Impact of Asthma in Texas

2025 Report

TEXAS Health and Human Services
Texas Department of State Health Services

Contents

Executive Summary

More than 2.2 million adults and children in Texas have asthma. In 2023, uncontrolled asthma among Texans contributed to more than 109,000 emergency department visits and 8,500 hospitalizations. More than $2.2 billion was charged to public and private payers for these encounters.

The Impact of Asthma in Texas Report is an annual collaborative report by the Texas Asthma Control Program (TACP) and the Chronic Disease Epidemiology Branch at the Texas Department of State Health Services (DSHS). The report is designed for asthma stakeholders to use in working with the TACP to achieve their mission of helping Texans control their asthma, reduce visits to the emergency department, decrease hospitalizations, and improve quality of life.

The report was created to accompany the Strategic Plan for Asthma Control in Texas, 2025-2028. Asthma stakeholders can use the data in this report to identify asthma trends, disparities among socio-economic groups, demographic groups, and geographic areas. Data can be used to target priority populations in implementing strategic actions identified in the strategic plan.

Data in this report are broken down where applicable by:

- **Ages:** Children (ages 17 and under) and Adults (ages 18 and older)
- **Demographic Groups:** Non-Hispanic White, non-Hispanic Black, Hispanic, non-Hispanic Other or Multiracial
- **Geographic:** DSHS Public Health Regions (PHR)
- **Socioeconomic:** Texas Medicaid users (among all age groups)

This report provides five-year trends on core asthma data aggregated at the state level. Additional asthma and public health data can be requested from the DSHS Center for Health Statistics. Additional information on data sources is located in the Appendix.

Key Findings:

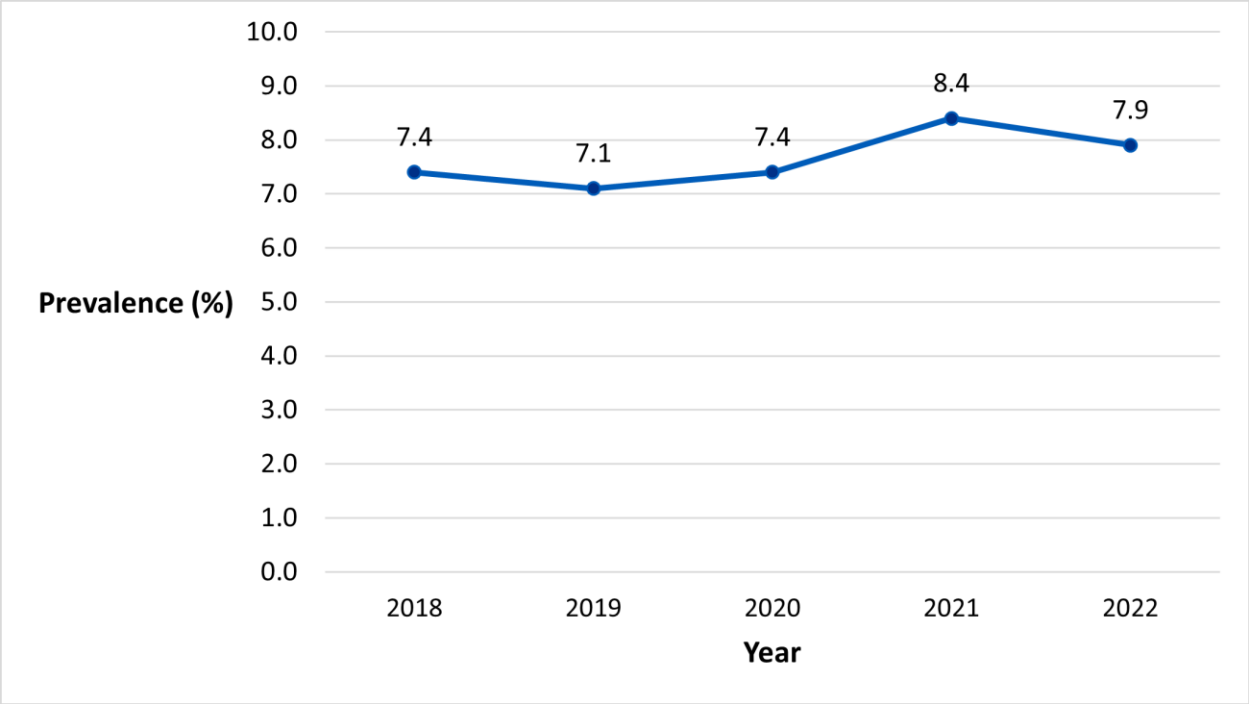
- Emergency department visits and hospitalizations due to asthma decreased in 2020 during the COVID-19 pandemic and have increased each year after.
- Black children and adults with asthma have significantly higher emergency department and hospitalization rates when stratifying by population groups.
- Asthma prevalence, emergency department visits, and hospitalizations vary by public health region.
- Volume of asthma emergency department visits varies by month with peaks generally in April, October, and December.

- Adults with asthma are more likely to currently smoke cigarettes than adults without asthma.

Prevalence Data

Adult Prevalence Data

Figure 1.1: Prevalence of Asthma Among Adults, Ages 18 Years and Older, Texas, 2018-2022

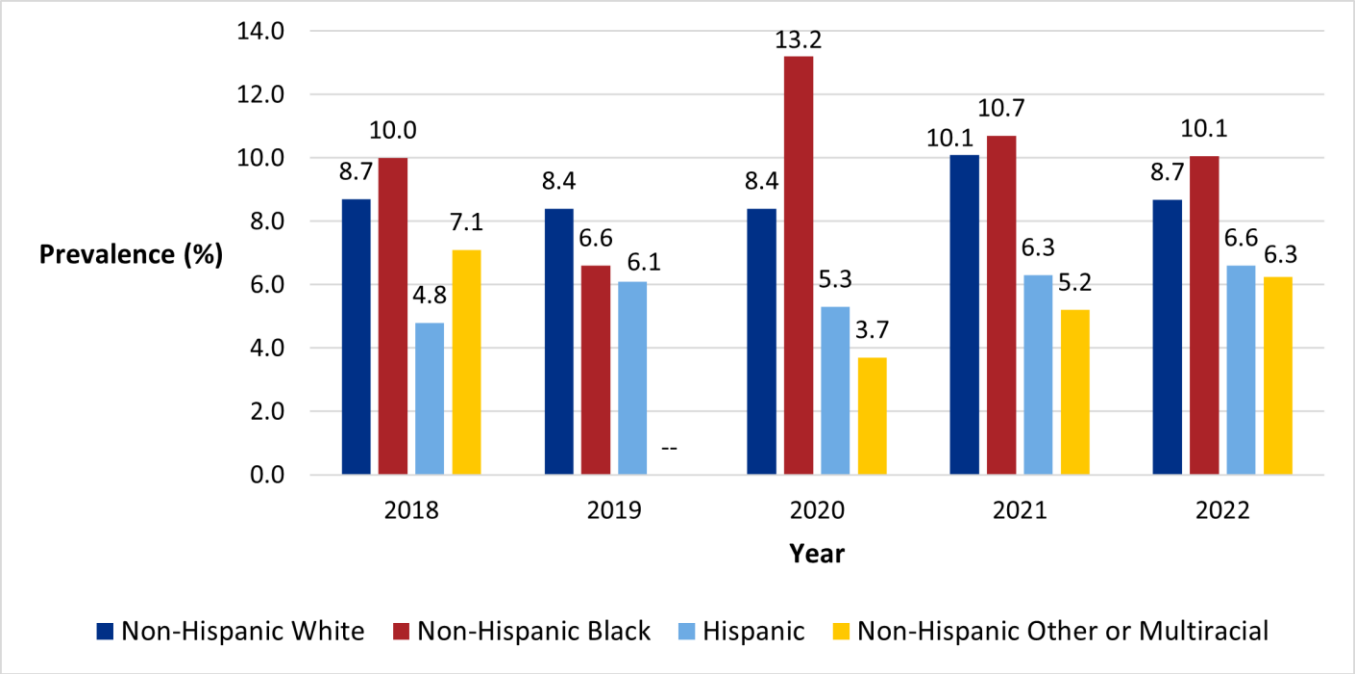


Data Source: Texas Behavioral Risk Factor Surveillance System Public Use Data File, 2018-2022, Texas Department of State Health Services, Center for Health Statistics, Austin, TX.

Figure 1.1 Interpretation

Asthma prevalence among adults varies from year-to-year. Since 2018, there has been a 0.5 percent increase in current asthma among adults.

Figure 1.2: Prevalence of Asthma Among Adults, Ages 18 Years and Older, By Demographic Group, Texas, 2018-2022



"--" indicates that the data is suppressed either due to small sample size (N<50) or relative standard error ≥ 30%

Data Source: Texas Behavioral Risk Factor Surveillance System Public Use Data File, 2018-2022, Texas Department of State Health Services, Center for Health Statistics, Austin, TX.

Figure 1.2 Interpretation

Asthma prevalence among adults ranges by demographic group. Since 2018, non-Hispanic Black adults demonstrated the highest prevalence of current asthma, except in 2019.

Figure 1.3: Prevalence of Asthma Among Adults, Ages 18 Years and Older, By Public Health Region (PHR), Texas, 2022

