susan G. komen.

## $\circ^{\circ}$ COMMUNITY <br> PROFILE REPORT 2015



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About Susan G. Komen ${ }^{\circledR}$

Susan G. Komen is the world's largest breast cancer organization, funding more breast cancer research than any other nonprofit while providing real-time help to those facing the disease. Since 1982, Komen has funded more than $\$ 889$ million in research and provided $\$ 1.95$ billion in funding to screening, education, treatment and psychosocial support programs serving millions of people in more than 30 countries worldwide. Komen was founded by Nancy G. Brinker, who promised her sister, Susan G. Komen, that she would end the disease that claimed Suzy's life.

Since 1982, Komen has contributed to many of the advances made in the fight against breast cancer and transformed how the world treats and talks about this disease and have helped turn millions of breast cancer patients into breast cancer survivors:

- More early detection and effective treatment. Currently, about 70 percent of women 40 and older receive regular mammograms, the single most effective screening tool to find breast cancer early. Since 1990, early detection and effective treatment have resulted in a 34 percent decline in breast cancer deaths in the US.
- More hope. In 1980, the five-year relative survival rate for women diagnosed with early stage breast cancer was about 74 percent. Today, it's 99 percent.
- More research. The federal government now devotes more than $\$ 850$ million each year to breast cancer research, treatment and prevention, compared to $\$ 30$ million in 1982.
- More survivors. Today, there are more than three million breast cancers survivors in the US.

Visit komen.org or call 1-877 GO KOMEN. Connect with us on social at ww5.komen.org/social.

## Susan G. Komen Affiliate Network

Thanks to survivors, volunteers and activists dedicated to the fight against breast cancer, the Komen Affiliate Network is working to better the lives of those facing breast cancer in the local community. Through events like the Komen Race for the Cure ${ }^{\circledR}$ series, the local Komen Affiliates invest funds raised locally into community health programs to provide evidence-based breast health education and breast cancer screening, diagnostic and treatment programs, and contribute to the more than $\$ 889$ million invested globally in research.

For more information or to connect with a local Affiliate, contact the following Komen Affiliates that are located in the State of Texas as of February 2017:

Susan G Komen ${ }^{\circledR}$ Austin<br>5508 Parkcrest Drive, Suite 203<br>Austin, Texas, 78731<br>512-473-0900<br>www.komenaustin.org

Susan G Komen ${ }^{\circledR}$ Dallas County<br>5310 Harvest Hill Road<br>Suite 120<br>Dallas, TX 75230<br>214-750-7223<br>www.komen-dallas.org

Susan G Komen ${ }^{\circledR}$ East Central Texas

1800 Shiloh Road, Suite 106
Tyler, TX 75703
903-561-6992
www.komeneastcentraltexas.org
Susan G Komen ${ }^{\circledR}$ El Paso
1700 Murchison
Suite 207
El Paso, TX 79902
915-533-4433
www.komenelpaso.org
Susan G Komen ${ }^{\circledR}$ Greater Amarillo
P.O. Box 50610

Amarillo, TX 79159
806-354-9706
www.komenamarillo.org
Susan G Komen ${ }^{\circledR}$ Greater Fort
Worth
2216 Green Oaks Rd
Fort Worth, TX 76116
817-735-8580
http://komengreaterfortworth.org/

Susan G Komen ${ }^{\circledR}$ Houston
602 Sawyer St.
Suite 201
Houston, TX 77007
713-893-9188
www.Komen-houston.org

## Susan G. Komen ${ }^{\circledR}$ Lubbock Area

1655 Main Street \#203
Lubbock, TX 79401
806-698-1900
www.komenlubbock.org

## Susan G Komen ${ }^{\circledR}$ North Texas

P.O. Box 261730

Plano, TX 75026
972-378-4808
Website: www.komennorthtexas.org

## Susan G Komen ${ }^{\circledR}$ San Antonio

P.O. Box 6678

San Antonio, Texas 78209
210-222-9009
www.komensanantonio.org

Susan G Komen ${ }^{\circledR}$ Texarkana<br>4530 Summerhill Road<br>Texarkana, Texas, 75503<br>903-791-9585<br>www.komentexarkana.org

## Purpose of the State Community Profile Report

The purpose of the Texas Community Profile is to assess breast cancer burden within the state by identifying areas at highest risk of negative breast cancer outcomes. Through the Community Profile, populations most at-risk of dying from breast cancer and their demographic and socioeconomic characteristics can be identified; as well as, the needs and disparities that exist in availability, access and utilization of quality care.

The Community Profile consists of the following three sections:

- Quantitative Data: This section provides secondary data on breast cancer rates and trends that include incidence, deaths and late-stage diagnosis along with mammography screening proportions. This section also explores demographic, social and geographic characteristics that influence breast cancer outcomes such as race/ethnicity, socioeconomic status, educational attainment and insurance status.
- Health System Analysis: This section tells the story of the breast cancer continuum of care and the delivery of quality health care in the community. Key to this section is the observation of potential strengths and weaknesses in the health care system that could compromise a women's health as she works her way through the continuum of care (e.g., screening, diagnosis, treatment and follow-up/survivorship services).
- Public Policy Overview: This section provides an overview of key breast cancer policies that affect the ability of at-risk women in accessing and utilizing quality care. This section covers the state's National Breast and Cervical Cancer Early Detection Program, the state's National Comprehensive Cancer Control Program and the Affordable Care Act.


## Quantitative Data: Measuring Breast Cancer Impact in Local Communities

The purpose of the quantitative data report for the State of Texas is to provide quantitative data from many credible sources and use the data to identify the highest priority areas in the state for evidence-based breast cancer programs.

The quantitative data report provides the following data at the state and county-level as well as for the United States:

- Female breast cancer incidence (new cases)
- Female breast cancer death rates
- Late-stage diagnosis
- Screening mammography proportions
- Population demographics (e.g. age, race/ethnicity)
- Socioeconomic indicators (e.g. income and education level)

The data provided in the report can be used to identify priorities within the state based on estimates of how long it would take an area to achieve Healthy People 2020 objectives for breast cancer late-stage diagnosis and death rates (Healthy People 2020, 2010).

## Quantitative Data

This section of the report provides specific information on the major types of data that are included in the report.

## Incidence Rates

"Incidence" means the number of new cases of breast cancer that develop in a specific time period.

If the breast cancer incidence rate increases, it may mean that more women are getting breast cancer. However, it could also mean that more breast cancers are being found because of an increase in screening.

The breast cancer incidence rate shows the frequency of new cases of breast cancer among women living in an area during a certain time period. Incidence rates may be calculated for all women or for specific groups of women (e.g. for Asian/Pacific Islander women living in the area).

## How incidence rates are calculated

The female breast cancer incidence rate is calculated as the number of females in an area who were diagnosed with breast cancer divided by the total number of females living in that area. Incidence rates are usually expressed in terms of 100,000 people. For example, suppose there are 50,000 females living in an area and 60 of them are diagnosed with breast cancer during a
certain time period. Sixty out of 50,000 is the same as 120 out of 100,000 . So the female breast cancer incidence rate would be reported as 120 per 100,000 for that time period.

## Adjusting for age

Breast cancer becomes more common as women grow older. When comparing breast cancer rates for an area where many older people live to rates for an area where younger people live, it's hard to know whether the differences are due to age or whether other factors might also be involved.

To account for age, breast cancer rates are usually adjusted to a common standard age distribution. This is done by calculating the breast cancer rates for each age group (such as 45to 49-year-olds) separately, and then figuring out what the total breast cancer rate would have been if the proportion of people in each age group in the population that's being studied was the same as that of the standard population.

Using age-adjusted rates makes it possible to spot differences in breast cancer rates caused by factors other than differences in age between groups of women.

## Trends over time

To show trends (changes over time) in cancer incidence, data for the annual percent change in the incidence rate over a five-year period were included in the report. The annual percent change is the average year-to-year change of the incidence rate. It may be either a positive or negative number.

- A negative value means that the rates are getting lower.
- A positive value means that the rates are getting higher.
- A positive value (rates getting higher) may seem undesirable-and it generally is. However, it's important to remember that an increase in breast cancer incidence could also mean that more breast cancers are being found because more women are getting mammograms. So higher rates don't necessarily mean that there has been an increase in the occurrence of breast cancer.


## Confidence intervals

Because numbers for breast cancer rates and trends are not exact, this report includes confidence intervals. A confidence interval is a range of values that gives an idea of how uncertain a value may be. It's shown as two numbers-a lower value and a higher one. It is very unlikely that the true rate is less than the lower value or more than the higher value. For example, if a breast cancer incidence rate was reported as 120 per 100,000 women, with a confidence interval of 105 to 135 , the real rate might not be exactly 120 per 100,000, but it's very unlikely that it's less than 105 or more than 135.

## Breast cancer incidence rates and trends

Breast cancer incidence rates and trends are shown in Table 2.1 for:

- United States
- State of Texas
- Each county of Texas

For the State of Texas, rates are also shown by race for Whites, Blacks/African-Americans/African-Americans, Asians and Pacific Islanders (API), and American Indians and Alaska Natives (AIAN). In addition, rates are shown by ethnicity for Hispanics/Latinas and women who are not Hispanic/Latina (regardless of their race).

The rates in Table 2.1 are shown per 100,000 females from 2006 to 2010.

Table 2.1. Female breast cancer incidence rates and trends

| Population Group | Female Population (Annual Average) | \# of New Cases (Annual Average) | Ageadjusted Incidence Rate /100,000 | Confidence Interval of Age-adjusted Incidence Rate | Incidence Trend (Annual Percent Change) | Confidence Interval of Incidence Trend |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| US (states with available data) | 145,332,861 | 198,602 | 122.1 | 121.9: 122.4 | -0.2\% | -2.0\% : 1.7\% |
| Texas | 12,251,113 | 13,742 | 114.4 | 113.6: 115.3 | -0.4\% | -3.8\% : 3.0\% |
| White | 10,051,891 | 11,712 | 115.1 | 114.1: 116.0 | -0.4\% | -3.5\% : 2.8\% |
| Black/African-American | 1,569,020 | 1,562 | 117.2 | 114.5 : 119.9 | 0.7\% | -2.5\% : 4.1\% |
| AIAN | 119,743 | 35 | 41.2 | 34.8 : 48.3 | -8.2\% | -24.0\% : 11.0\% |
| API | 510,459 | 281 | 63.7 | 60.2 : 67.4 | 2.0\% | -5.5\% : 10.0\% |
| Non-Hispanic/ Latina | 7,829,049 | 11,020 | 122.4 | 121.3: 123.4 | 0.2\% | -3.3\% : 3.8\% |
| Hispanic/ Latina | 4,422,064 | 2,722 | 89.4 | 87.8 : 90.9 | -2.0\% | -6.4\% : 2.6\% |
| Anderson County | 22,684 | 23 | 83.9 | 69.0 : 101.1 | 3.7\% | -36.9\% : 70.4\% |
| Andrews County | 7,048 | 7 | 94.9 | 66.0 : 132.4 | -8.5\% | -39.1\% : 37.5\% |
| Angelina County | 43,515 | 54 | 111.8 | 98.7 : 126.1 | -0.8\% | -12.5\% : 12.5\% |
| Aransas County | 11,694 | 24 | 137.2 | 111.5: 167.6 | -0.9\% | -22.6\% : 26.9\% |
| Archer County | 4,515 | 5 | 97.7 | 63.8 : 144.5 | -15.4\% | -51.6\% : 48.1\% |
| Armstrong County | 985 | SN | SN | SN | SN | SN |
| Atascosa County | 22,368 | 25 | 103.1 | 85.4:123.3 | -1.4\% | NA |
| Austin County | 14,038 | 25 | 141.0 | 116.5 : 169.4 | 7.1\% | -9.9\% : 27.3\% |
| Bailey County | 3,498 | 5 | 121.4 | 76.3 : 183.5 | -9.5\% | -61.5\% : 113.1\% |
| Bandera County | 10,209 | 12 | 76.1 | 57.1 : 100.4 | 5.3\% | -20.8\% : 39.9\% |
| Bastrop County | 35,309 | 38 | 98.5 | 84.9: 113.9 | 1.3\% | -15.8\% : 21.9\% |
| Baylor County | 1,965 | SN | SN | SN | SN | SN |
| Bee County | 12,702 | 14 | 98.5 | 76.0:125.5 | 8.4\% | -27.4\% : 62.0\% |
| Bell County | 148,442 | 159 | 124.3 | 115.7 : 133.3 | -3.4\% | -10.7\% : 4.5\% |
| Bexar County | 842,469 | 925 | 112.4 | 109.1: 115.7 | -3.1\% | -9.7\% : 3.9\% |
| Blanco County | 5,000 | 6 | 83.9 | 54.8:124.8 | -0.1\% | -65.5\% : 189.1\% |
| Borden County | 300 | SN | SN | SN | SN | SN |
| Bosque County | 9,127 | 14 | 103.2 | 79.6 : 132.6 | 3.8\% | -31.9\% : 58.3\% |
| Bowie County | 45,123 | 64 | 119.1 | 106.1: 133.4 | 5.8\% | -8.0\% : 21.8\% |
| Brazoria County | 147,578 | 160 | 112.2 | 104.5: 120.3 | 2.2\% | -6.6\% : 12.0\% |
| Brazos County | 91,611 | 81 | 126.3 | 114.2 : 139.3 | -6.7\% | -23.7\% : 14.0\% |
| Brewster County | 4,479 | 4 | 65.7 | 39.4 : 104.5 | -13.8\% | -39.6\% : 23.1\% |
| Briscoe County | 841 | SN | SN | SN | SN | SN |
| Brooks County | 3,720 | 4 | 84.6 | 50.6:134.1 | 1.4\% | -54.8\% : 127.3\% |
| Brown County | 19,265 | 30 | 118.7 | 100.0: 140.2 | -9.1\% | -39.3\% : 36.2\% |
| Burleson County | 8,655 | 11 | 93.9 | 70.1: 124.0 | -17.4\% | -37.0\% : 8.5\% |
| Burnet County | 21,517 | 26 | 87.4 | 72.5:104.8 | 2.7\% | -6.8\% : 13.1\% |
| Caldwell County | 18,605 | 25 | 129.8 | 108.0: 154.8 | 7.2\% | -8.5\% : 25.6\% |
| Calhoun County | 10,411 | 12 | 104.5 | 79.6 : 135.0 | -2.4\% | -31.9\% : 39.8\% |
| Callahan County | 6,883 | 10 | 104.8 | 76.9: 140.5 | -11.7\% | -36.7\% : 23.4\% |


| Population Group | Female Population (Annual Average) | \# of New Cases (Annual Average) | Ageadjusted Incidence Rate /100,000 | Confidence Interval of Age-adjusted Incidence Rate | Incidence <br> Trend (Annual Percent Change) | Confidence Interval of Incidence Trend |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cameron County | 204,243 | 168 | 88.5 | 82.5:94.7 | 0.7\% | -8.2\% : 10.4\% |
| Camp County | 6,267 | 9 | 120.4 | 87.3: 162.4 | 12.7\% | -32.1\% : 87.1\% |
| Carson County | 3,206 | SN | SN | SN | SN | SN |
| Cass County | 15,590 | 17 | 73.9 | 58.3: 92.7 | -2.8\% | -15.9\% : 12.4\% |
| Castro County | 3,876 | 4 | 90.4 | 54.2 : 142.0 | -33.3\% | NA |
| Chambers County | 16,086 | 16 | 100.7 | 79.5 : 125.9 | -0.7\% | -24.3\% : 30.3\% |
| Cherokee County | 24,641 | 30 | 103.0 | 86.7 : 121.5 | 14.4\% | 3.9\% : 25.9\% |
| Childress County | 2,912 | 5 | 138.1 | 87.4:208.6 | 19.6\% | -0.7\% : 44.0\% |
| Clay County | 5,567 | 7 | 91.9 | 63.6:130.0 | 11.6\% | -14.6\% : 45.9\% |
| Cochran County | 1,602 | SN | SN | SN | SN | SN |
| Coke County | 1,719 | SN | SN | SN | SN | SN |
| Coleman County | 4,473 | 6 | 93.0 | 60.4 : 138.5 | -12.2\% | -36.6\% : 21.6\% |
| Collin County | 374,897 | 441 | 131.2 | 125.5:137.1 | -0.7\% | NA |
| Collingsworth County | 1,538 | SN | SN | SN | SN | SN |
| Colorado County | 10,480 | 14 | 90.9 | 70.5:116.1 | -18.5\% | -34.7\% : 1.8\% |
| Comal County | 52,315 | 80 | 121.4 | 109.5 : 134.2 | -0.5\% | NA |
| Comanche County | 7,036 | 10 | 107.9 | 78.7 : 145.0 | 8.5\% | -43.0\% : 106.5\% |
| Concho County | 1,312 | SN | SN | SN | SN | SN |
| Cooke County | 19,351 | 20 | 86.0 | 69.5 : 105.3 | 11.9\% | 0.4\% : 24.7\% |
| Coryell County | 37,494 | 32 | 109.8 | 93.0: 128.6 | 3.5\% | -4.8\% : 12.5\% |
| Cottle County | 786 | SN | SN | SN | SN | SN |
| Crane County | 2,115 | SN | SN | SN | SN | SN |
| Crockett County | 1,883 | SN | SN | SN | SN | SN |
| Crosby County | 3,183 | SN | SN | SN | SN | SN |
| Culberson County | 1,269 | SN | SN | SN | SN | SN |
| Dallam County | 3,125 | SN | SN | SN | SN | SN |
| Dallas County | 1,171,221 | 1,330 | 124.5 | 121.5 : 127.6 | 0.9\% | -3.0\% : 5.0\% |
| Dawson County | 6,013 | 7 | 89.6 | 61.0:127.5 | 21.3\% | -17.4\% : 78.2\% |
| Deaf Smith County | 9,572 | 9 | 92.1 | 67.0:123.5 | 8.6\% | -30.0\% : 68.4\% |
| Delta County | 2,675 | 4 | 104.7 | 63.1:166.6 | 2.0\% | -42.1\% : 79.6\% |
| Denton County | 318,811 | 331 | 124.9 | 118.6: 131.4 | 0.2\% | NA |
| DeWitt County | 9,594 | 17 | 139.2 | 109.7: 174.5 | -16.2\% | -36.4\% : 10.5\% |
| Dickens County | 1,059 | SN | SN | SN | SN | SN |
| Dimmit County | 5,095 | 6 | 100.6 | 67.8:144.4 | -2.9\% | -47.4\% : 79.6\% |
| Donley County | 1,878 | 3 | 104.5 | 60.7: 177.1 | -6.6\% | NA |
| Duval County | 5,853 | 5 | 75.2 | 48.9: 111.3 | -4.8\% | -35.5\% : 40.6\% |
| Eastland County | 9,522 | 12 | 81.5 | 61.1: 107.3 | -1.5\% | -27.6\% : 33.9\% |
| Ector County | 67,551 | 78 | 118.7 | 107.1: 131.2 | 11.3\% | -2.1\% : 26.5\% |
| Edwards County | 975 | SN | SN | SN | SN | SN |


| Population Group | Female Population (Annual Average) | \# of New Cases (Annual Average) | Ageadjusted Incidence Rate /100,000 | Confidence Interval of Age-adjusted Incidence Rate | Incidence <br> Trend (Annual Percent Change) | Confidence Interval of Incidence Trend |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ellis County | 72,575 | 80 | 112.7 | 101.7: 124.5 | -1.6\% | -7.8\% : 5.1\% |
| El Paso County | 398,655 | 357 | 94.8 | 90.4:99.3 | -1.4\% | -6.8\% : 4.4\% |
| Erath County | 18,851 | 24 | 124.5 | 102.7: 149.5 | 2.0\% | -15.2\% : 22.6\% |
| Falls County | 9,409 | 9 | 76.1 | 55.0 : 102.9 | -11.5\% | -35.9\% : 22.1\% |
| Fannin County | 15,811 | 22 | 105.5 | 86.0 : 128.4 | -7.9\% | -32.0\% : 24.7\% |
| Fayette County | 12,309 | 21 | 108.7 | 87.8: 133.8 | -2.7\% | -30.9\% : 37.1\% |
| Fisher County | 2,053 | SN | SN | SN | SN | SN |
| Floyd County | 3,352 | 3 | 69.4 | 39.0: 116.2 | 12.6\% | -27.0\% : 73.7\% |
| Foard County | 721 | SN | SN | SN | SN | SN |
| Fort Bend County | 275,815 | 307 | 121.8 | 115.4:128.4 | 0.3\% | -3.6\% : 4.3\% |
| Franklin County | 5,435 | 6 | 79.5 | 52.9 : 116.0 | -1.9\% | -37.5\% : 53.9\% |
| Freestone County | 9,233 | 12 | 101.8 | 77.2 : 132.2 | -1.9\% | -24.0\% : 26.5\% |
| Frio County | 7,203 | 7 | 92.8 | 65.0 : 128.9 | 5.4\% | -22.2\% : 42.8\% |
| Gaines County | 8,346 | 6 | 87.3 | 59.1: 123.9 | 3.4\% | -15.5\% : 26.6\% |
| Galveston County | 144,934 | 201 | 129.4 | 121.4: 137.7 | -2.5\% | -14.6\% : 11.4\% |
| Garza County | 2,393 | SN | SN | SN | SN | SN |
| Gillespie County | 12,543 | 26 | 121.8 | 99.5:148.4 | -8.8\% | -20.0\% : 4.0\% |
| Glasscock County | 566 | SN | SN | SN | SN | SN |
| Goliad County | 3,590 | 4 | 81.5 | 50.7: 127.2 | 12.8\% | -41.5\% : 117.2\% |
| Gonzales County | 9,800 | 9 | 77.8 | 56.6:104.7 | -12.6\% | -26.4\% : 3.7\% |
| Gray County | 10,838 | 18 | 136.1 | 108.8 : 168.4 | 3.0\% | -10.2\% : 18.3\% |
| Grayson County | 61,197 | 87 | 115.4 | 104.6 : 127.1 | 0.1\% | -14.4\% : 16.9\% |
| Gregg County | 61,175 | 85 | 122.9 | 111.3: 135.3 | 6.2\% | -3.5\% : 16.8\% |
| Grimes County | 11,953 | 14 | 95.5 | 74.0: 121.5 | -3.0\% | -11.4\% : 6.2\% |
| Guadalupe County | 62,193 | 70 | 106.2 | 95.3: 118.0 | -4.0\% | NA |
| Hale County | 17,447 | 15 | 83.4 | 65.4:104.7 | 3.5\% | -39.0\% : 75.4\% |
| Hall County | 1,743 | SN | SN | SN | SN | SN |
| Hamilton County | 4,330 | 7 | 88.1 | 60.1: 128.0 | 13.6\% | -19.2\% : 59.9\% |
| Hansford County | 2,734 | 4 | 142.0 | 86.0 : 220.7 | 1.0\% | -36.5\% : 60.7\% |
| Hardeman County | 2,137 | 4 | 122.9 | 72.7 : 198.6 | -10.7\% | -34.0\% : 20.8\% |
| Hardin County | 27,003 | 36 | 115.1 | 98.7 : 133.6 | -9.1\% | -24.9\% : 10.0\% |
| Harris County | 1,984,833 | 2,152 | 121.7 | 119.4:124.1 | 0.2\% | -2.1\% : $2.5 \%$ |
| Harrison County | 32,870 | 47 | 121.3 | 106.0: 138.2 | 4.2\% | -12.6\% : 24.3\% |
| Hartley County | 2,286 | SN | SN | SN | SN | SN |
| Haskell County | 2,808 | SN | SN | SN | SN | SN |
| Hays County | 73,374 | 70 | 109.5 | 98.1:121.8 | -3.1\% | -14.6\% : 10.1\% |
| Hemphill County | 1,810 | SN | SN | SN | SN | SN |
| Henderson County | 40,017 | 63 | 116.4 | 103.4 : 130.7 | -0.8\% | NA |
| Hidalgo County | 378,395 | 267 | 85.8 | 81.3 : 90.6 | 0.3\% | -6.3\% : 7.5\% |


| Population Group | Female Population (Annual Average) | \# of New Cases (Annual Average) | Ageadjusted Incidence Rate /100,000 | Confidence Interval of Age-adjusted Incidence Rate | Incidence <br> Trend (Annual Percent Change) | Confidence Interval of Incidence Trend |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hill County | 17,712 | 27 | 118.2 | 98.5:140.9 | 7.3\% | -20.1\% : 44.0\% |
| Hockley County | 11,654 | 14 | 112.5 | 87.5:142.6 | 3.6\% | -17.4\% : 30.0\% |
| Hood County | 25,324 | 47 | 128.0 | 111.4: 146.6 | -7.8\% | -16.8\% : 2.1\% |
| Hopkins County | 17,468 | 20 | 95.0 | 77.1: 116.0 | -0.7\% | -40.5\% : 65.7\% |
| Houston County | 10,934 | 15 | 94.4 | 73.5:120.1 | 12.7\% | -2.4\% : 30.1\% |
| Howard County | 15,043 | 14 | 86.3 | 67.1: 109.4 | 9.2\% | -10.6\% : 33.4\% |
| Hudspeth County | 1,703 | SN | SN | SN | SN | SN |
| Hunt County | 42,767 | 47 | 94.7 | 82.9: 107.8 | 1.2\% | -8.7\% : 12.3\% |
| Hutchinson County | 11,089 | 11 | 82.5 | 62.2 : 107.7 | 13.6\% | -18.4\% : 58.3\% |
| Irion County | 791 | SN | SN | SN | SN | SN |
| Jack County | 4,039 | 5 | 91.6 | 57.2 : 140.2 | -0.7\% | -19.9\% : 23.1\% |
| Jackson County | 7,091 | 7 | 84.3 | 58.9:117.5 | -27.2\% | -48.5\% : 2.9\% |
| Jasper County | 17,950 | 23 | 104.6 | 86.1:126.2 | 5.4\% | -10.5\% : 24.1\% |
| Jeff Davis County | 1,143 | SN | SN | SN | SN | SN |
| Jefferson County | 122,114 | 157 | 114.7 | 106.7: 123.2 | -3.5\% | -12.7\% : 6.6\% |
| Jim Hogg County | 2,640 | SN | SN | SN | SN | SN |
| Jim Wells County | 20,623 | 23 | 105.4 | 86.6:127.1 | -14.1\% | -30.0\% : 5.4\% |
| Johnson County | 73,708 | 82 | 106.0 | 95.9: 116.9 | 5.6\% | 1.0\% : 10.4\% |
| Jones County | 7,785 | 13 | 121.8 | 93.1:157.2 | -4.3\% | -27.7\% : 26.7\% |
| Karnes County | 5,982 | 8 | 105.8 | 73.8: 147.3 | -21.7\% | -51.6\% : 26.5\% |
| Kaufman County | 49,860 | 58 | 116.7 | 103.5: 131.1 | -5.5\% | -22.4\% : 15.2\% |
| Kendall County | 16,122 | 26 | 128.0 | 106.3: 153.2 | -6.8\% | -31.6\% : 26.9\% |
| Kenedy County | 196 | SN | SN | SN | SN | SN |
| Kent County | 409 | SN | SN | SN | SN | SN |
| Kerr County | 25,130 | 39 | 99.1 | 84.7 : 115.5 | -10.5\% | -24.0\% : 5.3\% |
| Kimble County | 2,314 | 5 | 119.6 | 72.8:190.9 | 2.3\% | -48.9\% : 104.7\% |
| King County | 143 | SN | SN | SN | SN | SN |
| Kinney County | 1,625 | SN | SN | SN | SN | SN |
| Kleberg County | 15,547 | 21 | 142.4 | 116.2 : 172.7 | -12.2\% | -40.9\% : 30.5\% |
| Knox County | 1,886 | 3 | 107.6 | 59.1: 185.2 | 47.4\% | -4.0\% : 126.5\% |
| Lamar County | 25,697 | 38 | 120.2 | 103.3: 139.3 | 10.3\% | -9.6\% : 34.4\% |
| Lamb County | 7,065 | 10 | 122.5 | 90.4:162.6 | -11.5\% | -27.8\% : 8.5\% |
| Lampasas County | 9,992 | 10 | 82.5 | 61.2 : 109.3 | 4.3\% | -25.3\% : 45.6\% |
| La Salle County | 2,782 | SN | SN | SN | SN | SN |
| Lavaca County | 9,863 | 16 | 102.5 | 79.6:130.8 | -1.6\% | -49.7\% : 92.3\% |
| Lee County | 8,131 | 10 | 103.2 | 75.6:137.8 | -5.0\% | -32.5\% : 33.8\% |
| Leon County | 8,348 | 13 | 111.1 | 84.0:144.8 | -6.6\% | NA |
| Liberty County | 38,086 | 36 | 90.8 | 77.9: 105.2 | 5.4\% | -17.0\% : 33.9\% |
| Limestone County | 11,171 | 13 | 90.8 | 69.3 : 117.3 | 9.3\% | NA |


| Population Group | Female Population (Annual Average) | \# of New Cases (Annual Average) | Ageadjusted Incidence Rate /100,000 | Confidence Interval of Age-adjusted Incidence Rate | Incidence <br> Trend (Annual Percent Change) | Confidence Interval of Incidence Trend |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lipscomb County | 1,629 | SN | SN | SN | SN | SN |
| Live Oak County | 5,283 | 7 | 82.0 | 55.9:118.1 | -2.8\% | -40.5\% : 58.7\% |
| Llano County | 9,807 | 18 | 100.5 | 77.5:129.7 | 9.3\% | -11.4\% : 34.7\% |
| Loving County | 34 | SN | SN | SN | SN | SN |
| Lubbock County | 136,756 | 153 | 113.6 | 105.6 : 122.1 | -3.5\% | -15.0\% : 9.5\% |
| Lynn County | 3,030 | 3 | 93.7 | 52.4 : 155.2 | 15.5\% | -42.7\% : 132.7\% |
| McCulloch County | 4,217 | 5 | 83.4 | 51.9:128.3 | -15.7\% | -45.2\% : 29.7\% |
| McLennan County | 118,109 | 143 | 116.1 | 107.6:125.0 | -0.1\% | -9.9\% : 10.9\% |
| McMullen County | 359 | SN | SN | SN | SN | SN |
| Madison County | 5,671 | 6 | 87.9 | 58.9 : 126.7 | 8.1\% | -45.9\% : 115.8\% |
| Marion County | 5,520 | 9 | 97.2 | 69.9: 133.8 | 8.5\% | -29.3\% : 66.6\% |
| Martin County | 2,295 | SN | SN | SN | SN | SN |
| Mason County | 1,977 | 3 | 95.1 | 52.2 : 168.7 | 17.1\% | -23.4\% : 78.9\% |
| Matagorda County | 18,358 | 24 | 107.7 | 89.0 : 129.3 | 0.6\% | -18.1\% : 23.6\% |
| Maverick County | 27,014 | 21 | 85.1 | 69.5 : 103.1 | 5.5\% | -10.2\% : 24.0\% |
| Medina County | 21,898 | 20 | 79.6 | 64.7 : 97.1 | 5.3\% | -21.3\% : 40.9\% |
| Menard County | 1,083 | SN | SN | SN | SN | SN |
| Midland County | 67,465 | 75 | 107.0 | 96.3: 118.5 | 1.9\% | -13.7\% : 20.3\% |
| Milam County | 12,583 | 19 | 118.6 | 95.5:146.0 | -7.7\% | -17.5\% : 3.2\% |
| Mills County | 2,485 | 5 | 117.4 | 72.2 : 185.3 | -13.4\% | -64.5\% : 111.7\% |
| Mitchell County | 3,587 | 6 | 123.6 | 81.8:180.8 | -0.9\% | -29.9\% : 40.2\% |
| Montague County | 10,094 | 12 | 89.4 | 67.5:116.6 | -20.1\% | -33.4\% : -4.0\% |
| Montgomery County | 215,716 | 268 | 121.9 | 115.4:128.8 | 0.6\% | -4.6\% : 6.1\% |
| Moore County | 10,295 | 9 | 96.5 | 70.5:128.7 | 2.9\% | -21.0\% : 34.0\% |
| Morris County | 6,786 | 9 | 105.7 | 76.1: 143.4 | 11.1\% | -18.0\% : 50.7\% |
| Motley County | 587 | SN | SN | SN | SN | SN |
| Nacogdoches County | 32,994 | 33 | 104.6 | 89.0: 122.1 | -1.1\% | -23.3\% : 27.4\% |
| Navarro County | 23,973 | 26 | 96.8 | 80.7 : 115.3 | 8.4\% | 4.1\% : 12.9\% |
| Newton County | 7,027 | 7 | 78.3 | 54.1: 110.5 | -34.5\% | -60.3\% : 7.9\% |
| Nolan County | 7,613 | 11 | 107.4 | 80.2 : 141.6 | 8.5\% | -26.0\% : 59.1\% |
| Nueces County | 170,290 | 203 | 112.6 | 105.7 : 119.8 | -0.2\% | -14.8\% : 17.0\% |
| Ochiltree County | 4,893 | 5 | 112.4 | 73.2:164.7 | -9.7\% | -36.8\% : 29.0\% |
| Oldham County | 1,010 | SN | SN | SN | SN | SN |
| Orange County | 41,287 | 57 | 118.4 | 104.8:133.3 | 3.2\% | -13.9\% : 23.6\% |
| Palo Pinto County | 14,185 | 19 | 107.2 | 86.3: 131.8 | 2.4\% | -21.5\% : 33.6\% |
| Panola County | 11,947 | 15 | 98.2 | 77.0:123.7 | -6.2\% | -28.3\% : 22.7\% |
| Parker County | 55,249 | 79 | 130.6 | 117.9:144.4 | 7.2\% | 2.7\% : 11.9\% |
| Parmer County | 4,949 | 5 | 98.9 | 63.3 : 147.0 | -3.9\% | -40.6\% : 55.5\% |
| Pecos County | 6,711 | 5 | 62.8 | 39.5 : 95.1 | 9.8\% | -37.0\% : 91.4\% |


