2,000**	**150**	**40**
Opioid Use Disorder[149]	400	30	<10

Table A4 provides our estimates of the number of youth (12-17) with a SUD in the Panhandle region as a whole. In 2022, approximately 8% of all youth (3,100) had any SUD, with drug-use disorder present in 71% of SUD cases (2,200 of 3,100 SUD cases). Treatment was either unavailable or not sought by most youth with SUD, as we estimate that 1,800 youth (58% of those with a SUD) needed but did not receive treatment.

Table A4: Twelve-Month Substance Use Disorder Prevalence Among Panhandle Youth (2022)[150,151]

	Entire Panhandle
Total Population	**40,000**
Population in Poverty[152]	15,000

[146] Substance Abuse and Mental Health Services Administration. (2024). *2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 23. https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2022

[147] Alcohol-related substance use disorder (AUD) severity levels are generated by applying the distribution of AUD severity based on a cross-tabulation between IRPYSEV5ALC (AUD severity in the past year) x Age Group by PYUD5ALC (past year AUD) from the Substance Abuse and Mental Health Services Administration (SAMHSA)'s public online data analysis system (PDAS), National Survey on Drug Use and Health, 2022 to Texas' rate of past year AUD from SAMHSA's 2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates – Texas, Table 23. https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2022

[148] Substance Abuse and Mental Health Services Administration. (2024). *2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 25. https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2022

[149] Substance Abuse and Mental Health Services Administration. (2024). *2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 27.

[150] Population data from U.S. Census Bureau. (2023, December). Previously cited.

[151] All Texas population estimates are rounded to reflect uncertainty in the underlying American Community Survey estimates. Because of this rounding, row or column totals may not equal the sum of their rounded counterparts, and percentages may not always add up to 100%.

[152] In poverty" refers to the estimated number of people living below 200% of the federal poverty level for the region. Poverty data obtained from the U.S. Census Bureau. (2023, December). Previously cited.

	Entire Panhandle
Any Substance Use Disorder (SUD)[153]	**3,100**
In Poverty with SUD[154]	1,500
Needing but Not Receiving Treatment for Substance Use[155]	1,800
Comorbid Major Depressive Episode and SUD[156]	1,400
Alcohol-Related SUD[157,158]	**1,400**
Mild	800
Moderate	400
Severe	150
Drug-Related SUD[159]	**2,200**
Opioid Use Disorder[160]	400

[153] Substance Abuse and Mental Health Services Administration. (2024). *2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 22. https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2022

[154] The percentage of youth in poverty with an SUD is based on UD5ILALMIS (Illicit Drug or Alcohol Use Disorder - Past Year Misusers) x Poverty Cross-tabulation, National Survey on Drug Use and Health, 2022. The percentage was applied to the estimated number of youth in poverty in Texas. Poverty estimates are based on the PUMs 2022 poverty proportions, applied to the American Community Survey estimates.

[155] Substance Abuse and Mental Health Services Administration. (2024). *2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 22 and 30. https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2022

[156] The local prevalence of co-occurring major depressive episodes (MDE) and substance use disorders among youth are based on the intersection between the national prevalence rate of MDE and substance use disorder, from the *2022 National Survey on Drug Use and Health: Detailed Tables* – Tables 7.21 and 7.26. https://www.samhsa.gov/data/release/2022-national-survey-drug-use-and-health-nsduh-releases, and the Texas-based estimates of MDE from the *2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 34. https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2022

[157] Substance Abuse and Mental Health Services Administration. (2024). *2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 23. https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2022

[158] Alcohol-related substance use disorder (AUD) severity levels are generated by applying the distribution of AUD severity based on a cross-tabulation between IRPYSEV5ALC (AUD severity in the past year) x Age Group by PYUD5ALC (past year AUD) from the Substance Abuse and Mental Health Services Administration (SAMHSA)'s public online data analysis system (PDAS), National Survey on Drug Use and Health, 2022 to Texas' rate of past year AUD from SAMHSA's 2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates – Texas, Table 23. https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2022

[159] Substance Abuse and Mental Health Services Administration. (2024). *2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 25. https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2022

[160] Substance Abuse and Mental Health Services Administration. (2024). *2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 27.

Children and Youth (Ages 6-17) by Top Five Most Populous Counties

As shown in Table A5, the most populated counties in the Panhandle region are Randall County (25,000 children and youth) and Potter County (21,000 children and youth), followed by Moore, Gray, and Hutchinson Counties. Of the 30,000 children and youth with a mental health need, 22,600 (75%) children and youth in the region live in these five counties.

Table A5: Top Five Most Populous Counties in the Texas Panhandle: Twelve-Month Mental Health Prevalence Among Children and Youth (2022)[161,162]

	Age Range	Randall County	Potter County	Moore County	Gray County	Hutchinson County
Total Population	**6–17**	**25,000**	**21,000**	**4,000**	**4,000**	**3,800**
Children Population	6–11	13,000	10,000	2,000	2,000	1,900
Youth Population	12–17	12,000	11,000	2,000	2,000	1,900
All Mental Health Needs (Mild, Moderate, and SED)	**6-17**	**9,500**	**8,500**	**1,600**	**1,500**	**1,500**
Mild Conditions[163]	6-17	5,500	4,700	900	900	850
Moderate Conditions[164]	6-17	2,100	1,900	350	350	350
Serious Emotional Disturbance (SED)[165]	6-17	1,700	1,700	300	300	300
Any Substance Use Disorder (SUD)[166]	**12-17**	**950**	**850**	**150**	**150**	**150**