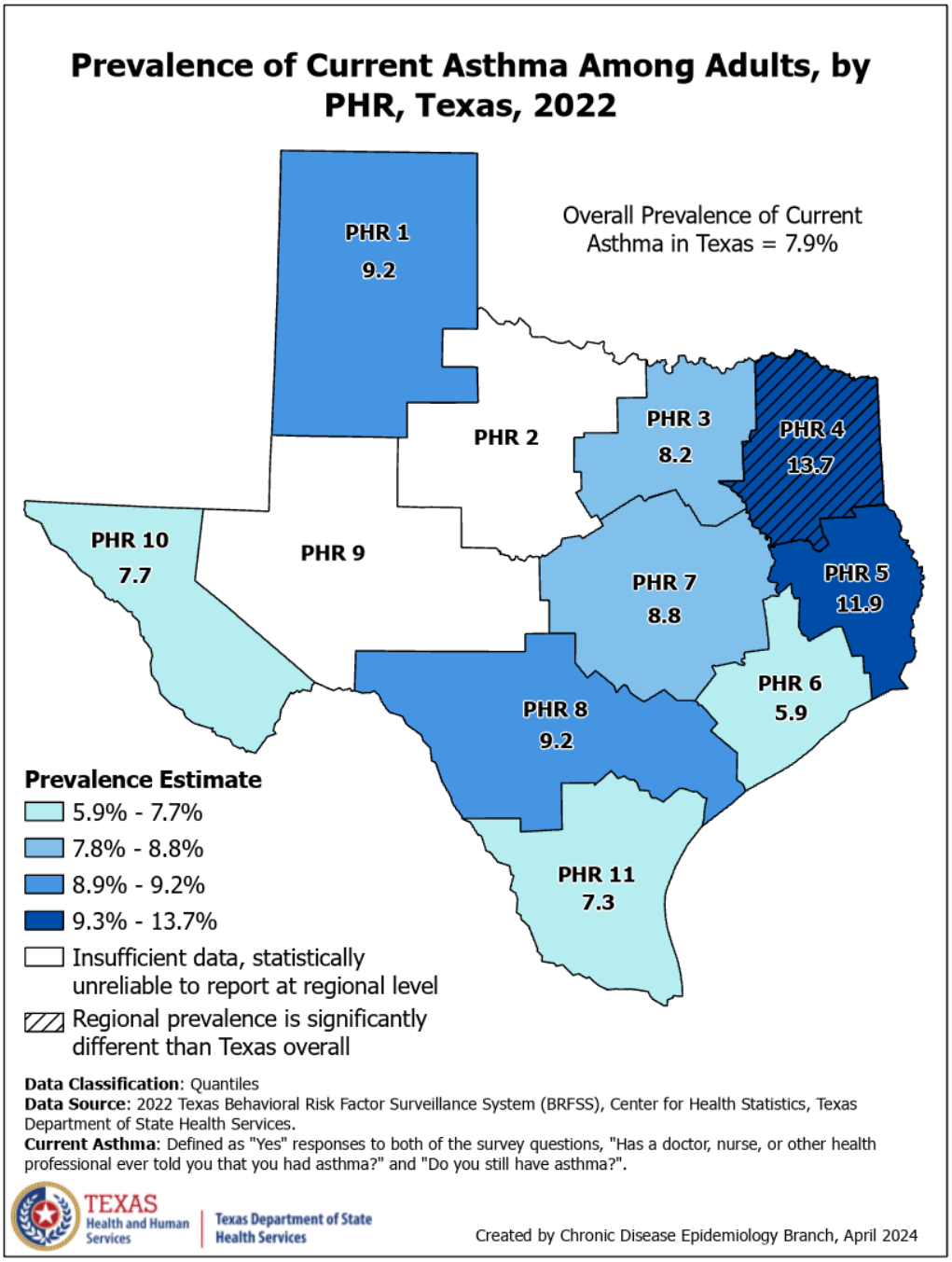
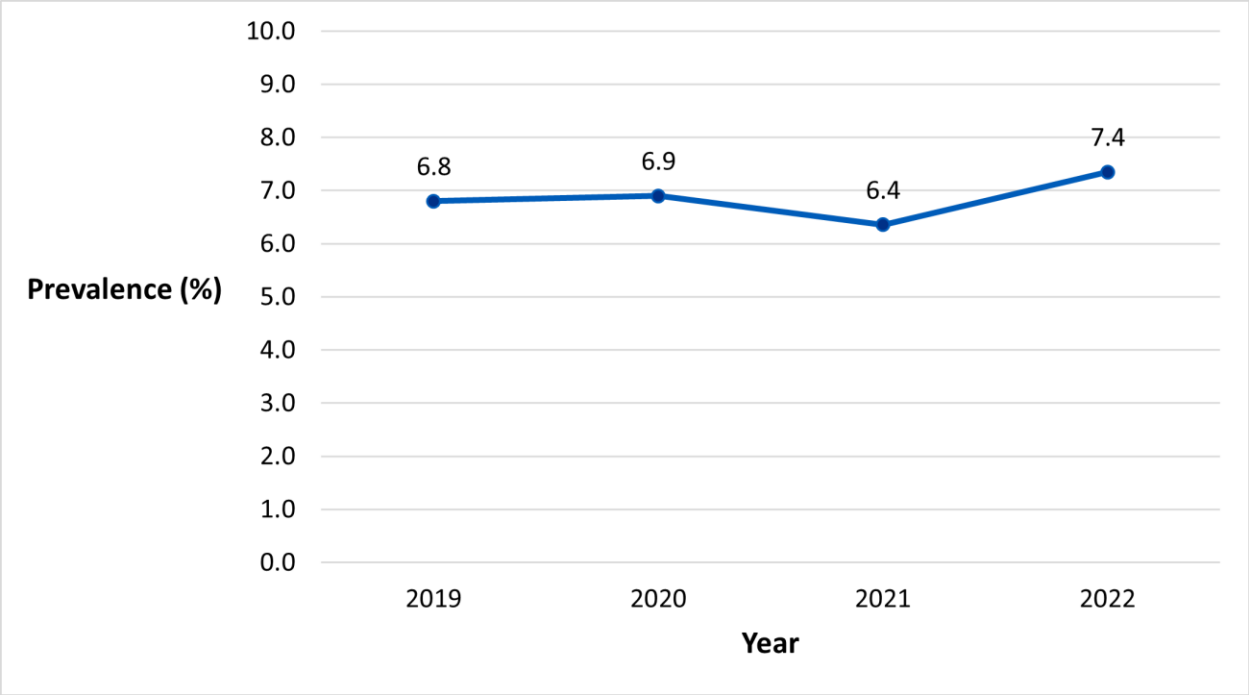


Figure 1.3 Interpretation

In 2022, adult asthma prevalence differed across Texas. PHR 4 demonstrated a regional prevalence of 13.7 percent, which is significantly higher than the Texas overall prevalence of 7.9 percent.

Child Prevalence Data

Figure 1.4: Prevalence of Asthma Among Children, Ages 17 Years and Younger, Texas, 2019-2022

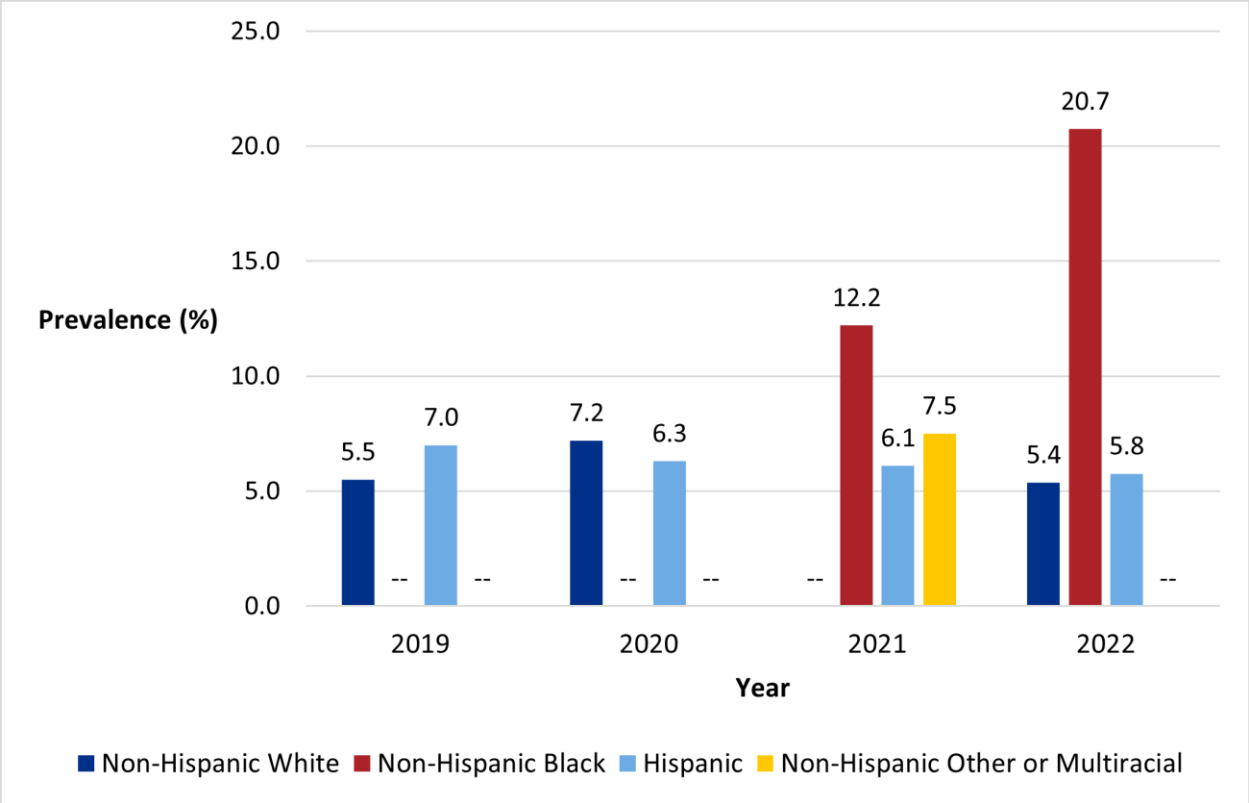


Data Source: Texas Behavioral Risk Factor Surveillance System Public Use Data File, 2019-2022, Texas Department of State Health Services, Center for Health Statistics, Austin, TX.

Figure 1.4 Interpretation

Asthma prevalence among children varies from 2019 to 2022. Since 2019, there has been a 0.6 percent increase in current asthma among children.

Figure 1.5: Prevalence of Asthma Among Children, Ages 17 Years and Younger, By Demographic Group, Texas, 2019-2022



"--" indicates that the data is suppressed either due to small sample size (N<50) or relative standard error ≥ 30%

Data Source: Texas Behavioral Risk Factor Surveillance System Public Use Data File, 2019-2022, Texas Department of State Health Services, Center for Health Statistics, Austin, TX.

Figure 1.5 Interpretation

Asthma prevalence among children also varies by population group. In 2022, the prevalence of asthma among non-Hispanic Black children was significantly higher than other demographic groups.

Figure 1.6: Prevalence of Asthma Among Children, Ages 17 Years and Younger, by PHR, Texas, 2022