| Population Group | Female Population (Annual Average) | \# of New Cases (Annual Average) | Ageadjusted Incidence Rate /100,000 | Confidence Interval of Age-adjusted Incidence Rate | Incidence <br> Trend (Annual Percent Change) | Confidence Interval of Incidence Trend |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Polk County | 21,339 | 37 | 112.4 | 95.9: 131.3 | 5.8\% | -12.8\% : 28.5\% |
| Potter County | 58,831 | 63 | 107.8 | 96.1:120.5 | 3.2\% | -5.4\% : 12.6\% |
| Presidio County | 3,905 | 3 | 76.3 | 43.7 : 124.3 | -22.7\% | -35.9\% : -6.7\% |
| Rains County | 5,435 | 6 | 81.7 | 54.6 : 119.1 | 37.4\% | 9.9\% : 71.8\% |
| Randall County | 60,022 | 79 | 119.9 | 108.2 : 132.5 | -6.1\% | -12.6\% : 0.8\% |
| Reagan County | 1,591 | SN | SN | SN | SN | SN |
| Real County | 1,646 | SN | SN | SN | SN | SN |
| Red River County | 6,650 | 10 | 107.0 | 78.0: 144.1 | -12.9\% | -22.0\% : -2.8\% |
| Reeves County | 5,400 | 7 | 106.1 | 72.9: 149.7 | -4.3\% | -39.1\% : 50.4\% |
| Refugio County | 3,737 | 6 | 122.7 | 82.6: 177.4 | 0.2\% | -27.3\% : 38.2\% |
| Roberts County | 453 | SN | SN | SN | SN | SN |
| Robertson County | 8,439 | 14 | 137.5 | 106.6:175.0 | -8.1\% | -36.4\% : 32.7\% |
| Rockwall County | 37,159 | 48 | 132.2 | 115.7 : 150.4 | 2.9\% | -10.7\% : 18.5\% |
| Runnels County | 5,330 | 7 | 91.3 | 63.4 : 128.9 | -11.5\% | -39.1\% : 28.7\% |
| Rusk County | 24,770 | 32 | 107.4 | 91.2: 125.7 | -4.0\% | -16.3\% : 10.0\% |
| Sabine County | 5,437 | 7 | 76.9 | 50.8:113.7 | 4.4\% | -36.4\% : 71.3\% |
| San Augustine County | 4,597 | 4 | 69.7 | 39.0 : 115.3 | 6.8\% | -35.5\% : 77.0\% |
| San Jacinto County | 12,950 | 17 | 106.5 | 84.1: 133.2 | -6.8\% | -16.4\% : 3.9\% |
| San Patricio County | 33,166 | 35 | 101.2 | 86.7 : 117.5 | 4.3\% | NA |
| San Saba County | 2,759 | 4 | 86.5 | 49.7 : 143.8 | -28.9\% | -59.2\% : 23.6\% |
| Schleicher County | 1,616 | SN | SN | SN | SN | SN |
| Scurry County | 7,748 | 11 | 118.2 | 88.1: 155.5 | 6.6\% | -14.9\% : 33.6\% |
| Shackelford County | 1,755 | 4 | 161.3 | 99.2 : 254.1 | -26.0\% | -57.1\% : 27.6\% |
| Shelby County | 12,856 | 13 | 84.6 | 64.6:109.0 | -3.6\% | -35.5\% : 44.0\% |
| Sherman County | 1,477 | SN | SN | SN | SN | SN |
| Smith County | 105,247 | 157 | 132.1 | 122.9: 141.8 | 1.6\% | -10.1\% : 14.8\% |
| Somervell County | 4,151 | 4 | 83.0 | 50.0:130.4 | NA | NA |
| Starr County | 30,968 | 23 | 85.7 | 70.7 : 102.8 | -5.7\% | NA |
| Stephens County | 4,615 | 6 | 94.9 | 61.2: 141.2 | -23.8\% | -53.1\% : 23.6\% |
| Sterling County | 562 | SN | SN | SN | SN | SN |
| Stonewall County | 748 | SN | SN | SN | SN | SN |
| Sutton County | 2,135 | 3 | 148.4 | 85.8:239.7 | -14.5\% | -56.8\% : 69.3\% |
| Swisher County | 3,720 | 4 | 89.5 | 53.3 : 141.7 | -3.5\% | -24.5\% : 23.3\% |
| Tarrant County | 886,941 | 1,015 | 122.9 | 119.5 : 126.4 | -0.8\% | -7.9\% : 6.9\% |
| Taylor County | 66,598 | 83 | 117.7 | 106.4 : 129.8 | -1.3\% | -9.3\% : 7.3\% |
| Terrell County | 452 | SN | SN | SN | SN | SN |
| Terry County | 5,907 | 7 | 105.2 | 73.1: 147.1 | -22.4\% | -43.2\% : 6.2\% |
| Throckmorton County | 833 | SN | SN | SN | SN | SN |
| Titus County | 15,612 | 13 | 83.8 | 64.6:106.9 | -0.9\% | -31.4\% : 43.2\% |


| Population Group | Female Population (Annual Average) | \# of New Cases (Annual Average) | Ageadjusted Incidence Rate /100,000 | Confidence Interval of Age-adjusted Incidence Rate | Incidence Trend (Annual Percent Change) | Confidence Interval of Incidence Trend |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tom Green County | 55,256 | 66 | 109.7 | 97.9: 122.5 | -0.5\% | -11.5\% : 12.0\% |
| Travis County | 484,563 | 504 | 124.0 | 119.1: 129.1 | 1.8\% | -5.9\% : 10.0\% |
| Trinity County | 7,430 | 11 | 107.8 | 80.2 : 142.9 | 15.0\% | -1.2\% : 34.0\% |
| Tyler County | 9,947 | 11 | 82.0 | 61.2 : 108.1 | -3.6\% | -28.3\% : 29.6\% |
| Upshur County | 19,546 | 21 | 86.6 | 70.6: 105.4 | -3.2\% | -25.0\% : 25.1\% |
| Upton County | 1,627 | SN | SN | SN | SN | SN |
| Uvalde County | 13,431 | 15 | 102.0 | 79.5:129.0 | -2.8\% | -27.4\% : 30.3\% |
| Val Verde County | 24,083 | 17 | 69.0 | 54.9 : 85.5 | 0.1\% | -30.0\% : 43.0\% |
| Van Zandt County | 26,563 | 39 | 106.4 | 91.6: 123.2 | 9.7\% | -4.3\% : 25.7\% |
| Victoria County | 43,983 | 58 | 116.9 | 103.7 : 131.4 | -7.8\% | -12.4\% : -2.9\% |
| Walker County | 27,038 | 30 | 115.1 | 97.1: 135.4 | 4.1\% | -16.5\% : 29.8\% |
| Waller County | 20,623 | 19 | 100.1 | 80.8: 122.6 | -2.2\% | -24.6\% : 26.9\% |
| Ward County | 5,374 | 8 | 122.7 | 86.7: 169.2 | 9.3\% | -28.6\% : 67.3\% |
| Washington County | 16,772 | 32 | 149.4 | 125.9: 176.2 | 3.4\% | -9.4\% : 18.1\% |
| Webb County | 123,793 | 91 | 93.2 | 84.8:102.3 | -8.8\% | -18.6\% : 2.2\% |
| Wharton County | 20,857 | 22 | 85.9 | 70.1: 104.4 | 2.6\% | -24.5\% : 39.3\% |
| Wheeler County | 2,653 | 4 | 102.1 | 61.7 : 162.8 | -34.4\% | NA |
| Wichita County | 63,857 | 77 | 109.4 | 98.6:121.2 | -3.2\% | -12.6\% : 7.3\% |
| Wilbarger County | 6,857 | 11 | 126.7 | 94.5:166.7 | 1.9\% | -20.2\% : 30.2\% |
| Willacy County | 10,021 | 7 | 68.6 | 48.1:95.0 | -8.6\% | -39.7\% : 38.5\% |
| Williamson County | 198,535 | 226 | 125.9 | 118.5: 133.6 | -3.9\% | -9.0\% : 1.5\% |
| Wilson County | 20,704 | 23 | 97.3 | 79.9: 117.5 | 7.5\% | -4.4\% : 20.9\% |
| Winkler County | 3,479 | 4 | 102.5 | 61.1: 161.4 | -28.0\% | -52.6\% : 9.2\% |
| Wise County | 28,731 | 30 | 97.7 | 82.5:114.8 | 7.1\% | -11.9\% : 30.2\% |
| Wood County | 21,170 | 33 | 94.0 | 79.3: 110.9 | 2.6\% | -17.2\% : $27.2 \%$ |
| Yoakum County | 3,875 | 3 | 94.1 | 54.3: 150.9 | 12.4\% | -38.6\% : 105.7\% |
| Young County | 9,352 | 17 | 128.7 | 101.7 : 161.3 | 5.8\% | -13.5\% : 29.3\% |
| Zapata County | 6,765 | 4 | 74.3 | 46.1: 112.7 | -3.2\% | -21.2\% : 19.0\% |
| Zavala County | 5,908 | 4 | 60.9 | 35.6 : 97.0 | -14.0\% | -50.6\% : 49.8\% |

NA - data not available.
SN - data suppressed due to small numbers ( 15 cases or fewer for the 5 -year data period).
Data are for years 2006-2010.
Rates are in cases per 100,000.
Age-adjusted rates are adjusted to the 2000 US standard population.
Source: NAACCR - CINA Deluxe Analytic File.

## Map of incidence rates

Figure 2.1 shows a map of breast cancer incidence rates for the counties in Texas. When the numbers of cases used to compute the rates are small ( 15 cases or fewer for the five-year data period), those rates are unreliable and are shown as "small numbers" on the map.

Texas Counties
Age-adjusted Incidence Rate

86.6-98.5
98.6-107.8
107.9-121.4
121.5-161.3 Small Numbers
*Map with counties labeled is available in Appendix.
Data are for years 2006-2010.
Rates are in cases per 100,000.
Age-adjusted rates are adjusted to the 2000 US standard population. Source: NAACCR - CINA Deluxe Analytic File.

Figure 2.1. Female breast cancer age-adjusted incidence rates

## Conclusions: Breast cancer incidence rates and trends

Overall, the breast cancer incidence rate in the State of Texas was significantly lower than that observed in the US as a whole and the incidence trend was slightly lower than the US as a whole.

For the United States, breast cancer incidence in Blacks/African-Americans is similar to Whites overall. The most recent estimated breast cancer incidence rates for APIs and AIANs were lower than for Non-Hispanic Whites and Blacks/African-Americans. The most recent estimated incidence rates for Hispanics/Latinas were lower than for Non-Hispanic Whites and Blacks/African-Americans. For the State of Texas, the incidence rate was slightly higher among Blacks/African-Americans than Whites, significantly lower among APIs than Whites, and significantly lower among AIANs than Whites. The incidence rate among Hispanics/Latinas was significantly lower than among Non-Hispanics/Latinas.

The following counties had an incidence rate significantly higher than the state as a whole:

- Austin County
- Bell County (Komen East Central Texas)
- Collin County (Komen North Texas)
- Dallas County (Komen Dallas County)
- Denton County (Komen North Texas)
- Fort Bend County (Komen Houston)
- Galveston County (Komen Houston)
- Harris County (Komen Houston)
- Kleberg County
- Montgomery County (Komen Houston)
- Parker County (Komen Greater Fort Worth)
- Rockwall County
- Smith County (Komen East Central Texas)
- Tarrant County (Komen Greater Fort Worth)
- Travis County (Komen Austin)
- Washington County
- Williamson County (Komen Austin)

The incidence rate was significantly lower in the following counties:

- Anderson County (Komen East Central Texas)
- Bandera County
- Brewster County
- Burnet County
- Cameron County
- Cass County (Komen Texarkana)
- Cooke County (Komen North Texas)
- Duval County
- Eastland County
- El Paso County (Komen El Paso)
- Falls County (Komen East Central Texas)
- Gonzales County
- Hale County (Komen Lubbock Area)
- Hidalgo County
- Howard County
- Hunt County (Komen North Texas)
- Hutchinson County (Komen Greater Amarillo)
- Lampasas County
- Liberty County (Komen Houston)
- Maverick County
- Medina County
- Newton County
- Pecos County
- Shelby County
- Starr County
- Titus County
- Tyler County
- Upshur County
- Val Verde County
- Webb County
- Wharton County
- Willacy County
- Wood County
- Zapata County
- Zavala County

Significantly less favorable trends in breast cancer incidence rates were observed in the following counties:

- Cherokee County (Komen East Central Texas)
- Navarro County (Komen East Central Texas)
- Rains County

Significantly more favorable trends in breast cancer incidence rates were observed in the following counties:

- Montague County (Komen North Texas)
- Presidio County

The rest of the counties had incidence rates and trends that were not significantly different than the state as a whole or did not have enough data available.

It's important to remember that an increase in breast cancer incidence could also mean that more breast cancers are being found because more women are getting mammograms.

## Death Rates

> A fundamental goal is to reduce the number of women dying from breast cancer.
> Death rate trends should always be negative: death rates should be getting lower over time.

The breast cancer death rate shows the frequency of death from breast cancer among women living in a given area during a certain time period. Like incidence rates, death rates may be calculated for all women or for specific groups of women (e.g. Black/African-American women).

## How death rates are calculated

The death rate is calculated as the number of women from a particular geographic area who died from breast cancer divided by the total number of women living in that area.
Like incidence rates, death rates are often shown in terms of 100,000 women and adjusted for age.

## Death rate trends

As with incidence rates, data are included for the annual percent change in the death rate over a five-year period.

The meanings of these data are the same as for incidence rates, with one exception. Changes in screening don't affect death rates in the way that they affect incidence rates. So a negative value, which means that death rates are getting lower, is always desirable. A positive value, which means that death rates are getting higher, is always undesirable.

## Confidence intervals

As with incidence rates, this report includes the confidence interval of the age-adjusted breast cancer death rates and trends because the numbers are not exact. The confidence interval is shown as two numbers-a lower value and a higher one. It is very unlikely that the true rate is less than the lower value or more than the higher value.

## Breast cancer death rates and trends

Breast cancer death rates and trends are shown in Table 2.2 for:

- United States
- State of Texas
- Each county of Texas

For the state, rates are also shown by race for Whites, Blacks/African-Americans/AfricanAmericans, Asians and Pacific Islanders (API), and American Indians and Alaska Natives (AIAN). In addition, rates are shown by ethnicity for Hispanics/Latinas and women who are not Hispanic/Latina (regardless of their race).

The rates in Table 2.2 are shown per 100,000 females from 2006 to 2010. The HP2020 death rate target is included for reference.

Table 2.2. Female breast cancer death rates and trends

| Population Group | Female Population (Annual Average) | \# of Deaths (Annual Average) | Ageadjusted Death Rate /100,000 | Confidence Interval of Age-adjusted Death Rate | Death <br> Trend (Annual Percent Change) | Confidence Interval of Death Rate Trend |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| US | 154,540,194 | 40,736 | 22.6 | 22.5 : 22.7 | -1.9\% | -2.0\% : -1.8\% |
| HP2020 | - | - | 20.6* | - | - | - |
| Texas | 12,251,113 | 2,610 | 21.8 | 21.4 : 22.2 | -1.8\% | -2.0\% : -1.7\% |
| White | 10,051,891 | 2,142 | 20.9 | 20.5 : 21.3 | -1.9\% | $-2.1 \%$ : -1.7\% |
| Black/African-American | 1,569,020 | 429 | 33.5 | 32.1 : 35.0 | -1.0\% | -1.3\% : -0.7\% |
| AIAN | 119,743 | 5 | 5.7 | 3.4 : 8.9 | NA | NA |
| API | 510,459 | 33 | 8.6 | 7.2 : 10.1 | -0.4\% | -2.0\% : 1.2\% |
| Non-Hispanic/ Latina | 7,829,049 | 2,133 | 23.2 | 22.8 : 23.7 | -1.7\% | -1.9\% : -1.5\% |
| Hispanic/ Latina | 4,422,064 | 470 | 16.7 | $16.1: 17.5$ | -1.6\% | -2.0\% : -1.2\% |
| Anderson County | 22,684 | 6 | 21.2 | 14.3:30.5 | -2.6\% | -5.1\% : -0.1\% |
| Andrews County | 7,048 | SN | SN | SN | SN | SN |
| Angelina County | 43,515 | 10 | 20.8 | 15.4:27.5 | -0.6\% | -2.7\% : 1.5\% |
| Aransas County | 11,694 | 4 | 26.6 | 15.7 : 42.7 | -3.8\% | -7.2\% : -0.4\% |
| Archer County | 4,515 | SN | SN | SN | SN | SN |
| Armstrong County | 985 | SN | SN | SN | SN | SN |
| Atascosa County | 22,368 | 4 | 16.5 | 9.9:25.9 | -2.0\% | -5.4\% : 1.6\% |
| Austin County | 14,038 | 5 | 24.7 | 15.5:37.8 | -0.4\% | -3.6\% : $2.9 \%$ |
| Bailey County | 3,498 | SN | SN | SN | SN | SN |
| Bandera County | 10,209 | SN | SN | SN | SN | SN |
| Bastrop County | 35,309 | 7 | 18.8 | 13.1:26.3 | -1.7\% | -4.1\% : 0.7\% |
| Baylor County | 1,965 | SN | SN | SN | SN | SN |
| Bee County | 12,702 | 4 | 28.3 | 17.1: 44.1 | NA | NA |
| Bell County | 148,442 | 29 | 22.6 | 19.0 : 26.7 | -0.2\% | -2.0\% : 1.6\% |
| Bexar County | 842,469 | 180 | 21.7 | 20.3: 23.2 | -1.9\% | -2.4\% : -1.4\% |
| Blanco County | 5,000 | SN | SN | SN | SN | SN |
| Borden County | 300 | SN | SN | SN | SN | SN |
| Bosque County | 9,127 | SN | SN | SN | SN | SN |
| Bowie County | 45,123 | 13 | 22.9 | 17.6:29.4 | -1.9\% | -3.6\% : -0.2\% |
| Brazoria County | 147,578 | 34 | 24.6 | 20.9:28.6 | -1.1\% | -2.5\% : 0.4\% |
| Brazos County | 91,611 | 12 | 18.8 | 14.3 : 24.2 | -2.5\% | -4.6\% : -0.4\% |
| Brewster County | 4,479 | SN | SN | SN | SN | SN |


| Population Group | Female Population (Annual Average) | \# of Deaths (Annual Average) | Ageadjusted Death Rate /100,000 | Confidence Interval of Age-adjusted Death Rate | Death <br> Trend <br> (Annual <br> Percent <br> Change) | Confidence Interval of Death Rate Trend |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Briscoe County | 841 | SN | SN | SN | SN | SN |
| Brooks County | 3,720 | SN | SN | SN | SN | SN |
| Brown County | 19,265 | 7 | 26.2 | 18.2:36.8 | -1.4\% | -4.3\% : 1.6\% |
| Burleson County | 8,655 | 3 | 23.5 | 13.1: 40.1 | NA | NA |
| Burnet County | 21,517 | 5 | 17.1 | 11.1:25.5 | -7.5\% | -13.8\% : -0.8\% |
| Caldwell County | 18,605 | SN | SN | SN | SN | SN |
| Calhoun County | 10,411 | SN | SN | SN | SN | SN |
| Callahan County | 6,883 | 3 | 34.6 | 20.0: 57.1 | NA | NA |
| Cameron County | 204,243 | 34 | 18.0 | 15.4:20.9 | -1.6\% | -3.2\% : -0.1\% |
| Camp County | 6,267 | SN | SN | SN | SN | SN |
| Carson County | 3,206 | SN | SN | SN | SN | SN |
| Cass County | 15,590 | 5 | 25.4 | 16.4:38.0 | -0.1\% | -3.7\% : 3.7\% |
| Castro County | 3,876 | SN | SN | SN | SN | SN |
| Chambers County | 16,086 | SN | SN | SN | SN | SN |
| Cherokee County | 24,641 | 7 | 23.2 | 16.1:32.6 | -2.0\% | -4.5\% : 0.6\% |
| Childress County | 2,912 | SN | SN | SN | SN | SN |
| Clay County | 5,567 | SN | SN | SN | SN | SN |
| Cochran County | 1,602 | SN | SN | SN | SN | SN |
| Coke County | 1,719 | SN | SN | SN | SN | SN |
| Coleman County | 4,473 | SN | SN | SN | SN | SN |
| Collin County | 374,897 | 56 | 19.1 | 16.8 : 21.5 | -2.6\% | -3.6\% : -1.6\% |
| Collingsworth County | 1,538 | SN | SN | SN | SN | SN |
| Colorado County | 10,480 | SN | SN | SN | SN | SN |
| Comal County | 52,315 | 13 | 19.1 | 14.7 : 24.6 | 13.8\% | -19.2\% : 60.3\% |
| Comanche County | 7,036 | SN | SN | SN | SN | SN |
| Concho County | 1,312 | SN | SN | SN | SN | SN |
| Cooke County | 19,351 | 5 | 20.4 | 12.8:31.0 | -3.4\% | -7.0\% : 0.5\% |
| Coryell County | 37,494 | 6 | 22.4 | 15.2 : 31.8 | -1.4\% | -4.4\% : 1.7\% |
| Cottle County | 786 | SN | SN | SN | SN | SN |
| Crane County | 2,115 | SN | SN | SN | SN | SN |
| Crockett County | 1,883 | SN | SN | SN | SN | SN |
| Crosby County | 3,183 | SN | SN | SN | SN | SN |
| Culberson County | 1,269 | SN | SN | SN | SN | SN |
| Dallam County | 3,125 | SN | SN | SN | SN | SN |


| Population Group | Female Population (Annual Average) | \# of Deaths (Annual Average) | Ageadjusted Death Rate /100,000 | Confidence Interval of Age-adjusted Death Rate | Death <br> Trend <br> (Annual <br> Percent <br> Change) | Confidence Interval of Death Rate Trend |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dallas County | 1,171,221 | 247 | 23.6 | 22.2 : 24.9 | -1.9\% | -2.3\% : -1.4\% |
| Dawson County | 6,013 | SN | SN | SN | SN | SN |
| DeWitt County | 9,594 | 3 | 24.2 | 13.1:41.5 | 1.0\% | -3.2\% : 5.5\% |
| Deaf Smith County | 9,572 | SN | SN | SN | SN | SN |
| Delta County | 2,675 | SN | SN | SN | SN | SN |
| Denton County | 318,811 | 50 | 20.7 | 18.1:23.6 | -2.4\% | -3.5\% : -1.2\% |
| Dickens County | 1,059 | SN | SN | SN | SN | SN |
| Dimmit County | 5,095 | SN | SN | SN | SN | SN |
| Donley County | 1,878 | SN | SN | SN | SN | SN |
| Duval County | 5,853 | SN | SN | SN | SN | SN |
| Eastland County | 9,522 | 4 | 33.7 | 20.1: 53.4 | -0.5\% | -4.1\% : 3.2\% |
| Ector County | 67,551 | 16 | 24.2 | 19.1:30.2 | -1.5\% | -3.4\% : 0.4\% |
| Edwards County | 975 | SN | SN | SN | SN | SN |
| El Paso County | 398,655 | 80 | 21.2 | 19.1:23.3 | -2.0\% | -2.7\% : -1.2\% |
| Ellis County | 72,575 | 14 | 19.8 | 15.4 : 25.1 | -3.1\% | -4.4\% : -1.8\% |
| Erath County | 18,851 | SN | SN | SN | SN | SN |
| Falls County | 9,409 | SN | SN | SN | SN | SN |
| Fannin County | 15,811 | 3 | 15.1 | 8.7:25.0 | SN | SN |
| Fayette County | 12,309 | 6 | 28.0 | 18.2 : 42.1 | 33.1\% | -6.3\% : 89.1\% |
| Fisher County | 2,053 | SN | SN | SN | SN | SN |
| Floyd County | 3,352 | SN | SN | SN | SN | SN |
| Foard County | 721 | SN | SN | SN | SN | SN |
| Fort Bend County | 275,815 | 41 | 17.7 | 15.2:20.4 | -3.1\% | -4.4\% : -1.8\% |
| Franklin County | 5,435 | SN | SN | SN | SN | SN |
| Freestone County | 9,233 | 5 | 38.4 | 24.0:59.0 | NA | NA |
| Frio County | 7,203 | SN | SN | SN | SN | SN |
| Gaines County | 8,346 | SN | SN | SN | SN | SN |
| Galveston County | 144,934 | 39 | 25.4 | 21.9:29.3 | -2.0\% | -3.6\% : -0.4\% |
| Garza County | 2,393 | SN | SN | SN | SN | SN |
| Gillespie County | 12,543 | 6 | 21.0 | 13.7:32.5 | -2.3\% | -5.3\% : 0.9\% |
| Glasscock County | 566 | SN | SN | SN | SN | SN |
| Goliad County | 3,590 | SN | SN | SN | SN | SN |
| Gonzales County | 9,800 | SN | SN | SN | SN | SN |
| Gray County | 10,838 | SN | SN | SN | SN | SN |


| Population Group | Female Population (Annual Average) | \# of Deaths (Annual Average) | Ageadjusted Death Rate /100,000 | Confidence Interval of Age-adjusted Death Rate | Death Trend (Annual Percent Change) | Confidence Interval of Death Rate Trend |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Grayson County | 61,197 | 16 | 19.8 | 15.6:24.8 | -2.2\% | -3.7\% : -0.7\% |
| Gregg County | 61,175 | 21 | 28.3 | 23.1:34.4 | 9.6\% | -2.9\% : 23.8\% |
| Grimes County | 11,953 | 5 | 31.3 | 19.7:47.7 | 1.6\% | -1.9\% : 5.2\% |
| Guadalupe County | 62,193 | 12 | 18.1 | 13.8:23.4 | -4.8\% | -6.6\% : -3.0\% |
| Hale County | 17,447 | 5 | 25.5 | 16.3 : 38.0 | 0.2\% | -3.0\% : 3.5\% |
| Hall County | 1,743 | SN | SN | SN | SN | SN |
| Hamilton County | 4,330 | SN | SN | SN | SN | SN |
| Hansford County | 2,734 | SN | SN | SN | SN | SN |
| Hardeman County | 2,137 | SN | SN | SN | SN | SN |
| Hardin County | 27,003 | 7 | 22.6 | 15.8:31.3 | -0.2\% | -3.4\% : 3.2\% |
| Harris County | 1,984,833 | 410 | 24.2 | 23.1:25.3 | -1.9\% | -2.3\% : -1.5\% |
| Harrison County | 32,870 | 7 | 18.6 | 12.9: 26.1 | -1.8\% | -4.0\% : 0.4\% |
| Hartley County | 2,286 | SN | SN | SN | SN | SN |
| Haskell County | 2,808 | SN | SN | SN | SN | SN |
| Hays County | 73,374 | 13 | 21.3 | 16.3: 27.3 | -1.1\% | -3.2\% : 0.9\% |
| Hemphill County | 1,810 | SN | SN | SN | SN | SN |
| Henderson County | 40,017 | 11 | 19.0 | 14.3:25.1 | -2.3\% | -4.5\% : 0.0\% |
| Hidalgo County | 378,395 | 49 | 16.0 | 14.1: 18.1 | -2.1\% | -3.1\% : -1.1\% |
| Hill County | 17,712 | 4 | 19.0 | 11.6:29.7 | -2.5\% | -5.4\% : 0.5\% |
| Hockley County | 11,654 | SN | SN | SN | SN | SN |
| Hood County | 25,324 | 8 | 18.5 | 13.0:26.0 | -3.5\% | -5.9\% : -1.0\% |
| Hopkins County | 17,468 | 5 | 21.6 | 13.8:32.7 | 0.1\% | -2.5\% : 2.8\% |
| Houston County | 10,934 | 3 | 17.9 | 10.0:30.8 | -0.5\% | -4.6\% : 3.9\% |
| Howard County | 15,043 | 4 | 20.3 | 11.8:32.8 | -2.6\% | -4.5\% : -0.6\% |
| Hudspeth County | 1,703 | SN | SN | SN | SN | SN |
| Hunt County | 42,767 | 14 | 27.8 | 21.6 : 35.3 | -1.1\% | -2.8\% : 0.8\% |
| Hutchinson County | 11,089 | SN | SN | SN | SN | SN |
| Irion County | 791 | SN | SN | SN | SN | SN |
| Jack County | 4,039 | SN | SN | SN | SN | SN |
| Jackson County | 7,091 | SN | SN | SN | SN | SN |
| Jasper County | 17,950 | 5 | 21.8 | 13.9:32.8 | -0.3\% | -3.1\% : $2.7 \%$ |
| Jeff Davis County | 1,143 | SN | SN | SN | SN | SN |
| Jefferson County | 122,114 | 37 | 25.9 | 22.3 : 30.0 | -0.5\% | -1.8\% : 0.8\% |
| Jim Hogg County | 2,640 | SN | SN | SN | SN | SN |


