CANCER IN TEXAS 2024



Texas Department of State Health Services

Acknowledgements

Cancer Reporters

The Texas Cancer Registry (TCR) thanks all cancer reporters for their dedication, hard work, and collaboration. Their efforts help Texas meet national high-quality and timeliness standards, and they play a significant role in contributing to TCR's mission and the fight against cancer.

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Introduction

Purpose

DSHS is required to maintain the TCR — a statewide population-based registry that serves as the foundation for measuring the cancer burden in Texas. Texas Health and Safety Code, Section <u>82.007</u>, requires DSHS to publish an annual report to the legislature summarizing information collected by the TCR. The CDC National Program of Cancer Registries (NPCR) requires that TCR create and disseminate a comprehensive cancer surveillance report. The Cancer in Texas 2024 report serves these dual purposes.

The Cancer in Texas report is compiled annually to provide an overview of cancer incidence, mortality, prevalence, survival, and other statistics from the most recent data available. The report covers:

- Total number of Texas cancer survivors;
- Estimated numbers of new cancer cases and deaths in 2024;
- Statistics for common cancer sites by sex and racial/ethnic groups;
- Trends in cancer incidence rates; and
- Information about how TCR data are used for statistics, public health surveillance, and research.

About the Texas Cancer Registry

TCR collects information about all reportable cancers diagnosed or treated in the state. TCR's goal is to collect, maintain, and disseminate the highest quality cancer data that will contribute to improving early diagnoses, treatments, survival, and quality of life for all cancer patients.

TCR is the primary source for population-based cancer data in Texas and serves as the foundation for measuring the state's cancer burden; comprehensive cancer-control efforts; health disparities; and progress in cancer prevention, diagnosis, treatment, and survivorship. TCR also supports a wide variety of cancer-related research. Public health organizations, academic institutions, and the private sector rely on timely, complete, and accurate cancer data from TCR.

TCR is one of the largest cancer registries in the United States. It is one of 12 state registries funded by both the NCI SEER Program and CDC NPCR. TCR joined the SEER Program in 2021.

TCR currently meets the NPCR high-quality data standards, and is Gold Certified by the North American Association of Central Cancer Registries (NAACCR).

Cancer in Texas 2024 Report: An Overview

An estimated 1,010,469 Texans are cancer survivors.

This is 3.4 percent of the Texas population. These Texans were diagnosed with cancer between 1995-2020 and were alive as of January 1, 2021.

Cancer Incidence

- In 2024, an estimated 143,349 new cancer cases are expected to be diagnosed in Texas.
- The overall age-adjusted incidence rate for all invasive (malignant) cancers diagnosed during 2017-2021 in Texas was 424.5 per 100,000 population.

Cancer Mortality

- Cancer is the second leading cause of death in Texas. In 2024, an estimated 48,335 cancer deaths are expected among Texans.
- The 2017-2021 overall age-adjusted cancer death rate in Texas was 145.3 per 100,000 population.

Cancer Survival

- Texans who are diagnosed with invasive cancer are (on average) about 68 percent as likely as those without cancer to live for at least five years after their diagnosis.
- Relative survival rates for Texans vary by cancer site. The five-year relative survival rates for prostate and female breast cancers are 98 and 91 percent, respectively, whereas relative survival rates are much lower for other cancers, including liver (hepatic) and intrahepatic bile duct cancer and pancreatic cancer (21 and 14 percent, respectively).
- Survival rates also vary significantly by stage at diagnosis. The five-year relative survival rate is highest for Texans diagnosed at an early stage of disease (90 percent). If cancer has spread to distant organs or tissues, the five-year relative survival rate drops to 36 percent.