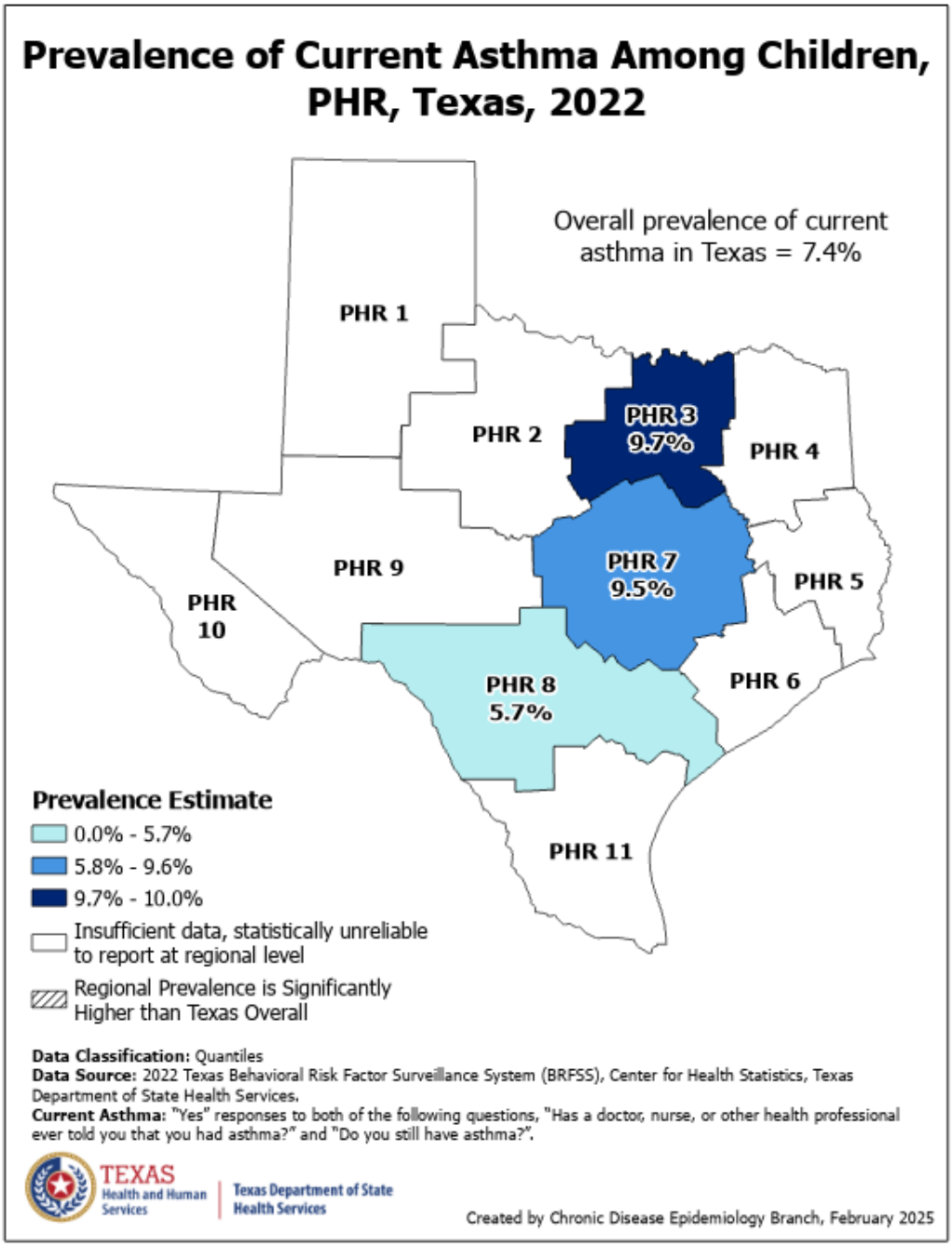


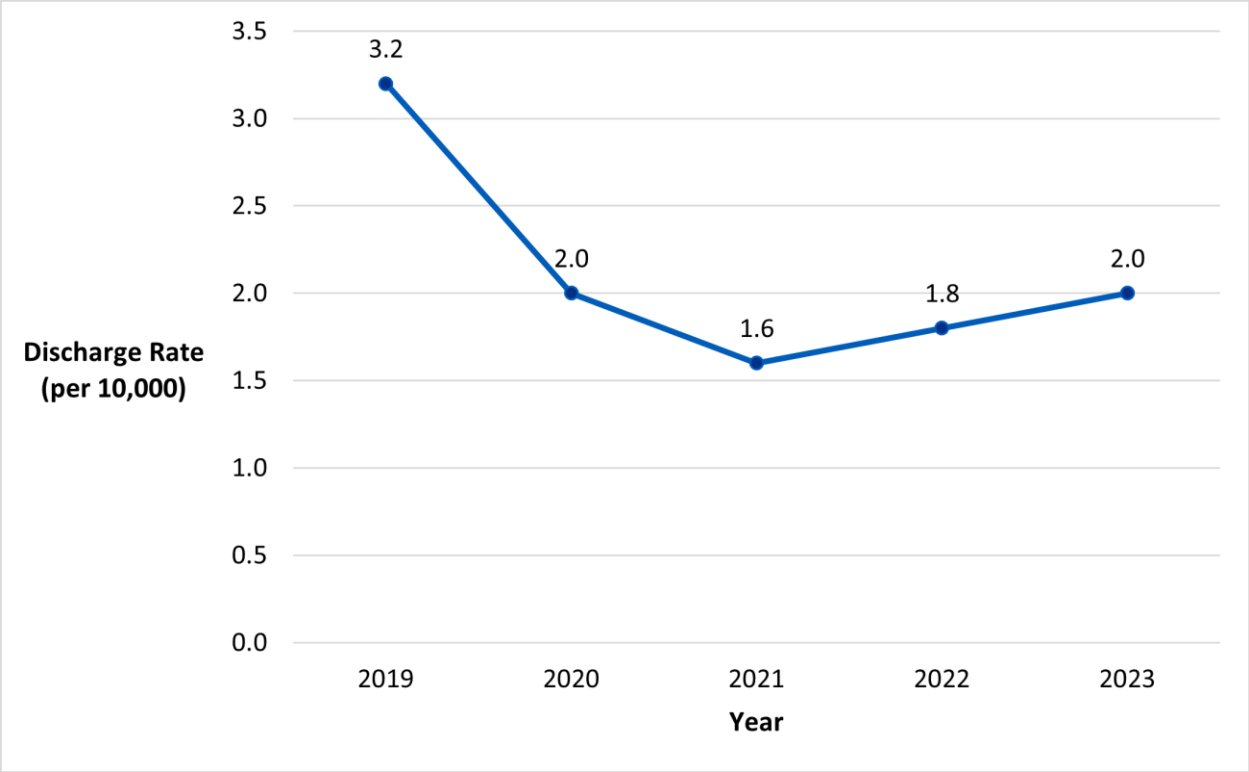
Figure 1.6 Interpretation

In 2022, data on child asthma prevalence across Texas was sparse. PHR 3 demonstrated a regional prevalence of 9.7 percent, while other PHRs had statistically unreliable prevalence.

Hospitalization Data

Inpatient Data

Figure 2.1: Adult Asthma Inpatient Discharge Rates (per 10,000), Texas, 2019-2023

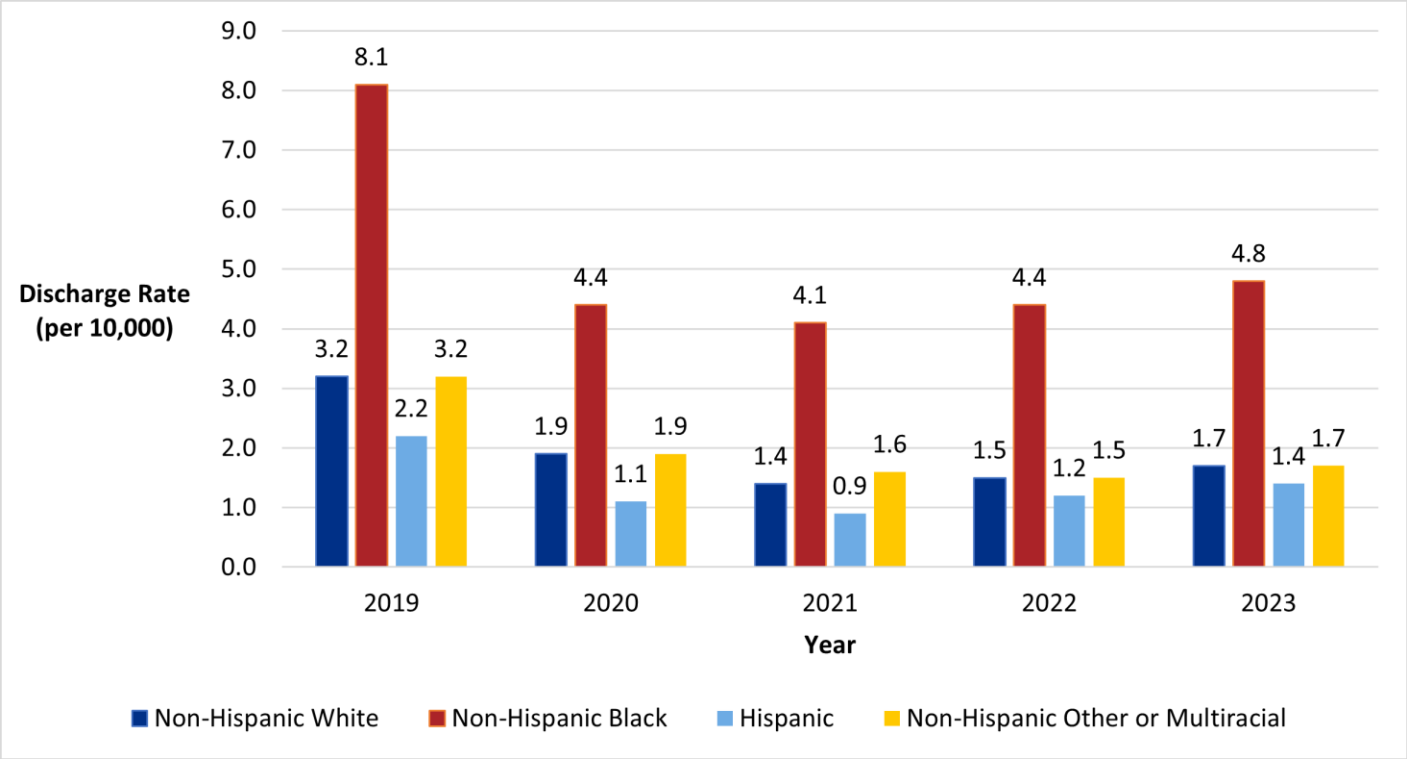


Data Source: Texas Health Care Information Collection (THCIC), Inpatient Hospital Discharge Public Use Data File, 2019-2023.

Figure 2.1 Interpretation

Asthma inpatient discharge rates per 10,000 adults decreased from 2019 to 2023, a difference of 1.2 discharges per 10,000 adults. However, the 2023 discharge rate of 2.0 per 10,000 adults is significantly higher than the 2022 rate of 1.8 per 10,000 adults.

Figure 2.2: Adult Asthma Inpatient Discharge Rates (per 10,000), by Demographic Group, Texas, 2019-2023



Data Source: Texas Health Care Information Collection (THCIC), Inpatient Hospital Discharge Public Use Data File, 2019-2023.

Figure 2.2 Interpretation

Adult asthma inpatient discharge rates differ significantly when stratifying by population groups. Every year from 2019 to 2023, non-Hispanic Black adult inpatient discharge rates for asthma are significantly higher than other demographic groups.

Figure 2.3: Age-Adjusted Adult Asthma Inpatient Discharge Rates (per 10,000), by Public Health Region (PHR), Texas, 2023