| Population Group | Female Population (Annual Average) | \# of Deaths <br> (Annual <br> Average) | Ageadjusted Death Rate /100,000 | Confidence Interval of Age-adjusted Death Rate | Death Trend (Annual Percent Change) | Confidence Interval of Death Rate Trend |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jim Wells County | 20,623 | 4 | 17.1 | 10.1:27.1 | -2.8\% | -5.8\% : 0.4\% |
| Johnson County | 73,708 | 20 | 26.4 | 21.5:32.3 | -0.2\% | -2.1\% : 1.7\% |
| Jones County | 7,785 | 3 | 29.2 | 16.4 : 49.0 | -0.4\% | -4.3\% : 3.6\% |
| Karnes County | 5,982 | SN | SN | SN | SN | SN |
| Kaufman County | 49,860 | 14 | 28.7 | 22.3:36.3 | -0.6\% | -3.6\% : $2.5 \%$ |
| Kendall County | 16,122 | 4 | 17.0 | 10.1:27.5 | NA | NA |
| Kenedy County | 196 | SN | SN | SN | SN | SN |
| Kent County | 409 | SN | SN | SN | SN | SN |
| Kerr County | 25,130 | 8 | 15.5 | 10.8: 22.2 | -3.7\% | -7.0\% : -0.3\% |
| Kimble County | 2,314 | SN | SN | SN | SN | SN |
| King County | 143 | SN | SN | SN | SN | SN |
| Kinney County | 1,625 | SN | SN | SN | SN | SN |
| Kleberg County | 15,547 | 4 | 26.0 | 15.8: 40.4 | 3.8\% | -0.3\% : 8.1\% |
| Knox County | 1,886 | SN | SN | SN | SN | SN |
| La Salle County | 2,782 | SN | SN | SN | SN | SN |
| Lamar County | 25,697 | 6 | 17.1 | 11.5:24.8 | -32.1\% | -58.4\% : 10.9\% |
| Lamb County | 7,065 | SN | SN | SN | SN | SN |
| Lampasas County | 9,992 | SN | SN | SN | SN | SN |
| Lavaca County | 9,863 | 4 | 20.6 | 12.0:34.4 | NA | NA |
| Lee County | 8,131 | SN | SN | SN | SN | SN |
| Leon County | 8,348 | SN | SN | SN | SN | SN |
| Liberty County | 38,086 | 11 | 26.9 | 20.1:35.3 | -1.5\% | -3.8\% : 0.8\% |
| Limestone County | 11,171 | SN | SN | SN | SN | SN |
| Lipscomb County | 1,629 | SN | SN | SN | SN | SN |
| Live Oak County | 5,283 | SN | SN | SN | SN | SN |
| Llano County | 9,807 | 4 | 22.5 | 11.3 : 41.2 | -0.9\% | -5.8\% : 4.3\% |
| Loving County | 34 | SN | SN | SN | SN | SN |
| Lubbock County | 136,756 | 29 | 21.8 | 18.4:25.7 | -1.4\% | -2.7\% : -0.2\% |
| Lynn County | 3,030 | SN | SN | SN | SN | SN |
| Madison County | 5,671 | SN | SN | SN | SN | SN |
| Marion County | 5,520 | SN | SN | SN | SN | SN |
| Martin County | 2,295 | SN | SN | SN | SN | SN |
| Mason County | 1,977 | SN | SN | SN | SN | SN |
| Matagorda County | 18,358 | 5 | 22.4 | 14.2 : 33.7 | -1.9\% | -5.1\% : 1.4\% |


| Population Group | Female Population (Annual Average) | \# of Deaths (Annual Average) | Ageadjusted Death Rate /100,000 | Confidence Interval of Age-adjusted Death Rate | Death <br> Trend (Annual Percent Change) | Confidence Interval of Death Rate Trend |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Maverick County | 27,014 | 3 | 13.5 | 7.6 : 21.9 | NA | NA |
| McCulloch County | 4,217 | SN | SN | SN | SN | SN |
| McLennan County | 118,109 | 36 | 27.9 | 23.9 : 32.4 | -1.2\% | -2.6\% : 0.1\% |
| McMullen County | 359 | SN | SN | SN | SN | SN |
| Medina County | 21,898 | 5 | 20.6 | 13.4:30.5 | 1.7\% | -4.9\% : 8.8\% |
| Menard County | 1,083 | SN | SN | SN | SN | SN |
| Midland County | 67,465 | 12 | 17.8 | 13.6 : 22.9 | -2.9\% | -5.2\% : -0.6\% |
| Milam County | 12,583 | 4 | 20.1 | 12.0:32.4 | -1.8\% | -5.2\% : 1.7\% |
| Mills County | 2,485 | SN | SN | SN | SN | SN |
| Mitchell County | 3,587 | SN | SN | SN | SN | SN |
| Montague County | 10,094 | SN | SN | SN | SN | SN |
| Montgomery County | 215,716 | 49 | 23.3 | 20.4 : 26.5 | -1.1\% | -2.9\% : 0.6\% |
| Moore County | 10,295 | SN | SN | SN | SN | SN |
| Morris County | 6,786 | SN | SN | SN | SN | SN |
| Motley County | 587 | SN | SN | SN | SN | SN |
| Nacogdoches County | 32,994 | 8 | 24.7 | 17.6:33.6 | 0.2\% | -2.4\% : 3.0\% |
| Navarro County | 23,973 | 6 | 23.1 | 15.7 : 33.0 | -0.3\% | -3.6\% : 3.1\% |
| Newton County | 7,027 | SN | SN | SN | SN | SN |
| Nolan County | 7,613 | SN | SN | SN | SN | SN |
| Nueces County | 170,290 | 41 | 22.0 | 19.0 : 25.2 | -2.0\% | -3.0\% : -1.0\% |
| Ochiltree County | 4,893 | SN | SN | SN | SN | SN |
| Oldham County | 1,010 | SN | SN | SN | SN | SN |
| Orange County | 41,287 | 11 | 23.2 | 17.5:30.2 | -0.6\% | -2.5\% : 1.3\% |
| Palo Pinto County | 14,185 | 5 | 30.7 | 20.0: 45.4 | -2.1\% | -6.2\% : 2.2\% |
| Panola County | 11,947 | SN | SN | SN | SN | SN |
| Parker County | 55,249 | 16 | 26.6 | 21.0 : 33.3 | -0.6\% | -2.5\% : 1.2\% |
| Parmer County | 4,949 | SN | SN | SN | SN | SN |
| Pecos County | 6,711 | SN | SN | SN | SN | SN |
| Polk County | 21,339 | 7 | 21.1 | 14.7:29.9 | -1.4\% | -5.6\% : 2.9\% |
| Potter County | 58,831 | 16 | 26.0 | 20.6:32.5 | -1.7\% | -3.6\% : 0.2\% |
| Presidio County | 3,905 | SN | SN | SN | SN | SN |
| Rains County | 5,435 | SN | SN | SN | SN | SN |
| Randall County | 60,022 | 16 | 23.8 | 18.8:29.8 | -0.9\% | -3.1\% : 1.3\% |
| Reagan County | 1,591 | SN | SN | SN | SN | SN |


| Population Group | Female Population (Annual Average) | \# of Deaths (Annual Average) | Ageadjusted Death Rate /100,000 | Confidence Interval of Age-adjusted Death Rate | Death Trend (Annual Percent Change) | Confidence <br> Interval <br> of Death <br> Rate Trend |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Real County | 1,646 | SN | SN | SN | SN | SN |
| Red River County | 6,650 | SN | SN | SN | SN | SN |
| Reeves County | 5,400 | SN | SN | SN | SN | SN |
| Refugio County | 3,737 | SN | SN | SN | SN | SN |
| Roberts County | 453 | SN | SN | SN | SN | SN |
| Robertson County | 8,439 | SN | SN | SN | SN | SN |
| Rockwall County | 37,159 | 8 | 23.2 | 16.4:31.9 | NA | NA |
| Runnels County | 5,330 | SN | SN | SN | SN | SN |
| Rusk County | 24,770 | 8 | 26.2 | 18.5 : 36.1 | -1.4\% | -4.0\% : 1.3\% |
| Sabine County | 5,437 | SN | SN | SN | SN | SN |
| San Augustine County | 4,597 | SN | SN | SN | SN | SN |
| San Jacinto County | 12,950 | 4 | 22.8 | 13.3:36.9 | -2.3\% | -5.0\% : 0.4\% |
| San Patricio County | 33,166 | 8 | 21.8 | 15.4:30.1 | -1.2\% | -4.4\% : 2.0\% |
| San Saba County | 2,759 | SN | SN | SN | SN | SN |
| Schleicher County | 1,616 | SN | SN | SN | SN | SN |
| Scurry County | 7,748 | SN | SN | SN | SN | SN |
| Shackelford County | 1,755 | SN | SN | SN | SN | SN |
| Shelby County | 12,856 | 4 | 22.9 | 13.7:36.3 | -3.6\% | -6.7\% : -0.4\% |
| Sherman County | 1,477 | SN | SN | SN | SN | SN |
| Smith County | 105,247 | 22 | 17.3 | 14.1:20.9 | -3.8\% | -5.4\% : -2.3\% |
| Somervell County | 4,151 | SN | SN | SN | SN | SN |
| Starr County | 30,968 | 7 | 24.6 | 16.9:34.5 | 3.6\% | -0.4\% : 7.7\% |
| Stephens County | 4,615 | SN | SN | SN | SN | SN |
| Sterling County | 562 | SN | SN | SN | SN | SN |
| Stonewall County | 748 | SN | SN | SN | SN | SN |
| Sutton County | 2,135 | SN | SN | SN | SN | SN |
| Swisher County | 3,720 | SN | SN | SN | SN | SN |
| Tarrant County | 886,941 | 169 | 20.9 | 19.5 : 22.4 | -2.2\% | -2.8\% : -1.5\% |
| Taylor County | 66,598 | 19 | 24.7 | 19.9:30.3 | -1.3\% | -2.6\% : 0.0\% |
| Terrell County | 452 | SN | SN | SN | SN | SN |
| Terry County | 5,907 | SN | SN | SN | SN | SN |
| Throckmorton County | 833 | SN | SN | SN | SN | SN |
| Titus County | 15,612 | 4 | 24.0 | 14.5:37.3 | NA | NA |
| Tom Green County | 55,256 | 11 | 16.4 | 12.3 : 21.5 | -3.5\% | -5.8\% : -1.2\% |


| Population Group | Female Population <br> (Annual Average) | \# of Deaths <br> (Annual <br> Average) | Ageadjusted Death Rate /100,000 | Confidence Interval of Age-adjusted Death Rate | Death <br> Trend <br> (Annual <br> Percent <br> Change) | Confidence Interval of Death Rate Trend |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Travis County | 484,563 | 75 | 19.6 | 17.6 : 21.7 | -2.5\% | -3.1\% : -1.9\% |
| Trinity County | 7,430 | SN | SN | SN | SN | SN |
| Tyler County | 9,947 | 3 | 24.9 | 13.6 : 42.3 | -2.7\% | -5.4\% : 0.0\% |
| Upshur County | 19,546 | 5 | 20.9 | 13.4:31.4 | -0.5\% | -2.9\% : 2.0\% |
| Upton County | 1,627 | SN | SN | SN | SN | SN |
| Uvalde County | 13,431 | 3 | 19.9 | 11.3:32.6 | NA | NA |
| Val Verde County | 24,083 | 4 | 15.8 | 9.6:24.5 | -4.6\% | -8.3\% : -0.6\% |
| Van Zandt County | 26,563 | 6 | 17.3 | 11.6:25.0 | -1.4\% | -4.7\% : 2.0\% |
| Victoria County | 43,983 | 11 | 22.4 | 16.9:29.3 | -0.5\% | -2.9\% : 1.8\% |
| Walker County | 27,038 | 7 | 28.2 | 19.7 : 39.2 | 1.9\% | -1.8\% : 5.7\% |
| Waller County | 20,623 | 5 | 27.1 | 17.7:39.7 | 0.6\% | -2.3\% : 3.5\% |
| Ward County | 5,374 | SN | SN | SN | SN | SN |
| Washington County | 16,772 | 7 | 26.7 | 18.2 : 38.4 | -0.4\% | -3.0\% : 2.2\% |
| Webb County | 123,793 | 16 | 17.3 | 13.7 : 21.5 | -1.3\% | -3.3\% : 0.8\% |
| Wharton County | 20,857 | 6 | 23.1 | 15.5 : 33.3 | -3.1\% | -6.0\% : -0.1\% |
| Wheeler County | 2,653 | SN | SN | SN | SN | SN |
| Wichita County | 63,857 | 14 | 18.3 | 14.2: 23.3 | -2.7\% | -4.3\% : -1.0\% |
| Wilbarger County | 6,857 | SN | SN | SN | SN | SN |
| Willacy County | 10,021 | SN | SN | SN | SN | SN |
| Williamson County | 198,535 | 33 | 19.0 | 16.1:22.2 | -2.8\% | -4.3\% : -1.2\% |
| Wilson County | 20,704 | 5 | 19.8 | 12.4:30.1 | 0.7\% | -2.4\% : 3.9\% |
| Winkler County | 3,479 | SN | SN | SN | SN | SN |
| Wise County | 28,731 | 6 | 19.4 | 12.9:28.0 | -2.1\% | -5.3\% : 1.2\% |
| Wood County | 21,170 | 6 | 15.5 | 10.1:23.5 | -3.3\% | -6.2\% : -0.4\% |
| Yoakum County | 3,875 | SN | SN | SN | SN | SN |
| Young County | 9,352 | 6 | 45.7 | 29.5: 67.9 | 2.8\% | -2.2\% : 8.0\% |
| Zapata County | 6,765 | SN | SN | SN | SN | SN |
| Zavala County | 5,908 | SN | SN | SN | SN | SN |

*Target as of the writing of this report.
NA - data not available.
SN - data suppressed due to small numbers (15 deaths or fewer for the 5-year data period).
Data are for years 2006-2010.
Rates are in deaths per 100,000
Age-adjusted rates are adjusted to the 2000 US standard population.
Source of death rate data: CDC - NCHS death data in SEER*Stat.
Source of death trend data: NCI/CDC State Cancer Profiles.

## Map of death rates

Figure 2.2 shows a map of breast cancer death rates for the counties in Texas. When the numbers of deaths used to compute the rates are small ( 15 cases or fewer for the five-year data period), those rates are unreliable and are shown as "small numbers" on the map.

*Map with counties labeled is available in Appendix.
Data are for years 2006-2010.
Rates are in deaths per 100,000
Age-adjusted rates are adjusted to the 2000 US standard population.
Source: CDC - NCHS death data in SEER*Stat.
Figure 2.2. Female breast cancer age-adjusted death rates

## Conclusions: Breast cancer death rates and trends

Overall, the breast cancer death rate and trend in the State of Texas were similar to that observed in the US as a whole.

For the United States, breast cancer death rates in Blacks/African-Americans are substantially higher than in Whites overall. The most recent estimated breast cancer death rates for APIs and AIANs were lower than for Non-Hispanic Whites and Blacks/African-Americans. The most recent estimated death rates for Hispanics/Latinas were lower than for Non-Hispanic Whites and Blacks/African-Americans. For the State of Texas, the death rate was significantly higher among Blacks/African-Americans than Whites, significantly lower among APIs than Whites, and significantly lower among AIANs than Whites. The death rate among Hispanics/Latinas was significantly lower than among Non-Hispanics/Latinas.

The following counties had a death rate significantly higher than the state as a whole:

- Floyd County (Komen Lubbock Area)
- Freestone County (Komen East Central Texas)
- Gregg County
- Harris County (Komen Houston)
- Jefferson County
- Kaufman County (Komen East Central Texas)
- McLennan County (Komen East Central Texas)
- Shackelford County
- Young County

The death rate was significantly lower in the following counties:

- Cameron County
- Fort Bend County (Komen Houston)
- Hidalgo County
- Smith County (Komen East Central Texas)

Significantly less favorable trends in breast cancer death rates were observed in the following counties:

- Kleberg County
- Starr County

Significantly more favorable trends in breast cancer death rates were observed in the following counties:

- Guadalupe County
- Smith County (Komen East Central Texas)

The rest of the counties had death rates and trends that were not significantly different than the state as a whole or did not have enough data available.

## Late-Stage Diagnosis

People with breast cancer have a better chance of survival if their disease is found early and treated.

The stage of cancer indicates the extent of the disease within the body. Most often, the higher the stage of the cancer, the poorer the chances for survival will be.

If a breast cancer is determined to be regional or distant stage, it's considered a late-stage diagnosis.

Medical experts agree that it's best for breast cancer to be detected early. Women whose breast cancers are found at an early stage usually need less aggressive treatment and do better overall than those whose cancers are found at a late-stage (US Preventive Services Task Force, 2009).

## How late-stage breast cancer incidence rates are calculated

For this report, late-stage breast cancer is defined as regional or distant stage using the Surveillance, Epidemiology and End Results (SEER) Summary Stage definitions (SEER Summary Stage, 2001). State and national reporting usually uses the SEER Summary Stage. It provides a consistent set of definitions of stages for historical comparisons.

The late-stage breast cancer incidence rate is calculated as the number of women with regional or distant breast cancer in a particular geographic area divided by the number of women living in that area.

Like incidence and death rates, late-stage incidence rates are often shown in terms of 100,000 women and adjusted for age.

## Proportion of late-stage diagnoses

Another way to assess the impact of late-stage breast cancer diagnosis on a community is to look at the proportion (percentage) of breast cancers that are diagnosed at late-stage. By lowering the proportion of female breast cancer cases that are diagnosed at late-stage in a given community, it is reasonable to expect that the community will observe a lower breast cancer death rate.

A change in the proportion of late-stage breast cancer cases can be a good indicator of the direction the breast cancer death rate will move over time. In addition, the proportion of latestage breast cancer is an indicator of the success of early detection efforts (Taplin et al., 2004). So, in addition to the late-stage breast cancer incidence rate, this report includes the late-stage breast cancer proportion (the ratio of late-stage cases to total cases). Note that the late-stage incidence rate may go down over time yet the late-stage proportion may not if the overall incidence rate is declining as well.

## How late-stage breast cancer proportions are calculated

The late-stage breast cancer proportion is the ratio between the number of cases diagnosed at regional or distant stages and the total number of breast cancer cases that have been diagnosed and staged in a particular geographic area. It is important to note that cases with unknown stage are excluded from this calculation. However, assuming the size and distribution of cases with unknown stage does not change significantly, the late-stage proportion can be a very good indicator of the need for or effectiveness of early detection interventions.

## Confidence intervals

As with incidence and death rates, this report includes the confidence interval of the late-stage incidence rates and trends, and the late-stage proportions and trends because the numbers are not exact. The confidence interval is shown as two numbers-a lower value and a higher one. It is very unlikely that the true rate is less than the lower value or more than the higher value.

## Late-stage breast cancer incidence, proportions and trends

Late-stage breast cancer incidence rates, proportions and trends are shown in Tables 2.3 and 2.4 for:

- United States
- State of Texas
- Each county of Texas

For the State of Texas, rates are also shown by race for Whites, Blacks/African-Americans/African-Americans, Asians and Pacific Islanders (API), and American Indians and Alaska Natives (AIAN). In addition, rates are shown by ethnicity for Hispanics/Latinas and women who are not Hispanic/Latina (regardless of their race).

The rates in Table 2.3 are shown per 100,000 females from 2006 to 2010. The HP2020 latestate incidence rate target is included for reference.

Table 2.3. Female breast cancer late-stage incidence rates and trends

| Population Group | Female Population (Annual Average) | \# of New Latestage Cases (Annual Average) | Ageadjusted Latestage Incidence rate 100,000 | Confidence Interval of Age-adjusted Incidence Rate | Late <br> stage <br> Trend <br> (Annual <br> Percent <br> Change) | Confidence Interval of Late-stage Trend |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| US (states with available data) | 145,332,861 | 70,218 | 43.7 | 43.5 : 43.8 | -1.2\% | -3.1\% : 0.8\% |
| HP2020 | - | - | 41.0* | - | - |  |
| Texas | 12,251,113 | 4,905 | 40.7 | 40.2 : 41.3 | -3.2\% | -6.7\% : 0.4\% |
| White | 10,051,891 | 4,064 | 40.0 | 39.4 : 40.6 | -3.3\% | -6.7\% : 0.2\% |
| Black/African-American | 1,569,020 | 681 | 50.3 | 48.6 : 52.1 | -1.1\% | -5.4\% : 3.4\% |
| AIAN | 119,743 | 13 | 15.2 | 11.5 : 19.6 | -12.6\% | -35.1\% : 17.5\% |
| API | 510,459 | 103 | 22.8 | 20.7 : 25.0 | -0.3\% | -8.9\% : 9.1\% |
| Non-Hispanic/ Latina | 7,829,049 | 3,789 | 42.3 | 41.7 : 42.9 | -2.5\% | -6.1\% : 1.3\% |
| Hispanic/ Latina | 4,422,064 | 1,116 | 35.8 | 34.8 : 36.7 | -4.3\% | -8.6\% : 0.2\% |
| Anderson County | 22,684 | 8 | 28.8 | 20.2:39.8 | -13.2\% | -41.1\% : 27.9\% |
| Andrews County | 7,048 | SN | SN | SN | SN | SN |
| Angelina County | 43,515 | 18 | 36.9 | 29.6:45.5 | 6.2\% | -10.7\% : 26.4\% |
| Aransas County | 11,694 | 9 | 57.2 | 39.9 : 79.7 | -17.2\% | -49.4\% : 35.5\% |
| Archer County | 4,515 | SN | SN | SN | SN | SN |
| Armstrong County | 985 | SN | SN | SN | SN | SN |
| Atascosa County | 22,368 | 8 | 34.9 | 24.9:47.6 | 2.5\% | -32.9\% : 56.4\% |
| Austin County | 14,038 | 9 | 53.8 | 38.7:72.9 | 28.5\% | 2.6\% : 60.9\% |
| Bailey County | 3,498 | SN | SN | SN | SN | SN |
| Bandera County | 10,209 | 3 | 22.6 | 12.9:38.0 | -6.3\% | -43.0\% : 54.1\% |
| Bastrop County | 35,309 | 15 | 38.2 | 29.8:48.3 | 1.0\% | -21.1\% : 29.2\% |
| Baylor County | 1,965 | SN | SN | SN | SN | SN |
| Bee County | 12,702 | 5 | 33.9 | 21.2:51.5 | 8.8\% | -34.5\% : 80.6\% |
| Bell County | 148,442 | 63 | 47.9 | 42.7:53.5 | -7.4\% | -15.9\% : 1.9\% |
| Bexar County | 842,469 | 311 | 37.7 | 35.8 : 39.6 | -4.3\% | -8.6\% : 0.3\% |
| Blanco County | 5,000 | SN | SN | SN | SN | SN |
| Borden County | 300 | SN | SN | SN | SN | SN |
| Bosque County | 9,127 | 5 | 38.7 | 24.0:59.8 | 4.5\% | -27.2\% : 50.0\% |
| Bowie County | 45,123 | 23 | 43.2 | 35.4 : 52.2 | -1.1\% | -12.3\% : 11.6\% |
| Brazoria County | 147,578 | 60 | 41.6 | 36.9 : 46.6 | -2.0\% | -15.6\% : 13.9\% |
| Brazos County | 91,611 | 24 | 36.7 | 30.3 : 44.0 | -6.6\% | -9.5\% : -3.7\% |
| Brewster County | 4,479 | SN | SN | SN | SN | SN |
| Briscoe County | 841 | SN | SN | SN | SN | SN |
| Brooks County | 3,720 | SN | SN | SN | SN | SN |
| Brown County | 19,265 | 9 | 37.3 | 27.2:50.2 | -17.8\% | -40.5\% : 13.5\% |
| Burleson County | 8,655 | 3 | 27.7 | 15.3 : 46.9 | -27.1\% | -55.0\% : 18.2\% |


| Population Group | Female Population (Annual Average) | \# of New <br> Late- <br> stage <br> Cases <br> (Annual <br> Average) | Ageadjusted Latestage Incidence rate /100,000 | Confidence Interval of Age-adjusted Incidence Rate | Late stage Trend (Annual Percent Change) | Confidence Interval of Late-stage Trend |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Burnet County | 21,517 | 12 | 41.6 | 31.3 : 54.3 | 0.3\% | -23.4\% : 31.3\% |
| Caldwell County | 18,605 | 10 | 55.0 | 41.0: 72.3 | 1.3\% | -20.3\% : 28.6\% |
| Calhoun County | 10,411 | 5 | 40.7 | 25.5: 61.7 | 8.4\% | -28.8\% : 65.0\% |
| Callahan County | 6,883 | 5 | 49.5 | 31.0:76.1 | -16.1\% | -43.4\% : 24.4\% |
| Cameron County | 204,243 | 69 | 36.6 | 32.8 : 40.7 | -1.1\% | -12.5\% : 11.9\% |
| Camp County | 6,267 | 3 | 44.8 | 24.9:74.5 | NA | NA |
| Carson County | 3,206 | SN | SN | SN | SN | SN |
| Cass County | 15,590 | 7 | 30.2 | 20.6:43.3 | -5.1\% | -22.0\% : 15.5\% |
| Castro County | 3,876 | SN | SN | SN | SN | SN |
| Chambers County | 16,086 | 7 | 44.8 | 31.2 : 62.4 | 10.4\% | -19.4\% : 51.1\% |
| Cherokee County | 24,641 | 8 | 29.5 | 21.1: 40.3 | -7.0\% | -21.3\% : 9.9\% |
| Childress County | 2,912 | SN | SN | SN | SN | SN |
| Clay County | 5,567 | SN | SN | SN | SN | SN |
| Cochran County | 1,602 | SN | SN | SN | SN | SN |
| Coke County | 1,719 | SN | SN | SN | SN | SN |
| Coleman County | 4,473 | SN | SN | SN | SN | SN |
| Collin County | 374,897 | 128 | 37.0 | 34.1: 40.2 | -6.6\% | -14.4\% : 1.9\% |
| Collingsworth County | 1,538 | SN | SN | SN | SN | SN |
| Colorado County | 10,480 | 4 | 25.4 | 14.9:41.3 | 1.1\% | -47.7\% : 95.8\% |
| Comal County | 52,315 | 27 | 41.8 | 34.9 : 49.7 | -4.6\% | -18.9\% : 12.1\% |
| Comanche County | 7,036 | 4 | 45.2 | 26.9:71.8 | 14.5\% | -59.4\% : 223.2\% |
| Concho County | 1,312 | SN | SN | SN | SN | SN |
| Cooke County | 19,351 | 8 | 30.6 | 21.4: 42.5 | -3.6\% | -24.4\% : 22.9\% |
| Coryell County | 37,494 | 11 | 39.0 | 29.4 : 50.8 | 5.8\% | -19.5\% : 38.9\% |
| Cottle County | 786 | SN | SN | SN | SN | SN |
| Crane County | 2,115 | SN | SN | SN | SN | SN |
| Crockett County | 1,883 | SN | SN | SN | SN | SN |
| Crosby County | 3,183 | SN | SN | SN | SN | SN |
| Culberson County | 1,269 | SN | SN | SN | SN | SN |
| Dallam County | 3,125 | SN | SN | SN | SN | SN |
| Dallas County | 1,171,221 | 491 | 45.4 | 43.6:47.2 | -1.3\% | -3.2\% : 0.7\% |
| Dawson County | 6,013 | 4 | 49.1 | 28.5:79.2 | -2.6\% | NA |
| Deaf Smith County | 9,572 | SN | SN | SN | SN | SN |
| Delta County | 2,675 | SN | SN | SN | SN | SN |
| Denton County | 318,811 | 104 | 37.5 | 34.2 : 41.1 | -3.4\% | -13.1\% : 7.4\% |
| DeWitt County | 9,594 | 8 | 62.1 | 42.7 : 87.6 | -13.2\% | -37.8\% : 21.2\% |
| Dickens County | 1,059 | SN | SN | SN | SN | SN |


| Population Group | Female Population (Annual Average) | \# of New <br> Latestage Cases (Annual Average) | Ageadjusted Latestage Incidence rate /100,000 | Confidence Interval of Age-adjusted Incidence Rate | Late stage Trend (Annual Percent Change) | Confidence Interval of Late-stage Trend |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dimmit County | 5,095 | SN | SN | SN | SN | SN |
| Donley County | 1,878 | SN | SN | SN | SN | SN |
| Duval County | 5,853 | SN | SN | SN | SN | SN |
| Eastland County | 9,522 | SN | SN | SN | SN | SN |
| Ector County | 67,551 | 34 | 53.1 | 45.4: 61.8 | 7.1\% | -19.0\% : 41.7\% |
| Edwards County | 975 | SN | SN | SN | SN | SN |
| Ellis County | 72,575 | 30 | 41.5 | 35.0 : 48.9 | -2.1\% | -9.0\% : 5.2\% |
| El Paso County | 398,655 | 149 | 39.5 | 36.7 : 42.4 | -3.4\% | -9.9\% : 3.5\% |
| Erath County | 18,851 | 8 | 43.8 | 31.3 : 59.7 | -4.5\% | -47.3\% : 73.0\% |
| Falls County | 9,409 | 4 | 33.7 | 20.5:52.9 | -6.3\% | -43.2\% : 54.6\% |
| Fannin County | 15,811 | 8 | 42.5 | 30.2 : 58.5 | -18.2\% | -52.5\% : 40.7\% |
| Fayette County | 12,309 | 7 | 36.6 | 24.9:52.8 | -1.0\% | NA |
| Fisher County | 2,053 | SN | SN | SN | SN | SN |
| Floyd County | 3,352 | SN | SN | SN | SN | SN |
| Foard County | 721 | SN | SN | SN | SN | SN |
| Fort Bend County | 275,815 | 97 | 37.9 | 34.5: 41.7 | -3.3\% | -11.5\% : 5.6\% |
| Franklin County | 5,435 | SN | SN | SN | SN | SN |
| Freestone County | 9,233 | 5 | 37.8 | 23.6:58.0 | -2.9\% | -47.7\% : 80.3\% |
| Frio County | 7,203 | 3 | 40.5 | 23.0: 66.3 | 16.3\% | -0.1\% : 35.3\% |
| Gaines County | 8,346 | 4 | 50.6 | 29.9:79.8 | -11.4\% | -27.6\% : 8.4\% |
| Galveston County | 144,934 | 56 | 35.8 | 31.7: 40.4 | -6.9\% | -26.4\% : 17.8\% |
| Garza County | 2,393 | SN | SN | SN | SN | SN |
| Gillespie County | 12,543 | 7 | 35.8 | 23.6:52.9 | 0.9\% | -24.8\% : 35.5\% |
| Glasscock County | 566 | SN | SN | SN | SN | SN |
| Goliad County | 3,590 | SN | SN | SN | SN | SN |
| Gonzales County | 9,800 | 4 | 29.6 | 17.4:47.4 | 1.1\% | -56.5\% : 135.2\% |
| Gray County | 10,838 | 6 | 47.7 | 32.3 : 68.3 | -4.6\% | -12.6\% : 4.0\% |
| Grayson County | 61,197 | 32 | 42.8 | 36.3: 50.2 | 1.3\% | -17.5\% : 24.3\% |
| Gregg County | 61,175 | 31 | 44.9 | 38.0 : 52.8 | -7.2\% | -17.7\% : 4.7\% |
| Grimes County | 11,953 | 6 | 40.5 | 26.9:58.8 | -14.3\% | -30.4\% : 5.5\% |
| Guadalupe County | 62,193 | 24 | 37.2 | 30.8 : 44.5 | 1.4\% | NA |
| Hale County | 17,447 | 6 | 34.0 | 22.9:48.7 | -2.1\% | -47.5\% : 82.3\% |
| Hall County | 1,743 | SN | SN | SN | SN | SN |
| Hamilton County | 4,330 | SN | SN | SN | SN | SN |
| Hansford County | 2,734 | SN | SN | SN | SN | SN |
| Hardeman County | 2,137 | SN | SN | SN | SN | SN |
| Hardin County | 27,003 | 19 | 59.9 | 48.2 : 73.6 | -6.7\% | -24.8\% : 15.8\% |