[161] Population data from U.S. Census Bureau. (2023, December). Previously cited.
[162] All Texas population estimates are rounded to reflect uncertainty in the underlying American Community Survey estimates. Because of this rounding, row or column totals may not equal the sum of their rounded counterparts, and percentages may not always add up to 100%. Values between 1 and 9 are rounded to "<10."
[163] Kessler, R. C., Petukhova, M., Sampson, N. A., Zaslavsky, A. M., & Wittchen, H.-U. (2012). Previously cited.
[164] Kessler, R. C., Petukhova, M., Sampson, N. A., Zaslavsky, A. M., & Wittchen, H.-U. (2012). Previously cited.
[165] Holzer, C., Nguyen, H., & Holzer, J. (2024). Previously cited.
[166] Substance Abuse and Mental Health Services Administration. (2024). *2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 22. https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2022

Adults (Ages 18+) by LMHA

Table A6 presents our 2022 poverty and serious mental illness (SMI) estimates of adults (18+) living in the Panhandle region. The three LMHA service areas had an even distribution of poverty and SMI prevalence, but most adults lived in the Texas Panhandle Centers service area.

Table A6: Adult Population, Poverty, and Serious Mental Illness by LMHA (2022)[167,168]

Local Mental Health Authority	Total Population	Population in Poverty[169]	Population With SMI[170]	Population With SMI in Poverty
Texas Panhandle Centers	300,000	90,000	16,000	7,500
Central Plains Center[171]	18,000	6,000	950	450
Helen Farabee[172]	5,000	1,600	250	100

Table A7 shows our 12-month prevalence estimates of mental health needs and specific conditions for adults in the Panhandle region by LMHA service area in 2022. We estimate that of the 75,000 adults in the region with a mental health need: 70,000 (93%) resided in the Texas Panhandle Centers service area; 4,400 (6%) fall in the Central Plains Center service area; and the remaining 1,200 (1%) fall in the Helen Farabee service area.

Table A7: Twelve-Month Mental Health Prevalence Among Adults (2022) by LMHA[173,174]

	Local Mental Health Authority		
	Texas Panhandle Centers	Central Plains Center	Helen Farabee
Total Adult Population	**300,000**	**18,000**	**5,000**

[167] U.S. Census Bureau. (2023, December). Previously cited.
[168] All Texas population estimates are rounded to reflect uncertainty in the American Community Survey estimates. Because of this rounding, row or column totals or may not equal the sum of their rounded counterparts, and percentages may not always add up to 100%. Estimated values between 1 and 9 are rounded to "<10."
[169] "In poverty" refers to the estimated number of people living below 200% of the federal poverty level for the region. Poverty data obtained from the U.S. Census Bureau. (2023, December). Previously cited.
[170] The Meadows Institute (2024). Previously cited.
[171] These estimates only include the counties spanning the Texas Panhandle region and the Central Plains Center service area: Parmer, Castro, Swisher, and Briscoe Counties.
[172] These estimates only include the county within both the Texas Panhandle region and the Helen Farabee service area: Childress County.
[173] Population data from U.S. Census Bureau. (2023, December). Previously cited.
[174] All Texas population estimates are rounded to reflect uncertainty in the American Community Survey estimates. Because of this rounding, row or column totals or may not equal the sum of their rounded counterparts, and percentages may not always add up to 100%. Estimated values between 1 and 9 are rounded to "<10."

	Local Mental Health Authority		
	Texas Panhandle Centers	Central Plains Center	Helen Farabee
Population in Poverty[175]	90,000	6,000	1,600
All Mental Health Needs (Mild, Moderate, and Severe)	**70,000**	**4,400**	**1,200**
Mild Conditions[176]	29,000	1,800	500
Moderate Conditions[177]	27,000	1,700	450
Serious Mental Illness (SMI)[178]	16,000	950	250
SMI in Poverty[179]	7,500	450	100
Specific Diagnoses[180]			
Major Depression	32,000	1,900	550
Bipolar I Disorder	4,700	300	80
Anxiety Disorders			
Generalized Anxiety Disorder	16,000	950	250
Panic Disorder	9,000	550	150
Social Phobia	8,500	500	150
Specific Phobia	17,000	1,000	250
Post-Traumatic Stress Disorder (PTSD)	14,000	850	250
Schizophrenia[181]	1,500	90	20
Eating Disorders			
Anorexia	1,400	80	20
Bulimia	400	30	<10
Binge Eating	1,800	100	30
First Episode Psychoses (FEP) Incidence (Ages 18-34)[182]	30	<10	<10

[175] "In poverty" refers to the estimated number of people living below 200% of the federal poverty level for the region. Poverty data obtained from the U.S. Census Bureau, American Community Survey 2018-2022 Five-Year Public Use Microdata Sample (PUMS): https://www.census.gov/programs-surveys/acs/data/pums.html

[176] Kessler, R. C., Chiu, W. T., Demler, O., Merikangas, K. R., & Walters, E. E. (2005). Previously cited.

[177] Kessler, R. C., Chiu, W. T., Demler, O., Merikangas, K. R., & Walters, E. E. (2005). Previously cited.

[178] The Meadows Institute (2024). Previously cited.