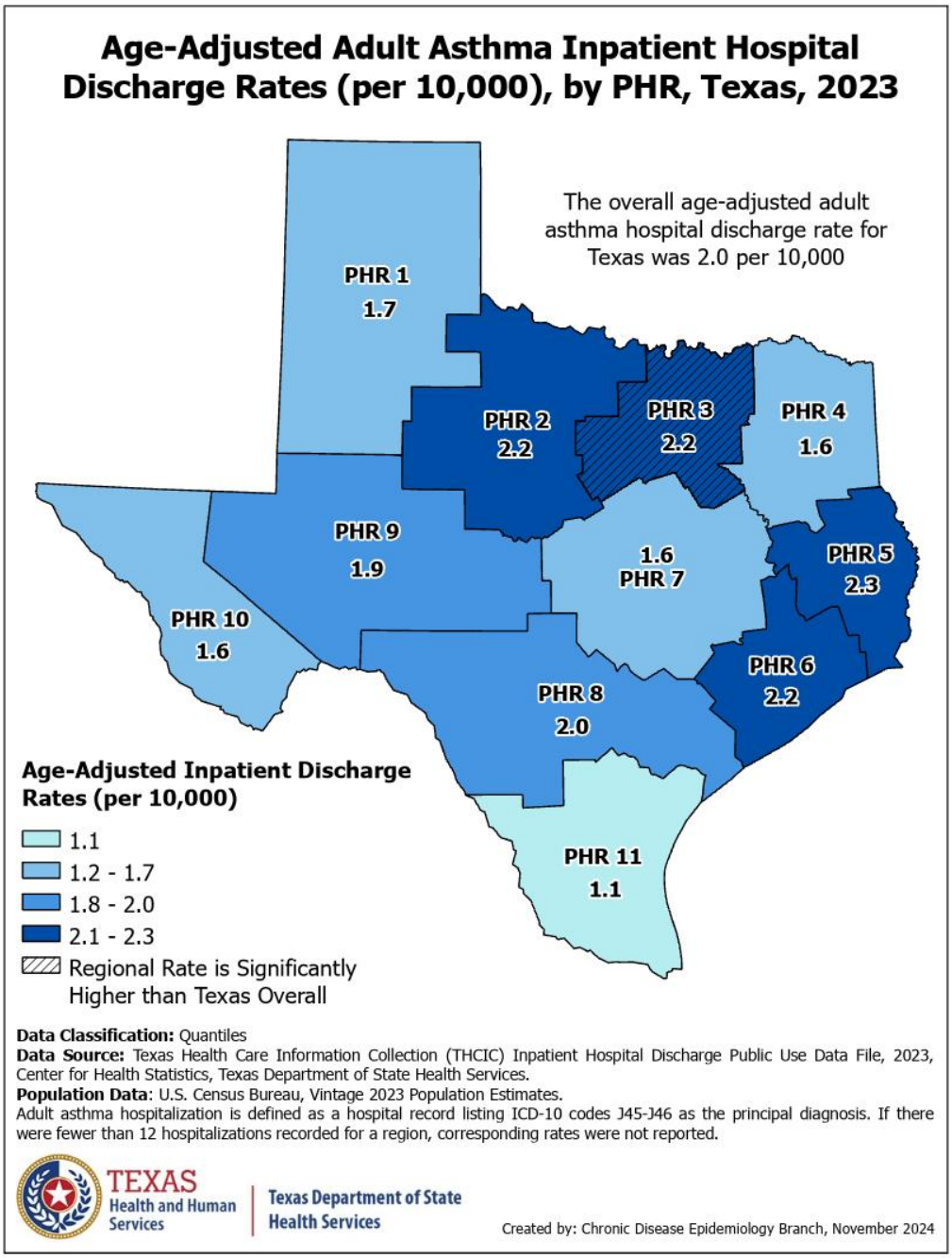
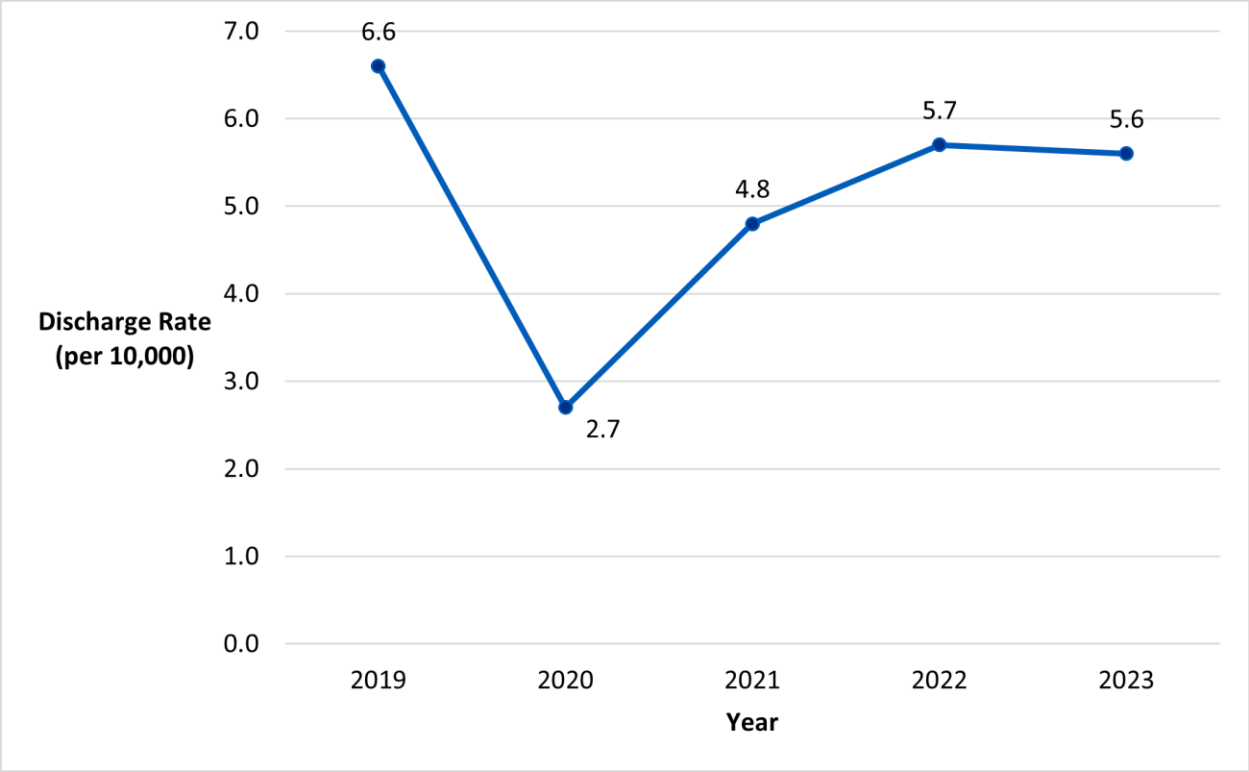


Figure 2.3 Interpretation

2023 adult asthma inpatient discharge rates in PHRs 2, 3, 5, and 6 are higher than the Texas overall discharge rate. PHR 3 has a discharge rate of 2.2 per 10,000 adults and is the only PHR with a significantly higher regional rate than the Texas overall discharge rate.

Figure 2.4: Child Asthma Inpatient Discharge Rates (per 10,000), Texas, 2019-2023

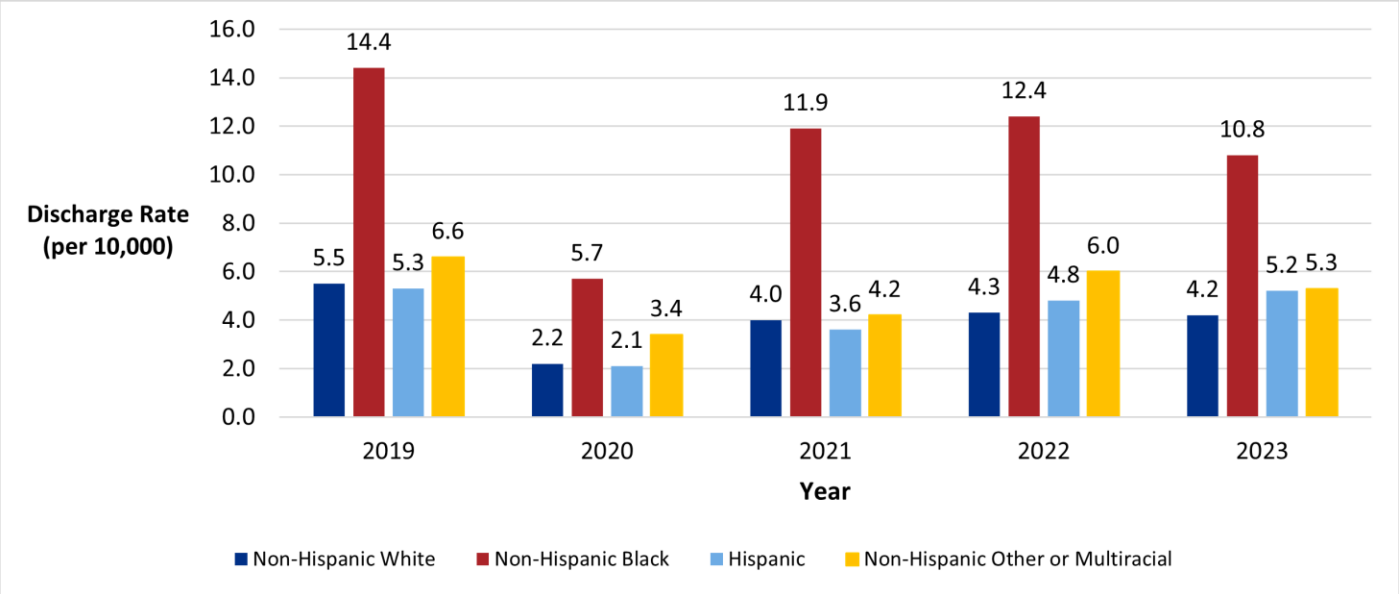


Data Source: Texas Health Care Information Collection (THCIC), Inpatient Hospital Discharge Public Use Data File, 2019-2023

Figure 2.4 Interpretation

Asthma inpatient discharge rates per 10,000 children has decreased from 2019 to 2023, with a difference of 1.0 discharges per 10,000 children.

Figure 2.5: Child Asthma Inpatient Discharge Rates (per 10,000), by Demographic Group, Texas, 2019-2023



Data Source: Texas Health Care Information Collection (THCIC), Inpatient Hospital Discharge Public Use Data File, 2019-2023

Figure 2.5 Interpretation

Child asthma inpatient discharge rates follow the same trend as adult discharge rates, with non-Hispanic Black child inpatient discharge rates significantly higher than other demographic groups.

Figure 2.6: Age-Adjusted Child Asthma Inpatient Discharge Rates (per 10,000), by PHR, Texas, 2023