Recent Cancer Trends in Texas, 2012-2021

- Age-adjusted cancer incidence rates for all cancers combined have remained stable, but the number of new cancer cases continues to increase.
- Among the 10 most common cancers in women, incidence rates are rising for melanoma, breast, uterine, kidney, and pancreatic cancers, whereas rates are falling for lung and thyroid cancers.
- Among the 10 most common cancers in men, incidence rates are rising for melanoma, liver and intrahepatic bile duct, oral cavity and pharyngeal, and kidney and renal pelvis cancers, whereas rates are falling for leukemia and lung cancer.
- Colorectal, female breast, and uterine cancers are three common cancers where incidence rates have increased in recent years among adults younger than 50 years of age in Texas.

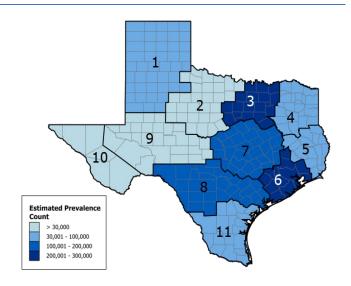
Living with Cancer

Cancer prevalence is the number of people alive on a certain date who have ever been diagnosed with cancer. It provides an estimate of the number of cancer survivors and is a function of incidence (new cases diagnosed) and survival. In 2021, there were an estimated 1,010,469 cancer survivors in Texas. These Texans were diagnosed with cancer between 1995-2020 and were alive as of January 1, 2021.

The number of cancer survivors in Texas is increasing for many reasons. More people are being diagnosed with cancer, treatment is improving, and cancers are being caught earlier. Also, the number of people living with cancer increases as the population grows.

Early diagnosis plays a critical role in determining the prognosis and long-term survival of individuals with cancer. Detecting cancer at an early stage when it is small and localized increases the chances of successful treatment and cure.

Estimated Number of Cancer Survivors by Texas Public Health Region





Cancer survivors are defined as people who have ever been diagnosed with cancer. This includes individuals currently living with cancer, who may be undergoing treatment, and those with a history of cancer, who are currently free of cancer.

For more information, visit <u>dshs.texas.gov/texas-cancer-registry/cancer-statistics/cancer-prevalence</u>.

Estimates for New Cancer Cases and Deaths for 2024

TCR used Texas cancer incidence and mortality data from 2016 to 2021 (excluding 2020) to estimate the number of expected new cancer cases and cancer deaths in 2024. Data from 2020 were excluded because the modeling and forecasting programs used are not designed to accommodate large singleyear data anomalies (resulting from the impact of the COVID-19 pandemic). Estimates are based on invasive cancers only, which are cancers that have spread beyond the layer of tissue in which they originally developed and are growing into healthy, surrounding tissue. Invasive cancer excludes carcinoma in situ, which is a condition where a group of abnormal cells are found only in the place where they first formed and have not spread to nearby tissue.

In 2024, an estimated 143,349 new cancer cases are expected to be diagnosed in Texas. This includes 69,583 cancers in women and 73,766 in men. The most common cancers are breast, prostate, lung, and colorectal, which account for nearly half of all cancer diagnoses in Texas. Cancer remains a leading cause of death from disease in Texas. In 2024, an estimated 48,335 Texans are expected to die from cancer (22,417 women and 25,919 men). Lung cancer is the most common cause of cancer death in Texas, followed by colorectal, breast, and pancreas cancers. These four cancers account for approximately 46 percent of all cancer deaths.

Estimated New Cases for Leading Cancer Sites and Estimated Number of Leading Causes of Cancer Death, by Sex, 2024

Leading Cancer Sites for Women

Cancer Site	Estimated New Cases	% of Total
Breast	21,083	30.3
Lung and Bronchus	7,620	11.0
Colon and Rectum	5,724	8.2
Corpus Uterus	4,481	6.4
Thyroid	2,723	3.9

Leading Cancer Sites for Men

Cancer Site	Estimated New Cases	% of Total
Prostate	17,864	24.2
Lung and Bronchus	8,653	11.7
Colon and Rectum	7,038	9.5
Kidney and Renal Pelvis	4,273	5.8
Urinary Bladder	3,989	5.4

Leading Causes of Cancer Death for Women

Cancer Site	Estimated Deaths	% of Total
Lung and Bronchus	4,665	20.8
Breast	3,535	15.8
Colon and Rectum	2,000	8.9
Pancreas	1,688	7.5
Ovary	1,103	4.9

Leading Causes of Cancer Death for Men

Cancer Site	Estimated	% of
Caricer Site	Deaths	Total
Lung and Bronchus	5,847	22.6
Colon and Rectum	2,665	10.3
Prostate	2,425	9.4
Liver and Intrahepatic Bile Duct	1,959	7.6
Pancreas	1,806	7.0

For more information, visit dshs.texas.gov/tcr/data/estimates.aspx.