[179] The Meadows Institute (2024). Previously cited. Poverty data was obtained from the U.S. Census Bureau. (2023, December). Previously cited.

[180] Unless otherwise cited, prevalence rates were generated by The Meadows Institute (2023). Previously cited.

[181] Simeone, J. C., Ward, A. J., Rotella, P., Collins, J. & Windisch, R. (2015). An evaluation of variation in published estimates of schizophrenia prevalence from 1990–2013: A systematic literature review. *BMC Psychiatry*, *15*, 193. 10.1186/s12888-015-0578-7

[182] We considered seven articles that attempted to quantify the incidence of FEP across different samples and using different methodologies. We have chosen to continue using the same study we used historically (Kirkbride et al.), as we believe these are the most conservative estimates that provide a baseline for decision making and action. Kirkbride, J. B., et al. (2017). The epidemiology of first-episode psychosis in early intervention in psychosis services: Findings from the Social Epidemiology of Psychoses in East Anglia [SEPEA] study. *American Journal of Psychiatry, 174,* 143–153. 10.1176/appi.ajp.2016.16010103

Table A8 details our estimates of the number of adults with a substance use disorder (SUD) in the Panhandle region by LMHA service area. In 2022, of the 50,000 youth with any SUD, 92% fell within the Texas Panhandle Centers service area. The number of adults who needed SUD treatment that they did not receive in 2022 was consistent across the three LMHA service areas (78% Texas Panhandle Centers, 79% Central Plains Center, and 80% Helen Farabee).

Table A8: Twelve-Month Substance Use Disorder Prevalence Among Adults (2022) by LMHA[183,184]

	Local Mental Health Authority		
	Texas Panhandle Centers	**Central Plains Center**	**Helen Farabee**
Total Adult Population	**300,000**	**18,000**	**5,000**
Population in Poverty[185]	90,000	6,000	1,600
Any Substance Use Disorder (SUD)[186]	**46,000**	**2,800**	**750**
In Poverty with SUD[187]	19,000	1,200	350
Needing but Not Receiving Treatment for SUD[188]	36,000	2,200	600
Comorbid Mental Illness and SUD[189]	24,000	1,500	400

[183] Population data from U.S. Census Bureau. (2023, December). Previously cited.
[184] All Texas population estimates are rounded to reflect uncertainty in the American Community Survey estimates. Because of this rounding, row or column totals or may not equal the sum of their rounded counterparts, and percentages may not always add up to 100%. Estimated values between 1 and 9 are rounded to "<10."
[185] "In poverty" refers to the estimated number of people living below 200% of the federal poverty level for the region. Poverty data obtained from the U.S. Census Bureau. (2023, December). Previously cited.
[186] Substance Abuse and Mental Health Services Administration. (2024). *2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 22. https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2022
[187] The percentage of adults in poverty with an SUD is based on UD5ILALMIS (Illicit Drug Or Alcohol Use Disorder - Past Year Misusers) x Poverty Cross-tabulation, *National Survey on Drug Use and Health, 2022*. The percentage was applied to the estimated number of adults in poverty in Texas. Poverty estimates are based on the PUMs 2022 poverty proportions, applied to the American Community Survey estimates.
[188] Substance Abuse and Mental Health Services Administration. (2024). *2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 22 and 30. https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2022
[189] Co-occurring psychiatric and substance use disorders among adults are generated using rates of any mental illness (AMI) and substance use disorder (SUD), from the 2022 *National Survey on Drug Use and Health: Detailed Tables* - Tables 6.1 and 6.10 (SUD). https://www.samhsa.gov/data/release/2022-national-survey-drug-use-and-health-nsduh-releases, and the Texas-based estimates of AMI from the *2021 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 31. https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2022

	Local Mental Health Authority		
	Texas Panhandle Centers	Central Plains Center	Helen Farabee
Alcohol-Related SUD[190,191]	**33,000**	**2,000**	**550**
Mild	19,000	1,200	300
Moderate	7,000	400	100
Severe	6,500	400	100
Illicit Drug-Related SUD[192]	**22,000**	**1,400**	**350**
Opioid Use Disorder[193]	6,000	350	100

As shown in Table A9, we estimate that 50,000 adults (16%) in the Panhandle region had an SUD in 2022, of which 36,000 had an alcohol-related SUD and 24,000 had a drug-related SUD. Among adults with a drug-related SUD, over 25% had an opioid use disorder. SUD was more prevalent among adults living in poverty (20%) than the general adult population (16%) and often co-occurred with a mental illness (50% of SUD cases). Treatment for SUD was rare as we estimate that most adults with SUD (78%) need but do not receive treatment for their SUD.

Table A9: Twelve-Month Substance Use Disorder Prevalence Among Panhandle Adults (2022)[194,195]

	Entire Panhandle
Total Adult Population	**320,000**
Population in Poverty[196]	100,000

[190] Substance Abuse and Mental Health Services Administration. (2024). *2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 23. https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2022

[191] AUD severity levels are generated by applying the distribution of AUD severity based on a cross-tabulation between IRPYSEV5ALC (AUD severity in the past year) x Age Group by PYUD5ALC (past year AUD) from the Substance Abuse and Mental Health Services Administration (SAMHSA)'s public online data analysis system (PDAS), National Survey on Drug Use and Health, 2022 to Texas' rate of past year AUD from SAMHSA's 2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates – Texas, Table 23. Previously Cited.