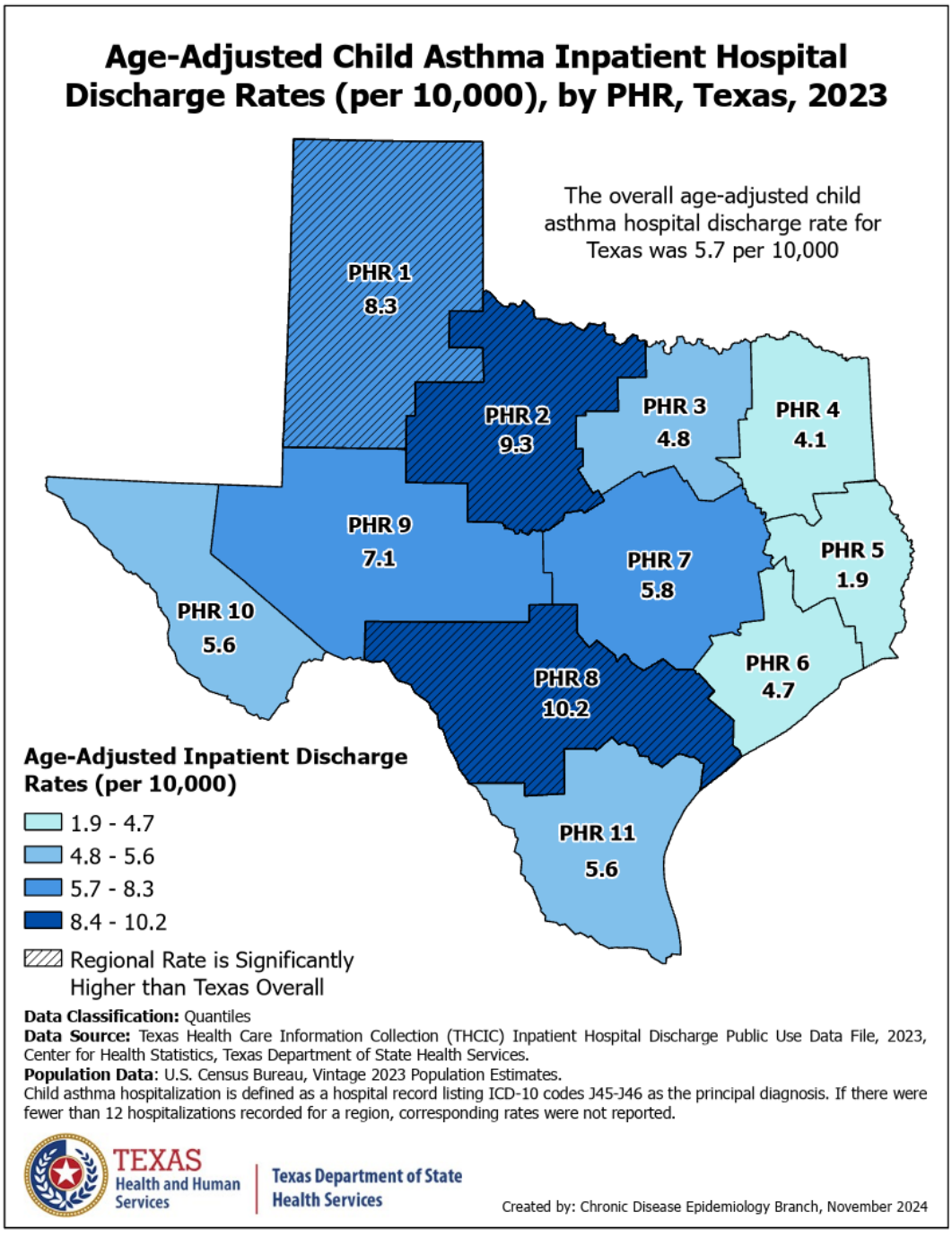
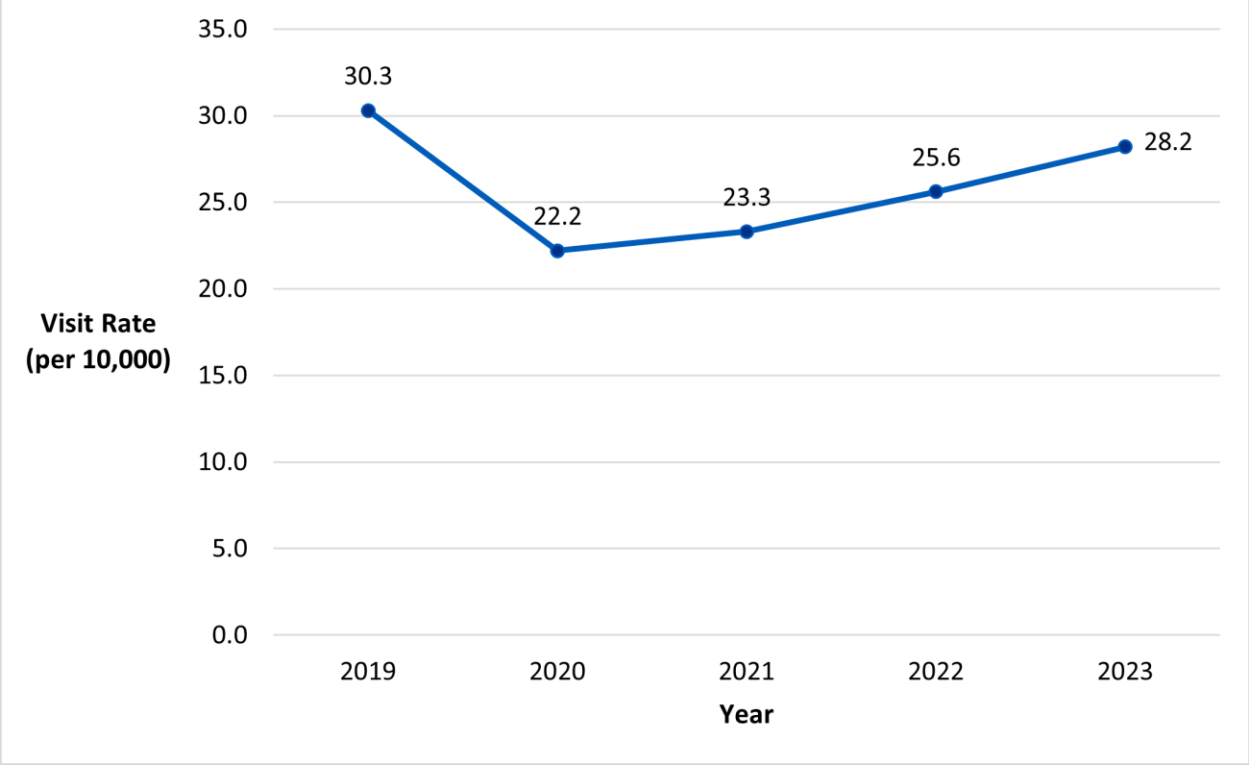


Figure 2.6 Interpretation

In 2023, child asthma inpatient discharge rates in PHRs 1, 2, and 8 were significantly higher than the Texas overall rate of 5.7 per 10,000 children.

Emergency Department Data

Figure 2.7: Adult Asthma Emergency Department Visit Rates (per 10,000), Texas, 2019-2023

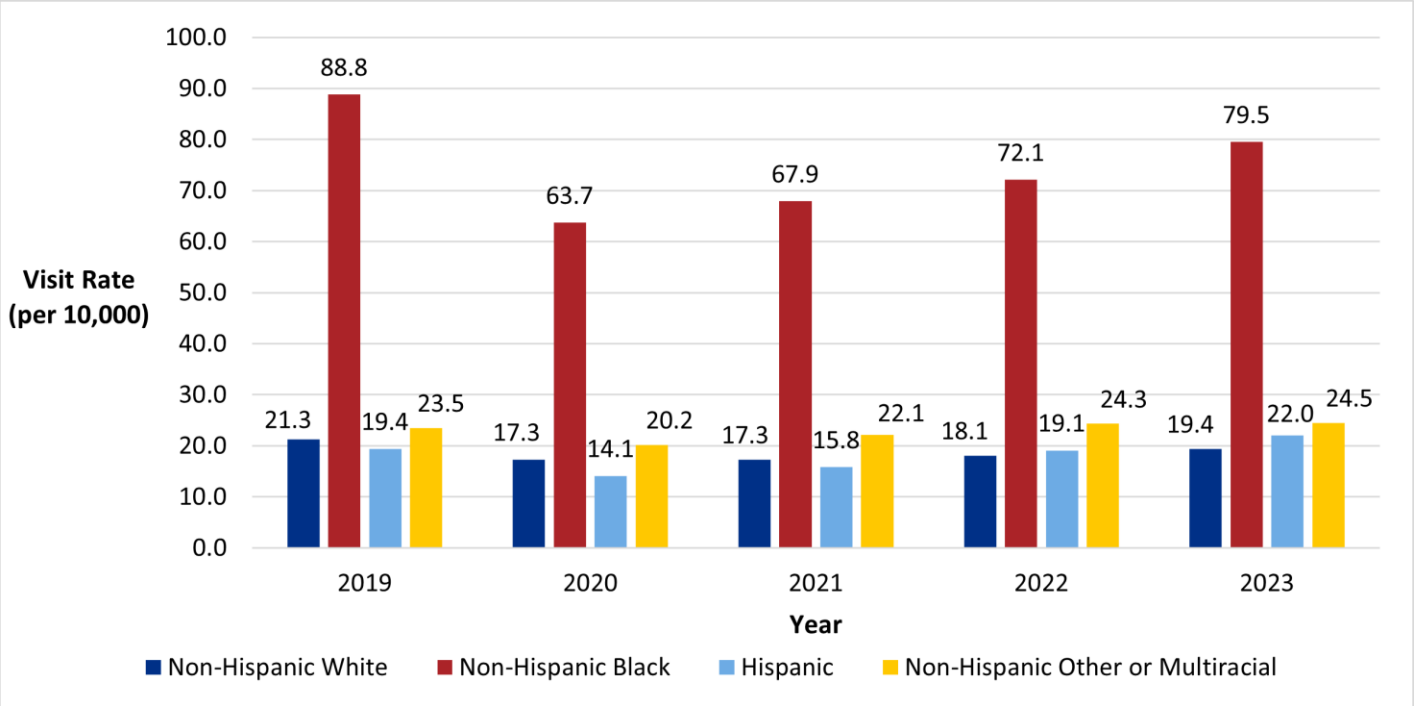


Data Source: Texas Health Care Information Collection (THCIC), Emergency Department Visit Public Use Data File, 2019-2023

Figure 2.7 Interpretation

Asthma emergency department visit rates per 10,000 adults decreased by 2.1 visits per 10,000 adults from 2019 to 2023. However, the 2023 emergency department visit rate of 28.2 per 10,000 adults is significantly higher than the 2022 rate of 25.6 per 10,000 adults.

Figure 2.8: Adult Asthma Emergency Department Visit Rates (per 10,000), by Demographic Group, Texas, 2019-2023



Data Source: Texas Health Care Information Collection (THCIC), Emergency Department Visit Public Use Data File, 2019-2023

Figure 2.8 Interpretation

Adult asthma emergency department visit rates vary significantly across population groups from 2019 to 2023. Non-Hispanic Black adult emergency department visit rates for asthma are significantly higher than other demographic groups' visit rates.

Figure 2.9: Age-Adjusted Adult Asthma Emergency Department Visit Rates (per 10,000), by Public Health Region (PHR), Texas, 2023

