

# Texas Cancer Registry Annual Report 2022

As Required by
Texas Health and Safety Code,
Section 82.007

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## **Executive Summary**

The Texas Cancer Incidence Reporting Act (Health and Safety Code, Section 82.001) requires the Department of State Health Services (DSHS) to maintain the Texas Cancer Registry (TCR) — a statewide population-based registry that serves as the foundation for measuring the cancer burden in Texas. Data from the TCR are used to assess comprehensive cancer control efforts, health disparities, and progress in cancer prevention, diagnosis, treatment, and survivorship, as well as support a wide variety of cancer-related research. This important work cannot be adequately addressed by state and local government, academic institutions, or the private sector without the timely, complete, and accurate cancer data provided by the TCR.

<u>Health and Safety Code, Section 82.007</u>, requires DSHS to publish information obtained under the Act in an annual report to the Legislature. The following are key findings discussed in this report.

- In 2022, an estimated 137,308 new cases of cancer will be diagnosed in Texas, and an estimated 47,067 Texans will die from cancer.
- In 2022, an estimated 1,316 new cases and 155 cancer deaths are expected to occur in Texas children (birth to 14 years). An additional 620 new cases and 76 cancer deaths are expected in Texas adolescents (15 to 19 years).
- The most diagnosed cancers are breast cancer for women and prostate cancer for men.
- Lung cancer is the leading cause of cancer death in Texas. An estimated 10,441 lung cancer deaths are expected to occur in 2022.
- During the past two decades, lung, colorectal, and prostate cancer incidence rates have decreased markedly. Incidence rates are increasing for uterine, kidney and renal pelvis, and pancreas cancer.
- In 2019, cancer was the second most common cause of death in Texas for adults; however, cancer was the leading cause of death in 34 Texas counties.
- Cancer is the leading cause of disease-related death in Texas past infancy among children and adolescents ages 1 to 19 years.
- Sixty-seven percent of Texans survive five years or more after being diagnosed with cancer.

• The number of cancer survivors continues to increase; as of January 1, 2019, 909,147 Texans who were diagnosed with cancer in the last 24 years are alive today.

## 1. Introduction

The Texas Cancer Incidence Reporting Act (<u>Health and Safety Code, Section</u> 82.001) requires the Department of State Health Services to maintain a cancer registry for the state that includes a record of cancer cases that are diagnosed and/or treated in Texas, and collect information that can be used for prevention, early detection, diagnosis, treatment, and survivorship of cancer.

As required by <u>Health and Safety Code</u>, <u>Section 82.007</u>, the purpose of this report is to provide an annual summary of the information collected by the Texas Cancer Registry (TCR).

This report highlights the role of the TCR in collecting, maintaining, and disseminating accurate, precise, and current information that serves as a tool in the control of cancer. The report provides an overview of key cancer statistics using the most current and complete data available (cases diagnosed through 2019), as well as the estimated number of new cases and deaths expected in 2022. The report also includes information on the different ways TCR data are used.

## 2. Background

#### **Cancer Causes and Prevention**

Cancer is not a single disease but rather a group of related diseases characterized by uncontrolled growth and spread of abnormal cells.¹ Cancer can occur in many different sites in the body. If the spread of abnormal cells is not controlled, cancer can invade other organs and tissues. Some cancer cells can spread to distant places in the body through the blood or the lymphatic system and form new tumors. The uncontrolled growth and spread of cancer can result in serious health problems and death.

Cancer is caused by both internal and external factors. Internal factors are conditions and characteristics that exist within the body, such as genetics, hormones, and immune conditions. External factors are behaviors and environmental conditions that affect health, such as tobacco use, excess body weight, infectious organisms, chemicals, and ultraviolet radiation. These causal factors may act together to start the development of cancer. Often 10 or more years pass between exposure to external factors and detectable cancer.

The American Cancer Society (ACS) estimates that, excluding non-melanoma skin cancer, at least 42 percent of cancers are preventable. This includes 19 percent that are caused by smoking and 18 percent that are attributable to a combination of alcohol consumption, poor nutrition, excess body weight, and physical inactivity. Certain cancers are caused by infectious agents such as viruses and bacteria, which could be prevented through treating the infection, behavioral changes, or vaccination.