[192] Substance Abuse and Mental Health Services Administration. (2024). *2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 25. https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2022

[193] Substance Abuse and Mental Health Services Administration. (2024). *2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 27.

[194] Population data from U.S. Census Bureau. (2023, December). Previously cited.

[195] All Texas population estimates are rounded to reflect uncertainty in the underlying American Community Survey estimates. Because of this rounding, row or column totals may not equal the sum of their rounded counterparts, and percentages may not always add up to 100%.

[196] "In poverty" refers to the estimated number of people living below 200% of the federal poverty level for the region. Poverty data obtained from the U.S. Census Bureau. (2023, December). Previously cited.

	Entire Panhandle
Any Substance Use Disorder (SUD)[197]	**50,000**
In Poverty with SUD[198]	20,000
Needing but Not Receiving Treatment for Substance Use[199]	39,000
Comorbid Mental Illness and SUD[200]	25,000
Alcohol-Related SUD[201,202]	**36,000**
Mild	21,000
Moderate	7,500
Severe	7,000
Drug-Related SUD[203]	**24,000**
Opioid Use Disorder[204]	6,500

[197] Substance Abuse and Mental Health Services Administration. (2024). *2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 22. https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2022

[198] The percentage of adults in poverty with an SUD is based on UD5ILALMIS (Illicit Drug Or Alcohol Use Disorder - Past Year Misusers) x Poverty Cross-tabulation, *National Survey on Drug Use and Health, 2022*. The percentage was applied to the estimated number of adults in poverty in Texas. Poverty estimates are based on the PUMs 2022 poverty proportions, applied to the American Community Survey estimates.

[199] Substance Abuse and Mental Health Services Administration. (2024). *2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 22 and 30. https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2022

[200] Co-occurring psychiatric and substance use disorders among adults are generated using rates of any mental illness (AMI) and substance use disorder (SUD), from the 2022 *National Survey on Drug Use and Health: Detailed Tables* - Tables 6.1 and 6.10 (SUD). https://www.samhsa.gov/data/release/2022-national-survey-drug-use-and-health-nsduh-releases, and the Texas-based estimates of AMI from the *2021 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 31. https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2022

[201] Substance Abuse and Mental Health Services Administration. (2024). *2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 23. https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2022

[202] AUD severity levels are generated by applying the distribution of AUD severity based on a cross-tabulation between IRPYSEV5ALC (AUD severity in the past year) x Age Group by PYUD5ALC (past year AUD) from the Substance Abuse and Mental Health Services Administration (SAMHSA)'s public online data analysis system (PDAS), National Survey on Drug Use and Health, 2022 to Texas' rate of past year AUD from SAMHSA's 2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates – Texas, Table 23. https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2022

[203] Substance Abuse and Mental Health Services Administration. (2024). *2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 25. https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2022

[204] Substance Abuse and Mental Health Services Administration. (2024). *2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 27.

Adults (Ages 18+) by Top Five Most Populous Counties

Table A10 shows that the most populated counties in the Panhandle region are Randall County (110,000 adults) and Potter County (85,000 adults), followed by Moore, Gray, and Hutchinson Counties. Of the 75,000 adults with a mental health need, 58,000 (77%) live in these five most populated counties.

Table A10: Top Five Most Populous Counties in the Texas Panhandle: Twelve-Month Mental Health Prevalence Among Adults (2022)[205,206]

	Randall County	Potter County	Moore County	Gray County	Hutchinson County
Total Population	**110,000**	**85,000**	**15,000**	**15,000**	**15,000**
All Mental Health Needs (Mild, Moderate, and Severe)	**26,000**	**21,000**	**3,700**	**3,700**	**3,600**
Mild Conditions[207]	11,000	8,500	1,500	1,500	1,500
Moderate Conditions[208]	10,000	7,500	1,400	1,400	1,300
Serious Mental Illness (SMI)[209]	5,000	5,000	800	800	750
Any Substance Use Disorder (SUD)[210]	**17,000**	**13,000**	**2,400**	**2,400**	**2,300**
Co-occurring Mental Illness and SUD[211]	9,000	6,500	1,200	1,200	1,200

[205] Population data from U.S. Census Bureau. (2023, December). Previously cited.
[206] All Texas population estimates are rounded to reflect uncertainty in the American Community Survey estimates. Because of this rounding, row or column totals or may not equal the sum of their rounded counterparts, and percentages may not always add up to 100%. Estimated values between 1 and 9 are rounded to "<10."
[207] Kessler, R. C., Chiu, W. T., Demler, O., Merikangas, K. R., & Walters, E. E. (2005). Previously cited.
[208] Kessler, R. C., Chiu, W. T., Demler, O., Merikangas, K. R., & Walters, E. E. (2005). Previously cited.
[209] The Meadows Institute (2024). Previously cited.
[210] Substance Abuse and Mental Health Services Administration. (2024). *2022 National Survey on Drug Use and Health: Model-Based Prevalence Estimates* – Texas, Table 22. https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2022
[211] Co-occurring psychiatric and substance use disorders among adults were generated using rates of any mental illness and substance use disorder from the 2022 National Survey on Drug Use and Health: Detailed Tables - Tables 6.1 and 6.10 (SUD). https://www.samhsa.gov/data/release/2022-national-survey-drug-use-and-health-nsduh-releases, and the Texas-based estimates of AMI from the 2021 National Survey on Drug Use and Health: Model-Based Prevalence Estimates – Texas, Table 31. https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2022.