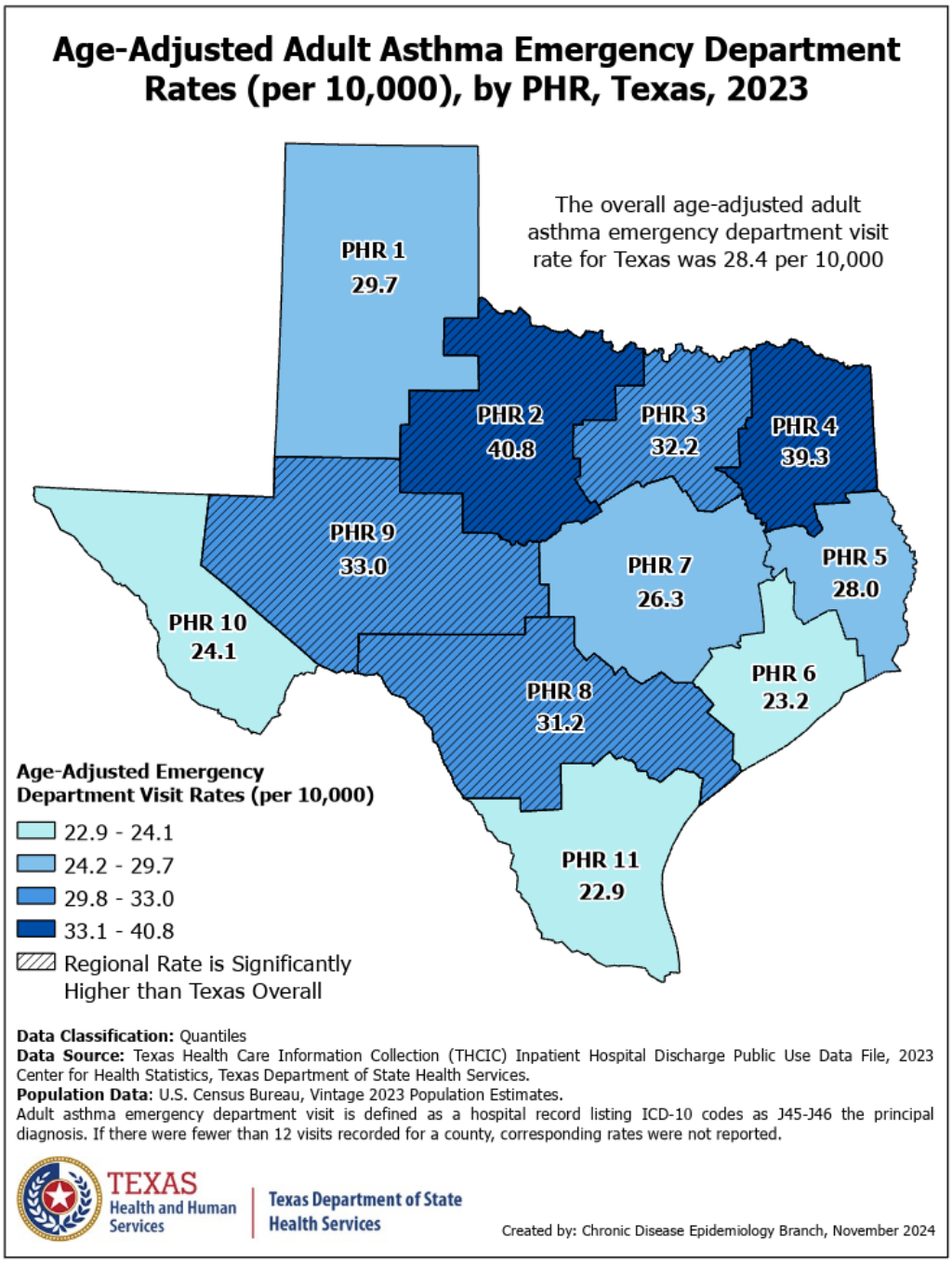
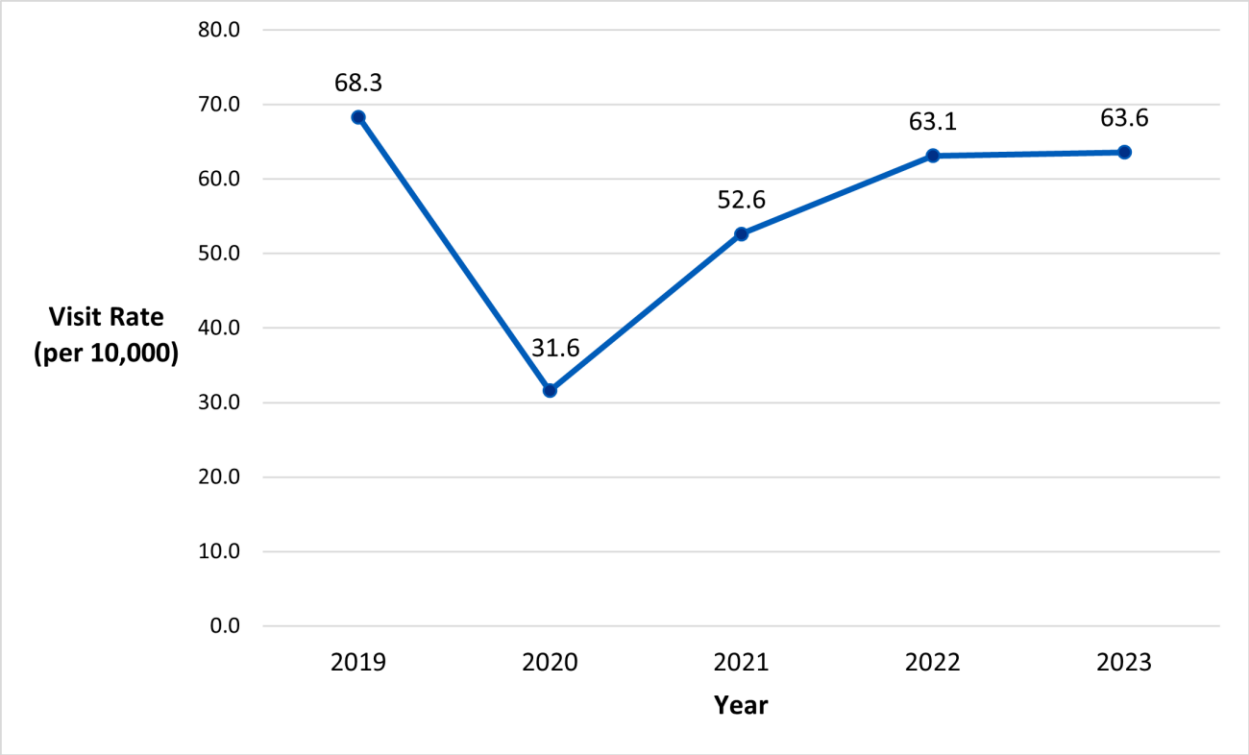


Figure 2.9 Interpretation

Adult asthma emergency department visit rates in PHRs 2, 3, 4, 8, and 9 were all significantly higher than the Texas overall emergency department visit rate of 28.4 per 10,000 adults.

Figure 2.10: Child Asthma Emergency Department Visit Rates (per 10,000), Texas, 2019-2023

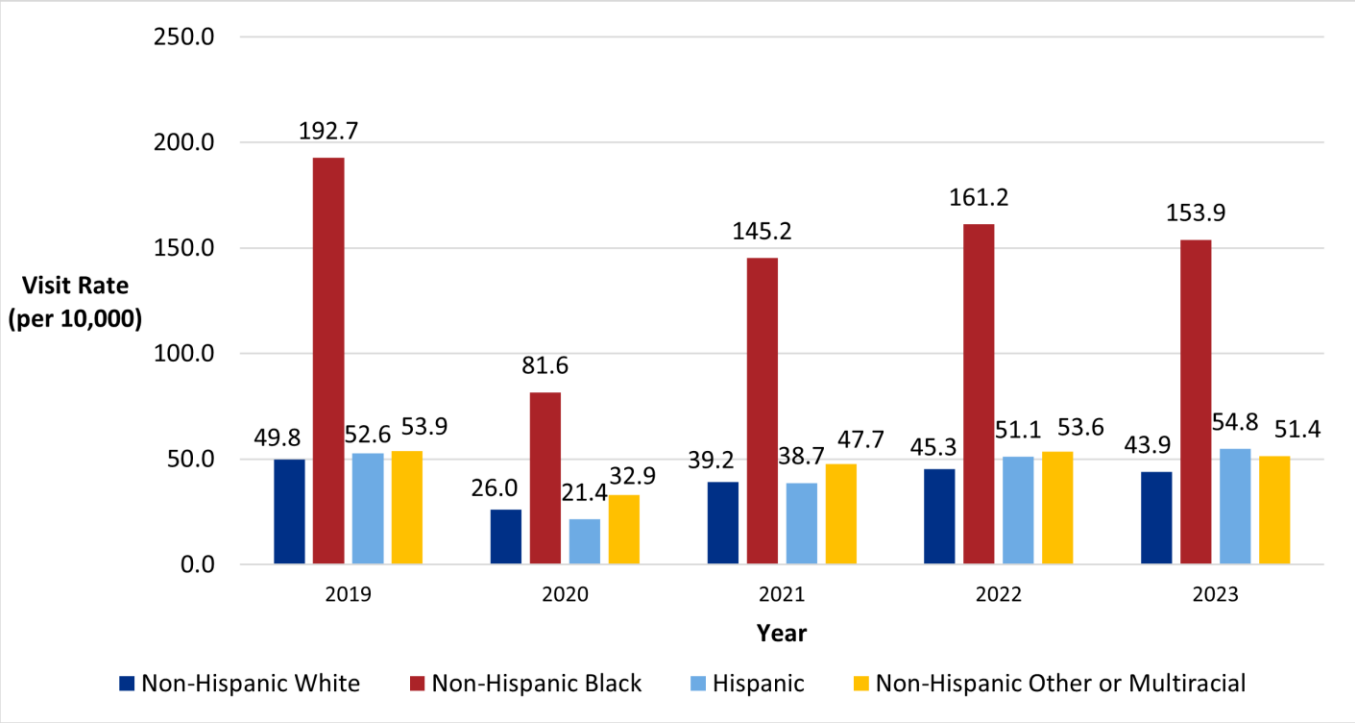


Data Source: Texas Health Care Information Collection (THCIC), Emergency Department Visit Public Use Data File, 2019-2023

Figure 2.10 Interpretation

Asthma emergency department visit rates per 10,000 children decreased by 4.7 visits per 10,000 children from 2019 to 2023. The rates between 2022 and 2023 are not significantly different.

Figure 2.11: Child Asthma Emergency Department Visit Rates (per 10,000), by Demographic Group, Texas, 2019-2023



Data Source: Texas Health Care Information Collection (THCIC), Emergency Department Visit Public Use Data File, 2019-2023

Figure 2.11 Interpretation

Child asthma emergency department visit rates follow the same trend as adult asthma rates when stratifying by population groups. Since 2019, emergency department visit rates for asthma among non-Hispanic Black children are significantly higher than other population groups.

Figure 2.12: Age-Adjusted Child Asthma Emergency Department Visit Rates (per 10,000), by PHR, Texas, 2023