Cancer screening can reduce the risk of developing and dying from cancer by detecting cancers early at more treatable stages. Screening has been shown to reduce mortality from cancers of the colon and rectum, breast, uterine cervix, prostate, and lung.<sup>2</sup> Additionally, screening for colorectal and cervical cancers can find growths and remove them before they have a chance to turn into cancer.

<sup>&</sup>lt;sup>1</sup> American Cancer Society. Cancer Facts & Figures 2022. Atlanta: American Cancer Society; 2022.

<sup>&</sup>lt;sup>2</sup> American Cancer Society. Cancer Prevention & Early Detection Facts & Figures 2021–2022. Atlanta: American Cancer Society; 2021.

For more information on the types, causes, and prevention of cancer, visit the ACS website <u>cancer.org</u>.

#### The Texas Cancer Registry

Cancer registries collect information about cancer cases, including the location of the cancer in the body, the specific type(s) of cells affected, the spread of the disease, patient demographics, whether the patent survives, and the ultimate cause of death. This information is used to monitor the cancer burden in the population, identify trends and patterns, and identify high-risk groups and behaviors. Public health officials and policymakers use registry data to guide the planning of cancer control programs and prioritize resources.

The TCR was first established by the 66th Texas Legislature in 1979 and reauthorized by the Texas Cancer Incidence and Reporting Act in 1989. The TCR is one of the largest cancer registries in the United States. In 2021, 329,728 reports of cancer were received from more than 550 hospitals, cancer treatment centers, ambulatory surgery centers, and pathology laboratories across Texas. Of these, 13,320 reports were for out-of-state residents. These reports are sent to their residing state cancer registry, providing a significant contribution to the national cancer surveillance system. Similarly, the TCR receives reports of Texans diagnosed with cancer outside of Texas from other state cancer registries.

The TCR first met the Centers for Disease Control and Prevention's (CDC) "high quality" data standards in 2004 and achieved Gold Certification from the North American Association of Central Cancer Registries (NAACCR) in 2006. The data standards and gold certification have been maintained each year since, except in 2013 when the TCR received NAACCR Silver Certification.

In 2021, the TCR joined the National Cancer Institute's Surveillance, Epidemiology and End Results (SEER) Program. The TCR is now one of twelve state registries funded by both SEER and CDC's National Program of Cancer Registries. The SEER contract provides about \$8.9 million in funding for TCR over seven years. The TCR also receives funding from the Cancer Prevention and Research Institute of Texas.

More information can be found at dshs.texas.gov/tcr.

## 3. Cancer in Texas

The Texas Cancer Registry (TCR) examines cancer incidence, mortality, survival, and prevalence to assess the burden of cancer in Texas.

Incidence is the number of new cancers diagnosed, and mortality is the number of new cancer deaths occurring in a specified population during a specific time period. Incidence and mortality rates are most often expressed as the number of new cases or deaths, respectively, per 100,000 individuals in the population at risk. Childhood cancer rates are typically presented as the number of cases or deaths per one million children.

Because cancer incidence and mortality increase with age, incidence and mortality are commonly expressed as age-adjusted rates. Age-adjusted rates allow for fairer comparisons between groups with different age distributions. The age-adjusted incidence rate in 2019 of all cancers in Texas is 412 cases per 100,000 population.

Cancer survival is assessed using the percentage of cancer patients who have survived for a certain period of time after their cancer diagnosis. *Five-year relative survival* is a commonly used measure of cancer survival as it represents the percentage of cancer patients who have survived for five years after diagnosis compared to the expected survival of people without cancer.

Cancer prevalence estimates the number of people alive on a certain date who have ever been diagnosed with cancer.