Veterans (Ages 17+)

The following five tables analyze the veteran population in the Panhandle region, focusing on demographic characteristics and the estimated prevalence of behavioral health disorders. In 2022, approximately 23,000 veterans resided in the region (Table A11). Most veterans were male, non-Hispanic White, and tended to be older than the general adult population.

Table A11: Demographic Characteristics of Veterans (2022)[212,213]

	Entire Panhandle
Veteran Population (17+)	23,000
Age	
17–20	30
21–24	300
25–34	2,300
35–44	3,400
45–54	3,100
55–64	3,800
65+	10,000
Sex	
Male	21,000
Female	2,100
Race/Ethnicity	
Non-Hispanic White	17,000
African American	1,000
Asian American	200
Native American	250
Multiple Races	800
Hispanic/Latino	3,300
Health Insurance[214]	
No Health Insurance	1,800
Any Health Insurance	21,000

[212] The estimated population of veterans was obtained from the National Center for Veterans Analysis and Statistics (2022). Veteran Population by County. https://www.va.gov/vetdata/. To determine demographics, weights were applied to the base population. Weights are from the U.S. Census Bureau, American Community Survey 2018-2022 Five-Year Public Use Microdata Sample (PUMS). Previously Cited.

[213] All Texas population estimates are rounded to reflect uncertainty in the American Community Survey estimates. Because of this rounding, row or column totals or may not equal the sum of their rounded counterparts, and percentages may not always add up to 100%. Estimated values between 1 and 9 are rounded to "<10."

[214] In the U.S., individuals can have both public and private health insurance at the same time. For example, someone might have Medicare and also an employer-sponsored plan or Medicaid with private insurance. The two plans work together to provide broader coverage.

	Entire Panhandle
Private Health Insurance	71%
Public Health Insurance	67%
Medicaid or Other Government Assistance Plans[215]	*10%*
Language Spoken at Home	
Spanish Spoken at Home	2,200

Table A12 presents our 2022 poverty and SMI estimates of veterans living in the Panhandle region. Across the region, an estimated 21% of veterans lived in poverty, and 6% of veterans had SMI. The three LMHA service areas had an even distribution of poverty and SMI prevalence, but most veterans lived in the Texas Panhandle Centers service area.

Table A12: Veteran Population, Poverty, and Serious Mental Illness (17+) by LMHA (2022)[216,217]

Local Mental Health Authority	Total Population	Population in Poverty[218]	Population With SMI[219]	Population With SMI in Poverty
Texas Panhandle Centers	22,000	4,700	1,200	450
Central Plains Center[220]	850	200	50	20
Helen Farabee[221]	250	70	10	<10

[215] Other government assistance plans do not include Veteran Affairs or TRICARE coverage.
[216] National Center for Veterans Analysis and Statistics (2022). Previously cited. U.S. Census Bureau. (2023, December). Previously cited.
[217] All Texas population estimates are rounded to reflect uncertainty in the American Community Survey estimates. Because of this rounding, row or column totals may not equal the sum of their rounded counterparts, and percentages may not always add up to 100%. Estimated values between 1 and 9 are rounded to "<10."
[218] "In poverty" refers to the estimated number of people living below 200% of the federal poverty level for the region. Poverty data obtained from the U.S. Census Bureau. (2023, December). Previously cited.
[219] The Meadows Institute (2024). Previously cited.
[220] These estimates only include the counties within both the Texas Panhandle region and the Central Plains Center service area: Parmer, Castro, Swisher, and Briscoe Counties.
[221] These estimates only include the county within both the Texas Panhandle region and the Helen Farabee service area: Childress County.

Table A13 shows our 12-month prevalence estimates of mental health needs and specific conditions for veterans in the Panhandle region and the LMHA service areas separately in 2022. We estimate that of the 1,300 veterans in the region with SMI: 1,200 (92%) fall in the Texas Panhandle Centers service area; 50 (4%) fall in the Central Plains Center service area; and the remaining 10 (1%) fall in the Helen Farabee service area.

Table A13: Twelve-Month Mental Health Prevalence Among Veterans (2022) by LMHA[222,223]

	Entire Panhandle	Local Mental Health Authority		
		Texas Panhandle Centers	Central Plains Center	Helen Farabee
Total Veteran Population (17+)	**23,000**	**22,000**	**850**	**250**
Population in Poverty[224]	5,000	4,700	200	70
Mental Health Needs[225]				
Serious Mental Illness (SMI)	1,300	1,200	50	10
SMI in Poverty	450	450	20	<10
Major Depression	2,000	1,900	70	20
Bipolar I Disorder	350	350	10	<10
Anxiety Disorders				
Generalized Anxiety Disorder	1,200	1,100	40	10
Panic Disorder	650	600	20	<10
Social Phobia	700	650	30	<10
Specific Phobia	900	850	30	10
Post-Traumatic Stress Disorder (PTSD)	1,700	1,600	60	20
Eating Disorders				
Anorexia	50	50	<10	<10
Binge Eating	90	80	<10	<10

[222] National Center for Veterans Analysis and Statistics (2022). Previously cited. U.S. Census Bureau. (2023, December). Previously cited.
[223] All Texas population estimates are rounded to reflect uncertainty in the American Community Survey estimates. Because of this rounding, row or column totals may not equal the sum of their rounded counterparts, and percentages may not always add up to 100%. Estimated values between 1 and 9 are rounded to "<10."
[224] "In poverty" refers to the estimated number of people living below 200% of the federal poverty level for the region. Poverty data obtained from the U.S. Census Bureau, American Community Survey 2018-2022 Five-Year Public Use Microdata Sample (PUMS): https://www.census.gov/programs-surveys/acs/data/pums.html
[225] All prevalence rates were generated by the Meadows Institute (2024). Previously cited.