| Population Group | Female Population (Annual Average) | \# of New <br> Latestage Cases (Annual Average) | Ageadjusted Latestage Incidence rate /100,000 | Confidence Interval of Age-adjusted Incidence Rate | Late stage Trend (Annual Percent Change) | Confidence Interval of Late-stage Trend |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Harris County | 1,984,833 | 771 | 43.0 | 41.7: 44.4 | -0.2\% | -3.6\% : 3.2\% |
| Harrison County | 32,870 | 14 | 36.4 | 28.1: 46.4 | -0.3\% | -19.1\% : 22.8\% |
| Hartley County | 2,286 | SN | SN | SN | SN | SN |
| Haskell County | 2,808 | SN | SN | SN | SN | SN |
| Hays County | 73,374 | 24 | 38.2 | 31.6:45.7 | -5.9\% | -9.7\% : -2.0\% |
| Hemphill County | 1,810 | SN | SN | SN | SN | SN |
| Henderson County | 40,017 | 24 | 45.8 | 37.6 : 55.3 | -2.1\% | -23.4\% : 25.1\% |
| Hidalgo County | 378,395 | 105 | 33.8 | 31.0 : 36.9 | -3.4\% | -17.6\% : 13.2\% |
| Hill County | 17,712 | 9 | 36.7 | 26.5:50.0 | -3.7\% | -26.7\% : 26.5\% |
| Hockley County | 11,654 | 6 | 49.1 | 33.0 : 70.5 | 4.1\% | -22.6\% : 39.9\% |
| Hood County | 25,324 | 13 | 36.3 | 27.6:47.2 | -2.6\% | -24.8\% : 26.1\% |
| Hopkins County | 17,468 | 7 | 31.9 | 21.9:45.1 | -18.7\% | -45.3\% : 20.8\% |
| Houston County | 10,934 | 6 | 34.4 | 22.4:51.4 | -0.2\% | -40.6\% : 67.6\% |
| Howard County | 15,043 | 5 | 32.8 | 21.1:48.4 | NA | NA |
| Hudspeth County | 1,703 | SN | SN | SN | SN | SN |
| Hunt County | 42,767 | 18 | 37.2 | 29.9:45.8 | -4.7\% | -13.2\% : 4.8\% |
| Hutchinson County | 11,089 | 5 | 38.1 | 24.7:56.5 | 5.3\% | -35.2\% : 71.0\% |
| Irion County | 791 | SN | SN | SN | SN | SN |
| Jack County | 4,039 | SN | SN | SN | SN | SN |
| Jackson County | 7,091 | SN | SN | SN | SN | SN |
| Jasper County | 17,950 | 12 | 55.4 | 41.9: 72.0 | 19.9\% | -10.3\% : 60.4\% |
| Jeff Davis County | 1,143 | SN | SN | SN | SN | SN |
| Jefferson County | 122,114 | 81 | 58.5 | 52.8: 64.6 | 6.1\% | -5.4\% : 18.9\% |
| Jim Hogg County | 2,640 | SN | SN | SN | SN | SN |
| Jim Wells County | 20,623 | 9 | 43.5 | 31.6 : 58.4 | -6.6\% | -32.6\% : 29.4\% |
| Johnson County | 73,708 | 29 | 37.5 | 31.6 : 44.1 | 0.8\% | -11.8\% : 15.4\% |
| Jones County | 7,785 | 4 | 40.5 | 25.1: 62.8 | 8.6\% | -0.2\% : 18.2\% |
| Karnes County | 5,982 | SN | SN | SN | SN | SN |
| Kaufman County | 49,860 | 20 | 39.8 | 32.2 : 48.5 | -8.9\% | -41.5\% : 41.9\% |
| Kendall County | 16,122 | 8 | 39.6 | 27.6:55.3 | -6.3\% | -34.3\% : 33.7\% |
| Kenedy County | 196 | SN | SN | SN | SN | SN |
| Kent County | 409 | SN | SN | SN | SN | SN |
| Kerr County | 25,130 | 15 | 41.5 | 31.8 : 53.5 | -21.0\% | -39.6\% : 3.5\% |
| Kimble County | 2,314 | SN | SN | SN | SN | SN |
| King County | 143 | SN | SN | SN | SN | SN |
| Kinney County | 1,625 | SN | SN | SN | SN | SN |
| Kleberg County | 15,547 | 7 | 47.8 | 33.0: 66.8 | -24.2\% | -69.2\% : 86.4\% |


| Population Group | Female Population (Annual Average) | \# of New <br> Latestage Cases (Annual Average) | Ageadjusted Latestage Incidence rate /100,000 | Confidence Interval of Age-adjusted Incidence Rate | Late stage Trend (Annual Percent Change) | Confidence Interval of Late-stage Trend |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Knox County | 1,886 | SN | SN | SN | SN | SN |
| Lamar County | 25,697 | 16 | 53.0 | 41.9: 66.4 | 5.0\% | -31.5\% : 61.0\% |
| Lamb County | 7,065 | 4 | 53.2 | 32.1 : 83.0 | -1.9\% | -29.1\% : 35.8\% |
| Lampasas County | 9,992 | 4 | 30.7 | 18.3: 48.8 | 2.2\% | -26.8\% : 42.5\% |
| La Salle County | 2,782 | SN | SN | SN | SN | SN |
| Lavaca County | 9,863 | 5 | 35.5 | 22.4:54.3 | 12.3\% | -36.1\% : 97.4\% |
| Lee County | 8,131 | 4 | 42.8 | 25.7: 67.2 | 0.9\% | -40.5\% : 71.1\% |
| Leon County | 8,348 | 5 | 45.0 | 28.3: 68.5 | 6.3\% | -30.9\% : 63.4\% |
| Liberty County | 38,086 | 14 | 35.0 | 27.2: 44.4 | 2.9\% | -25.6\% : 42.2\% |
| Limestone County | 11,171 | SN | SN | SN | SN | SN |
| Lipscomb County | 1,629 | SN | SN | SN | SN | SN |
| Live Oak County | 5,283 | SN | SN | SN | SN | SN |
| Llano County | 9,807 | 6 | 39.0 | 23.9: 61.3 | 15.3\% | -39.8\% : 120.9\% |
| Loving County | 34 | SN | SN | SN | SN | SN |
| Lubbock County | 136,756 | 56 | 43.0 | 38.1: 48.4 | -9.5\% | -23.5\% : 7.0\% |
| Lynn County | 3,030 | SN | SN | SN | SN | SN |
| McCulloch County | 4,217 | SN | SN | SN | SN | SN |
| McLennan County | 118,109 | 53 | 43.8 | 38.6:49.4 | -2.0\% | -17.5\% : 16.4\% |
| McMullen County | 359 | SN | SN | SN | SN | SN |
| Madison County | 5,671 | SN | SN | SN | SN | SN |
| Marion County | 5,520 | SN | SN | SN | SN | SN |
| Martin County | 2,295 | SN | SN | SN | SN | SN |
| Mason County | 1,977 | SN | SN | SN | SN | SN |
| Matagorda County | 18,358 | 9 | 39.6 | 28.5 : 53.7 | -2.0\% | -31.2\% : 39.6\% |
| Maverick County | 27,014 | 8 | 33.4 | 23.9:45.4 | -2.8\% | -22.1\% : 21.3\% |
| Medina County | 21,898 | 6 | 25.0 | 16.7 : 35.9 | 27.7\% | -33.1\% : 143.8\% |
| Menard County | 1,083 | SN | SN | SN | SN | SN |
| Midland County | 67,465 | 26 | 36.5 | 30.5 : 43.4 | 0.3\% | -16.9\% : 21.1\% |
| Milam County | 12,583 | 7 | 42.7 | 29.3: 60.5 | -10.8\% | -22.8\% : 3.1\% |
| Mills County | 2,485 | SN | SN | SN | SN | SN |
| Mitchell County | 3,587 | SN | SN | SN | SN | SN |
| Montague County | 10,094 | 4 | 27.5 | 16.0 : 44.6 | -8.2\% | -30.3\% : 20.8\% |
| Montgomery County | 215,716 | 88 | 39.9 | 36.2: 43.9 | -6.0\% | -12.8\% : 1.4\% |
| Moore County | 10,295 | 4 | 46.8 | 29.3:70.8 | 7.4\% | -49.4\% : 127.9\% |
| Morris County | 6,786 | 4 | 53.5 | 32.7: 83.0 | -0.5\% | -45.3\% : 80.8\% |
| Motley County | 587 | SN | SN | SN | SN | SN |
| Nacogdoches County | 32,994 | 16 | 51.9 | 40.9 : 64.8 | -7.6\% | -21.2\% : 8.5\% |


| Population Group | Female Population (Annual Average) | \# of New <br> Latestage Cases (Annual Average) | Ageadjusted Latestage Incidence rate /100,000 | Confidence Interval of Age-adjusted Incidence Rate | Late stage Trend (Annual Percent Change) | Confidence Interval of Late-stage Trend |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Navarro County | 23,973 | 10 | 36.7 | 27.0:48.7 | -19.5\% | -28.8\% : -8.9\% |
| Newton County | 7,027 | 3 | 35.9 | 20.7:58.9 | -40.6\% | -65.1\% : 1.0\% |
| Nolan County | 7,613 | 4 | 37.4 | 22.2:59.8 | 22.0\% | -43.4\% : 163.1\% |
| Nueces County | 170,290 | 64 | 35.4 | 31.6:39.6 | -0.2\% | -18.3\% : 21.8\% |
| Ochiltree County | 4,893 | SN | SN | SN | SN | SN |
| Oldham County | 1,010 | SN | SN | SN | SN | SN |
| Orange County | 41,287 | 25 | 53.2 | 44.3: 63.6 | 0.2\% | -18.1\% : 22.5\% |
| Palo Pinto County | 14,185 | 7 | 38.8 | 26.8:54.7 | -13.7\% | -25.9\% : 0.5\% |
| Panola County | 11,947 | 4 | 28.7 | 17.4:44.9 | -15.6\% | -52.7\% : 50.6\% |
| Parker County | 55,249 | 24 | 39.9 | $33.0: 47.9$ | 7.2\% | -8.9\% : 26.3\% |
| Parmer County | 4,949 | SN | SN | SN | SN | SN |
| Pecos County | 6,711 | SN | SN | SN | SN | SN |
| Polk County | 21,339 | 11 | 33.2 | 24.5: 44.3 | 11.3\% | -23.6\% : 62.2\% |
| Potter County | 58,831 | 26 | 44.1 | 36.8 : 52.4 | 4.3\% | -7.0\% : 17.0\% |
| Presidio County | 3,905 | SN | SN | SN | SN | SN |
| Rains County | 5,435 | SN | SN | SN | SN | SN |
| Randall County | 60,022 | 30 | 46.2 | 39.0 : 54.2 | -11.3\% | -20.8\% : -0.7\% |
| Reagan County | 1,591 | SN | SN | SN | SN | SN |
| Real County | 1,646 | SN | SN | SN | SN | SN |
| Red River County | 6,650 | 3 | 43.4 | 24.1:72.2 | -24.7\% | -59.0\% : 38.3\% |
| Reeves County | 5,400 | 4 | 63.9 | 38.6 : 99.9 | 3.2\% | -30.5\% : 53.4\% |
| Refugio County | 3,737 | SN | SN | SN | SN | SN |
| Roberts County | 453 | SN | SN | SN | SN | SN |
| Robertson County | 8,439 | 5 | 43.4 | 27.6:65.7 | -3.5\% | -48.9\% : 82.1\% |
| Rockwall County | 37,159 | 15 | 39.9 | 31.3 : 50.3 | -11.7\% | -22.0\% : -0.1\% |
| Runnels County | 5,330 | SN | SN | SN | SN | SN |
| Rusk County | 24,770 | 10 | 34.4 | 25.5:45.6 | -14.1\% | -38.7\% : 20.4\% |
| Sabine County | 5,437 | 3 | 41.5 | 21.2: 74.2 | 6.7\% | -53.7\% : 145.9\% |
| San Augustine County | 4,597 | SN | SN | SN | SN | SN |
| San Jacinto County | 12,950 | 8 | 51.1 | 35.5 : 71.3 | -3.1\% | NA |
| San Patricio County | 33,166 | 12 | 34.4 | 26.2 : 44.5 | -2.6\% | -28.3\% : 32.3\% |
| San Saba County | 2,759 | SN | SN | SN | SN | SN |
| Schleicher County | 1,616 | SN | SN | SN | SN | SN |
| Scurry County | 7,748 | 5 | 55.0 | 34.2 : 83.6 | -8.7\% | -55.9\% : 89.2\% |
| Shackelford County | 1,755 | SN | SN | SN | SN | SN |
| Shelby County | 12,856 | 6 | 38.5 | 25.2 : 56.3 | -11.7\% | -45.1\% : 42.0\% |
| Sherman County | 1,477 | SN | SN | SN | SN | SN |


| Population Group | Female Population (Annual Average) | \# of New <br> Late- <br> stage <br> Cases <br> (Annual <br> Average) | Ageadjusted Latestage Incidence rate /100,000 | Confidence Interval of Age-adjusted Incidence Rate | Late stage Trend (Annual Percent Change) | Confidence Interval of Late-stage Trend |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Smith County | 105,247 | 61 | 52.1 | 46.3 : 58.4 | -6.2\% | -18.0\% : 7.3\% |
| Somervell County | 4,151 | SN | SN | SN | SN | SN |
| Starr County | 30,968 | 9 | 33.1 | 24.1: 44.3 | -23.3\% | -29.8\% : -16.2\% |
| Stephens County | 4,615 | SN | SN | SN | SN | SN |
| Sterling County | 562 | SN | SN | SN | SN | SN |
| Stonewall County | 748 | SN | SN | SN | SN | SN |
| Sutton County | 2,135 | SN | SN | SN | SN | SN |
| Swisher County | 3,720 | SN | SN | SN | SN | SN |
| Tarrant County | 886,941 | 359 | 42.6 | 40.6:44.6 | -5.8\% | -18.9\% : 9.5\% |
| Taylor County | 66,598 | 25 | 36.8 | 30.6 : 44.0 | -6.3\% | -17.4\% : 6.3\% |
| Terrell County | 452 | SN | SN | SN | SN | SN |
| Terry County | 5,907 | SN | SN | SN | SN | SN |
| Throckmorton County | 833 | SN | SN | SN | SN | SN |
| Titus County | 15,612 | 3 | 22.5 | 13.0:36.0 | -12.2\% | -61.2\% : 98.6\% |
| Tom Green County | 55,256 | 23 | 39.1 | 32.2 : 47.2 | 5.7\% | -15.9\% : 32.9\% |
| Travis County | 484,563 | 172 | 41.6 | 38.8: 44.6 | -4.9\% | -13.0\% : 4.1\% |
| Trinity County | 7,430 | 4 | 36.2 | 22.1:57.7 | 4.2\% | -17.4\% : 31.4\% |
| Tyler County | 9,947 | 5 | 40.5 | 25.6: 61.3 | -12.7\% | -28.9\% : 7.2\% |
| Upshur County | 19,546 | 10 | 39.8 | 29.2 : 53.3 | -5.8\% | -37.0\% : 40.8\% |
| Upton County | 1,627 | SN | SN | SN | SN | SN |
| Uvalde County | 13,431 | 5 | 36.0 | 23.0 : 53.6 | -13.6\% | -46.1\% : 38.6\% |
| Val Verde County | 24,083 | 9 | 36.4 | 26.4:48.8 | 9.1\% | -31.7\% : 74.1\% |
| Van Zandt County | 26,563 | 14 | 41.4 | 32.2 : 52.7 | 8.4\% | -20.0\% : 47.0\% |
| Victoria County | 43,983 | 20 | 41.2 | 33.4 : 50.2 | -9.1\% | -24.5\% : 9.4\% |
| Walker County | 27,038 | 12 | 44.6 | 33.7 : 57.9 | 7.1\% | -12.1\% : 30.6\% |
| Waller County | 20,623 | 7 | 36.4 | 25.2:50.9 | -3.6\% | -20.9\% : 17.5\% |
| Ward County | 5,374 | SN | SN | SN | SN | SN |
| Washington County | 16,772 | 10 | 48.5 | 35.4 : 65.0 | 1.8\% | NA |
| Webb County | 123,793 | 36 | 36.2 | 31.1: 42.0 | -9.3\% | -19.3\% : 1.9\% |
| Wharton County | 20,857 | 6 | 25.6 | 17.4:36.5 | -0.1\% | -39.3\% : 64.5\% |
| Wheeler County | 2,653 | SN | SN | SN | SN | SN |
| Wichita County | 63,857 | 25 | 35.8 | 29.7 : 42.8 | -11.5\% | -29.7\% : 11.4\% |
| Wilbarger County | 6,857 | SN | SN | SN | SN | SN |
| Willacy County | 10,021 | SN | SN | SN | SN | SN |
| Williamson County | 198,535 | 78 | 41.8 | 37.7: 46.2 | -8.1\% | -14.5\% : -1.2\% |
| Wilson County | 20,704 | 9 | 38.0 | 27.4 : 51.4 | 5.5\% | -30.6\% : 60.3\% |
| Winkler County | 3,479 | SN | SN | SN | SN | SN |


| Population Group | Female Population (Annual Average) | \# of New Latestage Cases (Annual Average) | Ageadjusted Latestage Incidence rate /100,000 | Confidence Interval of Age-adjusted Incidence Rate | Late <br> stage <br> Trend <br> (Annual <br> Percent <br> Change) | Confidence Interval of Late-stage Trend |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wise County | 28,731 | 10 | 32.2 | 23.6:42.8 | 6.3\% | -6.8\% : 21.2\% |
| Wood County | 21,170 | 10 | 29.1 | 21.4:39.2 | -5.3\% | -24.5\% : 18.8\% |
| Yoakum County | 3,875 | SN | SN | SN | SN | SN |
| Young County | 9,352 | 5 | 38.7 | 24.9:58.1 | 10.9\% | -33.7\% : 85.8\% |
| Zapata County | 6,765 | SN | SN | SN | SN | SN |
| Zavala County | 5,908 | SN | SN | SN | SN | SN |

* Target as of the writing of this report.

NA - data not available.
SN - data suppressed due to small numbers ( 15 cases or fewer for the 5 -year data period).
Data are for years 2006-2010.
Rates are in cases per 100,000.
Age-adjusted rates are adjusted to the 2000 US standard population.
Source: NAACCR - CINA Deluxe Analytic File.

Table 2.4. Female breast cancer late-stage proportion and trends and distant-stage proportion for women age 50-74

| Population Group | \# of New <br> Staged <br> Cases <br> (Annual <br> Average) | \# of Cases <br> Diagnosed at Latestage (Annual Average) | Proportion <br> Diagnosed at Latestage | Confidence Interval of Late-stage Proportion | Late-stage Proportion Trend (Annual Percent Change) | Confidence Interval of Late-stage Proportion Trend | Proportion Diagnosed at Distantstage |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| US | 111,487 | 39,543 | 35.5\% | 35.3\% : 35.6\% | -1.4\% | -1.7\% : -1.1\% | 5.6\% |
| Texas | 7,444 | 2,793 | 37.5\% | 37.0\% : 38.0\% | -2.0\% | -2.5\% : -1.4\% | 6.5\% |
| White | 6,385 | 2,329 | 36.5\% | 35.9\% : 37.0\% | -2.4\% | -3.1\% : -1.7\% | 6.1\% |
| Black/AfricanAmerican | 828 | 379 | 45.8\% | 44.3\% : 47.4\% | -0.5\% | -3.9\% : 2.9\% | 10.0\% |
| AIAN | 17 | 7 | 41.0\% | 30.4\% : 51.5\% | 0.3\% | -5.1\% : 6.1\% | 4.8\% |
| API | 148 | 56 | 37.5\% | 34.0\% : 41.0\% | -0.5\% | -9.8\% : 9.8\% | 5.7\% |
| NonHispanic/Latina | 6,078 | 2,217 | 36.5\% | 35.9\% : 37.0\% | -2.1\% | -3.3\% : -0.9\% | 6.4\% |
| Hispanic/Latina | 1,366 | 576 | 42.2\% | 41.0\% : 43.4\% | -1.6\% | -5.2\% : 2.1\% | 6.8\% |
| Anderson County | 12 | 5 | 38.3\% | 26.0\% : 50.6\% | -18.5\% | -31.2\% : -3.4\% | 6.7\% |
| Andrews County | 3 | 2 | 47.1\% | 23.3\% : 70.8\% | NA | NA | SN |
| Angelina County | 31 | 12 | 39.4\% | 31.7\% : 47.0\% | 6.2\% | -6.9\% : 21.1\% | 8.4\% |
| Aransas County | 13 | 5 | 40.9\% | 29.0\% : 52.8\% | -16.0\% | -28.9\% : -0.7\% | 9.1\% |
| Archer County | SN | SN | SN | SN | SN | SN | SN |
| Armstrong County | SN | SN | SN | SN | SN | SN | SN |
| Atascosa County | 14 | 5 | 35.3\% | 23.9\% : 46.7\% | 14.9\% | -21.2\% : 67.6\% | 8.8\% |
| Austin County | 14 | 6 | 40.8\% | 29.4\% : 52.3\% | 10.9\% | -28.5\% : 72.1\% | 5.6\% |
| Bailey County | SN | SN | SN | SN | SN | SN | SN |


| Population Group | \# of New <br> Staged <br> Cases <br> (Annual <br> Average) | \# of Cases <br> Diagnosed at Latestage (Annual Average) | Proportion Diagnosed at Latestage | Confidence Interval of Late-stage Proportion | Late-stage Proportion Trend (Annual Percent Change) | Confidence Interval of Late-stage Proportion Trend | Proportion <br> Diagnosed at <br> Distantstage |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bandera County | 7 | 2 | 32.4\% | 16.6\% : 48.1\% | 10.5\% | NA | SN |
| Bastrop County | 23 | 8 | 34.5\% | 25.7\% : 43.3\% | -3.4\% | -24.6\% : 23.8\% | 8.0\% |
| Baylor County | SN | SN | SN | SN | SN | SN | SN |
| Bee County | 7 | 3 | 42.4\% | 25.6\% : 59.3\% | NA | NA | SN |
| Bell County | 87 | 36 | 41.1\% | 36.5\% : 45.7\% | -4.2\% | -18.6\% : 12.7\% | 7.4\% |
| Bexar County | 501 | 173 | 34.5\% | 32.7\% : 36.4\% | -0.9\% | -7.9\% : 6.7\% | 5.2\% |
| Blanco County | SN | SN | SN | SN | SN | SN | SN |
| Borden County | SN | SN | SN | SN | SN | SN | SN |
| Bosque County | 8 | 3 | 43.6\% | 28.0\% : 59.2\% | NA | NA | SN |
| Bowie County | 32 | 13 | 40.3\% | 32.6\% : 47.9\% | -8.1\% | -25.0\% : 12.5\% | 4.4\% |
| Brazoria County | 89 | 35 | 39.3\% | 34.7\% : 43.8\% | -7.2\% | -14.9\% : 1.1\% | 6.3\% |
| Brazos County | 42 | 13 | 30.1\% | 23.9\% : 36.4\% | 5.6\% | NA | 4.8\% |
| Brewster County | SN | SN | SN | SN | SN | SN | SN |
| Briscoe County | SN | SN | SN | SN | SN | SN | SN |
| Brooks County | SN | SN | SN | SN | SN | SN | SN |
| Brown County | 18 | 6 | 34.8\% | 25.1\% : 44.5\% | -20.8\% | -50.9\% : 27.9\% | 5.4\% |
| Burleson County | 6 | 2 | 31.0\% | 14.2\% : 47.9\% | NA | NA | SN |
| Burnet County | 17 | 8 | 46.4\% | 35.8\% : 57.1\% | 2.2\% | -30.4\% : 50.0\% | 9.5\% |
| Caldwell County | 13 | 6 | 48.5\% | 36.4\% : 60.5\% | -6.6\% | -23.5\% : 14.1\% | 12.1\% |
| Calhoun County | 6 | 2 | 40.0\% | 22.5\% : 57.5\% | NA | NA | SN |
| Callahan County | 6 | 2 | 40.0\% | 22.5\% : 57.5\% | NA | NA | SN |
| Cameron County | 86 | 38 | 44.0\% | 39.3\% : 48.6\% | -2.4\% | -18.4\% : 16.6\% | 10.5\% |
| Camp County | 5 | 1 | 25.9\% | 9.4\% : 42.5\% | NA | NA | SN |
| Carson County | SN | SN | SN | SN | SN | SN | SN |
| Cass County | 10 | 4 | 43.8\% | 29.7\% : 57.8\% | 2.6\% | -34.6\% : 61.1\% | 8.3\% |
| Castro County | SN | SN | SN | SN | SN | SN | SN |
| Chambers County | 7 | 4 | 56.8\% | 40.8\% : 72.7\% | 9.2\% | -15.9\% : 41.8\% | 10.8\% |
| Cherokee County | 18 | 6 | 33.7\% | 24.0\% : 43.4\% | -20.0\% | -23.2\% : -16.6\% | 6.5\% |
| Childress County | SN | SN | SN | SN | SN | SN | SN |
| Clay County | 4 | 1 | 23.8\% | 5.6\% : 42.0\% | NA | NA | SN |
| Cochran County | SN | SN | SN | SN | SN | SN | SN |
| Coke County | SN | SN | SN | SN | SN | SN | SN |
| Coleman County | 3 | 1 | 41.2\% | 17.8\% : 64.6\% | NA | NA | SN |
| Collin County | 236 | 74 | 31.4\% | 28.8\% : 34.1\% | -6.6\% | -15.3\% : 3.1\% | 3.6\% |
| Collingsworth County | SN | SN | SN | SN | SN | SN | SN |
| Colorado County | 8 | 3 | 33.3\% | 18.5\% : 48.1\% | 34.6\% | 7.5\% : 68.5\% | 10.3\% |
| Comal County | 47 | 16 | 33.9\% | 27.8\% : 40.0\% | 2.8\% | -10.5\% : 18.0\% | 3.9\% |


| Population Group | \# of New <br> Staged <br> Cases <br> (Annual <br> Average) | \# of Cases <br> Diagnosed at Latestage (Annual Average) | Proportion Diagnosed at Latestage | Confidence Interval of Late-stage Proportion | Late-stage Proportion Trend (Annual Percent Change) | Confidence Interval of Late-stage Proportion Trend | Proportion <br> Diagnosed at <br> Distantstage |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Comanche County | 6 | 2 | 39.3\% | 21.2\% : 57.4\% | NA | NA | SN |
| Concho County | SN | SN | SN | SN | SN | SN | SN |
| Cooke County | 10 | 5 | 44.2\% | 30.7\% : 57.7\% | -11.5\% | -35.2\% : 20.9\% | SN |
| Coryell County | 19 | 8 | 41.9\% | 31.9\% : 52.0\% | -0.3\% | NA | 4.3\% |
| Cottle County | SN | SN | SN | SN | SN | SN | SN |
| Crane County | SN | SN | SN | SN | SN | SN | SN |
| Crockett County | SN | SN | SN | SN | SN | SN | SN |
| Crosby County | SN | SN | SN | SN | SN | SN | SN |
| Culberson County | SN | SN | SN | SN | SN | SN | SN |
| Dallam County | SN | SN | SN | SN | SN | SN | SN |
| Dallas County | 731 | 273 | 37.4\% | 35.8\% : 39.0\% | -0.6\% | -3.7\% : 2.5\% | 6.6\% |
| Dawson County | 4 | 2 | 63.2\% | 41.5\% : 84.8\% | NA | NA | SN |
| Deaf Smith County | 6 | 2 | 28.6\% | 11.8\% : 45.3\% | NA | NA | SN |
| Delta County | SN | SN | SN | SN | SN | SN | SN |
| Denton County | 174 | 56 | 32.3\% | 29.1\% : 35.4\% | -3.1\% | -11.7\% : 6.3\% | 5.0\% |
| DeWitt County | 10 | 4 | 37.5\% | 23.8\% : 51.2\% | NA | NA | SN |
| Dickens County | SN | SN | SN | SN | SN | SN | SN |
| Dimmit County | 5 | 2 | 47.8\% | 27.4\% : 68.2\% | NA | NA | SN |
| Donley County | SN | SN | SN | SN | SN | SN | SN |
| Duval County | SN | SN | SN | SN | SN | SN | SN |
| Eastland County | 7 | 2 | 23.5\% | 9.3\% : 37.8\% | NA | NA | SN |
| Ector County | 45 | 20 | 43.8\% | 37.3\% : 50.3\% | -4.4\% | NA | 8.0\% |
| Edwards County | SN | SN | SN | SN | SN | SN | SN |
| Ellis County | 39 | 15 | 39.2\% | 32.3\% : 46.0\% | -11.5\% | NA | 3.6\% |
| El Paso County | 189 | 83 | 44.0\% | 40.8\% : 47.2\% | 0.2\% | NA | 5.9\% |
| Erath County | 12 | 4 | 29.0\% | 17.7\% : 40.3\% | -4.7\% | -55.1\% : 102.3\% | SN |
| Falls County | 6 | 3 | 51.7\% | 33.5\% : 69.9\% | NA | NA | SN |
| Fannin County | 12 | 4 | 32.8\% | 20.7\% : 44.8\% | -6.2\% | NA | SN |
| Fayette County | 11 | 4 | 36.8\% | 24.3\% : 49.4\% | 12.4\% | -22.7\% : 63.5\% | SN |
| Fisher County | SN | SN | SN | SN | SN | SN | SN |
| Floyd County | SN | SN | SN | SN | SN | SN | SN |
| Foard County | SN | SN | SN | SN | SN | SN | SN |
| Fort Bend County | 162 | 55 | 34.1\% | 30.8\% : 37.3\% | -5.0\% | -14.1\% : 5.1\% | 4.7\% |
| Franklin County | SN | SN | SN | SN | SN | SN | SN |
| Freestone County | 7 | 2 | 30.6\% | 15.5\% : 45.6\% | NA | NA | SN |
| Frio County | 5 | 3 | 50.0\% | 30.8\% : 69.2\% | NA | NA | SN |
| Gaines County | 4 | 2 | 66.7\% | 44.9\% : 88.4\% | NA | NA | SN |