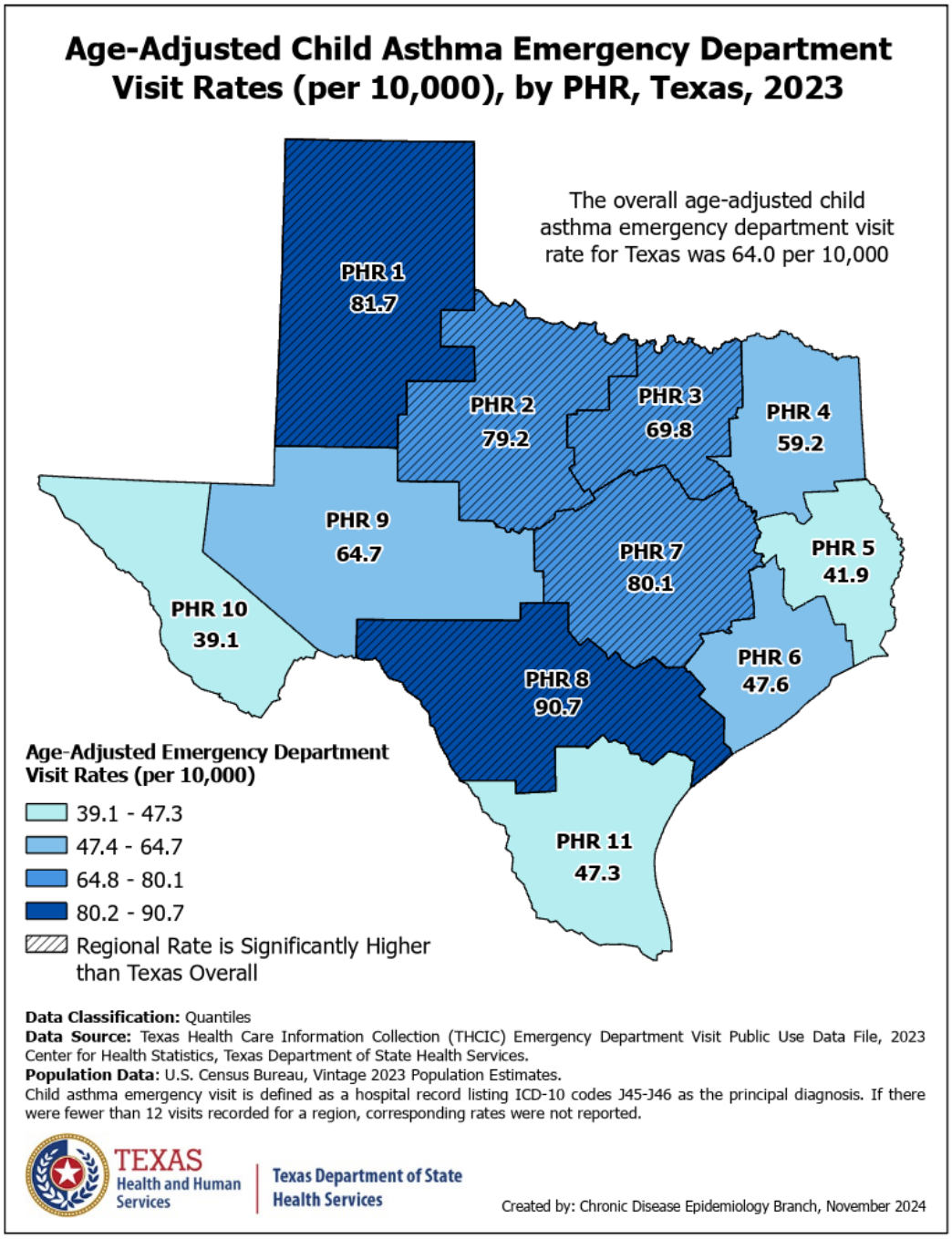
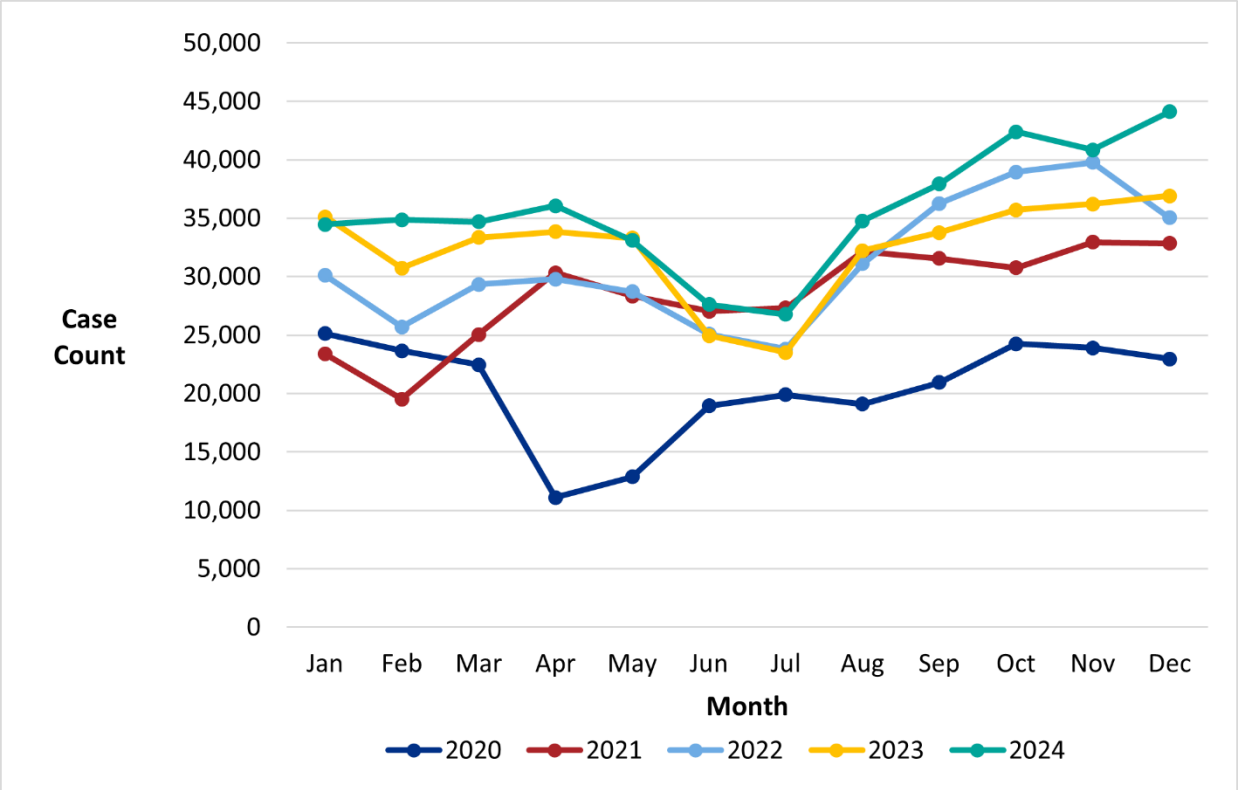


Figure 2.12 Interpretation

In 2023, child asthma emergency department visit rates in PHRs 1, 2, 3, 7, and 8 were all significantly higher than the Texas overall emergency department visit rate of 64.0 per 10,000 children.

Syndromic Surveillance Data

Figure 2.13: Syndromic Surveillance of Asthma Cases, by Month, Texas, 2020-2024



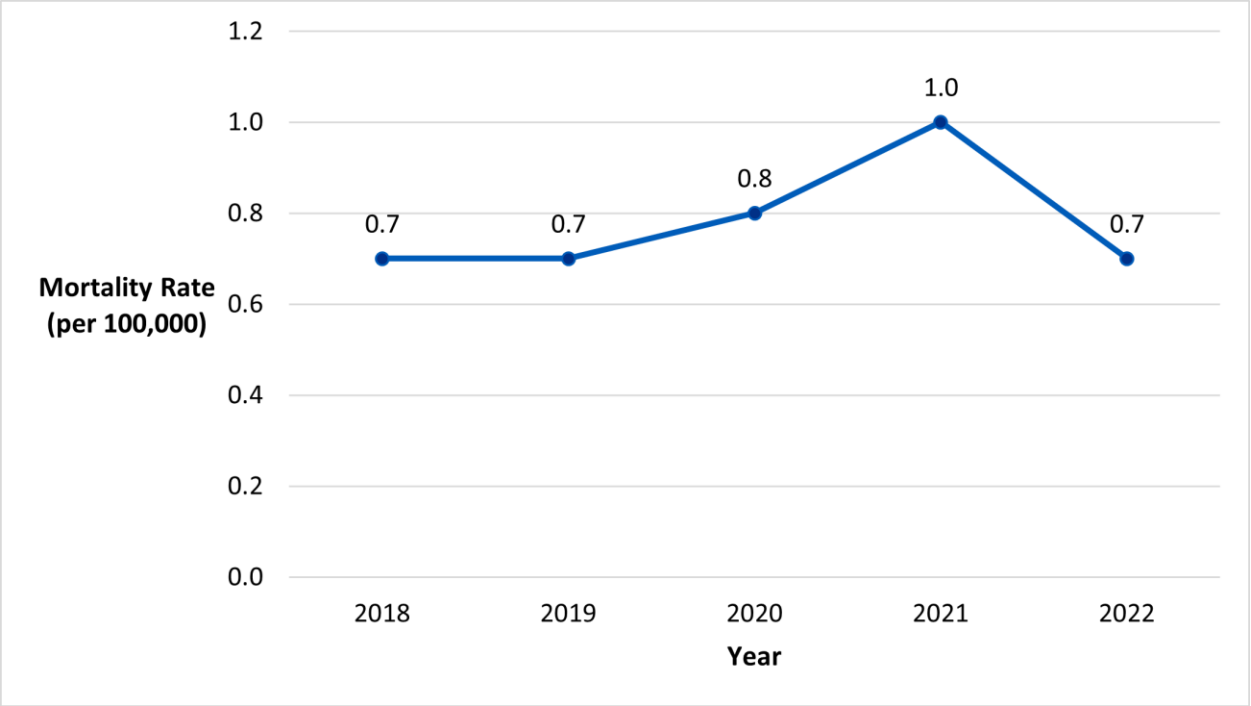
Data Source: Texas Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE), Texas Syndromic Surveillance (TxS2), 2020-2024

Figure 2.13 Interpretation

The syndromic surveillance of asthma cases in Texas is provided by hospitals and emergency care facilities that have opted in to submitting data into TxS2, the Texas syndromic surveillance system. Case counts represent the number of people admitted to the hospitals and emergency departments due to asthma-related diagnoses. The TxS2 system also allows for the analysis of trends across months and between each year in 2020-2024. The data are among all age groups (ages 0 and older). During a given year, the syndromic case counts of asthma remain mostly stable with elevated counts during certain months, such as April, October, and December. When assessing 2020-2024 data, 2024 monthly counts are among the highest. Only January 2023 and July 2021 had higher syndromic case counts than their respective 2024 counts.

Mortality Data

Figure 3.1: Asthma Mortality Rates (per 100,000), Texas, 2018-2022



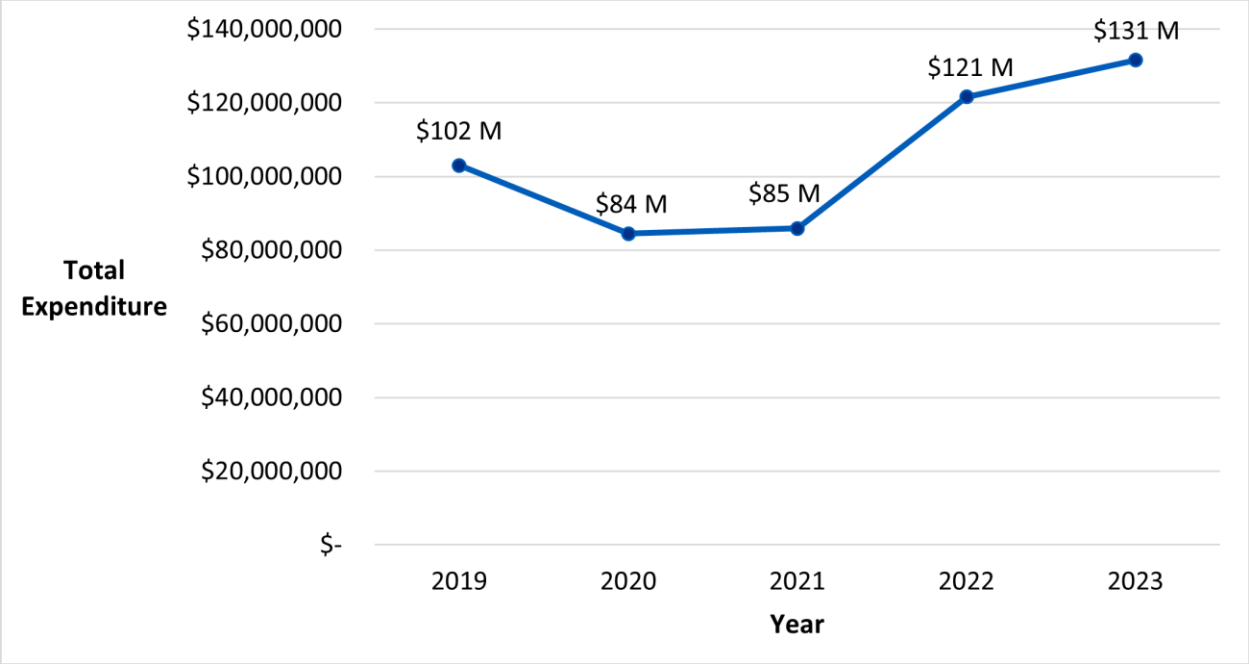
Mortality Data Source: Center for Health Statistics, Texas Department of State Health Services
Cause of Death: Asthma (ICD-10 Codes J45-J46)

Figure 3.1 Interpretation

Asthma mortality rates per 100,000 people in Texas has remained stable from 2018 to 2022. There has been no difference between 2018 and 2022 mortality rates. The 2021 mortality rate of 1.0 death attributable to asthma per 100,000 people is not significantly higher than the 2020 rate, while the 2022 mortality rate of 0.7 deaths per 100,000 people is significantly lower than the 2021 rate.