Table A14 details our estimates of the number of veterans with a SUD in the Panhandle region. In 2022, of the 4,400 veterans with any SUD, 95% fell within the Texas Panhandle Centers service area.

Table A14: Twelve-Month Substance Use Disorder Prevalence Among Veterans (2022) by LMHA[226,227]

	Entire Panhandle	Local Mental Health Authority		
		Texas Panhandle Centers	Central Plains Center	Helen Farabee
Total Veteran Population (17+)	**23,000**	**22,000**	**850**	**250**
Any Substance Use Disorder (SUD)[228]	**4,400**	**4,200**	**150**	**50**
Alcohol-Related SUD	**2,900**	**2,800**	**100**	**30**
Mild	1,600	1,600	60	20
Moderate	550	550	20	<10
Severe	750	700	30	<10
Illicit Drug-Related SUD	**2,100**	**2,000**	**80**	**20**
Comorbid Mental Illness and SUD	**1,800**	**1,700**	**60**	**20**

[226] Population data from National Center for Veterans Analysis and Statistics (2022). Previously cited. U.S. Census Bureau. (2023, December). Previously cited.
[227] All Texas population estimates are rounded to reflect uncertainty in the American Community Survey estimates. Because of this rounding, row or column totals may not equal the sum of their rounded counterparts, and percentages may not always add up to 100%. Estimated values between 1 and 9 are rounded to "<10."
[228] All prevalence rates extracted from the Substance Abuse and Mental Health Services Administration (SAMHSA)'s Public Online Data Analysis System (PDAS). (2024, March). National Survey on Drug Use and Health, 2022: 1-Year PDAS. https://datatools.samhsa.gov/nsduh/2022/nsduh-2022-ds0001/variable-list

As Table A15 shows, the most populated counties in the Panhandle region are Randall County (9,000 veterans) and Potter County (6,500 veterans), followed by Moore, Gray, and Hutchinson Counties. Of the 1,300 veterans with SMI in the region, 1,020 (78%) adults live in these five most populated counties.

Table A15: Top Five Most Populous Counties in the Texas Panhandle: Twelve-Month Mental Health Prevalence Among Veterans (2022)[229,230]

	Randall County	Potter County	Moore County	Hutchinson County	Gray County
Total Population	**9,000**	**6,500**	**700**	**1,200**	**1,100**
Serious Mental Illness (SMI)[231]	400	450	40	70	60
Any Substance Use Disorder (SUD)[232]	1,700	1,200	150	250	200

[229] Population data from National Center for Veterans Analysis and Statistics (2022). Previously cited. U.S. Census Bureau. (2023, December). Previously cited.
[230] All Texas population estimates are rounded to reflect uncertainty in the American Community Survey estimates. Because of this rounding, row or column totals or may not equal the sum of their rounded counterparts, and percentages may not always add up to 100%. Estimated values between 1 and 9 are rounded to "<10."
[231] The Meadows Institute (2024). Previously cited.
[232] Substance Abuse and Mental Health Services Administration (SAMHSA)'s Public Online Data Analysis System (PDAS). (2024, March). Previously cited.

Appendix B: Prevalence Estimation Methodology

Introduction

To provide meaningful estimates based on the most rigorous and contemporary epidemiological sources available regarding the prevalence of mental illness, the Meadows Institute uses horizontal synthetic estimation, a well-established method that has been extensively published and validated through scientific research.[233,234] We believe that our methodology is among the most cutting-edge and rigorous methods available to estimate the current prevalence of mental illness.

Summary of the Meadows Institute's Prevalence Estimation Methodology

Horizontal synthetic estimation is a statistical method that is built on the premise that a region's socio-demographic characteristics (e.g., age, sex, race/ethnicity, marital, education, poverty, and housing distribution),[235] coupled with the most granular data available on the demographic composition of Texas, could be used to estimate mental health needs.

In 2023, we developed new prevalence models and matrices for adults and veterans using restricted-access 2012–2013 National Epidemiologic Survey of Alcohol and Related Conditions III (NESARC-III) data.[236] All diagnoses in the NESARC-III survey were measured according to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V). These new models expanded on the sociodemographic inputs to include veteran status, unemployment status, and first-generation immigration status. Including these variables in the model allows us to generate prevalence estimates specifically for these population subgroups.

Quality Assurance and Validity Comparisons

As a quality improvement measure, we verified that our newly generated estimates were comparable to estimates that we used previously (based on data from 2001–2003) and a large national survey (the National Survey on Drug Use and Health). Substantial increases in both major depressive disorder (MDD) and major depressive episode (MDE) of 3-5% were observed.