## **Cancer Incidence**

The TCR used Texas cancer incidence data from 2015 to 2019 to estimate the number of new invasive cancer cases expected to be diagnosed in 2022. This method accounts for expected delays in case reporting and considers geographic variations in sociodemographic and lifestyle factors, medical settings, and cancer screening behaviors as predictors of incidence.<sup>3</sup>

In 2022, an estimated 137,308 new cancer cases are expected to be diagnosed in Texas. Although cancer incidence rates overall continue to decline, the number of newly diagnosed cancer cases continues to increase with the aging and growth of

<sup>&</sup>lt;sup>3</sup> Zhu L, et al. Predicting US- and state-level cancer counts for the current calendar year. Cancer 2012; 118(4):1100-9.

the Texas population, and other population changes in cancer risk factors. In recent years, the overall cancer incidence rates in the United States (US) have been stable for both sexes combined and in males but have slightly increased for females.

For women in both the US and Texas, breast cancer is the most commonly diagnosed cancer. In Texas women, an estimated 19,921 cases of breast cancer are expected to be diagnosed in 2022, followed by lung cancer (7,248 cases) and colorectal cancer (5,489 cases). The fourth and fifth leading cancers in women are cancers of the uterus and thyroid.

Among men in both the US and Texas, prostate cancer is the most commonly diagnosed cancer. In Texas men, an estimated 16,966 cases of prostate cancer are expected to be diagnosed in 2022, followed by lung cancer (8,564 cases) and colorectal cancer (6,955 cases). The fourth and fifth most commonly diagnosed cancers in men are kidney and renal pelvis and urinary bladder cancer.

Over the past two decades, lung, colorectal, and prostate cancer incidence rates have markedly decreased due to reduced smoking rates and an increase in screenings. Though incidence rates continue to decline for many cancer types, incidence rates are increasing for uterine, kidney and renal pelvis, and pancreas cancer. Similar trends are seen in the US population, except for US prostate incidence rates, which remain stable.

## **Cancer Mortality**

In 2019, cancer was the second most common cause of death in both the US and Texas. In 2019, cancer was also the leading cause of death in 34 Texas counties.<sup>4</sup> The 2019 age-adjusted cancer mortality rate in Texas was 141 cancer deaths per 100,000 population.

In The TCR used Texas cancer mortality data from 2015 to 2019 to estimate the number cancer deaths expected to occur in 2022. In 2022, an estimated 47,067 Texans, or over 128 people per day, are expected to die from cancer.

Lung cancer is the leading cause of cancer death in the US and Texas for males and females, accounting for 22 percent of all estimated cancer deaths in Texas in 2022. Cigarette smoking is the leading risk factor for lung cancer. The duration of smoking and number of cigarettes smoked per day significantly impact cancer risk.

<sup>&</sup>lt;sup>4</sup> Texas Department of State Health Services, Center for Health Statistics. Texas Death Certificate Data. Accessed June 2022. Available at <a href="mailto:dstatistics.">dstatistics.</a> Texas Death Certificate Data. Accessed June 2022. Available at <a href="dstatistics.">dstatistics.</a> Texas Death Certificate Data. Accessed June 2022. Available at <a href="dstatistics.">dstatistics.</a> Texas Death Certificate Data. Accessed June 2022. Available at <a href="dstatistics.">dstatistics.</a> Texas Death Certificate Data. Accessed June 2022. Available at <a href="dstatistics.">dstatistics.</a> Texas Death Certificate Data. Accessed June 2022. Available at <a href="dstatistics.">dstatistics.</a> Texas Death Certificate Data. Accessed June 2022. Available at <a href="dstatistics.">dstatistics.</a> Texas Death Certificate Data. Accessed June 2022. Available at <a href="dstatistics.">dstatistics.</a> Texas Death Certificate Data. Accessed June 2022. Available at <a href="dstatistics.">dstatistics.</a> Texas Death Certificate Data. Accessed June 2022. Available at <a href="dstatistics.">dstatistics.</a> Texas Death Certificate Data. Accessed June 2022. Available at <a href="dstatistics.">dstatistics.</a> Texas Death Certificate Data. Accessed June 2022. Available at <a href="dstatistics.">dstatistics.</a> Texas Death Certificate Data. Accessed June 2022. Available Data. Accessed Data.

According to the Centers for Disease Control and Prevention (CDC), 14.7 percent of adult Texans and 7.4 percent of Texas high school students currently smoke cigarettes.<sup>5</sup>

Colorectal cancer is expected to be the second leading cause of cancer death in Texas in 2022, with an estimated 4,447 deaths. Breast, pancreatic, and liver (including intrahepatic bile duct) cancers are expected to be, respectively, the third, fourth, and fifth leading causes of cancer deaths in Texas.