Claims Data

Figure 4.1: Texas Medicaid Expenditures for Asthma, Including Managed Care Long-Term Services and Supports, Texas, 2019-2023



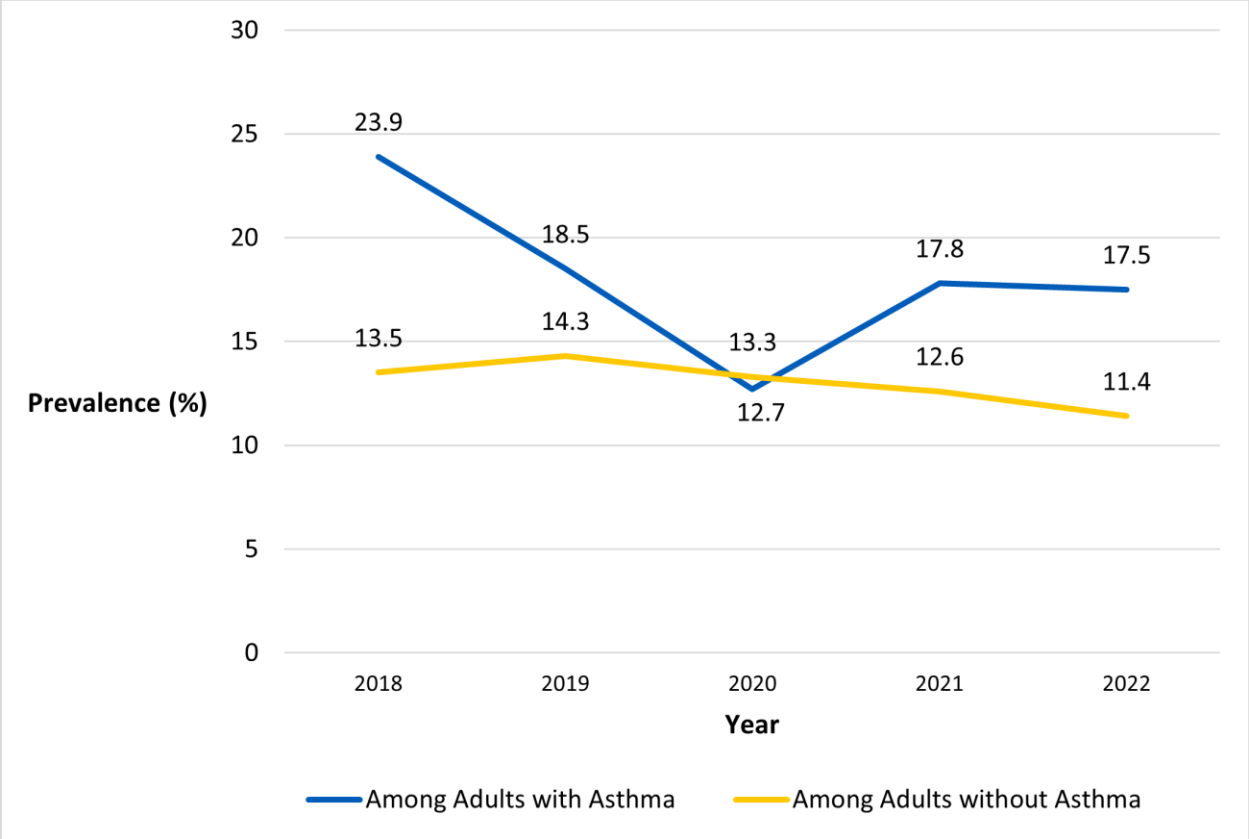
Data Source: Analytical Data Store (ADS), TMASP Database, Texas Medicaid and Healthcare Partnership (TMHP); 8-Month Medicaid Eligibility Database, HHSC.

Figure 4.1 Interpretation

Texas Medicaid utilization and expenditures for asthma have increased from 2019 to 2023 when including managed care long-term services and supports. There was an increase of about $29 million in expenditures between 2019 and 2023.These data include inpatient, outpatient, and professional health care services, and they were obtained from paid medical fee-for-service claims and managed care encounters.

Tobacco Data

Figure 5.1: Prevalence of Current Cigarette Smoking Among Adults with and without Asthma, Ages 18 and Older, in Texas, 2018-2022

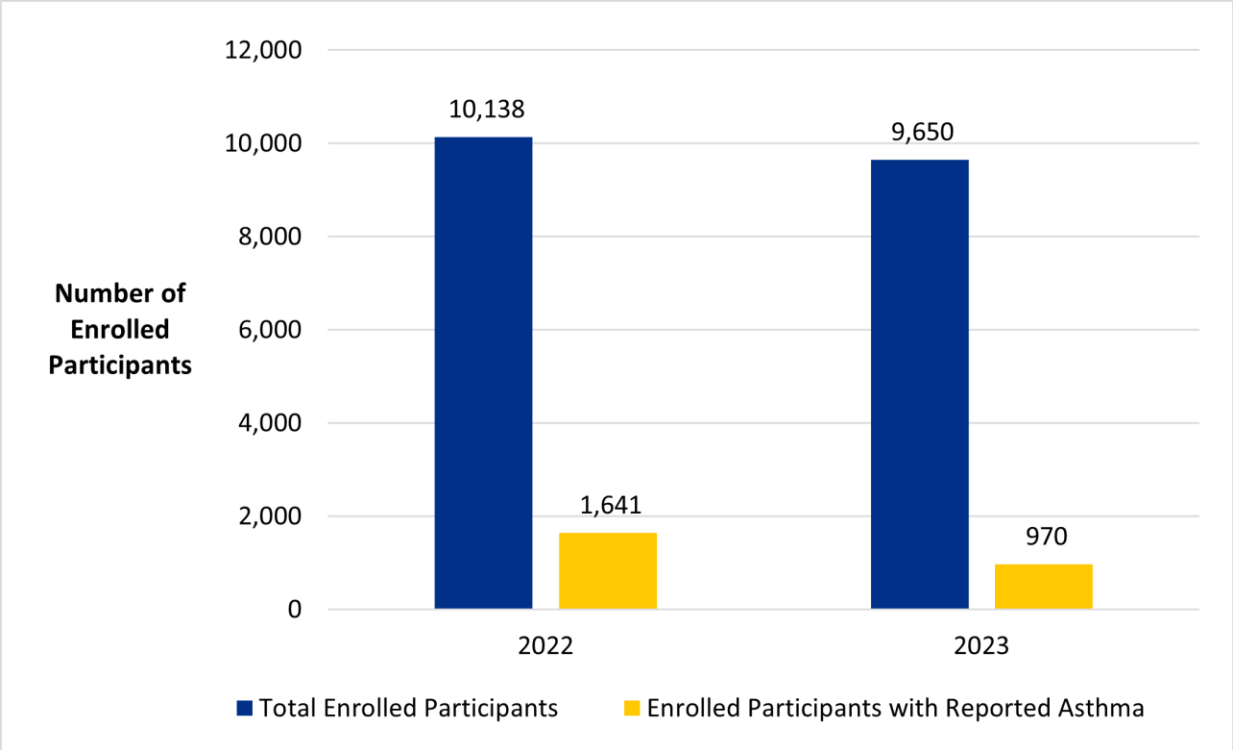


Data Source: Texas Behavioral Risk Factor Surveillance System Public Use Data File, 2018-2022, Texas Department of State Health Services, Center for Health Statistics, Austin, TX.

Figure 5.1 Interpretation

The prevalence of current adult cigarette smoking can be analyzed by asthma status. For most years between 2018 and 2022, current cigarette smoking was higher among adults with asthma compared to current cigarette smoking among adults without asthma. In 2020, current cigarette smoking among adults with asthma was lower at 12.7 percent compared to 13.3 percent of adults without asthma who currently smoke cigarettes.

Figure 5.2: Enrolled Texas Tobacco Quitline (TTQL) Participants with Reported Asthma, 2022-2023



Note: In February 2023, the TTQL switched services platforms. With the platform switch, TTQL began offering phone and digital services. Prior to February 2023, TTQL services were provided by phone.

Data Source: RVO Health, TTQL, 2022-2023

Figure 5.2 Interpretation

In 2022, there were a total of 10,138 participants enrolled in quit coaching services. Of those 10,138 enrolled participants, 1,641 (16.19 percent) reported having asthma. In 2023, there were a total of 9,650 participants enrolled in quit coaching services. Of those 9,650 enrolled participants, 970 (10.05 percent) reported having asthma.

Appendix

Data Sources

Texas Behavioral Risk Factor Surveillance System (BRFSS)

The Texas BRFSS is a telephone survey of randomly selected Texans, conducted on a monthly basis to collect data on health behaviors that contribute to the leading causes of death and chronic disease. The BRFSS is an important public health tool for measuring public health by reaching out directly to adult Texans to learn more about chronic disease prevalence, risk behaviors, demographics, health care access, and preventive behaviors. To request access to a public-use data file or custom data analysis, contact: BRFSS@dshs.texas.gov.

Texas Health Care Information Collection (THCIC)

The purpose of THCIC is to provide data that will enable Texas community members to make informed health care decisions. THCIC's charge is to collect data and report on the quality performance of hospitals and health maintenance organizations operating in Texas. The goal is to provide information that will enable healthcare consumers (general public, researchers, data consultants and health care facilities) to have an impact on the cost and quality of health care in Texas. Additional information and data are available by contacting: THCIChelp@dshs.texas.gov.

Texas Syndromic Surveillance (TxS2)

Texas Syndromic Surveillance is the statewide syndromic surveillance system available for use by local health departments, DSHS programs, and data providers for enhanced surveillance of emerging public health conditions or threats. The purpose of syndromic surveillance is to protect the health of the community through data-driven public health interventions and consolidation of health-related data statewide. Hospitals with emergency departments, free standing emergency rooms, urgent care clinics, and individual medical professionals who work in those facilities are eligible to submit data to TxS2. Patient data is captured from EHRs and sent automatically to the TxS2 system; thus, facilities do not manually input the data outside of normal entry in their EHR. Data are stored in a secure database and accessed by users through the analysis software known as ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics). The syndrome definition used for asthma is the "CDC Asthma Chief Complaint/Discharge Diagnosis (CCDD) v1" which utilizes query criteria for terms related to asthma, bronchospasm, and reactive airway disease that appear in chief complaints. Discharge diagnosis codes from ICD-10-CM and SNOMED CT were also used. For more information about TxS2, please contact: Syndromic.Surveillance@dshs.texas.gov.

Texas Tobacco Quitline (TTQL)

The Texas Tobacco Prevention and Control Program (TPCP) at the Texas Department of State Health Services (DSHS) contracts with Red Ventures and Optum (RVO) Health to provide tobacco cessation services to Texans through the TTQL. The TTQL offers free and confidential tobacco cessation services and support to Texas residents ages 13 years and older, including nicotine replacement therapy and quit coaching. For more information about TTQL data or service offerings, please contact: Tobacco.Free@dshs.texas.gov.

Vital Statistics Data

The Vital Events Data Management team within DSHS Center for Health Statistics is responsible for developing, analyzing, and distributing public health data derived from records of vital events and demographic data on births, deaths, fetal deaths, marriages, and divorces. Additional information and data are available upon request by emailing: Vstat@dshs.texas.gov.

Texas Asthma Control Program

dshs.texas.gov/asthma