| Population Group | \# of New <br> Staged <br> Cases <br> (Annual <br> Average) | \# of Cases <br> Diagnosed at Latestage (Annual Average) | Proportion Diagnosed at Latestage | Confidence Interval of Late-stage Proportion | Late-stage Proportion Trend (Annual Percent Change) | Confidence Interval of Late-stage Proportion Trend | Proportion <br> Diagnosed at <br> Distantstage |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Galveston County | 103 | 32 | 30.6\% | 26.6\% : 34.5\% | -2.5\% | -7.3\% : 2.6\% | 5.2\% |
| Garza County | SN | SN | SN | SN | SN | SN | SN |
| Gillespie County | 14 | 4 | 28.2\% | 17.7\% : 38.6\% | 6.9\% | -19.5\% : 41.9\% | 9.9\% |
| Glasscock County | SN | SN | SN | SN | SN | SN | SN |
| Goliad County | SN | SN | SN | SN | SN | SN | SN |
| Gonzales County | 5 | 3 | 54.2\% | 34.2\% : 74.1\% | NA | NA | 25.0\% |
| Gray County | 11 | 5 | 42.1\% | 29.3\% : 54.9\% | 9.3\% | -17.5\% : 44.9\% | SN |
| Grayson County | 50 | 20 | 40.3\% | 34.2\% : 46.4\% | -1.4\% | -21.4\% : 23.8\% | 7.3\% |
| Gregg County | 44 | 18 | 40.3\% | 33.8\% : 46.7\% | -15.2\% | -29.5\% : 1.9\% | 8.6\% |
| Grimes County | 8 | 4 | 48.7\% | 33.0\% : 64.4\% | -10.9\% | -36.0\% : 23.9\% | 17.9\% |
| Guadalupe County | 42 | 15 | 34.9\% | 28.5\% : 41.3\% | -2.6\% | -9.4\% : 4.7\% | 4.2\% |
| Hale County | 9 | 4 | 43.2\% | 28.5\% : 57.8\% | -4.6\% | -12.2\% : 3.6\% | SN |
| Hall County | SN | SN | SN | SN | SN | SN | SN |
| Hamilton County | 4 | 2 | 52.4\% | 31.0\% : 73.7\% | NA | NA | SN |
| Hansford County | SN | SN | SN | SN | SN | SN | SN |
| Hardeman County | SN | SN | SN | SN | SN | SN | SN |
| Hardin County | 20 | 11 | 52.0\% | 42.3\% : 61.7\% | -11.2\% | -31.6\% : 15.2\% | 5.9\% |
| Harris County | 1,147 | 429 | 37.4\% | 36.2\% : 38.7\% | -1.0\% | -4.5\% : 2.6\% | 8.0\% |
| Harrison County | 27 | 9 | 34.3\% | 26.3\% : 42.4\% | 1.0\% | -27.5\% : 40.8\% | 8.2\% |
| Hartley County | SN | SN | SN | SN | SN | SN | SN |
| Haskell County | SN | SN | SN | SN | SN | SN | SN |
| Hays County | 38 | 13 | 35.1\% | 28.3\% : 41.9\% | -0.9\% | -14.7\% : 15.2\% | 2.7\% |
| Hemphill County | SN | SN | SN | SN | SN | SN | SN |
| Henderson County | 36 | 14 | 38.7\% | 31.6\% : 45.8\% | -8.4\% | -21.4\% : 6.9\% | 8.3\% |
| Hidalgo County | 132 | 57 | 43.5\% | 39.7\% : 47.3\% | -0.2\% | -11.5\% : 12.4\% | 8.9\% |
| Hill County | 14 | 6 | 41.7\% | 30.3\% : 53.1\% | -16.2\% | -37.7\% : 12.8\% | 9.7\% |
| Hockley County | 9 | 4 | 40.4\% | 26.4\% : 54.5\% | 3.8\% | -20.1\% : 34.9\% | 8.5\% |
| Hood County | 26 | 7 | 25.8\% | 18.3\% : 33.2\% | 3.0\% | -33.3\% : 59.1\% | 3.0\% |
| Hopkins County | 11 | 4 | 36.8\% | 24.3\% : 49.4\% | -11.3\% | -37.4\% : 25.6\% | 7.0\% |
| Houston County | 9 | 4 | 43.5\% | 29.2\% : 57.8\% | -8.5\% | -45.1\% : 52.6\% | SN |
| Howard County | 7 | 3 | 42.9\% | 26.5\% : 59.3\% | NA | NA | SN |
| Hudspeth County | SN | SN | SN | SN | SN | SN | SN |
| Hunt County | 26 | 12 | 46.2\% | 37.6\% : 54.7\% | 4.4\% | -24.1\% : 43.6\% | 8.5\% |
| Hutchinson County | 6 | 3 | 43.8\% | 26.6\% : 60.9\% | -2.8\% | -22.2\% : 21.5\% | SN |
| Irion County | SN | SN | SN | SN | SN | SN | SN |
| Jack County | SN | SN | SN | SN | SN | SN | SN |
| Jackson County | 4 | 2 | 44.4\% | 21.5\% : 67.4\% | NA | NA | SN |


| Population Group | \# of New <br> Staged <br> Cases <br> (Annual <br> Average) | \# of Cases <br> Diagnosed at Latestage (Annual Average) | Proportion Diagnosed at Latestage | Confidence Interval of Late-stage Proportion | Late-stage Proportion Trend (Annual Percent Change) | Confidence Interval of Late-stage Proportion Trend | Proportion <br> Diagnosed at <br> Distantstage |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jasper County | 10 | 5 | 49.0\% | 35.3\% : 62.7\% | 21.0\% | 11.4\% : 31.5\% | SN |
| Jeff Davis County | SN | SN | SN | SN | SN | SN | SN |
| Jefferson County | 81 | 43 | 52.6\% | 47.7\% : 57.5\% | 10.6\% | -4.0\% : 27.5\% | 8.4\% |
| Jim Hogg County | SN | SN | SN | SN | SN | SN | SN |
| Jim Wells County | 12 | 5 | 45.8\% | 33.1\% : 58.5\% | 11.2\% | -24.5\% : 63.8\% | SN |
| Johnson County | 43 | 18 | 40.6\% | 34.0\% : 47.1\% | 3.4\% | -2.7\% : 9.8\% | 3.7\% |
| Jones County | 6 | 3 | 50.0\% | 31.5\% : 68.5\% | NA | NA | SN |
| Karnes County | 5 | 2 | 32.0\% | 13.7\% : 50.3\% | SN | SN | SN |
| Kaufman County | 32 | 10 | 31.3\% | 24.1\% : 38.4\% | -4.3\% | -28.4\% : 28.1\% | 5.6\% |
| Kendall County | 17 | 5 | 27.4\% | 17.8\% : 36.9\% | -4.2\% | -35.7\% : 42.7\% | SN |
| Kenedy County | SN | SN | SN | SN | SN | SN | SN |
| Kent County | SN | SN | SN | SN | SN | SN | SN |
| Kerr County | 23 | 9 | 40.4\% | 31.3\% : 49.4\% | 1.3\% | -15.0\% : 20.7\% | 14.0\% |
| Kimble County | SN | SN | SN | SN | SN | SN | SN |
| King County | SN | SN | SN | SN | SN | SN | SN |
| Kinney County | SN | SN | SN | SN | SN | SN | SN |
| Kleberg County | 11 | 4 | 37.7\% | 24.7\% : 50.8\% | 1.4\% | -32.9\% : 53.1\% | SN |
| Knox County | SN | SN | SN | SN | SN | SN | SN |
| Lamar County | 20 | 8 | 42.9\% | 33.1\% : 52.7\% | 15.4\% | -24.7\% : 76.9\% | 24.5\% |
| Lamb County | 5 | 2 | 41.7\% | 21.9\% : 61.4\% | NA | NA | SN |
| Lampasas County | 5 | 2 | 40.0\% | 20.8\% : 59.2\% | NA | NA | SN |
| La Salle County | SN | SN | SN | SN | SN | SN | SN |
| Lavaca County | 8 | 3 | 36.8\% | 21.5\% : 52.2\% | NA | NA | SN |
| Lee County | 5 | 2 | 42.3\% | 23.3\% : 61.3\% | NA | NA | SN |
| Leon County | 8 | 3 | 40.5\% | 25.6\% : 55.3\% | -8.8\% | -41.6\% : 42.4\% | SN |
| Liberty County | 21 | 8 | 38.1\% | 28.8\% : 47.4\% | 7.1\% | -29.4\% : 62.5\% | 9.5\% |
| Limestone County | 6 | 1 | 21.9\% | 7.6\% : 36.2\% | NA | NA | SN |
| Lipscomb County | SN | SN | SN | SN | SN | SN | SN |
| Live Oak County | 5 | 2 | 44.4\% | 25.7\% : 63.2\% | NA | NA | SN |
| Llano County | 10 | 3 | 31.4\% | 18.6\% : 44.1\% | NA | NA | 7.8\% |
| Loving County | SN | SN | SN | SN | SN | SN | SN |
| Lubbock County | 88 | 32 | 36.3\% | 31.8\% : 40.8\% | -3.6\% | -13.0\% : 6.8\% | 5.4\% |
| Lynn County | SN | SN | SN | SN | SN | SN | SN |
| McCulloch County | SN | SN | SN | SN | SN | SN | SN |
| McLennan County | 81 | 32 | 39.9\% | 35.1\% : 44.6\% | -0.8\% | -18.1\% : 20.2\% | 8.9\% |
| McMullen County | SN | SN | SN | SN | SN | SN | SN |
| Madison County | 4 | 2 | 57.1\% | 36.0\% : 78.3\% | NA | NA | SN |


| Population Group | \# of New <br> Staged <br> Cases <br> (Annual <br> Average) | \# of Cases <br> Diagnosed at Latestage (Annual Average) | Proportion Diagnosed at Latestage | Confidence Interval of Late-stage Proportion | Late-stage Proportion Trend (Annual Percent Change) | Confidence Interval of Late-stage Proportion Trend | Proportion <br> Diagnosed at <br> Distantstage |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Marion County | 5 | 2 | 33.3\% | 14.5\% : 52.2\% | NA | NA | SN |
| Martin County | SN | SN | SN | SN | SN | SN | SN |
| Mason County | SN | SN | SN | SN | SN | SN | SN |
| Matagorda County | 15 | 5 | 35.6\% | 24.6\% : 46.6\% | -0.3\% | -25.5\% : 33.3\% | SN |
| Maverick County | 10 | 5 | 48.0\% | 34.2\% : 61.8\% | -9.2\% | -19.2\% : 2.1\% | 8.0\% |
| Medina County | 11 | 3 | 26.4\% | 14.5\% : 38.3\% | 26.3\% | -40.5\% : 168.3\% | 7.5\% |
| Menard County | SN | SN | SN | SN | SN | SN | SN |
| Midland County | 42 | 16 | 38.6\% | 32.0\% : 45.2\% | -7.7\% | -21.6\% : 8.6\% | 7.1\% |
| Milam County | 11 | 4 | 37.5\% | 24.8\% : 50.2\% | 0.8\% | -40.0\% : 69.4\% | SN |
| Mills County | SN | SN | SN | SN | SN | SN | SN |
| Mitchell County | SN | SN | SN | SN | SN | SN | SN |
| Montague County | 8 | 3 | 38.5\% | 23.2\% : 53.7\% | 6.9\% | -23.3\% : 48.9\% | SN |
| Montgomery County | 145 | 51 | 35.0\% | 31.5\% : 38.5\% | -2.7\% | -12.4\% : 8.0\% | 7.1\% |
| Moore County | 5 | 2 | 52.2\% | 31.8\% : 72.6\% | NA | NA | SN |
| Morris County | 5 | 3 | 60.9\% | 40.9\% : 80.8\% | NA | NA | SN |
| Motley County | SN | SN | SN | SN | SN | SN | SN |
| Nacogdoches County | 18 | 10 | 53.3\% | 43.0\% : 63.6\% | -6.7\% | -36.6\% : 37.2\% | 5.6\% |
| Navarro County | 15 | 6 | 38.2\% | 27.2\% : 49.1\% | -28.1\% | -51.6\% : 6.8\% | 5.3\% |
| Newton County | 4 | 2 | 60.0\% | 38.5\% : 81.5\% | NA | NA | SN |
| Nolan County | 6 | 3 | 46.7\% | 28.8\% : 64.5\% | NA | NA | SN |
| Nueces County | 107 | 38 | 35.4\% | 31.3\% : 39.4\% | 3.3\% | -9.8\% : 18.2\% | 5.6\% |
| Ochiltree County | SN | SN | SN | SN | SN | SN | SN |
| Oldham County | SN | SN | SN | SN | SN | SN | SN |
| Orange County | 32 | 15 | 46.5\% | 38.8\% : 54.3\% | 3.8\% | -5.4\% : 13.8\% | 5.7\% |
| Palo Pinto County | 11 | 4 | 40.0\% | 27.1\% : 52.9\% | -17.1\% | -41.0\% : 16.5\% | 10.9\% |
| Panola County | 10 | 3 | 34.7\% | 21.4\% : 48.0\% | 1.4\% | -40.5\% : 72.9\% | 10.2\% |
| Parker County | 44 | 14 | 32.0\% | 25.8\% : 38.1\% | -0.5\% | -24.9\% : 31.9\% | 5.0\% |
| Parmer County | SN | SN | SN | SN | SN | SN | SN |
| Pecos County | SN | SN | SN | SN | SN | SN | SN |
| Polk County | 23 | 9 | 38.5\% | 29.6\% : 47.3\% | -5.7\% | -23.2\% : 15.7\% | SN |
| Potter County | 38 | 16 | 42.0\% | 35.0\% : 49.1\% | 3.7\% | -10.3\% : 20.0\% | 6.9\% |
| Presidio County | SN | SN | SN | SN | SN | SN | SN |
| Rains County | 4 | 2 | 50.0\% | 26.9\% : 73.1\% | NA | NA | SN |
| Randall County | 47 | 19 | 40.2\% | 33.9\% : 46.5\% | -2.7\% | -14.1\% : 10.2\% | 5.6\% |
| Reagan County | SN | SN | SN | SN | SN | SN | SN |
| Real County | SN | SN | SN | SN | SN | SN | SN |
| Red River County | 5 | 1 | 28.0\% | 10.4\% : 45.6\% | NA | NA | SN |


| Population Group | \# of New <br> Staged <br> Cases <br> (Annual <br> Average) | \# of Cases <br> Diagnosed at Latestage (Annual Average) | Proportion Diagnosed at Latestage | Confidence Interval of Late-stage Proportion | Late-stage Proportion Trend (Annual Percent Change) | Confidence Interval of Late-stage Proportion Trend | Proportion Diagnosed at Distantstage |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reeves County | 4 | 2 | 52.4\% | 31.0\% : 73.7\% | NA | NA | 19.0\% |
| Refugio County | 4 | 1 | 33.3\% | 11.6\% : 55.1\% | NA | NA | SN |
| Roberts County | SN | SN | SN | SN | SN | SN | SN |
| Robertson County | 9 | 4 | 42.2\% | 27.8\% : 56.7\% | -3.0\% | -43.6\% : 67.0\% | SN |
| Rockwall County | 25 | 7 | 29.4\% | 21.4\% : 37.3\% | -5.7\% | -25.8\% : 19.8\% | SN |
| Runnels County | 4 | 2 | 52.4\% | 31.0\% : 73.7\% | NA | NA | SN |
| Rusk County | 19 | 6 | 32.0\% | 22.7\% : 41.2\% | -9.6\% | -19.2\% : 1.2\% | 7.2\% |
| Sabine County | 4 | 2 | 50.0\% | 28.1\% : 71.9\% | NA | NA | SN |
| San Augustine County | SN | SN | SN | SN | SN | SN | SN |
| San Jacinto County | 10 | 5 | 46.9\% | 33.0\% : 60.9\% | -7.5\% | -24.5\% : 13.3\% | SN |
| San Patricio County | 19 | 7 | 36.5\% | 26.8\% : 46.1\% | -6.9\% | -24.8\% : 15.1\% | 4.2\% |
| San Saba County | SN | SN | SN | SN | SN | SN | SN |
| Schleicher County | SN | SN | SN | SN | SN | SN | SN |
| Scurry County | 5 | 3 | 55.6\% | 36.8\% : 74.3\% | NA | NA | 14.8\% |
| Shackelford County | SN | SN | SN | SN | SN | SN | SN |
| Shelby County | 7 | 3 | 39.4\% | 22.7\% : 56.1\% | NA | NA | SN |
| Sherman County | SN | SN | SN | SN | SN | SN | SN |
| Smith County | 96 | 36 | 37.1\% | 32.8\% : 41.5\% | -13.9\% | -18.6\% : -8.9\% | 4.1\% |
| Somervell County | SN | SN | SN | SN | SN | SN | SN |
| Starr County | 10 | 4 | 43.1\% | 29.5\% : 56.7\% | -15.6\% | -32.7\% : 5.8\% | 7.8\% |
| Stephens County | SN | SN | SN | SN | SN | SN | SN |
| Sterling County | SN | SN | SN | SN | SN | SN | SN |
| Stonewall County | SN | SN | SN | SN | SN | SN | SN |
| Sutton County | SN | SN | SN | SN | SN | SN | SN |
| Swisher County | SN | SN | SN | SN | SN | SN | SN |
| Tarrant County | 546 | 195 | 35.7\% | 33.9\% : 37.5\% | -4.5\% | -12.9\% : 4.7\% | 5.9\% |
| Taylor County | 41 | 15 | 37.2\% | 30.6\% : 43.8\% | -3.8\% | -19.7\% : 15.3\% | 5.8\% |
| Terrell County | SN | SN | SN | SN | SN | SN | SN |
| Terry County | 4 | 2 | 42.9\% | 21.7\% : 64.0\% | NA | NA | SN |
| Throckmorton County | SN | SN | SN | SN | SN | SN | SN |
| Titus County | 5 | 1 | 29.2\% | 11.0\% : 47.4\% | NA | NA | 16.7\% |
| Tom Green County | 41 | 14 | 33.7\% | 27.2\% : 40.1\% | 6.1\% | -17.9\% : 37.1\% | 5.9\% |
| Travis County | 259 | 90 | 34.8\% | 32.2\% : 37.4\% | -7.2\% | -12.9\% : -1.2\% | 4.6\% |
| Trinity County | 5 | 2 | 47.8\% | 27.4\% : 68.2\% | NA | NA | SN |
| Tyler County | 6 | 3 | 48.4\% | 30.8\% : 66.0\% | NA | NA | SN |
| Upshur County | 14 | 7 | 48.6\% | 36.9\% : 60.3\% | 0.4\% | -25.8\% : 35.9\% | 14.3\% |
| Upton County | SN | SN | SN | SN | SN | SN | SN |


| Population Group | \# of New <br> Staged <br> Cases <br> (Annual <br> Average) | \# of Cases Diagnosed at Latestage (Annual Average) | Proportion <br> Diagnosed at Latestage | Confidence Interval of Late-stage Proportion | Late-stage Proportion Trend (Annual Percent Change) | Confidence Interval of Late-stage Proportion Trend | Proportion <br> Diagnosed <br> at <br> Distant- <br> stage |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Uvalde County | 8 | 3 | 39.5\% | 23.9\% : 55.0\% | 7.0\% | -23.0\% : 48.7\% | SN |
| Val Verde County | 11 | 6 | 58.5\% | 45.2\% : 71.8\% | 10.0\% | -13.7\% : 40.2\% | 13.2\% |
| Van Zandt County | 24 | 9 | 38.0\% | 29.4\% : 46.7\% | -2.8\% | -34.3\% : 43.8\% | 6.6\% |
| Victoria County | 36 | 13 | 35.6\% | 28.6\% : 42.5\% | 2.4\% | -5.8\% : 11.3\% | 10.0\% |
| Walker County | 16 | 7 | 41.8\% | 30.9\% : 52.6\% | 9.4\% | -16.7\% : 43.6\% | 6.3\% |
| Waller County | 12 | 4 | 33.9\% | 21.8\% : 46.0\% | 12.4\% | -21.0\% : 60.0\% | 6.8\% |
| Ward County | 5 | 2 | 38.5\% | 19.8\% : 57.2\% | NA | NA | SN |
| Washington County | 18 | 6 | 35.6\% | 25.7\% : 45.4\% | 7.5\% | -5.6\% : 22.5\% | 7.8\% |
| Webb County | 46 | 18 | 39.7\% | 33.4\% : 46.1\% | -3.6\% | -26.7\% : 26.9\% | 4.8\% |
| Wharton County | 11 | 5 | 43.6\% | 30.5\% : 56.7\% | -8.4\% | -25.5\% : 12.5\% | 9.1\% |
| Wheeler County | SN | SN | SN | SN | SN | SN | SN |
| Wichita County | 40 | 16 | 38.8\% | 32.1\% : 45.5\% | -1.9\% | -20.3\% : 20.7\% | 3.0\% |
| Wilbarger County | 5 | 1 | 26.9\% | 9.9\% : 44.0\% | NA | NA | SN |
| Willacy County | 4 | 1 | 33.3\% | 13.2\% : 53.5\% | NA | NA | SN |
| Williamson County | 123 | 48 | 39.2\% | 35.3\% : 43.0\% | -2.3\% | -9.5\% : 5.5\% | 4.1\% |
| Wilson County | 12 | 5 | 42.6\% | 30.2\% : 55.0\% | -12.6\% | -42.1\% : 31.9\% | 8.2\% |
| Winkler County | SN | SN | SN | SN | SN | SN | SN |
| Wise County | 18 | 5 | 30.7\% | 21.0\% : 40.3\% | 0.8\% | -35.2\% : 56.9\% | 9.1\% |
| Wood County | 20 | 7 | 37.4\% | 27.8\% : 46.9\% | -7.4\% | -22.0\% : 10.0\% | 5.1\% |
| Yoakum County | SN | SN | SN | SN | SN | SN | SN |
| Young County | 8 | 3 | 37.5\% | 22.5\% : 52.5\% | 10.2\% | -16.3\% : 45.0\% | SN |
| Zapata County | SN | SN | SN | SN | SN | SN | SN |
| Zavala County | SN | SN | SN | SN | SN | SN | SN |

NA - data not available.
SN - data suppressed due to small numbers ( 15 cases or fewer for the 5 -year data period).
Data are for years 2006-2010.
Source: NAACCR - CINA Deluxe Analytic File.

## Map of late-stage incidence rates

Figure 2.3 shows a map of late-state incidence rates for the counties in Texas. When the numbers of cases used to compute the rates are small (15 cases or fewer for the five-year data period), those rates are unreliable and are shown as "small numbers" on the map.

Texas Counties
Late-stage Age-adjusted Incidence Rate

22.5-34.9 35.0-37.5
37.6-41.3
41.4-45.2
*Map with counties labeled is available in Appendix.
Data are for years 2006-2010.
Rates are in cases per 100,000.
Age-adjusted rates are adjusted to the 2000 US standard population.
Source: NAACCR - CINA Deluxe Analytic File.
Figure 2.3. Female breast cancer age-adjusted late-stage incidence rates

## Conclusions: Breast cancer late-stage rates, proportions and trends

Late-stage incidence rates and trends
Overall, the breast cancer late-stage incidence rate in the State of Texas was significantly lower than that observed in the US as a whole and the late-stage incidence trend was lower than the US as a whole.

For the United States, late-stage incidence rates in Blacks/African-Americans are higher than among Whites. Hispanics/Latinas tend to be diagnosed with late-stage breast cancers more often than Whites. For the State of Texas, the late-stage incidence rate was significantly higher among Blacks/African-Americans than Whites, significantly lower among APIs than Whites, and significantly lower among AIANs than Whites. The late-stage incidence rate among Hispanics/Latinas was significantly lower than among Non-Hispanics/Latinas.

The following counties had a late-stage incidence rate significantly higher than the state as a whole:

- Bell County (Komen East Central Texas)
- Dallas County (Komen Dallas County)
- DeWitt County
- Ector County
- Hardin County
- Harris County (Komen Houston)
- Jasper County
- Jefferson County
- Lamar County
- Orange County
- Smith County (Komen East Central Texas)

The late-stage incidence rate was significantly lower in the following counties:

- Anderson County (Komen East Central Texas)
- Bandera County
- Bexar County (Komen San Antonio)
- Hidalgo County
- Medina County
- Nueces County
- Titus County
- Wharton County
- Wood County

Significantly less favorable trends in breast cancer late-stage incidence rates were observed in the following county:

- Austin County

Significantly more favorable trends in breast cancer late-stage incidence rates were observed in the following counties:

- Navarro County (Komen East Central Texas)
- Starr County

The rest of the counties had late-stage incidence rates and trends that were not significantly different than the state as a whole or did not have enough data available.

## Late-stage proportions and trends

Overall, the breast cancer late-stage proportion in the State of Texas was significantly higher than that observed in the US as a whole and the late-stage proportion trend was lower than the US as a whole.
For the State of Texas, the late-stage proportion was significantly higher among Blacks/AfricanAmericans than Whites, about the same among APIs and Whites, and higher among AIANs than Whites. The late-stage proportion among Hispanics/Latinas was significantly higher than among Non-Hispanics/Latinas.

The following counties had a late-stage proportion significantly higher than the state as a whole:

- Cameron County
- Chambers County (Komen Houston)
- Dawson County
- El Paso County (Komen El Paso)
- Gaines County
- Hardin County
- Hidalgo County
- Jefferson County
- Morris County
- Nacogdoches County
- Newton County
- Orange County
- Val Verde County

The late-stage proportion was significantly lower in the following counties:

- Bexar County (Komen San Antonio)
- Brazos County
- Collin County (Komen North Texas)
- Denton County (Komen North Texas)
- Galveston County (Komen Houston)
- Hood County (Komen Greater Fort Worth)
- Kendall County
- Limestone County (Komen East Central Texas)

Significantly less favorable trends in breast cancer late-stage proportions were observed in the following counties:

- Colorado County
- Jasper County

Significantly more favorable trends in breast cancer late-stage proportions were observed in the following counties:

- Anderson County (Komen East Central Texas)
- Cherokee County (Komen East Central Texas)
- Smith County (Komen East Central Texas)

The rest of the counties had late-stage proportions and trends that were not significantly different than the state as a whole or did not have enough data available.

## Mammography Screening

Getting regular screening mammograms (along with treatment if diagnosed) lowers the risk of dying from breast cancer.

Knowing whether or not women are getting regular screening mammograms as recommended by their health care providers can be used to identify groups of women who need help in meeting screening recommendations.

## Why mammograms matter

Getting regular screening mammograms (and treatment if diagnosed) lowers the risk of dying from breast cancer. Screening mammography can find breast cancer early, when the chances of survival are highest. The US Preventive Services Task Force found that having screening mammograms reduces the breast cancer death rate for women age 40 to 74 . The benefit of mammograms is greater for women age 50 to 74 . It's especially high for women age 60 to 69 (Nelson et al., 2009). Because having mammograms lowers the chances of dying from breast cancer, it's important to know whether women are having mammograms when they should. This information can be used to identify groups of women who should be screened who need help in meeting the current recommendations for screening mammography.

## Mammography recommendations

Table 2.5 shows some screening recommendations among major organizations for women at average risk.

Table 2.5. Breast cancer screening recommendations for women at average risk*

| American Cancer Society | National Comprehensive <br> Cancer Network | US Preventive Services <br> Task Force |
| :---: | :---: | :---: |
| Informed decision-making <br> with a health care provider <br> at age 40 | Mammography every year <br> starting <br> at age 45 | Mamography every year <br> starting <br> at age 40 |
| Mammography every other <br> year beginning at age 55 | Informed decision-making <br> wealth care provider <br> ages 40-49 |  |

*As of October 2015

## Where the data come from

The Centers for Disease Control and Prevention's (CDC) Behavioral Risk Factors Surveillance System (BRFSS) collected the data on mammograms that are used in this report. The data come from interviews with women age 50 to 74 from across the United States. During the interviews, each woman was asked how long it has been since she has had a mammogram. BRFSS is the best and most widely used source available for information on mammography usage among women in the United States, although it does not collect data matching Komen screening recommendations (i.e., from women age 40 and older).

For some counties, data about mammograms are not shown because not enough women were included in the survey (less than 10 survey responses).

The data have been weighted to account for differences between the women who were interviewed and all the women in the area. For example, if 20 percent of the women interviewed are Latina, but only 10 percent of the total women in the area are Latina, weighting is used to account for this difference.

## Calculating the mammography screening proportion

This report uses the mammography screening proportion to show whether the women in an area are getting screening mammograms when they should.
Mammography screening proportion is calculated from two pieces of information:

- The number of women living in an area whom the BRFSS determines should have mammograms (i.e., women age 50 to 74 ).
- The number of these women who actually had a mammogram during the past two years.

The number of women who had a mammogram is divided by the number who should have had one. For example, if there are 500 women in an area who should have had mammograms and

250 of those women actually had a mammogram in the past two years, the mammography screening proportion is 50.0 percent.

## Confidence intervals

As with incidence and death rates, this report includes the confidence interval of the screening proportions because numbers are not exact. The confidence interval is shown as two numbers-a lower value and a higher one. It is very unlikely that the true rate is less than the lower value or more than the higher value.

In general, screening proportions at the county level have fairly wide confidence intervals. The confidence interval should always be considered before concluding that the screening proportion in one county is higher or lower than that in another county.

## Breast cancer screening proportions

Breast cancer screening proportions are shown in Table 2.6 for:

- United States
- State of Texas
- Each county in Texas

For the State of Texas, proportions are also shown for Whites, Blacks/African-Americans/African-Americans, Asians and Pacific Islanders (API), and American Indians and Alaska Natives (AIAN). In addition, proportions are shown for Hispanics/Latinas and women who are not Hispanic/Latina (regardless of their race).

The proportions in Table 2.6 are based on the number of women age 50 to 74 who reported in 2012 having had a mammogram in the last two years. The data source is the BRFSS, which only surveys women in this age range for mammography usage. The data on the proportion of women who had a mammogram in the last two years have been weighted to account for differences between the women who were interviewed and all the women in the area. For example, if 20.0 percent of the women interviewed are Hispanic/Latina, but only 10.0 percent of the total women in the area are Hispanic/Latina, weighting is used to account for this difference.