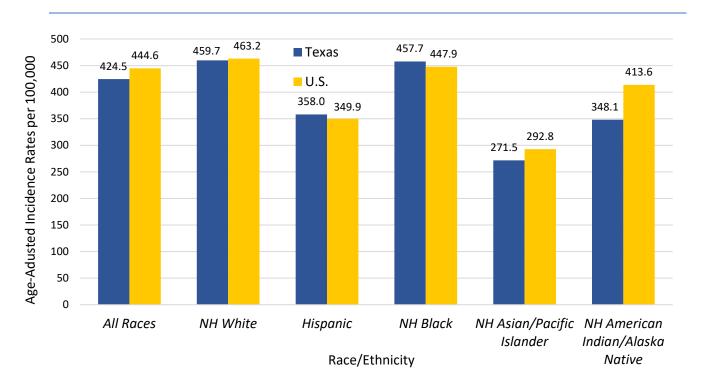
Cancer Incidence by Race/Ethnicity

Cancer incidence is the number of newly diagnosed cases that occur during a specific time period, most often one year. An age-adjusted incidence rate is a widely used statistical measure that allows groups to be compared because it adjusts for differences in age distributions. TCR generated age-adjusted cancer incidence rates for all sites combined and for the leading five cancer sites to examine disparities in cancer occurrence.

Cancer incidence rates vary among race and ethnic groups in Texas. TCR analyzed cancer incidence data for all sites combined and for the leading five cancer sites to examine differences in cancer occurrence.

Similar to findings in the U.S., overall cancer incidence rates (per 100,000 population) were highest among non-Hispanic (NH) White Texans (459.7) followed by NH Black (457.7), Hispanic (358.0), NH American Indian/Alaska Native (348.1), and NH Asian and Pacific Islander (271.5) Texans. Compared to the U.S., cancer incidence rates for Texas NH White, NH Asian and Pacific Islander, and NH American Indian/Alaska Native Texans are lower. However, for NH Black and Hispanic Texans, cancer incidence rates are higher compared to the U.S. rates.

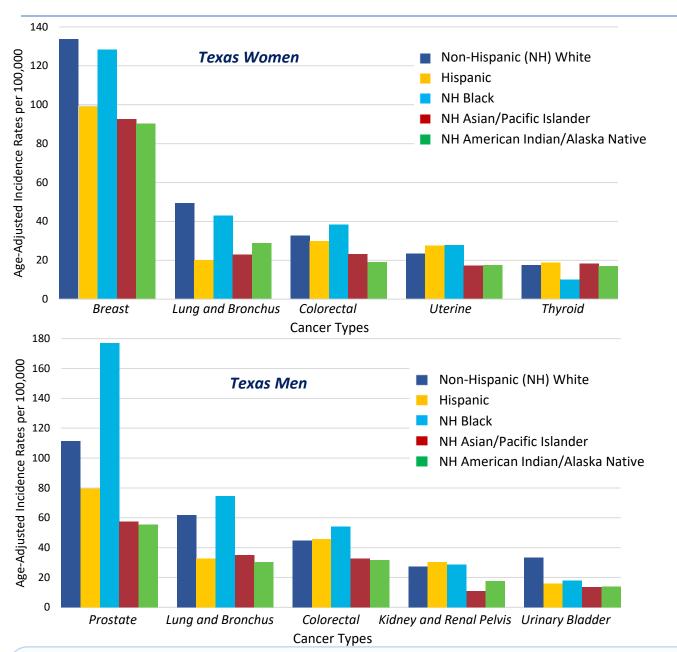
Cancer Incidence Rates by Race/Ethnicity, Texas and U.S., 2017-2021



For more information, visit <u>dshs.texas.qov/texas-cancer-registry/cancer-statistics/cancer-incidence-mortality</u>.