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[233] Holzer III, C., Jackson, D. J., & Tweed, D. (1981). Horizontal synthetic estimation: a strategy for estimating small area health-related characteristics. *Evaluation and Program Planning*, *4*(1), 29–34. https://doi.org/10.1016/0149-7189(81)90051-3

[234] Herman-Stahl, M., Wiesen, C. A., Flewelling, R. L., Weimer, B. J., Bray, R. M., & Rachal, J. V. (2001). Using social indicators to estimate county-level substance intervention and treatment needs. *Substance Use & Misuse, 36*(4), 501-521. 10.1081/JA-100102639

[235] Jarjoura, D., McCord, G., Holzer III, C. E., & Champney, T. F. (1993). Synthetic estimation of the distribution of mentally disabled adults for allocations to Ohio's mental health board areas. *Evaluation and Program Planning*, *16*(4), 305–313. https://doi.org/10.1016/0149-7189(93)90043-8

[236] National Institute on Alcohol and Alcohol Abuse. (n.d.). *National Epidemiologic Survey of Alcohol and Related Conditions-III (NESARC-III).* https://www.niaaa.nih.gov/research/nesarc-iii

These increases in MDD and MDE may be partly attributable to changes in the diagnostic criteria during the transition to DSM-IV and DSM-V.[237,238] The rate of serious mental illness was comparable across all data sources.

Prevalence Estimation Methodology – Veterans

The Meadows Institute is the first organization to have independently developed models to estimate the county-level prevalence of mental illness among veterans. In 2023, we generated mental illness prevalence estimates, including serious mental illness, MDD, MDE, post-traumatic stress disorder, bipolar I, generalized anxiety disorder, agoraphobia, social phobia, specific phobia, panic disorder, manic episode, hypomania, anorexia nervosa, bulimia nervosa, and binge eating disorder, for veterans using the same method and dataset described above.

We defined a "veteran" as any person who reported previously being on active duty in the armed forces, excluding those active only for training in the Reserves or National Guard.

[237] American Psychiatric Association. (2013). *Highlights of Changes from DSM-IV-TR to DSM-5.* www.psychiatry.org/File%20Library/Psychiatrists/Practice/DSM/APA_DSM_Changes_from_DSM-IV-TR_-to_DSM-5.pdf

[238] The removal of the 'bereavement exclusion' in the DSM-V is one the most notable changes to the MDD diagnostic criteria that changed between the DSM-IV-TR and the DSM-V. In the DSM-IV, a major depressive episode following the death of a loved one could not have counted towards the MDD criteria if the episode lasted less than 2 months. In the DSM-V, this exclusion was lifted, and this change could elevate the MDD prevalence rate.

Appendix C: Changes in Behavioral Health Care Utilization During the COVID-19 Pandemic

The onset of the COVID-19 pandemic in the first quarter of 2020 quickly altered the health care utilization landscape. Emergency departments (ED) in many locations were overwhelmed and understaffed, leading to many EDs diverting patients to different facilities for care.[239] Research conducted early in the pandemic suggests that overall ED visits declined by as much as sixty percent (60%) in April 2020 and never reached projected volume calculations based on historical data.[240] Rates of hospitalization declined substantially during the first months of the pandemic, suggesting delayed routine, elective, and emergency care in the United States.[241]

This summary describes the impact of the COVID-19 pandemic on ED visits and inpatient hospitalizations for mental health and substance use disorders (SUD) in Texas. ***In summary, we identified a statistically significant decline in ED visits immediately following the COVID-19 emergency declaration in March 2020. Inpatient admissions for behavioral health care did not immediately decline; however, a significant reduction in inpatient care utilization was identified during the third quarter (summer/fall) of 2020 and persisted for the remainder of the calendar year. For ED and inpatient hospitalizations, the number of visits slowly increased over time but did not approach projected volume rates.*** The reduced rate of behavioral health care utilization should be considered when projections or capacity assessments are conducted using data from 2020.

Approach

We investigated the impact of COVID-19 on Texas ED visits and inpatient admissions for behavioral health reasons using a subset of facilities from the Texas Health Care Information Collection (THCIC).[242,243]

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[239] Jeffery, M. M., D'Onofrio, G., Paek, H., Platts-Mills, T. F., Soares, W. E., 3rd, Hoppe, J. A., Genes, N., Nath, B., & Melnick, E. R. (2020). Trends in emergency department visits and hospital admissions in health care systems in 5 states in the first months of the COVID-19 pandemic in the US. *JAMA Internal Medicine*, *180*(10), 1328–1333. 10.1001/jamainternmed.2020.3288

[240] Heist, T., Schwartz, K., & Butler, S. (2021, February 18). *Trends in overall and non-COVID-19 hospital admissions*. Kaiser Family Foundation. https://www.kff.org/health-costs/issue-brief/trends-in-overall-and-non-covid-19-hospital-admissions/

[241] Birkmeyer, J. D., Barnato, A., Birkmeyer, N., Bessler, R., & Skinner, J. (2020). The impact of the COVID-19 pandemic on hospital admissions in the United States. *Health affairs (Project Hope)*, *39*(11), 2010–2017. 10.1377/hlthaff.2020.00980

[242] Texas Hospital Inpatient and Emergency Department Discharge Research Data File, [2016-2020]. Texas Department of State Health Services, Center for Health Statistics, Austin, Texas.

[243] For ED, 128 hospitals were analyzed, representing 75% of total behavioral health visits from 2019-2020. For inpatient admissions, 79 hospitals were analyzed, representing 78% of total behavioral health admissions from 2019-2020. Facilities with small averages of weekly admissions were not included in the analyses due to large fluctuations in percentage change estimates.