Table 2.6. Proportion of women ages $50-74$ with screening mammography in the last two years, self-report

| Population Group | \# of Women Interviewed (Sample Size) | \# w/ Self- <br> Reported Mammogram | Proportion <br> Screened <br> (Weighted <br> Average) | Confidence Interval of Proportion Screened |
| :---: | :---: | :---: | :---: | :---: |
| US | 174,796 | 133,399 | 77.5\% | 77.2\% : 77.7\% |
| Texas | 3,174 | 2,348 | 72.0\% | 69.9\% : 74.0\% |
| White | 2,694 | 2,000 | 72.2\% | 70.0\% : 74.3\% |
| Black/African-American | 218 | 173 | 75.6\% | 67.9\% : 82.0\% |
| AIAN | 24 | 15 | 53.1\% | 26.7\% : 77.8\% |
| API | 30 | 24 | 74.8\% | 51.2\% : 89.4\% |
| Hispanic/ Latina | 667 | 482 | 67.6\% | 62.6\% : 72.3\% |
| Non-Hispanic/ Latina | 2,468 | 1,841 | 73.4\% | 71.1\% : 75.5\% |
| Anderson County | 12 | 8 | 59.7\% | 27.3\% : 85.4\% |
| Andrews County | SN | SN | SN | SN |
| Angelina County | 16 | 12 | 72.8\% | 41.4\% : 91.0\% |
| Aransas County | SN | SN | SN | SN |
| Archer County | SN | SN | SN | SN |
| Armstrong County | SN | SN | SN | SN |
| Atascosa County | SN | SN | SN | SN |
| Austin County | SN | SN | SN | SN |
| Bailey County | SN | SN | SN | SN |
| Bandera County | SN | SN | SN | SN |
| Bastrop County | SN | SN | SN | SN |
| Baylor County | SN | SN | SN | SN |
| Bee County | SN | SN | SN | SN |
| Bell County | 29 | 22 | 74.9\% | 52.5\% : 89.0\% |
| Bexar County | 185 | 144 | 70.4\% | 61.6\% : 77.9\% |
| Blanco County | SN | SN | SN | SN |
| Borden County | SN | SN | SN | SN |
| Bosque County | SN | SN | SN | SN |
| Bowie County | 13 | 9 | 69.4\% | 35.5\% : 90.3\% |
| Brazoria County | 16 | 9 | 57.8\% | 33.0\% : 79.1\% |
| Brazos County | SN | SN | SN | SN |
| Brewster County | SN | SN | SN | SN |
| Briscoe County | SN | SN | SN | SN |
| Brooks County | SN | SN | SN | SN |
| Brown County | 14 | 11 | 84.8\% | 49.0\% : 97.0\% |
| Burleson County | SN | SN | SN | SN |


| Population Group | \# of Women Interviewed (Sample Size) | \# w/ Self- <br> Reported Mammogram | Proportion Screened (Weighted Average) | Confidence Interval of Proportion Screened |
| :---: | :---: | :---: | :---: | :---: |
| Burnet County | SN | SN | SN | SN |
| Caldwell County | SN | SN | SN | SN |
| Calhoun County | SN | SN | SN | SN |
| Callahan County | SN | SN | SN | SN |
| Cameron County | 46 | 33 | 64.4\% | 44.0\% : 80.7\% |
| Camp County | SN | SN | SN | SN |
| Carson County | SN | SN | SN | SN |
| Cass County | SN | SN | SN | SN |
| Castro County | SN | SN | SN | SN |
| Chambers County | SN | SN | SN | SN |
| Cherokee County | SN | SN | SN | SN |
| Childress County | SN | SN | SN | SN |
| Clay County | SN | SN | SN | SN |
| Cochran County | SN | SN | SN | SN |
| Coke County | SN | SN | SN | SN |
| Coleman County | SN | SN | SN | SN |
| Collin County | 41 | 31 | 82.3\% | 64.5\% : 92.3\% |
| Collingsworth County | SN | SN | SN | SN |
| Colorado County | SN | SN | SN | SN |
| Comal County | 22 | 17 | 85.6\% | 62.3\% : 95.6\% |
| Comanche County | 10 | 6 | 46.5\% | 19.4\% : 75.8\% |
| Concho County | SN | SN | SN | $\mathrm{SN}$ |
| Cooke County | SN | SN | SN | SN |
| Coryell County | SN | SN | SN | SN |
| Cottle County | SN | SN | SN | SN |
| Crane County | SN | SN | SN | SN |
| Crockett County | SN | SN | SN | SN |
| Crosby County | SN | SN | SN | SN |
| Culberson County | SN | SN | SN | SN |
| Dallam County | SN | SN | SN | SN |
| Dallas County | 138 | 112 | 76.3\% | 66.7\% : 83.8\% |
| Dawson County | SN | SN | SN | SN |
| DeWitt County | SN | SN | SN | SN |
| Deaf Smith County | SN | SN | SN | SN |
| Delta County | SN | SN | SN | SN |


| Population Group | \# of Women Interviewed (Sample Size) | \# w/ Self- <br> Reported Mammogram | Proportion Screened (Weighted Average) | Confidence Interval of Proportion Screened |
| :---: | :---: | :---: | :---: | :---: |
| Denton County | 45 | 31 | 74.0\% | 57.1\% : 85.9\% |
| Dickens County | SN | SN | SN | SN |
| Dimmit County | SN | SN | SN | SN |
| Donley County | SN | SN | SN | SN |
| Duval County | SN | SN | SN | SN |
| Eastland County | SN | SN | SN | SN |
| Ector County | SN | SN | SN | SN |
| Edwards County | SN | SN | SN | SN |
| El Paso County | 225 | 171 | 74.8\% | 66.2\% : 81.8\% |
| Ellis County | 12 | 7 | 48.1\% | 21.4\% : 75.8\% |
| Erath County | 12 | 9 | 65.5\% | 31.0\% : 88.9\% |
| Falls County | SN | SN | SN | SN |
| Fannin County | SN | SN | SN | SN |
| Fayette County | SN | SN | SN | SN |
| Fisher County | SN | SN | SN | SN |
| Floyd County | SN | SN | SN | SN |
| Foard County | SN | SN | SN | SN |
| Fort Bend County | 28 | 20 | 67.7\% | 44.2\% : 84.7\% |
| Franklin County | SN | SN | SN | SN |
| Freestone County | SN | SN | SN | SN |
| Frio County | SN | SN | SN | SN |
| Gaines County | SN | SN | SN | SN |
| Galveston County | 11 | 9 | 80.5\% | 39.7\% : 96.3\% |
| Garza County | SN | SN | SN | SN |
| Gillespie County | 12 | 8 | 75.9\% | 33.0\% : 95.2\% |
| Glasscock County | SN | SN | SN | SN |
| Goliad County | SN | SN | SN | $\mathrm{SN}$ |
| Gonzales County | SN | SN | SN | SN |
| Gray County | SN | SN | SN | SN |
| Grayson County | 12 | 7 | 71.3\% | 37.8\% : 91.0\% |
| Gregg County | 18 | 11 | 63.2\% | 36.7\% : 83.6\% |
| Grimes County | SN | SN | SN | SN |
| Guadalupe County | 17 | 13 | 76.3\% | 45.2\% : 92.7\% |
| Hale County | SN | SN | SN | SN |
| Hall County | SN | SN | SN | SN |


| Population Group | \# of Women Interviewed (Sample Size) | \# w/ Self- <br> Reported Mammogram | Proportion Screened (Weighted Average) | Confidence Interval of Proportion Screened |
| :---: | :---: | :---: | :---: | :---: |
| Hamilton County | SN | SN | SN | SN |
| Hansford County | SN | SN | SN | SN |
| Hardeman County | SN | SN | SN | SN |
| Hardin County | SN | SN | SN | SN |
| Harris County | 160 | 126 | 78.5\% | 70.1\% : 85.0\% |
| Harrison County | 15 | 11 | 72.0\% | 37.8\% : 91.6\% |
| Hartley County | SN | SN | SN | SN |
| Haskell County | SN | SN | SN | SN |
| Hays County | 22 | 18 | 77.1\% | 50.7\% : 91.7\% |
| Hemphill County | SN | SN | SN | SN |
| Henderson County | 21 | 16 | 86.9\% | 57.0\% : 97.1\% |
| Hidalgo County | 211 | 149 | 69.8\% | 59.8\% : 78.2\% |
| Hill County | SN | SN | SN | SN |
| Hockley County | SN | SN | SN | SN |
| Hood County | SN | SN | SN | SN |
| Hopkins County | SN | SN | SN | SN |
| Houston County | SN | SN | SN | SN |
| Howard County | SN | SN | SN | SN |
| Hudspeth County | SN | SN | SN | SN |
| Hunt County | SN | SN | SN | SN |
| Hutchinson County | SN | SN | SN | SN |
| Irion County | SN | SN | SN | SN |
| Jack County | SN | SN | SN | SN |
| Jackson County | SN | SN | SN | SN |
| Jasper County | SN | SN | SN | SN |
| Jeff Davis County | SN | SN | SN | SN |
| Jefferson County | 33 | 26 | 77.2\% | 53.8\% : 90.8\% |
| Jim Hogg County | SN | SN | SN | SN |
| Jim Wells County | SN | SN | SN | SN |
| Johnson County | 22 | 16 | 73.8\% | 47.0\% : 89.9\% |
| Jones County | SN | SN | SN | SN |
| Karnes County | SN | SN | SN | SN |
| Kaufman County | SN | SN | SN | SN |
| Kendall County | SN | SN | SN | SN |
| Kenedy County | SN | SN | SN | SN |


| Population Group | \# of Women Interviewed (Sample Size) | \# w/ Self- <br> Reported Mammogram | Proportion Screened (Weighted Average) | Confidence Interval of Proportion Screened |
| :---: | :---: | :---: | :---: | :---: |
| Kent County | SN | SN | SN | SN |
| Kerr County | 19 | 17 | 92.6\% | 69.9\% : 98.5\% |
| Kimble County | SN | SN | SN | SN |
| King County | SN | SN | SN | SN |
| Kinney County | SN | SN | SN | SN |
| Kleberg County | SN | SN | SN | SN |
| Knox County | SN | SN | SN | SN |
| La Salle County | SN | SN | SN | SN |
| Lamar County | 12 | 7 | 43.6\% | 14.0\% : 78.7\% |
| Lamb County | SN | SN | SN | SN |
| Lampasas County | SN | SN | SN | SN |
| Lavaca County | SN | SN | SN | SN |
| Lee County | SN | SN | SN | SN |
| Leon County | SN | SN | SN | SN |
| Liberty County | SN | SN | SN | SN |
| Limestone County | SN | SN | SN | SN |
| Lipscomb County | SN | SN | SN | SN |
| Live Oak County | SN | SN | SN | SN |
| Llano County | SN | SN | SN | SN |
| Loving County | SN | SN | SN | SN |
| Lubbock County | 33 | 27 | 77.9\% | 54.1\% : 91.3\% |
| Lynn County | SN | SN | SN | SN |
| Madison County | SN | SN | SN | SN |
| Marion County | SN | SN | SN | SN |
| Martin County | SN | SN | SN | SN |
| Mason County | SN | SN | SN | SN |
| Matagorda County | SN | SN | SN | SN |
| Maverick County | SN | SN | SN | SN |
| McCulloch County | SN | SN | SN | SN |
| McLennan County | 26 | 19 | 77.4\% | 53.6\% : 91.0\% |
| McMullen County | SN | SN | SN | SN |
| Medina County | SN | SN | SN | SN |
| Menard County | SN | SN | SN | SN |
| Midland County | 14 | 10 | 75.3\% | 41.9\% : 92.8\% |
| Milam County | SN | SN | SN | SN |


| Population Group | \# of Women Interviewed (Sample Size) | \# w/ Self- <br> Reported Mammogram | Proportion Screened (Weighted Average) | Confidence Interval of Proportion Screened |
| :---: | :---: | :---: | :---: | :---: |
| Mills County | SN | SN | SN | SN |
| Mitchell County | SN | SN | SN | SN |
| Montague County | SN | SN | SN | SN |
| Montgomery County | 28 | 19 | 63.3\% | 41.2\% : 81.0\% |
| Moore County | SN | SN | SN | SN |
| Morris County | SN | SN | SN | SN |
| Motley County | SN | SN | SN | SN |
| Nacogdoches County | 10 | 7 | 60.1\% | 25.9\% : 86.6\% |
| Navarro County | SN | SN | SN | SN |
| Newton County | SN | SN | SN | SN |
| Nolan County | SN | SN | SN | SN |
| Nueces County | 29 | 22 | 83.2\% | 61.2\% : 94.0\% |
| Ochiltree County | SN | SN | SN | SN |
| Oldham County | SN | SN | SN | SN |
| Orange County | SN | SN | SN | SN |
| Palo Pinto County | SN | SN | SN | SN |
| Panola County | SN | SN | SN | SN |
| Parker County | 24 | 16 | 70.5\% | 44.1\% : 87.9\% |
| Parmer County | SN | SN | SN | SN |
| Pecos County | SN | SN | SN | SN |
| Polk County | SN | SN | SN | SN |
| Potter County | 15 | 10 | 68.4\% | 33.2\% : 90.4\% |
| Presidio County | SN | SN | SN | SN |
| Rains County | SN | SN | SN | SN |
| Randall County | 13 | 9 | 59.4\% | 27.4\% : 85.0\% |
| Reagan County | SN | SN | SN | SN |
| Real County | SN | SN | SN | SN |
| Red River County | SN | SN | SN | SN |
| Reeves County | SN | SN | SN | SN |
| Refugio County | SN | SN | SN | SN |
| Roberts County | SN | SN | SN | SN |
| Robertson County | SN | SN | SN | SN |
| Rockwall County | SN | SN | SN | SN |
| Runnels County | SN | SN | SN | SN |
| Rusk County | 10 | 6 | 54.4\% | 21.9\% : 83.5\% |


| Population Group | \# of Women Interviewed (Sample Size) | \# w/ Self- <br> Reported Mammogram | Proportion Screened (Weighted Average) | Confidence Interval of Proportion Screened |
| :---: | :---: | :---: | :---: | :---: |
| Sabine County | SN | SN | SN | SN |
| San Augustine County | SN | SN | SN | SN |
| San Jacinto County | SN | SN | SN | SN |
| San Patricio County | SN | SN | SN | SN |
| San Saba County | SN | SN | SN | SN |
| Schleicher County | SN | SN | SN | SN |
| Scurry County | SN | SN | SN | SN |
| Shackelford County | SN | SN | SN | SN |
| Shelby County | SN | SN | SN | SN |
| Sherman County | SN | SN | SN | SN |
| Smith County | 35 | 23 | 65.6\% | 47.6\% : 80.0\% |
| Somervell County | SN | SN | SN | SN |
| Starr County | 11 | 6 | 54.7\% | 27.5\% : 79.3\% |
| Stephens County | SN | SN | SN | SN |
| Sterling County | SN | SN | SN | SN |
| Stonewall County | SN | SN | SN | SN |
| Sutton County | SN | SN | SN | SN |
| Swisher County | SN | SN | SN | SN |
| Tarrant County | 189 | 153 | 81.3\% | 72.7\% : 87.6\% |
| Taylor County | 21 | 20 | 94.8\% | 71.2\% : 99.3\% |
| Terrell County | SN | SN | SN | SN |
| Terry County | SN | SN | SN | SN |
| Throckmorton County | SN | SN | SN | SN |
| Titus County | SN | SN | SN | SN |
| Tom Green County | 12 | 7 | 59.6\% | 29.5\% : 83.9\% |
| Travis County | 382 | 302 | 71.0\% | 64.3\% : 76.9\% |
| Trinity County | SN | SN | SN | SN |
| Tyler County | SN | SN | SN | SN |
| Upshur County | SN | SN | SN | SN |
| Upton County | SN | SN | SN | SN |
| Uvalde County | SN | SN | SN | SN |
| Val Verde County | SN | SN | SN | SN |
| Van Zandt County | 17 | 11 | 66.0\% | 37.5\% : 86.2\% |
| Victoria County | 12 | 8 | 71.4\% | 33.1\% : 92.6\% |
| Walker County | SN | SN | SN | SN |


| Population Group | \# of Women Interviewed (Sample Size) | \# w/ Self- <br> Reported Mammogram | Proportion Screened (Weighted Average) | Confidence Interval of Proportion Screened |
| :---: | :---: | :---: | :---: | :---: |
| Waller County | SN | SN | SN | SN |
| Ward County | SN | SN | SN | SN |
| Washington County | SN | SN | SN | SN |
| Webb County | 31 | 23 | 78.6\% | 58.7\% : 90.5\% |
| Wharton County | SN | SN | SN | SN |
| Wheeler County | SN | SN | SN | SN |
| Wichita County | 29 | 23 | 75.2\% | 53.1\% : 89.1\% |
| Wilbarger County | SN | SN | SN | SN |
| Willacy County | SN | SN | SN | SN |
| Williamson County | 67 | 54 | 82.0\% | 69.0\% : 90.3\% |
| Wilson County | SN | SN | SN | SN |
| Winkler County | SN | SN | SN | SN |
| Wise County | SN | SN | SN | SN |
| Wood County | SN | SN | SN | SN |
| Yoakum County | SN | SN | SN | SN |
| Young County | SN | SN | SN | SN |
| Zapata County | SN | SN | SN | SN |
| Zavala County | SN | SN | SN | SN |

Data are for 2012.
Source: CDC - Behavioral Risk Factor Surveillance System (BRFSS).

## Conclusions: Breast cancer screening proportions

The breast cancer screening proportion in the State of Texas was significantly lower than that observed in the US as a whole.

For the United States, breast cancer screening proportions among Blacks/African-Americans are similar to those among Whites overall. APIs have somewhat lower screening proportions than Whites and Blacks/African-Americans. Although data are limited, screening proportions among AIANs are similar to those among Whites. Screening proportions among Hispanics/Latinas are similar to those among Non-Hispanic Whites and Blacks/AfricanAmericans. For the State of Texas, the screening proportion was not significantly different among Blacks/African-Americans and Whites, not significantly different among APIs and Whites, and not significantly different among AIANs and Whites. The screening proportion among Hispanics/Latinas was not significantly different from the proportion among NonHispanics/Latinas.

None of the counties in the state had substantially different screening proportions than the state as a whole.

## Demographic and Socioeconomic Measures

> Demographic and socioeconomic data can be used to identify which groups of women are most in need of help and to figure out the best ways to help them.

The report includes basic information about the women in each area (demographic measures) and about factors like education, income, and unemployment (socioeconomic measures) in the areas where they live.
Demographic measures in the report include:

- Age
- Race
- Ethnicity (whether or not a woman is Hispanic/Latina - can be of any race)

It is important to note that the report uses the race and ethnicity categories used by the US Census Bureau, and that race and ethnicity are separate and independent categories. This means that everyone is classified as both a member of one of the four race groups as well as either Hispanic/Latina or Non-Hispanic/Latina.

Socioeconomic measures for the areas covered in this report include:

- Education level
- Income
- Unemployment
- Immigration (how many of the people living in an area were born in another country)
- Use of the English language
- Proportion of people who have health insurance
- Proportion of people who live in rural areas
- Proportion of people who in areas that don't have enough doctors or health care facilities (medically underserved areas)


## Why these data matter

Demographic and socioeconomic data can be used to identify which groups of women need the most help and to figure out the best ways to help them.

## Important details about these data

The demographic and socioeconomic data in this report are the most recent data available for US counties. All the data are shown as percentages. However, the percentages weren't all calculated in the same way.

- The race, ethnicity, and age data are based on the total female population in the area (e.g. the percent of females over the age of 40).
- The socioeconomic data are based on all of the people in the area, not just women.
- Income, education and unemployment data don't include children. They're based on people age 15 and older for income and unemployment and age 25 and older for education.
- The data on the use of English, called "linguistic isolation", are based on the total number of households in the area. The Census Bureau defines a linguistically isolated household as one in which all the adults have difficulty with English.


## Where the data come from

The demographic and socioeconomic sources of data are:

- Race/ethnicity, age, and sex data come from the US Census Bureau estimates for July 1, 2011.
- Most of the other data come from the US Census Bureau's American Community Survey program. The most recent data for counties are for 2007 to 2011.
- Health insurance data come from the US Census Bureau's Small Area Health Insurance Estimates program. The most recent data are for 2011.
- Rural population data come from the US Census Bureau's 2010 population survey.
- Medically underserved area information comes from the US Department of Health and Human Services, Health Resources and Services Administration. The most recent data are for 2013.


## Population characteristics

Race, ethnicity, and age data for the US, the state, and each of the counties in the state is presented in Table 2.7:

- Race percentages for four race groups: White, Black/African-American, American Indian and Alaska Native (AIAN), and Asian and Pacific Islander (API).
- Percentages of women of Hispanic/Latina ethnicity (who may be of any race).
- Percentages of women in three age-groups: 40 and older, 50 and older, and 65 and older.

Table 2.8 shows socioeconomic data for the US, the state, and each of the counties in the state:

- Educational attainment as the percentage of the population 25 years and over that did not complete high school
- Income relative to the US poverty level. Two levels are shown - the percentage of people with income less than the poverty level (below 100 percent) and less than 2.5 times the poverty level (below 250 percent).
- Percentage of the population who are unemployed
- Percentage of the population born outside the US
- Percentage of households that are linguistically isolated (all adults in the household have difficulty with English)
- Percentage living in rural areas
- Percentage living in medically underserved areas as determined by the Health Resources and Services Administration (HRSA)
- Percentage between ages 40 and 64 who have no health insurance

Table 2.7. Population characteristics - demographics

| Population Group | White | Black/ <br> AfricanAmerican | AIAN | API | NonHispanic/ Latina | Hispanic/ Latina | Female Age 40 Plus | Female Age 50 Plus | Female Age 65 Plus |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| US | 78.8 \% | 14.1 \% | 1.4 \% | 5.8 \% | 83.8 \% | 16.2 \% | 48.3 \% | 34.5 \% | 14.8 \% |
| Texas | 81.5 \% | 12.9 \% | 1.1 \% | 4.5 \% | 62.5 \% | 37.5 \% | 42.9 \% | 29.4 \% | 11.7 \% |
| Anderson County | 82.4 \% | 15.8 \% | 0.8 \% | 1.0 \% | 86.6 \% | 13.4 \% | 50.1 \% | 37.7 \% | 17.4 \% |
| Andrews County | 95.6 \% | 2.1 \% | 1.5 \% | 0.8 \% | 50.9 \% | 49.1 \% | 42.7 \% | 29.3 \% | 12.1 \% |
| Angelina County | 81.8 \% | 16.3 \% | 0.7 \% | 1.2 \% | 80.7 \% | 19.3 \% | 46.5 \% | 33.5 \% | 15.3 \% |
| Aransas County | 94.6 \% | 1.8 \% | 1.3 \% | 2.3 \% | 75.0 \% | 25.0 \% | 61.7 \% | 50.0 \% | 25.3 \% |
| Archer County | 97.6 \% | 1.0 \% | 1.0 \% | 0.4 \% | 92.8 \% | 7.2 \% | 56.4 \% | 41.8 \% | 17.8 \% |
| Armstrong County | 97.1 \% | 1.8 \% | 1.1 \% | 0.0 \% | 94.5 \% | 5.5 \% | 58.7 \% | 45.8 \% | 22.1 \% |
| Atascosa County | 96.8 \% | 1.4 \% | 1.1 \% | 0.7 \% | 38.2 \% | 61.8 \% | 46.0 \% | 33.3 \% | 14.2 \% |
| Austin County | 88.3 \% | 10.3 \% | 0.8 \% | 0.6 \% | 76.6 \% | 23.4 \% | 52.5 \% | 39.2 \% | 17.4 \% |
| Bailey County | 94.8 \% | 1.8 \% | 2.6 \% | 0.8 \% | 41.3 \% | 58.7 \% | 42.8 \% | 31.2 \% | 15.5 \% |
| Bandera County | 97.6 \% | 0.9 \% | 1.0 \% | 0.5 \% | 83.5 \% | 16.5 \% | 64.1 \% | 49.9 \% | 20.9 \% |
| Bastrop County | 88.8 \% | 8.2 \% | 1.7 \% | 1.3 \% | 68.0 \% | 32.0 \% | 49.4 \% | 35.0 \% | 13.0 \% |
| Baylor County | 96.3 \% | 2.8 \% | 0.5 \% | 0.4 \% | 86.5 \% | 13.5 \% | 59.8 \% | 47.2 \% | 27.5 \% |
| Bee County | 95.4 \% | 2.5 \% | 1.0 \% | 1.1 \% | 36.7 \% | 63.3 \% | 45.9 \% | 33.7 \% | 14.6 \% |
| Bell County | 70.0 \% | 23.6 \% | 1.2 \% | 5.1 \% | 78.1 \% | 21.9 \% | 37.7 \% | 25.2 \% | 9.8 \% |
| Bexar County | 87.0 \% | 8.2 \% | 1.4 \% | 3.3 \% | 40.9 \% | 59.1 \% | 42.3 \% | 29.0 \% | 11.7 \% |
| Blanco County | 97.0 \% | 1.0 \% | 1.1 \% | 1.0 \% | 82.4 \% | 17.6 \% | 60.8 \% | 47.7 \% | 20.0 \% |
| Borden County | 98.3 \% | 0.7 \% | 0.7 \% | 0.3 \% | 86.0 \% | 14.0 \% | 63.3 \% | 43.0 \% | 21.7 \% |
| Bosque County | 96.3 \% | 2.3 \% | 0.8 \% | 0.6 \% | 84.7 \% | 15.3 \% | 57.8 \% | 45.0 \% | 22.8 \% |
| Bowie County | 72.9 \% | 24.9 \% | 1.0 \% | 1.2 \% | 94.7 \% | 5.3 \% | 49.8 \% | 36.6 \% | 16.8 \% |
| Brazoria County | 80.3 \% | 12.6 \% | 0.9 \% | 6.2 \% | 72.2 \% | 27.8 \% | 43.4 \% | 28.9 \% | 10.9 \% |
| Brazos County | 82.0 \% | 12.0 \% | 0.7 \% | 5.2 \% | 76.6 \% | 23.4 \% | 30.2 \% | 20.8 \% | 8.6 \% |
| Brewster County | 94.9 \% | 1.6 \% | 2.4 \% | 1.1 \% | 56.0 \% | 44.0 \% | 50.7 \% | 39.0 \% | 17.7 \% |
| Briscoe County | 96.0 \% | 3.2 \% | 0.2 \% | 0.5 \% | 73.4 \% | 26.6 \% | 54.8 \% | 42.8 \% | 22.0 \% |
| Brooks County | 97.9 \% | 1.0 \% | 0.5 \% | 0.6 \% | 9.4 \% | 90.6 \% | 49.6 \% | 38.1 \% | 19.5 \% |
| Brown County | 94.5 \% | 3.9 \% | 0.8 \% | 0.7 \% | 80.4 \% | 19.6 \% | 51.7 \% | 39.7 \% | 19.1 \% |
| Burleson County | 85.6 \% | 13.1 \% | 0.9 \% | 0.4 \% | 81.9 \% | 18.1 \% | 54.8 \% | 41.6 \% | 18.8 \% |
| Burnet County | 95.9 \% | 2.3 \% | 1.0 \% | 0.8 \% | 80.5 \% | 19.5 \% | 55.7 \% | 42.9 \% | 19.6 \% |
| Caldwell County | 89.7 \% | 7.7 \% | 1.4 \% | 1.2 \% | 52.1 \% | 47.9 \% | 45.2 \% | 32.1 \% | 13.4 \% |
| Calhoun County | 91.5 \% | 3.6 \% | 0.6 \% | 4.3 \% | 52.8 \% | 47.2 \% | 48.5 \% | 35.3 \% | 15.9 \% |
| Callahan County | 96.6 \% | 2.0 \% | 0.7 \% | 0.8 \% | 91.7 \% | 8.3 \% | 54.9 \% | 41.4 \% | 18.9 \% |
| Cameron County | 97.8 \% | 0.8 \% | 0.6 \% | 0.8 \% | 11.4 \% | 88.6 \% | 40.0 \% | 27.6 \% | 12.2 \% |
| Camp County | 78.9 \% | 19.2 \% | 0.9 \% | 1.0 \% | 80.0 \% | 20.0 \% | 49.9 \% | 37.6 \% | 17.1 \% |
| Carson County | 96.8 \% | 1.2 \% | 1.4 \% | 0.6 \% | 90.9 \% | 9.1 \% | 53.7 \% | 40.1 \% | 18.0 \% |


| Population Group | White | Black/ <br> African- <br> American | AIAN | API | NonHispanic/ Latina | Hispanic/ Latina | Female Age 40 Plus | Female Age 50 Plus | Female Age 65 Plus |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cass County | 80.1 \% | 18.7 \% | 0.7 \% | 0.5 \% | 96.4 \% | 3.6 \% | 55.5 \% | 42.6 \% | 21.2 \% |
| Castro County | 95.1 \% | 2.7 \% | 1.7 \% | 0.5 \% | 40.1 \% | 59.9 \% | 43.5 \% | 31.9 \% | 14.4 \% |
| Chambers County | 88.4 \% | 9.0 \% | 1.1 \% | 1.6 \% | 80.7 \% | 19.3 \% | 44.6 \% | 29.6 \% | 10.4 \% |
| Cherokee County | 83.1 \% | 14.7 \% | 1.5 \% | 0.7 \% | 80.4 \% | 19.6 \% | 48.0 \% | 36.3 \% | 17.0 \% |
| Childress County | 92.5 \% | 5.8 \% | 0.7 \% | 1.0 \% | 78.2 \% | 21.8 \% | 52.5 \% | 40.5 \% | 20.6 \% |
| Clay County | 96.9 \% | 1.1 \% | 1.7 \% | 0.3 \% | 94.6 \% | 5.4 \% | 56.8 \% | 43.4 \% | 19.3 \% |
| Cochran County | 92.3 \% | 5.2 \% | 2.1 \% | 0.4 \% | 45.8 \% | 54.2 \% | 44.8 \% | 32.5 \% | 15.5 \% |
| Coke County | 97.2 \% | 0.6 \% | 1.8 \% | 0.3 \% | 81.9 \% | 18.1 \% | 61.6 \% | 49.5 \% | 27.0 \% |
| Coleman County | 95.3 \% | 2.8 \% | 1.3 \% | 0.6 \% | 83.2 \% | 16.8 \% | 57.8 \% | 46.0 \% | 22.7 \% |
| Collin County | 77.2 \% | 9.8 \% | 0.8 \% | 12.2 \% | 85.3 \% | 14.7 \% | 43.0 \% | 26.2 \% | 8.9 \% |
| Collingsworth County | 90.6 \% | 6.5 \% | 2.4 \% | 0.5 \% | 69.5 \% | 30.5 \% | 50.9 \% | 39.5 \% | 19.5 \% |
| Colorado County | 83.8 \% | 14.5 \% | 1.0 \% | 0.7 \% | 74.2 \% | 25.8 \% | 55.4 \% | 43.2 \% | 20.9 \% |
| Comal County | 95.5 \% | 2.2 \% | 1.0 \% | 1.4 \% | 74.6 \% | 25.4 \% | 55.0 \% | 40.6 \% | 16.9 \% |
| Comanche County | 97.4 \% | 1.0 \% | 1.1 \% | 0.5 \% | 74.7 \% | 25.3 \% | 54.9 \% | 42.6 \% | 22.7 \% |
| Concho County | 97.1 \% | 1.2 \% | 1.1 \% | 0.5 \% | 68.1 \% | 31.9 \% | 56.7 \% | 44.8 \% | 21.8 \% |
| Cooke County | 93.8 \% | 3.4 \% | 1.6 \% | 1.2 \% | 84.7 \% | 15.3 \% | 51.2 \% | 38.4 \% | 17.6 \% |
| Coryell County | 76.2 \% | 18.6 \% | 1.2 \% | 4.0 \% | 84.1 \% | 15.9 \% | 36.5 \% | 22.5 \% | 8.5 \% |
| Cottle County | 89.9 \% | 9.8 \% | 0.3 \% | 0.1 \% | 79.5 \% | 20.5 \% | 60.0 \% | 47.8 \% | 26.9 \% |
| Crane County | 94.0 \% | 3.9 \% | 1.3 \% | 0.8 \% | 45.4 \% | 54.6 \% | 46.0 \% | 30.9 \% | 13.3 \% |
| Crockett County | 96.7 \% | 1.2 \% | 1.5 \% | 0.6 \% | 36.1 \% | 63.9 \% | 48.7 \% | 36.8 \% | 16.3 \% |
| Crosby County | 94.2 \% | 4.7 \% | 0.9 \% | 0.2 \% | 48.5 \% | 51.5 \% | 48.5 \% | 37.2 \% | 18.7 \% |
| Culberson County | 96.2 \% | 0.9 \% | 1.7 \% | 1.1 \% | 23.4 \% | 76.6 \% | 48.5 \% | 35.6 \% | 15.5 \% |
| Dallam County | 95.8 \% | 1.9 \% | 1.4 \% | 0.9 \% | 59.6 \% | 40.4 \% | 40.2 \% | 26.9 \% | 10.7 \% |
| Dallas County | 68.8 \% | 24.4 \% | 1.2 \% | 5.6 \% | 62.9 \% | 37.1 \% | 40.5 \% | 27.0 \% | 10.3 \% |
| Dawson County | 93.3 \% | 4.9 \% | 1.0 \% | 0.7 \% | 44.5 \% | 55.5 \% | 48.3 \% | 36.7 \% | 18.8 \% |
| Deaf Smith County | 96.0 \% | 1.9 \% | 1.5 \% | 0.6 \% | 32.9 \% | 67.1 \% | 39.9 \% | 28.7 \% | 12.8 \% |
| Delta County | 88.7 \% | 8.8 \% | 1.6 \% | 0.9 \% | 94.7 \% | 5.3 \% | 56.3 \% | 43.4 \% | 21.3 \% |
| Denton County | 81.9 \% | 9.7 \% | 1.0 \% | 7.4 \% | 81.8 \% | 18.2 \% | 40.4 \% | 24.6 \% | 8.1 \% |
| DeWitt County | 89.7 \% | 9.1 \% | 0.7 \% | 0.5 \% | 68.7 \% | 31.3 \% | 55.4 \% | 43.2 \% | 22.0 \% |
| Dickens County | 94.3 \% | 2.9 \% | 1.7 \% | 1.1 \% | 74.2 \% | 25.8 \% | 58.4 \% | 48.7 \% | 23.0 \% |
| Dimmit County | 97.1 \% | 1.4 \% | 0.7 \% | 0.8 \% | 13.9 \% | 86.1 \% | 46.5 \% | 34.9 \% | 15.8 \% |
| Donley County | 92.6 \% | 6.1 \% | 0.9 \% | 0.4 \% | 90.6 \% | 9.4 \% | 54.4 \% | 43.4 \% | 23.7 \% |
| Duval County | 98.3 \% | 0.7 \% | 0.7 \% | 0.4 \% | 10.4 \% | 89.6 \% | 48.2 \% | 36.2 \% | 18.9 \% |
| Eastland County | 96.2 \% | 2.3 \% | 1.0 \% | 0.5 \% | 85.9 \% | 14.1 \% | 54.5 \% | 43.1 \% | 22.1 \% |
| Ector County | 92.3 \% | 5.0 \% | 1.4 \% | 1.2 \% | 46.6 \% | 53.4 \% | 40.3 \% | 28.2 \% | 11.4 \% |
| Edwards County | 96.4 \% | 0.7 \% | 2.2 \% | 0.7 \% | 49.4 \% | 50.6 \% | 58.6 \% | 45.7 \% | 22.8 \% |