Cancer Incidence by Race/Ethnicity





<u>Women</u>: NH White and Black women had the highest rates of breast, lung and bronchus, and colorectal cancers. For uterine cancer, rates were highest among NH Black and Hispanic women.

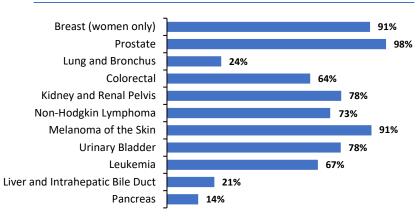
<u>Men</u>: NH Black men had the highest rates of prostate, lung and bronchus, and colorectal cancers. Hispanic men had the highest rate of kidney and renal pelvis cancer, whereas the rate of urinary bladder cancer was more than twice as high among NH White men compared to all other groups.

Cancer Survival

Five-year relative survival is a commonly used measure of cancer survival. It represents the percentage of people who have survived for five years after their cancer diagnosis compared to those without cancer. Survival statistics provide an overall picture, but each person is unique, and their survival time may be higher or lower.

The estimated five-year relative cancer survival rate in Texas is 68 percent. This means that Texans who are diagnosed with cancer are (on average) about 68 percent Liver as likely as those without cancer to live for at least five years after their diagnosis. The relative cancer survival rate is the same in the U.S.

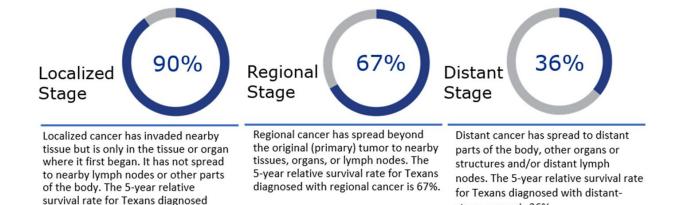
Five-Year Relative Survival Percentage by Cancer Type



stage cancer is 36%.

Survival rates vary significantly by several factors. One important factor is cancer type, as shown in the bar graph above. Five-year relative survival rates for the most common cancers — prostate and female breast cancers — are 98 percent and 91 percent, respectively. The lowest five-year survival rates among the most commonly diagnosed cancers are for liver and intrahepatic bile duct and pancreatic cancers (21 percent and 14 percent, respectively). Cancer stage at diagnosis also significantly influences survival rates. Staging is a way of classifying how much cancer is in the body and how far it has spread. The chart above and graphic below are based on individuals diagnosed with cancer between 2014 to 2020 and followed through December 31, 2021.

Five-Year Relative Survival Percentage by Stage at Diagnosis



For more information, visit dshs.texas.gov/texas-cancer-registry/cancer-statistics/cancer-survival-texas.

with localized cancer is 90%.

Special Topic: Trends in Cancer Incidence

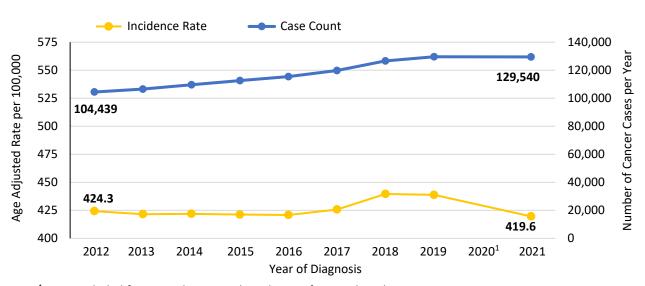
To monitor progress in cancer prevention, early detection, and treatment, TCR generates incidence trend statistics. The metric used to assess the magnitude of trends is called the Annual Percent Change (APC). It represents the average percent change in rate from year to year during the analysis period.