#### **Cancer Survival**

Overall, 67 percent of Texans diagnosed with cancer will survive five years or more after being diagnosed compared to Texans without cancer.<sup>6</sup> In the US, the equivalent five-year relative survival is 68 percent.<sup>7</sup> However, survival rates can vary significantly by cancer type and stage at diagnosis.

The following key statistics (based on cancer diagnoses from 2012-2018, followed through December 2019) highlight survival rate variation in Texas.

- For patients diagnosed with localized cancer, the five-year relative survival rate is 89 percent.
- If cancer has spread to surrounding tissues or organs and/or regional lymph nodes, the five-year relative survival rate is 66 percent.
- If cancer has spread to distant organs or tissues, the five-year relative survival rate is 35 percent.
- Lung and bronchus, liver, and pancreatic cancers have the lowest five-year relative survival rates among all cancers (23 percent, 21 percent, and 14 percent, respectively).
- In contrast, five-year relative survival rates for the most commonly diagnosed cancers, prostate and female breast cancers, are 97 percent and 90 percent, respectively.

<sup>&</sup>lt;sup>5</sup> Centers for Disease Control and Prevention. State Tobacco Activities Tracking and Evaluation (STATE) System. State Highlights. Accessed June 2022. Available at cdc.gov/statesystem/statehighlights.html.

<sup>&</sup>lt;sup>6</sup> Texas Cancer Registry, Cancer Epidemiology and Surveillance Branch. Relative Survival by Primary Cancer Site and Survival Time Period, Sex, Race/Ethnicity, and Stage at Diagnosis, 2012–2018. Austin, TX. Texas Department of State Health Services, 2022.

<sup>&</sup>lt;sup>7</sup> American Cancer Society. Cancer Facts & Figures 2022. Atlanta: American Cancer Society; 2022; 18.

## **Prevalence of Cancer**

An estimated 909,147 Texans are cancer survivors (i.e., Texans diagnosed with cancer between 1995-2018 who were alive as of January 1, 2019, per TCR data). Some of these individuals were cancer free, while others may have been receiving ongoing treatment.

The cancer sites with the highest number of survivors in Texas are female breast, prostate, colorectal, thyroid, kidney and renal pelvis, non-Hodgkin lymphoma, and melanoma. Prostate and female breast cancers constitute about 40 percent of the cancer survivor population.

## 4. Cancer in Children and Adolescents

The types of cancers that develop in children are often different than the types that develop in adults. Unlike many cancers in adults, childhood cancers are not strongly linked to lifestyle or environmental risk factors. The causes of most childhood cancers are largely unknown. Only a small percentage of childhood cancers are attributed to inherited genetic alternations, making identifying molecular and genetic targets for treatment options particularly challenging. Additionally, developing new treatments that are less toxic and have fewer long-term adverse effects is a key challenge for childhood cancers and a focus of current research.

Although advances in cancer treatment and survival have improved in recent decades, cancer is still the leading cause of disease-related death in Texas past infancy among children (birth to 14 years) and adolescents (15 to 19 years). In 2022, an estimated 1,316 new cases and 155 cancer deaths are expected to occur among children (birth to 14 years), and an additional 620 new cases and 76 cancer deaths are expected among adolescents (15 to 19 years).

Per TCR data, the 2019 annual cancer incidence rate among children in Texas is 195 cases per 1 million population. Among this group, leukemias are the most common cancers, followed by brain and central nervous system cancers, lymphomas, soft tissue sarcomas, and neuroblastoma. These five cancer types are also the most common childhood cancers in the US.<sup>10</sup>

The 2019 annual incidence rate among Texas adolescents is 270 cases per 1 million population. For this group, the most common cancers are:

- Brain and central nervous system cancers;
- Other malignant epithelial neoplasms and melanomas (of which thyroid carcinoma is the predominant cancer in this category);
- Lymphomas;

<sup>&</sup>lt;sup>8</sup> American Cancer Society. What Are the Differences between Cancers in Children and Adults? 2019. Accessed March 2021.Available at <a href="mailto:cancer.org/cancer/cancer-in-children/differences-adults-children.html">children.html</a>.