| Population Group | White | Black/ <br> African- <br> American | AIAN | API | NonHispanic/ Latina | Hispanic/ Latina | Female Age 40 Plus | Female Age 50 Plus | Female Age 65 Plus |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ellis County | 88.2 \% | 9.8 \% | 1.0 \% | 1.0 \% | 76.8 \% | 23.2 \% | 44.7 \% | 30.3 \% | 11.3 \% |
| El Paso County | 94.0 \% | 3.4 \% | 1.0 \% | 1.6 \% | 16.9 \% | 83.1 \% | 40.9 \% | 28.0 \% | 11.7 \% |
| Erath County | 96.4 \% | 1.5 \% | 1.3 \% | 0.8 \% | 81.4 \% | 18.6 \% | 41.7 \% | 30.3 \% | 14.0 \% |
| Falls County | 70.3 \% | 28.3 \% | 0.9 \% | 0.6 \% | 80.4 \% | 19.6 \% | 50.8 \% | 35.9 \% | 17.0 \% |
| Fannin County | 92.7 \% | 5.3 \% | 1.5 \% | 0.6 \% | 91.4 \% | 8.6 \% | 53.9 \% | 40.2 \% | 19.4 \% |
| Fayette County | 90.9 \% | 7.3 \% | 1.2 \% | 0.5 \% | 81.6 \% | 18.4 \% | 58.8 \% | 46.4 \% | 23.5 \% |
| Fisher County | 94.3 \% | 4.5 \% | 0.8 \% | 0.5 \% | 74.4 \% | 25.6 \% | 57.9 \% | 45.4 \% | 24.1 \% |
| Floyd County | 94.6 \% | 4.1 \% | 1.0 \% | 0.3 \% | 47.5 \% | 52.5 \% | 48.7 \% | 37.0 \% | 19.5 \% |
| Foard County | 93.8 \% | 5.2 \% | 0.3 \% | 0.7 \% | 85.2 \% | 14.8 \% | 59.8 \% | 46.3 \% | 26.7 \% |
| Fort Bend County | 58.4 \% | 22.8 \% | 0.7 \% | 18.1 \% | 76.2 \% | 23.8 \% | 43.8 \% | 27.8 \% | 8.4 \% |
| Franklin County | 93.2 \% | 5.0 \% | 1.2 \% | 0.7 \% | 87.5 \% | 12.5 \% | 53.4 \% | 41.1 \% | 19.8 \% |
| Freestone County | 82.2 \% | 15.9 \% | 1.3 \% | 0.7 \% | 87.4 \% | 12.6 \% | 53.1 \% | 40.7 \% | 19.7 \% |
| Frio County | 97.2 \% | 1.2 \% | 1.0 \% | 0.6 \% | 19.9 \% | 80.1 \% | 45.8 \% | 33.2 \% | 15.3 \% |
| Gaines County | 96.3 \% | 2.3 \% | 1.1 \% | 0.3 \% | 62.7 \% | 37.3 \% | 35.9 \% | 23.8 \% | 9.6 \% |
| Galveston County | 80.4 \% | 15.0 \% | 0.9 \% | 3.6 \% | 77.5 \% | 22.5 \% | 47.7 \% | 33.3 \% | 12.6 \% |
| Garza County | 91.5 \% | 7.0 \% | 1.1 \% | 0.5 \% | 61.2 \% | 38.8 \% | 46.1 \% | 33.8 \% | 15.9 \% |
| Gillespie County | 97.7 \% | 0.7 \% | 1.1 \% | 0.5 \% | 80.9 \% | 19.1 \% | 63.6 \% | 52.3 \% | 28.3 \% |
| Glasscock County | 97.6 \% | 1.9 \% | 0.0 \% | 0.5 \% | 68.0 \% | 32.0 \% | 46.6 \% | 33.9 \% | 13.9 \% |
| Goliad County | 92.8 \% | 5.8 \% | 0.9 \% | 0.5 \% | 64.9 \% | 35.1 \% | 58.5 \% | 45.1 \% | 20.4 \% |
| Gonzales County | 89.8 \% | 7.9 \% | 1.7 \% | 0.6 \% | 52.9 \% | 47.1 \% | 47.9 \% | 35.4 \% | 16.5 \% |
| Gray County | 94.1 \% | 3.8 \% | 1.4 \% | 0.6 \% | 76.7 \% | 23.3 \% | 48.7 \% | 37.1 \% | 18.5 \% |
| Grayson County | 90.1 \% | 6.7 \% | 1.9 \% | 1.3 \% | 88.8 \% | 11.2 \% | 51.4 \% | 38.3 \% | 17.4 \% |
| Gregg County | 76.0 \% | 21.5 \% | 1.0 \% | 1.4 \% | 84.4 \% | 15.6 \% | 46.7 \% | 34.2 \% | 15.7 \% |
| Grimes County | 82.9 \% | 15.6 \% | 0.8 \% | 0.6 \% | 78.5 \% | 21.5 \% | 51.0 \% | 38.3 \% | 16.3 \% |
| Guadalupe County | 88.8 \% | 7.5 \% | 1.1 \% | 2.5 \% | 64.3 \% | 35.7 \% | 46.4 \% | 31.2 \% | 12.6 \% |
| Hale County | 92.5 \% | 5.2 \% | 1.7 \% | 0.6 \% | 42.8 \% | 57.2 \% | 41.9 \% | 29.8 \% | 13.8 \% |
| Hall County | 91.3 \% | 7.0 \% | 1.2 \% | 0.5 \% | 67.0 \% | 33.0 \% | 53.2 \% | 43.1 \% | 23.4 \% |
| Hamilton County | 97.1 \% | 0.9 \% | 1.4 \% | 0.6 \% | 89.9 \% | 10.1 \% | 59.4 \% | 48.3 \% | 27.5 \% |
| Hansford County | 96.4 \% | 1.2 \% | 1.8 \% | 0.6 \% | 58.0 \% | 42.0 \% | 45.8 \% | 33.2 \% | 15.1 \% |
| Hardeman County | 93.1 \% | 5.9 \% | 0.7 \% | 0.4 \% | 78.9 \% | 21.1 \% | 55.4 \% | 42.9 \% | 21.8 \% |
| Hardin County | 92.2 \% | 6.6 \% | 0.5 \% | 0.7 \% | 95.4 \% | 4.6 \% | 49.3 \% | 35.7 \% | 15.2 \% |
| Harris County | 71.2 \% | 20.7 \% | 1.2 \% | 6.9 \% | 59.9 \% | 40.1 \% | 40.0 \% | 26.5 \% | 9.4 \% |
| Harrison County | 74.4 \% | 23.6 \% | 1.1 \% | 0.8 \% | 89.2 \% | 10.8 \% | 48.2 \% | 34.9 \% | 14.5 \% |
| Hartley County | 97.7 \% | 0.8 \% | 0.8 \% | 0.6 \% | 81.5 \% | 18.5 \% | 48.7 \% | 35.7 \% | 17.6 \% |
| Haskell County | 94.8 \% | 3.8 \% | 0.7 \% | 0.6 \% | 76.7 \% | 23.3 \% | 58.3 \% | 46.6 \% | 25.1 \% |
| Hays County | 92.6 \% | 4.3 \% | 1.3 \% | 1.8 \% | 64.2 \% | 35.8 \% | 38.8 \% | 26.3 \% | 9.6 \% |


| Population Group | White | Black/ <br> African- <br> American | AIAN | API | NonHispanic/ Latina | Hispanic/ Latina | Female Age 40 Plus | Female Age 50 Plus | Female Age 65 Plus |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hemphill County | 97.3 \% | 0.9 \% | 0.9 \% | 0.9 \% | 72.9 \% | 27.1 \% | 45.3 \% | 32.9 \% | 14.6 \% |
| Henderson County | 91.7 \% | 6.7 \% | 0.9 \% | 0.7 \% | 89.0 \% | 11.0 \% | 55.3 \% | 42.6 \% | 20.7 \% |
| Hidalgo County | 97.6 \% | 0.7 \% | 0.5 \% | 1.2 \% | 9.0 \% | 91.0 \% | 35.6 \% | 23.6 \% | 10.2 \% |
| Hill County | 91.1 \% | 7.7 \% | 0.7 \% | 0.6 \% | 82.3 \% | 17.7 \% | 52.3 \% | 40.2 \% | 19.4 \% |
| Hockley County | 93.6 \% | 4.4 \% | 1.5 \% | 0.4 \% | 55.6 \% | 44.4 \% | 44.3 \% | 32.4 \% | 14.3 \% |
| Hood County | 97.2 \% | 0.9 \% | 0.9 \% | 1.0 \% | 90.0 \% | 10.0 \% | 59.1 \% | 46.9 \% | 23.3 \% |
| Hopkins County | 90.2 \% | 8.1 \% | 1.0 \% | 0.7 \% | 85.5 \% | 14.5 \% | 50.4 \% | 37.3 \% | 17.2 \% |
| Houston County | 73.1 \% | 25.6 \% | 0.6 \% | 0.7 \% | 91.9 \% | 8.1 \% | 56.7 \% | 44.6 \% | 22.7 \% |
| Howard County | 92.8 \% | 4.9 \% | 1.4 \% | 0.9 \% | 62.7 \% | 37.3 \% | 47.6 \% | 35.3 \% | 16.1 \% |
| Hudspeth County | 95.6 \% | 1.6 \% | 1.9 \% | 0.9 \% | 20.0 \% | 80.0 \% | 47.8 \% | 34.9 \% | 13.3 \% |
| Hunt County | 87.9 \% | 9.3 \% | 1.3 \% | 1.5 \% | 86.4 \% | 13.6 \% | 48.8 \% | 35.1 \% | 15.3 \% |
| Hutchinson County | 93.9 \% | 3.0 \% | 2.4 \% | 0.6 \% | 79.6 \% | 20.4 \% | 47.9 \% | 36.2 \% | 15.9 \% |
| Irion County | 96.6 \% | 2.3 \% | 0.8 \% | 0.2 \% | 73.5 \% | 26.5 \% | 56.8 \% | 41.6 \% | 19.5 \% |
| Jack County | 96.8 \% | 1.6 \% | 0.9 \% | 0.7 \% | 86.4 \% | 13.6 \% | 52.5 \% | 38.9 \% | 18.2 \% |
| Jackson County | 90.5 \% | 8.3 \% | 0.6 \% | 0.5 \% | 71.4 \% | 28.6 \% | 50.6 \% | 38.6 \% | 18.5 \% |
| Jasper County | 80.6 \% | 17.9 \% | 0.7 \% | 0.8 \% | 94.7 \% | 5.3 \% | 52.3 \% | 39.2 \% | 18.1 \% |
| Jeff Davis County | 97.1 \% | 1.9 \% | 0.5 \% | 0.4 \% | 66.1 \% | 33.9 \% | 66.7 \% | 55.5 \% | 25.0 \% |
| Jefferson County | 59.7 \% | 35.8 \% | 0.9 \% | 3.6 \% | 84.3 \% | 15.7 \% | 46.9 \% | 34.3 \% | 15.0 \% |
| Jim Hogg County | 98.6 \% | 0.5 \% | 0.5 \% | 0.4 \% | 7.4 \% | 92.6 \% | 46.2 \% | 34.7 \% | 16.3 \% |
| Jim Wells County | 97.5 \% | 1.0 \% | 0.9 \% | 0.6 \% | 21.2 \% | 78.8 \% | 45.6 \% | 33.2 \% | 14.6 \% |
| Johnson County | 94.4 \% | 3.1 \% | 1.1 \% | 1.4 \% | 82.1 \% | 17.9 \% | 46.5 \% | 32.4 \% | 13.0 \% |
| Jones County | 93.0 \% | 5.0 \% | 1.2 \% | 0.8 \% | 78.6 \% | 21.4 \% | 54.5 \% | 41.4 \% | 19.6 \% |
| Karnes County | 95.7 \% | 2.8 \% | 1.1 \% | 0.4 \% | 47.6 \% | 52.4 \% | 51.9 \% | 39.7 \% | 19.2 \% |
| Kaufman County | 86.3 \% | 11.4 \% | 1.0 \% | 1.3 \% | 82.6 \% | 17.4 \% | 44.5 \% | 30.1 \% | 11.5 \% |
| Kendall County | 97.1 \% | 1.1 \% | 0.8 \% | 1.0 \% | 79.6 \% | 20.4 \% | 57.3 \% | 42.3 \% | 18.3 \% |
| Kenedy County | 95.1 \% | 1.9 \% | 2.9 \% | 0.0 \% | 24.8 \% | 75.2 \% | 51.9 \% | 35.0 \% | 15.5 \% |
| Kent County | 96.9 \% | 1.6 \% | 1.4 \% | 0.0 \% | 87.1 \% | 12.9 \% | 62.6 \% | 51.8 \% | 30.4 \% |
| Kerr County | 95.7 \% | 2.1 \% | 1.2 \% | 1.1 \% | 76.3 \% | 23.7 \% | 60.4 \% | 49.0 \% | 26.6 \% |
| Kimble County | 98.0 \% | 0.6 \% | 0.8 \% | 0.6 \% | 77.1 \% | 22.9 \% | 60.8 \% | 50.1 \% | 24.1 \% |
| King County | 96.2 \% | 2.3 \% | 1.5 \% | 0.0 \% | 90.9 \% | 9.1 \% | 56.1 \% | 36.4 \% | 14.4 \% |
| Kinney County | 95.6 \% | 2.5 \% | 1.0 \% | 0.9 \% | 48.2 \% | 51.8 \% | 60.6 \% | 49.8 \% | 27.6 \% |
| Kleberg County | 92.3 \% | 4.3 \% | 1.0 \% | 2.4 \% | 27.9 \% | 72.1 \% | 39.0 \% | 28.4 \% | 13.2 \% |
| Knox County | 91.3 \% | 7.1 \% | 1.2 \% | 0.4 \% | 70.2 \% | 29.8 \% | 52.7 \% | 41.2 \% | 23.3 \% |
| Lamar County | 82.4 \% | 14.9 \% | 1.8 \% | 0.9 \% | 93.5 \% | 6.5 \% | 51.5 \% | 38.0 \% | 18.6 \% |
| Lamb County | 92.3 \% | 5.4 \% | 1.9 \% | 0.4 \% | 48.7 \% | 51.3 \% | 47.7 \% | 34.8 \% | 17.8 \% |
| Lampasas County | 92.5 \% | 4.2 \% | 1.4 \% | 2.0 \% | 82.5 \% | 17.5 \% | 52.9 \% | 38.6 \% | 17.2 \% |


| Population Group | White | Black/ <br> African- <br> American | AIAN | API | NonHispanic/ Latina | Hispanic/ Latina | Female Age 40 Plus | Female Age 50 Plus | Female Age 65 Plus |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| La Salle County | 98.0 \% | 1.2 \% | 0.5 \% | 0.3 \% | 16.5 \% | 83.5 \% | 46.6 \% | 34.0 \% | 16.7 \% |
| Lavaca County | 91.3 \% | 7.6 \% | 0.5 \% | 0.6 \% | 83.8 \% | 16.2 \% | 57.4 \% | 45.3 \% | 23.6 \% |
| Lee County | 87.3 \% | 10.9 \% | 1.0 \% | 0.7 \% | 78.0 \% | 22.0 \% | 51.9 \% | 38.0 \% | 17.5 \% |
| Leon County | 89.7 \% | 8.6 \% | 0.7 \% | 1.0 \% | 87.1 \% | 12.9 \% | 56.6 \% | 44.6 \% | 22.5 \% |
| Liberty County | 86.0 \% | 12.1 \% | 1.0 \% | 0.8 \% | 82.0 \% | 18.0 \% | 45.9 \% | 31.6 \% | 12.3 \% |
| Limestone County | 79.3 \% | 19.2 \% | 1.0 \% | 0.6 \% | 81.9 \% | 18.1 \% | 52.2 \% | 39.7 \% | 18.3 \% |
| Lipscomb County | 94.8 \% | 1.9 \% | 2.5 \% | 0.7 \% | 69.0 \% | 31.0 \% | 46.9 \% | 35.4 \% | 15.8 \% |
| Live Oak County | 97.6 \% | 1.0 \% | 1.0 \% | 0.5 \% | 63.2 \% | 36.8 \% | 57.1 \% | 44.9 \% | 21.7 \% |
| Llano County | 97.0 \% | 1.2 \% | 1.0 \% | 0.8 \% | 91.3 \% | 8.7 \% | 70.7 \% | 60.8 \% | 33.3 \% |
| Loving County | 93.5 \% | 4.3 \% | 2.2 \% | 0.0 \% | 80.4 \% | 19.6 \% | 63.0 \% | 43.5 \% | 10.9 \% |
| Lubbock County | 88.2 \% | 8.2 \% | 1.1 \% | 2.5 \% | 67.8 \% | 32.2 \% | 40.3 \% | 29.0 \% | 12.5 \% |
| Lynn County | 95.0 \% | 2.8 \% | 1.8 \% | 0.4 \% | 54.6 \% | 45.4 \% | 49.0 \% | 35.5 \% | 17.8 \% |
| McCulloch County | 95.6 \% | 2.8 \% | 1.0 \% | 0.5 \% | 70.4 \% | 29.6 \% | 55.7 \% | 43.2 \% | 21.4 \% |
| McLennan County | 80.6 \% | 16.2 \% | 1.2 \% | 2.0 \% | 76.7 \% | 23.3 \% | 43.1 \% | 31.4 \% | 14.0 \% |
| McMullen County | 97.1 \% | 2.1 \% | 0.0 \% | 0.9 \% | 64.6 \% | 35.4 \% | 63.7 \% | 50.1 \% | 27.4 \% |
| Madison County | 80.6 \% | 17.3 \% | 1.2 \% | 0.9 \% | 82.7 \% | 17.3 \% | 50.1 \% | 37.6 \% | 17.8 \% |
| Marion County | 73.4 \% | 24.8 \% | 1.2 \% | 0.7 \% | 96.0 \% | 4.0 \% | 62.0 \% | 49.1 \% | 22.9 \% |
| Martin County | 96.0 \% | 2.6 \% | 0.9 \% | 0.5 \% | 55.5 \% | 44.5 \% | 44.2 \% | 31.3 \% | 13.6 \% |
| Mason County | 98.1 \% | 0.9 \% | 0.5 \% | 0.4 \% | 79.0 \% | 21.0 \% | 63.2 \% | 50.3 \% | 26.7 \% |
| Matagorda County | 83.9 \% | 12.6 \% | 1.2 \% | 2.3 \% | 61.8 \% | 38.2 \% | 49.1 \% | 36.1 \% | 15.9 \% |
| Maverick County | 97.6 \% | 0.5 \% | 1.4 \% | 0.5 \% | 4.4 \% | 95.6 \% | 40.0 \% | 27.8 \% | 11.9 \% |
| Medina County | 96.4 \% | 1.6 \% | 1.1 \% | 0.9 \% | 49.7 \% | 50.3 \% | 50.6 \% | 36.6 \% | 15.2 \% |
| Menard County | 97.0 \% | 0.7 \% | 2.0 \% | 0.3 \% | 65.2 \% | 34.8 \% | 64.2 \% | 53.0 \% | 27.4 \% |
| Midland County | 89.8 \% | 7.4 \% | 1.2 \% | 1.6 \% | 61.6 \% | 38.4 \% | 43.6 \% | 31.2 \% | 12.4 \% |
| Milam County | 87.5 \% | 10.9 \% | 1.1 \% | 0.5 \% | 76.5 \% | 23.5 \% | 52.2 \% | 39.8 \% | 18.9 \% |
| Mills County | 97.7 \% | 1.2 \% | 0.8 \% | 0.3 \% | 83.5 \% | 16.5 \% | 59.6 \% | 47.3 \% | 25.6 \% |
| Mitchell County | 93.3 \% | 4.8 \% | 1.3 \% | 0.6 \% | 66.1 \% | 33.9 \% | 52.5 \% | 40.0 \% | 19.3 \% |
| Montague County | 97.1 \% | 1.0 \% | 1.4 \% | 0.5 \% | 90.2 \% | 9.8 \% | 55.0 \% | 42.5 \% | 21.2 \% |
| Montgomery County | 91.0 \% | 5.1 \% | 1.1 \% | 2.8 \% | 79.4 \% | 20.6 \% | 46.1 \% | 31.4 \% | 11.8 \% |
| Moore County | 90.9 \% | 1.8 \% | 1.5 \% | 5.7 \% | 47.3 \% | 52.7 \% | 39.3 \% | 26.9 \% | 10.7 \% |
| Morris County | 73.9 \% | 24.6 \% | 1.0 \% | 0.6 \% | 91.8 \% | 8.2 \% | 54.6 \% | 43.3 \% | 21.0 \% |
| Motley County | 96.2 \% | 2.2 \% | 1.5 \% | 0.2 \% | 86.0 \% | 14.0 \% | 62.0 \% | 51.3 \% | 31.3 \% |
| Nacogdoches County | 77.6 \% | 19.9 \% | 1.0 \% | 1.5 \% | 83.0 \% | 17.0 \% | 39.3 \% | 29.0 \% | 12.9 \% |
| Navarro County | 82.5 \% | 14.8 \% | 1.1 \% | 1.6 \% | 76.6 \% | 23.4 \% | 48.0 \% | 35.3 \% | 16.0 \% |
| Newton County | 78.4 \% | 20.2 \% | 0.7 \% | 0.7 \% | 96.8 \% | 3.2 \% | 53.1 \% | 39.4 \% | 17.7 \% |
| Nolan County | 92.4 \% | 5.9 \% | 1.0 \% | 0.7 \% | 65.6 \% | 34.4 \% | 50.6 \% | 38.6 \% | 18.7 \% |


| Population Group | White | Black/ <br> African- <br> American | AIAN | API | NonHispanic/ Latina | Hispanic/ Latina | Female Age 40 Plus | Female Age 50 Plus | Female Age 65 Plus |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nueces County | 92.3 \% | 4.5 \% | 0.9 \% | 2.3 \% | 38.6 \% | 61.4 \% | 45.7 \% | 32.9 \% | 13.7 \% |
| Ochiltree County | 96.8 \% | 0.9 \% | 1.7 \% | 0.5 \% | 52.2 \% | 47.8 \% | 40.3 \% | 27.7 \% | 12.2 \% |
| Oldham County | 93.5 \% | 4.4 \% | 0.8 \% | 1.4 \% | 87.7 \% | 12.3 \% | 47.6 \% | 34.0 \% | 14.2 \% |
| Orange County | 88.7 \% | 9.4 \% | 0.7 \% | 1.3 \% | 94.1 \% | 5.9 \% | 49.5 \% | 36.0 \% | 15.5 \% |
| Palo Pinto County | 95.6 \% | 2.8 \% | 0.8 \% | 0.8 \% | 81.9 \% | 18.1 \% | 51.9 \% | 38.9 \% | 17.6 \% |
| Panola County | 81.3 \% | 17.5 \% | 0.7 \% | 0.6 \% | 92.1 \% | 7.9 \% | 50.4 \% | 38.5 \% | 17.3 \% |
| Parker County | 96.5 \% | 1.6 \% | 1.0 \% | 1.0 \% | 89.6 \% | 10.4 \% | 50.6 \% | 35.2 \% | 13.5 \% |
| Parmer County | 95.8 \% | 1.8 \% | 1.6 \% | 0.8 \% | 40.7 \% | 59.3 \% | 41.9 \% | 29.0 \% | 13.2 \% |
| Pecos County | 96.6 \% | 1.2 \% | 1.2 \% | 1.0 \% | 28.0 \% | 72.0 \% | 44.7 \% | 32.3 \% | 14.0 \% |
| Polk County | 86.8 \% | 9.9 \% | 2.4 \% | 0.8 \% | 88.3 \% | 11.7 \% | 56.1 \% | 43.9 \% | 20.8 \% |
| Potter County | 84.3 \% | 10.0 \% | 1.4 \% | 4.3 \% | 64.5 \% | 35.5 \% | 41.7 \% | 29.7 \% | 12.8 \% |
| Presidio County | 96.6 \% | 1.0 \% | 1.2 \% | 1.1 \% | 15.1 \% | 84.9 \% | 49.8 \% | 37.3 \% | 18.9 \% |
| Rains County | 94.7 \% | 3.3 \% | 1.4 \% | 0.7 \% | 92.3 \% | 7.7 \% | 59.0 \% | 46.1 \% | 21.6 \% |
| Randall County | 94.2 \% | 2.9 \% | 1.0 \% | 1.8 \% | 82.8 \% | 17.2 \% | 45.5 \% | 33.1 \% | 13.8 \% |
| Reagan County | 95.7 \% | 2.7 \% | 1.0 \% | 0.6 \% | 39.3 \% | 60.7 \% | 42.9 \% | 29.8 \% | 10.7 \% |
| Real County | 96.4 \% | 1.4 \% | 1.7 \% | 0.5 \% | 74.1 \% | 25.9 \% | 62.3 \% | 50.6 \% | 24.8 \% |
| Red River County | 79.7 \% | 19.0 \% | 1.1 \% | 0.3 \% | 93.6 \% | 6.4 \% | 58.7 \% | 45.6 \% | 23.3 \% |
| Reeves County | 95.2 \% | 2.8 \% | 0.9 \% | 1.1 \% | 19.8 \% | 80.2 \% | 47.0 \% | 34.9 \% | 16.7 \% |
| Refugio County | 92.0 \% | 6.6 \% | 0.7 \% | 0.7 \% | 51.8 \% | 48.2 \% | 55.3 \% | 41.8 \% | 21.6 \% |
| Roberts County | 96.7 \% | 1.4 \% | 0.9 \% | 0.9 \% | 89.1 \% | 10.9 \% | 52.0 \% | 39.2 \% | 19.9 \% |
| Robertson County | 74.2 \% | 23.9 \% | 1.1 \% | 0.8 \% | 81.1 \% | 18.9 \% | 51.8 \% | 38.5 \% | 18.1 \% |
| Rockwall County | 89.6 \% | 6.4 \% | 0.8 \% | 3.2 \% | 84.2 \% | 15.8 \% | 45.5 \% | 29.7 \% | 11.1 \% |
| Runnels County | 95.9 \% | 2.1 \% | 1.2 \% | 0.7 \% | 67.4 \% | 32.6 \% | 54.2 \% | 41.3 \% | 21.2 \% |
| Rusk County | 81.2 \% | 17.1 \% | 1.0 \% | 0.7 \% | 86.0 \% | 14.0 \% | 49.7 \% | 36.9 \% | 16.6 \% |
| Sabine County | 91.1 \% | 7.7 \% | 0.6 \% | 0.5 \% | 96.6 \% | 3.4 \% | 62.8 \% | 51.5 \% | 27.5 \% |
| San Augustine County | 74.2 \% | 24.9 \% | 0.5 \% | 0.5 \% | 93.7 \% | 6.3 \% | 59.6 \% | 47.1 \% | 24.9 \% |
| San Jacinto County | 87.3 \% | 11.2 \% | 0.9 \% | 0.6 \% | 88.6 \% | 11.4 \% | 53.9 \% | 41.5 \% | 17.6 \% |
| San Patricio County | 95.4 \% | 2.4 \% | 0.9 \% | 1.3 \% | 44.9 \% | 55.1 \% | 46.6 \% | 33.3 \% | 14.7 \% |
| San Saba County | 97.3 \% | 1.0 \% | 1.5 \% | 0.3 \% | 73.6 \% | 26.4 \% | 57.6 \% | 46.5 \% | 22.6 \% |
| Schleicher County | 97.1 \% | 1.7 \% | 0.7 \% | 0.5 \% | 51.9 \% | 48.1 \% | 45.3 \% | 32.7 \% | 14.2 \% |
| Scurry County | 94.6 \% | 3.6 \% | 1.1 \% | 0.7 \% | 64.4 \% | 35.6 \% | 48.0 \% | 36.4 \% | 17.2 \% |
| Shackelford County | 97.0 \% | 1.9 \% | 0.6 \% | 0.5 \% | 90.5 \% | 9.5 \% | 54.8 \% | 40.6 \% | 18.4 \% |
| Shelby County | 79.6 \% | 19.1 \% | 0.8 \% | 0.5 \% | 84.5 \% | 15.5 \% | 47.8 \% | 35.4 \% | 16.7 \% |
| Sherman County | 97.3 \% | 0.7 \% | 1.3 \% | 0.6 \% | 59.7 \% | 40.3 \% | 46.8 \% | 31.6 \% | 15.0 \% |
| Smith County | 78.2 \% | 19.3 \% | 0.9 \% | 1.6 \% | 83.3 \% | 16.7 \% | 46.6 \% | 34.2 \% | 15.8 \% |
| Somervell County | 95.8 \% | 1.8 \% | 1.5 \% | 0.9 \% | 81.1 \% | 18.9 \% | 51.2 \% | 37.1 \% | 16.7 \% |