Trends are described as stable, non-significantly changing, rising, or falling. Trends are only classified as rising or falling if they are non-zero and statistically significant. For example, a statistically significant APC of +2.0 can be interpreted as a cancer rate rising by 2.0 percent per year.

Overall, age-adjusted cancer incidence rates have remained relatively stable in Texas over the past 10 years of complete data (2012-2021), but the number of new cancer cases continues to increase. The increase in case counts is mostly due to an aging and growing Texas population.

The age-adjusted cancer death rate in Texas dropped by nearly 1.7 percent per year over the last decade. Still, cancer remains the second leading cause of death in Texas. In addition, more detailed descriptions of cancer trends in Texas follow, showing that specific groups are still facing increasing incidence rates at certain cancer sites.

Trends in Invasive Cancer Cases and Incidence Rates, Texas, 2012-2021



¹2020 excluded from trends. See *Technical Notes for Trend Analyses* on page 15.

Special Topic: Trends in Cancer Incidence

Cancer Incidence Trends by Sex

TCR examined trends in age-adjusted cancer incidence rates over the past 10 years of complete data (2012-

2021) for men and women separately. Among Texas women, incidence rates are rising for melanoma, breast, uterine, kidney, and pancreatic cancers. The steepest increases occurred in melanoma and uterine cancer. Among Texas men, incidence rates of melanoma, liver and intrahepatic bile duct, kidney, and oral cavity and pharyngeal cancers are rising.

Largely resulting from ongoing decreases in tobacco use, lung cancer rates are falling in both men and women. Additionally, thyroid cancer incidence rates are decreasing among Texas women, and leukemia incidence rates are decreasing among Texas men.



Annual Percent Change (APC) and Incidence Rate Trends for Top 10 Cancer Types by Sex, Texas, 2012-2021¹

Women Men

Cancer Site	APC (%)	Trend	Cancer Site	APC (%)	Trend
Breast	+1.1*	Rising	Prostate	+1.9	NS increase
Lung and Bronchus	-1.8*	Falling	Lung and Bronchus	-3.5*	Falling
Colon and Rectum	+0.1	Stable	Colon and Rectum	-0.3	Stable
Uterine	+2.7*	Rising	Kidney and Renal Pelvis	+1.2*	Rising
Thyroid	-2.0*	Falling	Urinary Bladder	-0.8	NS decrease
Kidney and Renal Pelvis	+0.9*	Rising	Non-Hodgkin Lymphoma	-0.4	Stable
Non-Hodgkin Lymphoma	-0.8	NS decrease	Melanoma of the Skin	+2.9*	Rising
Pancreas	+1.2*	Rising	Liver and IHBD	+1.4*	Rising
Leukemia	+0.3	Stable	Leukemia	-0.7*	Falling
Melanoma of the Skin	+3.3*	Rising	Oral Cavity and Pharynx	+1.0*	Rising

¹ The cancers shown are the leading cancer types for women and men, based on frequency of diagnosis in Texas.

^{(*) =} statistically significant change; NS = not statistically significant; IHBD = intrahepatic bile duct.

Special Topic: Trends in Cancer Incidence

Cancer Incidence Trends by Age Group for Select Cancer Sites

TCR examined trends in age-adjusted cancer incidence rates by age group. Colorectal cancer incidence rates have increased among adults younger than 50 years of age — an age group where a cancer diagnosis is defined as "early-onset." Similar trends were seen for uterine cancer incidence rates. For both colorectal and uterine cancers, incidence rates increased by more than 3 percent per year over the last decade (2012-2021) among Texans ages 20-34 years. Cervical cancer incidence trends were examined for smaller (five-

year) age groups among women in their twenties, allowing TCR to identify that cervical cancer incidence rates are significantly decreasing among women ages 20-24 years (APC = -13.3). This decrease likely reflects the first signs of cancer prevention from routine human papillomavirus (HPV) vaccination of Texas adolescents. However, cervical cancer incidence rates are rising by approximately 2 percent per year among women ages 40-49 years.