<sup>&</sup>lt;sup>9</sup>National Cancer Institute. Childhood Cancer Research. 2019. Accessed March 2021. Available at <u>cancer.gov/research/areas/childhood</u>.

<sup>&</sup>lt;sup>10</sup> American Cancer Society. Types of Childhood Cancers. 2019. Accessed June 2022. Available at <a href="mailto:cancer.org/cancer/cancer-in-children/types-of-childhood-cancers.html">cancer.org/cancer/cancer-in-children/types-of-childhood-cancers.html</a>.

- Leukemias; and
- Germ cell, trophoblastic tumors, and neoplasms of gonads.

The same five cancer types are also the most common in US adolescents. 11

The relative five-year survival rate among children and adolescents diagnosed with cancer is approximately 85 percent. An estimated 25,333 Texans are survivors of childhood and adolescent cancer. These are Texans diagnosed with childhood and adolescent cancer between 1995–2018 who were alive as of January 1, 2019, per TCR data.

<sup>11</sup> American Cancer Society. Types of Cancers That Develop In Adolescents. 2019. Accessed June 2022. Available at <a href="mailto:cancer.org/cancer/cancer-in-adolescents/what-are-cancers-in-adolescents.html">cancer.org/cancer/cancer-in-adolescents/what-are-cancers-in-adolescents.html</a>.

# 5. Texas Cancer Registry Data Uses

The following section outlines the many uses of Texas Cancer Registry (TCR) data. More information can be found at dshs.texas.gov/tcr.

#### **Health Care Management**

Hospital and cancer treatment center administrators use TCR data to evaluate patient services, identify patterns in cancer care, and plan accordingly. For example, administrators can examine reports that identify changes in care over time and evaluate referral patterns to see when patients are directed or choose to be treated at their own or other health care centers. These data are crucial for planning resource allocation and staff recruitment.

#### **Cancer Surveillance**

Cancer surveillance enables health professionals to evaluate and address the cancer burden in a population. Public health professionals, health care providers, researchers, policy makers, and others use TCR data to assess patterns in cancer occurrence, detect important trends, and evaluate the impact of cancer prevention programs. Cancer registry data are used to conduct needs and capacity assessments that allow for evidence-based decision making when allocating limited resources.

#### **Cancer Research**

In 2021, TCR staff completed 348 data requests from customers both in state and across the country. TCR data are also available through a web-based query system that provides cancer incidence and mortality rates, counts, and maps. <sup>12</sup> In 2021, there were 14,333 queries for TCR cancer statistics using the web-based query system.

TCR data are requested and queried for the following primary purposes.

- Comprehensive cancer control planning
- Health event investigations

<sup>&</sup>lt;sup>12</sup> Web Query Tool: Selectable Cancer Incidence/Mortality Rates and Mapping. Texas Cancer Registry, Texas Department of State Health Services. Available at <a href="mailto:cancer-rates.info/tx">cancer-rates.info/tx</a>.

- Epidemiologic studies
- Collaboration with cancer screening programs
- Study of incidence and mortality by stage, geographic area, or other factors
- Comparative effectiveness of various cancer care interventions
- Needs assessments and program planning and evaluation

#### **Epidemiologic Studies**

Epidemiologic studies are crucial for identifying risk factors and determining optimal treatment approaches to clinical practice. The TCR provides data that support epidemiologic studies on the causes of cancer, cancer prevention and control, and cancer survivorship. While the TCR does not provide financial support for research, TCR data make a significant amount of cancer epidemiology research possible.

TCR data are used to describe the demographic characteristics of people who develop a specific type of cancer, compare the cancer burden to other public health issues, evaluate trends in cancer incidence and mortality over time, and examine factors affecting cancer survival outcomes. <sup>13,14,15,16</sup> For example, a recent study identified that the age-adjusted incidence rate of colorectal cancer was lower in Texas border counties compared with non-border counties in Texas. <sup>17</sup>

TCR data are used to support some of the largest, longest, and most well-known cohort studies statewide, nationally, and internationally. For these epidemiologic studies, TCR staff conduct regular data linkages to provide accurate and high-quality cancer outcome data. Many of these large cohort studies are examining the

<sup>&</sup>lt;sup>13</sup> Khan, H, et. al. Disparities in Breast Cancer Survivors in Rural West Texas. Cancer Control 2021; 28, 10732748211042125.