Changes in Behavioral Health Care Utilization Overall

Trends in the weekly average number of encounters for behavioral health reasons are shown in Figure C1. Statistically significant declines in all behavioral health care utilization were identified after the onset of the COVID-19 pandemic (March 15, 2020). As shown in Table C1, the average number of weekly ED visits for behavioral health reasons declined from 36.3 encounters pre-pandemic to 31.1 encounters after the onset of the pandemic—a statistically significant decline. For inpatient encounters, the average number of weekly visits declined from 43.7 pre-pandemic to 38.6 after the onset of the pandemic.

Figure C1. Trends in the Weekly Average Number of Behavioral Health Emergency Department Visits and Inpatient Admissions, by Year (2016–2020)

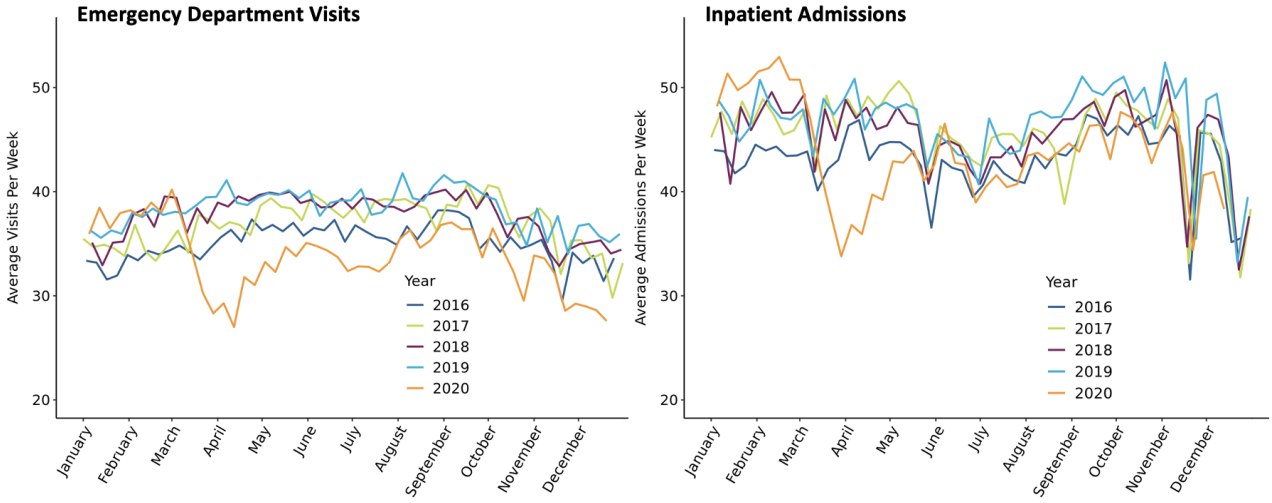

Table C1. Weekly Encounters for Behavioral Health Reasons (2016–2020) by Time Period[244]

	Emergency Department Visits		Inpatient Admissions	
	Pre-COVID-19	COVID-19	Pre-COVID-19	COVID-19
Average Number of Encounters Per Week (Standard Error)	37.0* (0.26)	32.8* (0.52)	45.4* (0.25)	42.2* (0.60)

*Denotes a significant difference ($p<0.001$) between the average number of pre-COVID-19 and COVID-19 values using a Student's t-test.

Table C2 includes the results of the regression discontinuity analyses by four different bandwidths.[245] Overall, the models identified a rapid, statistically significant decline in

[244] Pre-COVID-19 period refers to January 3, 2016, through March 14, 2020. COVID-19. The COVID-19 period refers to March 15, 2020, through December 31, 2020.

[245] Four different bandwidths were used to explore changes before and after the COVID-19 pandemic declaration date. See the Technical Appendix for more information on the selection of bandwidth values.

behavioral health ED visits after the onset of the COVID-19 emergency declaration. This significant reduction persisted through the end of 2020.

For inpatient encounters, the results show no significant difference in the rate of inpatient behavioral health admissions in March/April 2020 compared to February/March 2020 (Table C2). However, the rate of inpatient care utilization between 16- and 40- weeks after the onset of pandemic resulted in a significant reduction of inpatient care utilization when compared to utilization rates during the same pre-COVID-19 period.

Table C2. Results of Regression Discontinuity Analysis Examining Changes in ED visits and Inpatient Admissions Over Time

Weeks Before/After COVID-19 Pandemic Declaration Date	Coefficient	Standard Error	P-Value
	Emergency Department Visits		
6.21 weeks	-0.464	0.179	0.009
16 weeks	-0.478	0.051	<0.001
28 weeks	-0.418	0.032	<0.001
41 weeks[246]	-0.354	0.024	<0.001
	Inpatient Admissions		
4.33 weeks	-0.330	0.295	0.264
16 weeks	-0.443	0.068	<0.001
28 weeks	-0.475	0.043	<0.001
40 weeks	-0.365	0.034	<0.001

Summary

The COVID-19 pandemic had a substantial effect on overall behavioral health care utilization. This impact on ED visits was immediate, and the rates of both ED visits and inpatient admissions were significantly lower throughout 2020 than expected, given prior years' utilization patterns.

[246] We truncated the inpatient dataset to include only 40 weeks and the emergency department dataset to include 41 weeks, which removed the final weeks in 2020 that had an artificially lower encounter rates due to patients not being discharged until after the end of calendar year 2020.