Site-Specific Cancer Incidence Trends by Age Group, Texas, 2012-2021

Colorectal Cancer

APC **Age Group Trend** (%) (years) 20-34 +3.4* Rising +2.0* 35-49 Rising 50-64 +0.9 NS increase 65-79 -1.0 NS decrease 80+ -1.2 NS decrease

Uterine Cancer

Age Group (years)	APC (%)	Trend
20-34	+3.1*	Rising
35-49	+3.3*	Rising
50-64	+2.4*	Rising
65-79	+3.0*	Rising
80+	+1.6	NS increase

Cervical Cancer

Age Group (years)	APC (%)	Trend
20-24	-13.3*	Falling
25-29	-4.2	NS decrease
30-39	+2.2	NS increase
40-49	+1.9*	Rising
50+	+0.8	NS increase

(*) = statistically significant change; NS = not statistically significant.



Texas Cancer Statistics and Data Visualizations

TCR has made significant efforts to ensure Texas cancer data are available and accessible. The following online resources include TCR data and provide information on the burden of cancer in Texas.

TCR Website

dshs.texas.gov/tcr/

The TCR website offers a wide variety of data products, including statistical tables and reports. It also includes information for those interested in obtaining data for research.

TCR Data Visualizations Tool

cancer-rates.info/tx

The TCR Data Visualizations Tool allows users to customize cancer incidence and mortality rate tables and maps by cancer site, sex, year, race/ethnicity, county, public health region, council of government, metro statistical area, or micro statistical area. Rates and counts can be examined by early and late stage for breast, colorectal, and cervical cancers.

USCS Data Visualizations Tool

gis.cdc.gov/cancer/USCS/#/AtAGI
ance/

The U.S Cancer Statistics (USCS)
Data Visualizations Tool provides information on the numbers and rates of new cancer cases and deaths at the national, state, and

county levels. Additional statistics include trends, prevalence, and survival. Data for Texas are available by sex, age, race and ethnicity, and geography.

CiNA Explorer

apps.naaccr.org/explorer/

Cancer in North America (CiNA) Explorer is an interactive tool that provides easy access to a wide range of cancer statistics. Detailed statistics are available for Texas by cancer site, sex, race/ethnicity, age, and stage.

SEER*Explorer

<u>seer.cancer.gov/statistics-</u> <u>network/explorer/</u>

SEER*Explorer is an interactive website that shows a wide range of SEER cancer statistics. It includes detailed statistics for specific cancers sites by sex, race/ethnicity, and age. For a selected number of cancer sites, statistics are available by stage and histology.

NCCR*Explorer

nccrexplorer.ccdi.cancer.gov/

NCCR*Explorer is an interactive tool that provides incidence and survival statistics for cancers in

children, adolescents, and young adults diagnosed from 1999 onward using data from the National Childhood Cancer Registry (NCCR). Detailed statistics are available by sex, race/ethnicity, and age, allowing for comparison across cancer sites and subsites.

CDC/NCI State Cancer Profiles

statecancerprofiles.cancer.gov

State Cancer Profiles provides a dynamic view of cancer statistics for prioritizing cancer control efforts across the nation. The tool includes data on incidence, mortality, risk factors for cancer, and cancer screening, by state.

National Environmental Public Health Tracking Network Data Explorer

ephtracking.cdc.gov/DataExplorer/

CDC's Data Explorer Tool can be used to create maps, charts, and tables to explore different health topics, including cancer. Available statistics include incidence rates, prevalence, and standardized incidence ratios.

Research Using TCR Data

TCR Data Use by the Numbers

New data products, including statistical tables, reports, and data briefs, created and disseminated by

Average number of publications in peer-reviewed journals that use TCR data each

Institutional Review Board (IRB)-approved studies that use TCR data.

119

TCR data support \$119 million in grant funding.

Aver data com epid

Average number of data requests completed by TCR epidemiologists each year.

TCR Collaborations through Data Linkages

TCR epidemiologists

each year.