<sup>&</sup>lt;sup>14</sup> Long Parma, D, et al. Gastric adenocarcinoma burden and late-stage diagnosis in Latino and non-Latino populations in the United States and Texas, during 2004-2016: A multilevel analysis. Cancer Med 2021; 10(18), 6468-6479.

<sup>&</sup>lt;sup>15</sup> Brackbill, R, et al. Combining Three Cohorts of World Trade Center Rescue/Recovery Workers for Assessing Cancer Incidence and Mortality. Int. J. Environ. Res. Public Health 2021; 18(4), 1386.

<sup>&</sup>lt;sup>16</sup> Yan, J, et al. Treatment and Survival Disparities of Colon Cancer in the Texas-Mexico Border Population: Cancer Disparities in Border Population. J Surg Res 2021; 267: 432-442. <sup>17</sup> LePelusa, M, et al. Patterns of Colorectal Cancer in Texas Counties from 2000 to 2017. JCO Oncol Pract 2022; 18(5), e770-e779.

effect of lifestyle factors and modifiable behaviors on cancer risk. <sup>18,19,20</sup> For example, the National Institutes of Health-American Association of Retired Persons (NIH-AARP) Diet and Health Study is designed to examine the relationship between diet and cancers. <sup>21</sup> To help the researchers achieve their study aims, TCR staff conduct a data linkage when requested. A recent publication from this study showed that diets with higher fish intake are associated with higher rates of melanoma and melanoma in situ. <sup>22</sup>

Data linkages with the TCR are also used to examine other research topics, including the risk of cancer among kidney donors, the association between air pollution and the risk of breast cancer among Black women, and the risk of cancer among individuals infected with human immunodeficiency virus.<sup>23,24,25</sup>

Additionally, TCR data have been used in tandem with data from 258 other population-based registries in 61 countries to better understand worldwide survival rates for different cancers as a part of the CONCORD-3 study.<sup>26</sup>

#### **Community Efforts**

TCR staff work locally with a diverse group of partners to provide data in support of community efforts, such as public awareness, education, and fundraising. Partner examples include the following organizations.

<sup>&</sup>lt;sup>18</sup> Yiannakou, I, et al. A Prospective Analysis of Red and Processed Meat Intake in Relation to Colorectal Cancer in the Black Women's Health Study. Journal of Nutrition 2021; 152(5), 1254-1262.

<sup>&</sup>lt;sup>19</sup> Nguyen, T, et al. Consumption of cruciferous vegetables and the risk of bladder cancer in a prospective US cohort: data from the NIH-AARP diet and health study. Am J Clin Exp Urol 2021; 9(3); 229–238.

<sup>&</sup>lt;sup>20</sup> Melough, M, et al. Association between Citrus Consumption and Melanoma Risk in the NIH-AARP Diet and Health Study. Nutr Cancer 2021; 73(9); 1613–1620.

<sup>&</sup>lt;sup>21</sup> National Cancer Institute. NIH-AARP Diet and Health Study. 2021. Accessed June 2022. Available at <u>dietandhealth.cancer.gov</u>.

<sup>&</sup>lt;sup>22</sup> Li, Y, et al. Fish intake and risk of melanoma in the NIH-AARP diet and health study. Cancer Causes Control 2022; 33(7), 921-928.

<sup>&</sup>lt;sup>23</sup> Engels, E, et al. Cancer risk in living kidney donors. Am J Transplant 2022.

<sup>&</sup>lt;sup>24</sup> White, A, et al. Air pollution and breast cancer risk in the Black Women's Health Study. Environ Res 2021; 194, 110651.

<sup>&</sup>lt;sup>25</sup> Rositch, A, et al. Epidemiology of cervical adenocarcinoma and squamous cell carcinoma among women living with HIV compared to the general population in the United States. Clin Infect Dis 2021; 74(5): 814–820.