TCR collaborates extensively with partners across the agency, state, and country through conducting probabilistic data linkages in support of cancer research studies. Many of these linkages involve TCR epidemiologists linking a study's cohort data to the TCR database to obtain cancer outcomes on the study's participants. A selection of studies and projects that link with TCR data are shown below:

SEER-Medicare

healthcaredelivery.cancer.gov/seermedicare/

Virtual Pooled Registry – Cancer Linkage System naaccr.org/about-vpr-cls/

Transplant Cancer Match Study transplantmatch.cancer.gov

World Trade Center Health Registry nyc.gov/site/911health/index.page

NIH-AARP Diet and Health Study dietandhealth.cancer.gov

Black Women's Health Study bu.edu/bwhs/

American Cancer Society's Cancer Prevention Study-3 <u>cancer.org/research/cps3-cancer-prevention-study-3.html</u>

HIV/AIDS Cancer Registry Match Study hivmatch.cancer.gov

Childhood Cancer Survivor Study ccss.stjude.org/

Mexican American (Mano a Mano) Cohort Study mano-mano.us

Parkland-UT Southwestern PROSPR Research Center: Colon Cancer and Cervical Cancer Screening healthcaredelivery.cancer.gov/prospr/

More information on TCR's data linkage process can be found here: <u>dshs.texas.gov/texas-cancer-registry/data-requests-tcr/research-data/data-linkages</u>.

Resources, Technical Notes, and Data Sources

Resources

The TCR website lists organizations that provide additional information on cancer that might be helpful to the general public, patients, caregivers, and survivors. This information is available at <u>dshs.texas.gov/texas-cancer-registry/additional-resources-cancer-information</u>.

The Texas Cancer Plan, developed by CPRIT, is the state's call to action for cancer research, prevention, and control. The Texas Cancer Plan identifies the cancer challenges and issues that affect the state. It includes goals, objectives, and strategies to help inform and guide the fight against cancer and is available at *cprit.texas.gov/about-us/texas-cancer-plan*.

Technical Notes: The COVID-19 Pandemic

According to CDC and NCI, the COVID-19 pandemic disrupted health services, leading to delays and reductions in cancer screening and diagnosis. This likely contributed to lower incidence rates for most cancer sites in 2020. Because 2020 was a temporary, anomalous year caused by the pandemic, including 2020 data in cancer incidence trend analyses can lead to biased estimates. Accordingly, TCR excludes 2020 data in incidence trend analyses and in forecasting models (i.e., estimating the number of expected cases for a given year that is not yet complete). The 2020 incidence data are included in all other cancer statistics in this report, including relative survival, five-year aggregate (2017-2021) cancer incidence rates, and prevalence estimates.

Data Sources

Texas Incidence and Survival Data: TCR (<u>dshs.texas.gov/tcr</u>) SEER*Stat Database, 1995-2021 Incidence, Texas statewide, 2023 Submission, cutoff 10/09/2023. CESB, DSHS, created March 2023.

U.S. Incidence and Survival Data: NPCR and SEER Incidence SEER*Stat Database: NPCR and SEER Incidence - USCS Public Use Research Database, 2023 Submission (2001-2021). United States Department of Health and Human Services (HHS), CDC and NCI. Released June 2024.

Expected Survival Data: U.S. population life tables by socioeconomic status/geography/race-ethnicity groups (Non-Hispanic (NH) white, NH Black, NH American Indian/Alaskan Native, NH Asian and Pacific Islander, and Hispanics) 1992-2021, Ages 0-99, State-county (modeled by varied state-county-socioeconomic status).

Texas Mortality Data: TCR (<u>dshs.texas.gov/tcr</u>) SEER*Stat Database, 1990-2021 Mortality, Texas statewide. CESB, DSHS, created March 2023.

U.S. Mortality Data: USCS - Mortality: 1999 – 2021 and Mortality: 2018-2022, WONDER Online Database. HHS, CDC; 2024.



Texas Cancer Registry

dshs.texas.gov/TCR