<sup>&</sup>lt;sup>26</sup> Ssenyonga, N, et al. Worldwide trends in population-based survival for children, adolescents, and young adults diagnosed with leukaemia, by subtype, during 2000–14 (CONCORD-3): analysis of individual data from 258 cancer registries in 61 countries, The Lancet Child & Adolescent Health 2022; 6(6), 409-431.

- Cancer Prevention and Research Institute of Texas
- American Cancer Society
- Susan G. Komen Foundation
- MD Anderson's Center for Community Engagement
- Cancer Alliance of Texas

#### **Cancer Cluster Investigations**

An important activity performed by cancer registries includes providing data to respond to community concerns about suspected cancer clusters. The Centers for Disease Control and Prevention (CDC) defines a cancer cluster as a greater-than-expected number of cancer cases that occurs within a group of people in a geographic area over a period of time.<sup>27</sup>

The public may suspect a cancer cluster if multiple family members, friends, neighbors, or coworkers in their community are diagnosed with cancer. While most suspected clusters are found to not be true cancer clusters, each inquiry is thoroughly evaluated.

Between 2017 and 2021, TCR data were used to complete 14 cancer cluster investigation reports. Investigation reports can be found at <a href="mailto:dshs.texas.gov/epitox/CancerClusters.shtm">dshs.texas.gov/epitox/CancerClusters.shtm</a>.

#### **Accessing Texas Cancer Data**

To aid in state, national, and international efforts, the Department of State Health Services (DSHS) has made significant efforts to make TCR data available and accessible. Data tables and summaries with detailed information about cancer incidence, mortality, survival, and prevalence in Texas, as well as special reports on topics such as obesity- and tobacco-associated cancers, are available at <a href="mailto:dshs.texas.gov/tcr/data/cancer-statistics.aspx">dshs.texas.gov/tcr/data/cancer-statistics.aspx</a>. DSHS will continue developing ways to make TCR more available and accessible to support progress towards addressing the cancer burden in Texas.

<sup>&</sup>lt;sup>27</sup> Centers for Disease Control and Prevention, Investigating Suspected Cancer Clusters and Responding to Community Concerns Guidelines from CDC and the Council of State and Territorial Epidemiologists. Morbidity and Mortality Weekly Report 2013; 62(RR08):1–14.

## 6. Conclusion

The Texas Cancer Incidence Reporting Act (<u>Health and Safety Code, Section</u> 82.001) requires the Department of State Health Services (DSHS) to maintain a cancer registry for the state and publish an annual report to the Legislature of the information obtained under the Act.

From information collected through the Texas Cancer Registry (TCR), DSHS estimates that in 2022, 137,308 new cases of cancer will be diagnosed in Texas and 47,067 Texans will die from cancer. Of these cases, 1,316 new cases and 155 cancer deaths are expected to occur among children (birth to 14 years), and an additional 620 new cases and 76 cancer deaths are expected among adolescents (15 to 19 years). In 2019, cancer was the second most common cause of death in Texas for adults and the most common cause of disease-related death past infancy among children and adolescents.

Lung cancer is the leading cause of cancer death in Texas. The most common cancers diagnosed in Texas are breast cancer for women and prostate cancer for men. Incidence rates have markedly decreased for lung, colorectal, and prostate cancers. However, incidence rates are increasing for uterine, kidney and renal pelvis, and pancreas cancers.

The number of cancer survivors continues to increase. An estimated 909,147 Texans are cancer survivors (Texans diagnosed with cancer between 1995–2018 who were alive as of January 1, 2019).

Cancer continues to have a significant impact on Texans, those seeking care in the state, and institutions providing cancer care. Accurate and complete collection and analysis of high-quality cancer data is central to the fight against cancer. The TCR continues to play a critical role in assessing the cancer burden in Texas and contributing to state, national and international cancer surveillance, research, control, and prevention.

# **List of Acronyms**

Acronym	Full Name
ACS	American Cancer Society
CDC	Centers for Disease Control and Prevention
DSHS	Department of State Health Services
NAACCR	North American Association of Central Cancer Registries
SEER	Surveillance, Epidemiology and End Results Program
TCR	Texas Cancer Registry