| Population Group | White | Black/ <br> African- <br> American | AIAN | API | NonHispanic/ Latina | Hispanic/ Latina | Female Age 40 Plus | Female Age 50 Plus | Female Age 65 Plus |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Starr County | 99.1 \% | 0.3 \% | 0.3 \% | 0.3 \% | 4.3 \% | 95.7 \% | 37.8 \% | 25.6 \% | 11.2 \% |
| Stephens County | 97.0 \% | 1.8 \% | 0.8 \% | 0.4 \% | 80.0 \% | 20.0 \% | 53.4 \% | 41.5 \% | 20.2 \% |
| Sterling County | 95.1 \% | 1.8 \% | 3.2 \% | 0.0 \% | 66.4 \% | 33.6 \% | 52.4 \% | 38.5 \% | 17.9 \% |
| Stonewall County | 93.3 \% | 3.9 \% | 1.7 \% | 1.0 \% | 84.4 \% | 15.6 \% | 59.3 \% | 47.1 \% | 27.0 \% |
| Sutton County | 98.2 \% | 0.7 \% | 0.8 \% | 0.3 \% | 40.9 \% | 59.1 \% | 48.8 \% | 35.8 \% | 15.4 \% |
| Swisher County | 92.3 \% | 5.5 \% | 1.7 \% | 0.5 \% | 59.2 \% | 40.8 \% | 49.9 \% | 37.6 \% | 20.4 \% |
| Tarrant County | 77.2 \% | 16.4 \% | 1.0 \% | 5.4 \% | 73.6 \% | 26.4 \% | 42.1 \% | 27.7 \% | 10.3 \% |
| Taylor County | 88.4 \% | 8.1 \% | 1.0 \% | 2.4 \% | 77.7 \% | 22.3 \% | 44.1 \% | 32.4 \% | 14.9 \% |
| Terrell County | 96.8 \% | 0.6 \% | 2.2 \% | 0.4 \% | 53.1 \% | 46.9 \% | 59.6 \% | 49.0 \% | 24.8 \% |
| Terry County | 94.2 \% | 4.1 \% | 1.0 \% | 0.7 \% | 49.9 \% | 50.1 \% | 47.2 \% | 34.8 \% | 16.9 \% |
| Throckmorton County | 96.7 \% | 1.2 \% | 1.5 \% | 0.6 \% | 89.3 \% | 10.7 \% | 58.9 \% | 45.1 \% | 25.7 \% |
| Titus County | 86.0 \% | 10.7 \% | 2.2 \% | 1.1 \% | 61.0 \% | 39.0 \% | 41.9 \% | 29.2 \% | 12.9 \% |
| Tom Green County | 92.4 \% | 4.8 \% | 1.2 \% | 1.6 \% | 63.8 \% | 36.2 \% | 46.0 \% | 34.1 \% | 15.4 \% |
| Travis County | 82.1 \% | 9.8 \% | 1.5 \% | 6.6 \% | 66.9 \% | 33.1 \% | 38.3 \% | 24.7 \% | 8.5 \% |
| Trinity County | 88.1 \% | 10.4 \% | 1.0 \% | 0.5 \% | 91.9 \% | 8.1 \% | 58.8 \% | 47.1 \% | 22.8 \% |
| Tyler County | 90.0 \% | 9.0 \% | 0.6 \% | 0.4 \% | 96.6 \% | 3.4 \% | 57.9 \% | 44.9 \% | 22.1 \% |
| Upshur County | 88.5 \% | 9.8 \% | 1.0 \% | 0.7 \% | 92.9 \% | 7.1 \% | 52.2 \% | 39.0 \% | 17.2 \% |
| Upton County | 93.9 \% | 2.8 \% | 2.8 \% | 0.4 \% | 49.6 \% | 50.4 \% | 47.2 \% | 35.4 \% | 15.5 \% |
| Uvalde County | 97.0 \% | 1.1 \% | 1.0 \% | 0.9 \% | 30.3 \% | 69.7 \% | 45.8 \% | 33.8 \% | 15.9 \% |
| Val Verde County | 96.4 \% | 1.9 \% | 0.7 \% | 0.9 \% | 18.2 \% | 81.8 \% | 42.1 \% | 29.9 \% | 13.8 \% |
| Van Zandt County | 94.9 \% | 3.4 \% | 1.1 \% | 0.5 \% | 90.9 \% | 9.1 \% | 54.5 \% | 41.1 \% | 19.3 \% |
| Victoria County | 90.7 \% | 7.1 \% | 0.9 \% | 1.4 \% | 56.0 \% | 44.0 \% | 47.1 \% | 34.5 \% | 14.8 \% |
| Walker County | 77.4 \% | 20.3 \% | 0.9 \% | 1.3 \% | 83.8 \% | 16.2 \% | 40.8 \% | 30.1 \% | 13.3 \% |
| Waller County | 71.1 \% | 26.5 \% | 1.5 \% | 0.8 \% | 71.7 \% | 28.3 \% | 42.1 \% | 29.2 \% | 10.9 \% |
| Ward County | 91.9 \% | 5.9 \% | 1.4 \% | 0.8 \% | 52.0 \% | 48.0 \% | 46.9 \% | 35.0 \% | 15.9 \% |
| Washington County | 79.9 \% | 18.1 \% | 0.5 \% | 1.5 \% | 86.6 \% | 13.4 \% | 54.2 \% | 42.2 \% | 20.9 \% |
| Webb County | 98.1 \% | 0.6 \% | 0.6 \% | 0.7 \% | 4.0 \% | 96.0 \% | 35.1 \% | 22.5 \% | 9.1 \% |
| Wharton County | 83.8 \% | 15.1 \% | 0.6 \% | 0.5 \% | 63.0 \% | 37.0 \% | 48.6 \% | 36.0 \% | 16.7 \% |
| Wheeler County | 95.0 \% | 3.2 \% | 1.2 \% | 0.6 \% | 75.4 \% | 24.6 \% | 51.3 \% | 40.1 \% | 19.6 \% |
| Wichita County | 85.1 \% | 10.8 \% | 1.4 \% | 2.7 \% | 83.8 \% | 16.2 \% | 46.1 \% | 34.2 \% | 15.7 \% |
| Wilbarger County | 89.0 \% | 8.5 \% | 1.5 \% | 1.0 \% | 73.2 \% | 26.8 \% | 49.1 \% | 37.2 \% | 17.6 \% |
| Willacy County | 97.6 \% | 1.3 \% | 0.6 \% | 0.5 \% | 11.0 \% | 89.0 \% | 43.4 \% | 31.5 \% | 14.3 \% |
| Williamson County | 86.0 \% | 7.3 \% | 1.0 \% | 5.7 \% | 76.7 \% | 23.3 \% | 42.0 \% | 26.8 \% | 10.2 \% |
| Wilson County | 96.0 \% | 2.1 \% | 1.1 \% | 0.9 \% | 61.5 \% | 38.5 \% | 51.2 \% | 35.7 \% | 13.5 \% |
| Winkler County | 94.4 \% | 3.3 \% | 1.9 \% | 0.5 \% | 46.4 \% | 53.6 \% | 45.0 \% | 31.0 \% | 13.4 \% |
| Wise County | 96.8 \% | 1.4 \% | 1.2 \% | 0.6 \% | 82.9 \% | 17.1 \% | 48.9 \% | 33.8 \% | 13.6 \% |


| Population Group | White | Black/ <br> African- <br> American | AIAN | API | NonHispanic/ Latina | Hispanic/ Latina | Female Age 40 Plus | Female Age 50 Plus | Female Age 65 Plus |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wood County | 93.1 \% | 5.3 \% | 1.0 \% | 0.6 \% | 91.7 \% | 8.3 \% | 60.7 \% | 49.2 \% | 26.1 \% |
| Yoakum County | 96.2 \% | 1.7 \% | 1.7 \% | 0.4 \% | 41.4 \% | 58.6 \% | 41.1 \% | 28.6 \% | 12.0 \% |
| Young County | 96.3 \% | 1.8 \% | 1.2 \% | 0.7 \% | 84.6 \% | 15.4 \% | 53.9 \% | 42.0 \% | 20.9 \% |
| Zapata County | 98.8 \% | 0.5 \% | 0.4 \% | 0.4 \% | 6.9 \% | 93.1 \% | 36.5 \% | 25.1 \% | 11.1 \% |
| Zavala County | 97.7 \% | 1.3 \% | 0.7 \% | 0.3 \% | 6.7 \% | 93.3 \% | 41.8 \% | 30.4 \% | 13.3 \% |

Data are for 2011.
Data are in the percentage of women in the population.
Source: US Census Bureau - Population Estimates.

Table 2.8. Population characteristics - socioeconomics

|  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |


| Population Group | Less than HS Education | Income Below 100\% Poverty | Income Below 250\% Poverty (Age: 40-64) | Unemployed | Foreign Born | Linguistically Isolated | In Rural Areas | In <br> Medically Underserved Areas | No Health Insurance (Age: 40-64) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Brewster County | 18.7 \% | 13.9 \% | 39.7 \% | 3.7 \% | 6.0 \% | 4.1 \% | 34.9 \% | 100.0 \% | 24.5 \% |
| Briscoe County | 18.9 \% | 22.9 \% | 42.9 \% | 7.2 \% | 7.5 \% | 4.7 \% | 100.0 \% | 100.0 \% | 33.9 \% |
| Brooks County | 45.2 \% | 39.6 \% | 59.0 \% | 11.5 \% | 4.8 \% | 16.4 \% | 31.8 \% | 100.0 \% | 26.9 \% |
| Brown County | 17.0 \% | 17.1 \% | 42.2 \% | 3.5 \% | 4.1 \% | 1.6 \% | 40.4 \% | 100.0 \% | 20.9 \% |
| Burleson County | 23.7 \% | 13.3 \% | 39.1 \% | 6.0 \% | 7.5 \% | 2.4 \% | 76.7 \% | 100.0 \% | 26.9 \% |
| Burnet County | 14.9 \% | 14.0 \% | 36.3 \% | 5.6 \% | 6.9 \% | 3.3 \% | 55.7 \% | 100.0 \% | 24.9 \% |
| Caldwell County | 23.2 \% | 20.7 \% | 44.8 \% | 11.0 \% | 5.4 \% | 4.1 \% | 42.3 \% | 100.0 \% | 27.1 \% |
| Calhoun County | 23.1 \% | 16.7 \% | 38.0 \% | 10.9 \% | 8.5 \% | 7.2 \% | 44.7 \% | 100.0 \% | 23.1 \% |
| Callahan County | 13.0 \% | 12.7 \% | 41.0 \% | 6.0 \% | 1.8 \% | 0.5 \% | 72.2 \% | 100.0 \% | 25.3 \% |
| Cameron County | 37.5 \% | 34.9 \% | 63.2 \% | 8.0 \% | 25.0 \% | 18.3 \% | 8.4 \% | 63.2 \% | 43.6 \% |
| Camp County | 25.6 \% | 18.6 \% | 48.2 \% | 8.1 \% | 11.8 \% | 5.4 \% | 61.5 \% | 100.0 \% | 27.6 \% |
| Carson County | 13.0 \% | 6.5 \% | 27.7 \% | 2.4 \% | 2.3 \% | 0.5 \% | 95.2 \% | 100.0 \% | 14.3 \% |
| Cass County | 17.9 \% | 18.9 \% | 42.9 \% | 8.9 \% | 1.8 \% | 0.6 \% | 74.0 \% | 100.0 \% | 22.5 \% |
| Castro County | 32.3 \% | 24.6 \% | 51.2 \% | 4.3 \% | 20.5 \% | 12.8 \% | 45.8 \% | 100.0 \% | 33.2 \% |
| Chambers County | 14.2 \% | 8.3 \% | 22.4 \% | 5.6 \% | 6.1 \% | 2.8 \% | 45.7 \% | 100.0 \% | 16.8 \% |
| Cherokee County | 25.2 \% | 22.3 \% | 48.7 \% | 6.1 \% | 9.8 \% | 4.2 \% | 63.0 \% | 100.0 \% | 28.7 \% |
| Childress County | 15.7 \% | 12.5 \% | 45.5 \% | 2.9 \% | 4.5 \% | 1.1 \% | 33.1 \% | 100.0 \% | 25.4 \% |
| Clay County | 11.7 \% | 10.4 \% | 32.3 \% | 5.5 \% | 1.0 \% | 0.9 \% | 74.6 \% | 100.0 \% | 21.9 \% |
| Cochran County | 30.7 \% | 16.2 \% | 49.9 \% | 10.6 \% | 12.3 \% | 11.2 \% | 100.0 \% | 100.0 \% | 32.1 \% |
| Coke County | 14.2 \% | 13.6 \% | 38.3 \% | 7.1 \% | 3.9 \% | 1.1 \% | 100.0 \% | 100.0 \% | 28.2 \% |
| Coleman County | 20.0 \% | 30.8 \% | 53.6 \% | 6.1 \% | 2.0 \% | 1.4 \% | 51.5 \% | 100.0 \% | 29.1 \% |
| Collin County | 7.1 \% | 7.3 \% | 16.9 \% | 5.4 \% | 17.2 \% | 5.2 \% | 5.2 \% | 7.8 \% | 14.5 \% |
| Collingsworth County | 26.4 \% | 26.8 \% | 46.1 \% | 3.4 \% | 10.4 \% | 5.7 \% | 100.0 \% | 100.0 \% | 35.2 \% |
| Colorado County | 19.4 \% | 15.7 \% | 38.4 \% | 5.4 \% | 9.1 \% | 3.8 \% | 62.6 \% | 33.2 \% | 25.9 \% |
| Comal County | 11.1 \% | 9.5 \% | 25.0 \% | 6.0 \% | 6.2 \% | 2.5 \% | 46.1 \% | 0.0 \% | 18.4 \% |
| Comanche County | 23.2 \% | 23.4 \% | 46.4 \% | 5.0 \% | 7.7 \% | 2.7 \% | 71.5 \% | 100.0 \% | 32.1 \% |
| Concho County | 21.3 \% | 21.7 \% | 46.5 \% | 3.9 \% | 34.6 \% | 5.3 \% | 100.0 \% | 73.8 \% | 27.1 \% |
| Cooke County | 18.1 \% | 13.6 \% | 34.8 \% | 7.2 \% | 8.1 \% | 3.0 \% | 59.0 \% | 100.0 \% | 23.6 \% |
| Coryell County | 11.7 \% | 14.1 \% | 41.4 \% | 9.3 \% | 5.9 \% | 1.5 \% | 19.4 \% | 100.0 \% | 21.2 \% |
| Cottle County | 24.2 \% | 13.3 \% | 53.0 \% | 2.0 \% | 3.4 \% | 1.9 \% | 100.0 \% | 100.0 \% | 33.9 \% |
| Crane County | 28.9 \% | 19.3 \% | 32.0 \% | 9.1 \% | 13.4 \% | 12.1 \% | 10.7 \% | 100.0 \% | 22.8 \% |
| Crockett County | 40.0 \% | 18.0 \% | 36.1 \% | 10.8 \% | 15.1 \% | 15.4 \% | 22.7 \% | 100.0 \% | 26.5 \% |
| Crosby County | 28.0 \% | 27.4 \% | 50.5 \% | 4.8 \% | 5.2 \% | 7.7 \% | 100.0 \% | 100.0 \% | 27.8 \% |
| Culberson County | 38.6 \% | 32.3 \% | 56.1 \% | 15.0 \% | 16.4 \% | 11.5 \% | 100.0 \% | 100.0 \% | 34.6 \% |


|  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |  |  |  |


| Population Group | Less than HS <br> Education | Income Below 100\% Poverty | Income Below 250\% Poverty (Age: 40-64) | Unemployed | Foreign Born | Linguistically Isolated | In Rural Areas | In <br> Medically Underserved Areas | No Health Insurance (Age: 40-64) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gray County | 21.2 \% | 14.6 \% | 38.5 \% | 8.1 \% | 6.2 \% | 4.3 \% | 19.4 \% | 2.9 \% | 25.8 \% |
| Grayson County | 14.3 \% | 14.4 \% | 36.1 \% | 7.9 \% | 5.5 \% | 2.3 \% | 43.2 \% | 8.7 \% | 22.4 \% |
| Gregg County | 17.5 \% | 16.6 \% | 39.0 \% | 6.8 \% | 9.2 \% | 3.8 \% | 13.4 \% | 0.0 \% | 21.6 \% |
| Grimes County | 23.4 \% | 15.6 \% | 43.1 \% | 7.3 \% | 8.0 \% | 4.1 \% | 68.9 \% | 100.0 \% | 27.0 \% |
| Guadalupe County | 14.6 \% | 9.7 \% | 29.0 \% | 6.1 \% | 6.8 \% | 4.2 \% | 26.2 \% | 27.3 \% | 20.0 \% |
| Hale County | 30.3 \% | 20.0 \% | 48.4 \% | 6.6 \% | 9.6 \% | 7.9 \% | 23.1 \% | 0.0 \% | 27.7 \% |
| Hall County | 26.4 \% | 25.9 \% | 53.3 \% | 8.4 \% | 13.3 \% | 3.9 \% | 100.0 \% | 100.0 \% | 37.6 \% |
| Hamilton County | 17.4 \% | 12.5 \% | 42.2 \% | 6.0 \% | 3.6 \% | 2.6 \% | 64.4 \% | 0.0 \% | 25.8 \% |
| Hansford County | 24.4 \% | 13.3 \% | 34.9 \% | 3.1 \% | 18.2 \% | 7.9 \% | 40.3 \% | 0.0 \% | 27.7 \% |
| Hardeman County | 19.0 \% | 22.2 \% | 46.7 \% | 13.6 \% | 2.9 \% | 3.7 \% | 100.0 \% | 100.0 \% | 25.9 \% |
| Hardin County | 13.9 \% | 11.5 \% | 31.4 \% | 6.8 \% | 1.3 \% | 0.5 \% | 51.5 \% | 100.0 \% | 19.2 \% |
| Harris County | 22.1 \% | 17.3 \% | 38.1 \% | 7.6 \% | 25.0 \% | 12.6 \% | 1.2 \% | 17.1 \% | 26.9 \% |
| Harrison County | 15.3 \% | 14.5 \% | 37.9 \% | 6.6 \% | 5.0 \% | 2.1 \% | 56.1 \% | 100.0 \% | 22.4 \% |
| Hartley County | 22.3 \% | 8.0 \% | 25.8 \% | 2.5 \% | 5.1 \% | 3.8 \% | 57.3 \% | 100.0 \% | 20.0 \% |
| Haskell County | 21.1 \% | 17.0 \% | 48.2 \% | 10.7 \% | 4.4 \% | 3.9 \% | 47.6 \% | 100.0 \% | 27.3 \% |
| Hays County | 11.4 \% | 16.4 \% | 27.1 \% | 7.0 \% | 6.9 \% | 2.9 \% | 31.7 \% | 100.0 \% | 19.9 \% |
| Hemphill County | 17.5 \% | 16.5 \% | 22.6 \% | 0.9 \% | 11.6 \% | 6.8 \% | 27.0 \% | 0.0 \% | 20.6 \% |
| Henderson County | 20.2 \% | 16.0 \% | 43.8 \% | 8.3 \% | 5.5 \% | 1.3 \% | 60.1 \% | 0.0 \% | 28.2 \% |
| Hidalgo County | 39.7 \% | 35.3 \% | 64.7 \% | 10.1 \% | 29.6 \% | 21.6 \% | 5.1 \% | 100.0 \% | 45.0 \% |
| Hill County | 21.5 \% | 16.3 \% | 43.5 \% | 6.9 \% | 7.6 \% | 3.9 \% | 76.3 \% | 100.0 \% | 27.1 \% |
| Hockley County | 24.8 \% | 16.0 \% | 38.2 \% | 6.0 \% | 6.7 \% | 4.6 \% | 39.8 \% | 100.0 \% | 23.3 \% |
| Hood County | 14.3 \% | 11.3 \% | 27.9 \% | 6.5 \% | 5.3 \% | 1.2 \% | 32.8 \% | 0.0 \% | 21.0 \% |
| Hopkins County | 20.8 \% | 18.2 \% | 43.0 \% | 7.9 \% | 7.7 \% | 3.7 \% | 59.6 \% | 100.0 \% | 27.2 \% |
| Houston County | 21.3 \% | 20.7 \% | 48.9 \% | 7.6 \% | 4.4 \% | 2.3 \% | 73.5 \% | 100.0 \% | 29.4 \% |
| Howard County | 27.8 \% | 19.7 \% | 40.8 \% | 8.1 \% | 15.2 \% | 3.3 \% | 20.1 \% | 100.0 \% | 22.0 \% |
| Hudspeth County | 46.9 \% | 44.7 \% | 65.1 \% | 9.3 \% | 32.5 \% | 22.9 \% | 100.0 \% | 100.0 \% | 39.1 \% |
| Hunt County | 19.4 \% | 18.3 \% | 38.3 \% | 9.4 \% | 6.4 \% | 1.6 \% | 56.6 \% | 100.0 \% | 24.0 \% |
| Hutchinson County | 16.5 \% | 14.9 \% | 32.7 \% | 7.7 \% | 6.3 \% | 2.6 \% | 22.6 \% | 100.0 \% | 22.5 \% |
| Irion County | 19.0 \% | 3.4 \% | 30.2 \% | 4.5 \% | 1.5 \% | 3.8 \% | 100.0 \% | 100.0 \% | 22.9 \% |
| Jack County | 19.4 \% | 16.6 \% | 35.0 \% | 5.9 \% | 4.4 \% | 0.9 \% | 53.2 \% | 100.0 \% | 23.0 \% |
| Jackson County | 22.2 \% | 12.5 \% | 36.4 \% | 5.5 \% | 5.4 \% | 4.0 \% | 61.8 \% | 100.0 \% | 22.2 \% |
| Jasper County | 17.3 \% | 17.5 \% | 45.7 \% | 7.6 \% | 3.0 \% | 1.6 \% | 78.2 \% | 0.0 \% | 25.3 \% |
| Jeff Davis County | 15.1 \% | 9.7 \% | 36.0 \% | 6.6 \% | 6.9 \% | 1.4 \% | 100.0 \% | 100.0 \% | 28.4 \% |
| Jefferson County | 17.9 \% | 18.9 \% | 39.8 \% | 9.5 \% | 10.0 \% | 4.1 \% | 8.4 \% | 6.2 \% | 21.8 \% |


| Population Group | Less than HS <br> Education | Income Below 100\% Poverty | Income Below 250\% Poverty (Age: 40-64) | Unemployed | Foreign Born | Linguistically Isolated | In Rural Areas | In Medically Underserved Areas | No Health Insurance (Age: 40-64) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jim Hogg County | 36.5 \% | 9.9 \% | 50.1 \% | 12.2 \% | 13.3 \% | 16.0 \% | 17.4 \% | 100.0 \% | 28.9 \% |
| Jim Wells County | 31.2 \% | 22.9 \% | 44.9 \% | 7.6 \% | 3.4 \% | 9.1 \% | 40.1 \% | 100.0 \% | 21.4 \% |
| Johnson County | 17.9 \% | 10.8 \% | 33.7 \% | 7.1 \% | 7.0 \% | 2.9 \% | 37.9 \% | 17.7 \% | 24.5 \% |
| Jones County | 31.3 \% | 13.0 \% | 44.7 \% | 6.7 \% | 4.8 \% | 3.6 \% | 85.1 \% | 100.0 \% | 25.4 \% |
| Karnes County | 30.6 \% | 22.7 \% | 42.0 \% | 4.3 \% | 7.1 \% | 8.0 \% | 38.4 \% | 100.0 \% | 21.0 \% |
| Kaufman County | 17.2 \% | 11.8 \% | 33.0 \% | 8.7 \% | 6.6 \% | 3.9 \% | 48.8 \% | 17.5 \% | 22.4 \% |
| Kendall County | 9.3 \% | 8.9 \% | 19.3 \% | 4.1 \% | 8.4 \% | 3.4 \% | 58.2 \% | 0.0 \% | 17.0 \% |
| Kenedy County | 28.2 \% | 19.1 \% | 54.0 \% | 0.0 \% | 2.2 \% | 3.7 \% | 100.0 \% | 100.0 \% | 21.1 \% |
| Kent County | 10.9 \% | 7.0 \% | 40.2 \% | 4.0 \% | 2.2 \% | 1.5 \% | 100.0 \% | 100.0 \% | 19.7 \% |
| Kerr County | 11.9 \% | 14.1 \% | 36.5 \% | 5.4 \% | 6.6 \% | 3.9 \% | 41.1 \% | 0.0 \% | 24.6 \% |
| Kimble County | 22.2 \% | 17.4 \% | 44.3 \% | 4.1 \% | 10.3 \% | 5.6 \% | 44.3 \% | 100.0 \% | 31.8 \% |
| King County | 14.9 \% | 5.5 \% | 36.8 \% | 2.2 \% | 13.0 \% | 5.0 \% | 100.0 \% | 100.0 \% | 15.1 \% |
| Kinney County | 24.1 \% | 27.9 \% | 44.9 \% | 10.9 \% | 8.0 \% | 5.7 \% | 20.5 \% | 100.0 \% | 26.7 \% |
| Kleberg County | 24.3 \% | 24.8 \% | 44.8 \% | 11.1 \% | 6.4 \% | 8.8 \% | 18.9 \% | 100.0 \% | 22.9 \% |
| Knox County | 24.7 \% | 18.9 \% | 47.7 \% | 6.3 \% | 7.7 \% | 5.5 \% | 100.0 \% | 50.3 \% | 32.8 \% |
| Lamar County | 18.1 \% | 17.0 \% | 44.6 \% | 6.8 \% | 4.4 \% | 1.2 \% | 47.1 \% | 100.0 \% | 24.0 \% |
| Lamb County | 27.0 \% | 21.1 \% | 49.3 \% | 8.3 \% | 10.1 \% | 9.3 \% | 57.7 \% | 100.0 \% | 29.8 \% |
| Lampasas County | 15.1 \% | 15.3 \% | 36.8 \% | 8.4 \% | 7.3 \% | 1.8 \% | 68.3 \% | 100.0 \% | 25.3 \% |
| La Salle County | 47.2 \% | 24.3 \% | 49.5 \% | 8.3 \% | 7.1 \% | 14.1 \% | 46.4 \% | 100.0 \% | 29.5 \% |
| Lavaca County | 22.5 \% | 10.1 \% | 35.4 \% | 6.1 \% | 5.7 \% | 3.2 \% | 81.3 \% | 100.0 \% | 22.4 \% |
| Lee County | 20.2 \% | 12.5 \% | 35.7 \% | 4.9 \% | 6.3 \% | 4.6 \% | 69.7 \% | 100.0 \% | 23.8 \% |
| Leon County | 20.2 \% | 17.5 \% | 41.9 \% | 5.5 \% | 4.8 \% | 2.0 \% | 100.0 \% | 100.0 \% | 26.7 \% |
| Liberty County | 24.9 \% | 16.2 \% | 41.3 \% | 10.4 \% | 6.6 \% | 3.2 \% | 63.2 \% | 100.0 \% | 26.5 \% |
| Limestone County | 21.3 \% | 19.1 \% | 43.8 \% | 5.1 \% | 8.6 \% | 3.3 \% | 53.6 \% | 100.0 \% | 22.5 \% |
| Lipscomb County | 20.4 \% | 14.7 \% | 33.0 \% | 1.8 \% | 12.1 \% | 7.9 \% | 100.0 \% | 14.9 \% | 25.9 \% |
| Live Oak County | 22.3 \% | 14.6 \% | 36.9 \% | 4.4 \% | 4.4 \% | 4.3 \% | 100.0 \% | 100.0 \% | 21.2 \% |
| Llano County | 12.7 \% | 13.1 \% | 35.0 \% | 4.8 \% | 2.9 \% | 0.8 \% | 45.2 \% | 100.0 \% | 22.2 \% |
| Loving County | 7.1 \% | 16.1 \% | 34.0 \% | 6.7 \% | 0.0 \% | 0.0 \% | 100.0 \% | 0.0 \% | 20.3 \% |
| Lubbock County | 16.5 \% | 19.1 \% | 39.3 \% | 6.2 \% | 5.5 \% | 3.0 \% | 11.3 \% | 24.1 \% | 23.6 \% |
| Lynn County | 23.9 \% | 18.5 \% | 42.3 \% | 2.9 \% | 6.9 \% | 9.9 \% | 56.7 \% | 100.0 \% | 26.8 \% |
| McCulloch County | 20.5 \% | 20.8 \% | 46.1 \% | 3.4 \% | 5.7 \% | 2.8 \% | 35.3 \% | 100.0 \% | 27.5 \% |
| McLennan County | 19.2 \% | 21.7 \% | 40.0 \% | 7.2 \% | 8.5 \% | 5.0 \% | 23.4 \% | 45.2 \% | 21.4 \% |
| McMullen County | 21.6 \% | 15.2 \% | 23.9 \% | 7.4 \% | 7.3 \% | 8.5 \% | 100.0 \% | 100.0 \% | 19.8 \% |
| Madison County | 23.8 \% | 22.7 \% | 45.9 \% | 6.6 \% | 6.4 \% | 1.9 \% | 67.4 \% | 100.0 \% | 29.7 \% |


| Population Group | Less than HS Education | Income Below 100\% Poverty | Income Below 250\% Poverty (Age: 40-64) | Unemployed | Foreign Born | Linguistically Isolated | In Rural Areas | In <br> Medically Underserved Areas | No Health Insurance (Age: 40-64) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Marion County | 20.1 \% | 22.6 \% | 49.8 \% | 8.9 \% | 2.2 \% | 0.6 \% | 100.0 \% | 100.0 \% | 24.8 \% |
| Martin County | 27.8 \% | 11.5 \% | 34.6 \% | 4.7 \% | 9.8 \% | 6.2 \% | 100.0 \% | 28.4 \% | 24.3 \% |
| Mason County | 19.5 \% | 13.2 \% | 41.3 \% | 6.5 \% | 5.0 \% | 3.3 \% | 100.0 \% | 100.0 \% | 26.9 \% |
| Matagorda County | 21.4 \% | 21.2 \% | 40.8 \% | 10.2 \% | 10.3 \% | 4.6 \% | 36.4 \% | 100.0 \% | 26.6 \% |
| Maverick County | 43.9 \% | 31.5 \% | 66.1 \% | 11.9 \% | 34.9 \% | 37.6 \% | 9.3 \% | 100.0 \% | 40.5 \% |
| Medina County | 20.5 \% | 16.6 \% | 38.7 \% | 8.4 \% | 5.8 \% | 6.0 \% | 61.6 \% | 100.0 \% | 24.4 \% |
| Menard County | 18.4 \% | 19.3 \% | 50.8 \% | 9.3 \% | 5.5 \% | 4.1 \% | 100.0 \% | 100.0 \% | 34.2 \% |
| Midland County | 18.2 \% | 11.5 \% | 29.9 \% | 4.0 \% | 8.6 \% | 6.7 \% | 12.3 \% | 12.0 \% | 21.5 \% |
| Milam County | 18.4 \% | 17.0 \% | 43.5 \% | 5.9 \% | 4.5 \% | 3.9 \% | 56.2 \% | 100.0 \% | 25.3 \% |
| Mills County | 22.5 \% | 16.8 \% | 43.6 \% | 6.5 \% | 8.2 \% | 1.8 \% | 100.0 \% | 100.0 \% | 30.9 \% |
| Mitchell County | 23.8 \% | 13.3 \% | 41.8 \% | 5.7 \% | 5.8 \% | 5.7 \% | 36.7 \% | 100.0 \% | 22.8 \% |
| Montague County | 19.3 \% | 13.1 \% | 38.1 \% | 7.1 \% | 4.1 \% | 0.9 \% | 58.9 \% | 100.0 \% | 25.7 \% |
| Montgomery County | 13.9 \% | 11.5 \% | 24.6 \% | 6.6 \% | 12.3 \% | 4.2 \% | 22.7 \% | 36.8 \% | 19.1 \% |
| Moore County | 28.9 \% | 15.1 \% | 42.9 \% | 5.4 \% | 22.6 \% | 13.3 \% | 16.8 \% | 0.0 \% | 28.7 \% |
| Morris County | 19.4 \% | 17.4 \% | 45.4 \% | 9.6 \% | 3.7 \% | 1.6 \% | 78.4 \% | 100.0 \% | 23.3 \% |
| Motley County | 15.4 \% | 21.6 \% | 46.9 \% | 7.5 \% | 2.0 \% | 0.0 \% | 100.0 \% | 100.0 \% | 27.9 \% |
| Nacogdoches County | 19.5 \% | 24.1 \% | 44.5 \% | 7.3 \% | 8.7 \% | 3.3 \% | 46.5 \% | 0.0 \% | 25.9 \% |
| Navarro County | 23.1 \% | 20.0 \% | 44.3 \% | 8.5 \% | 10.9 \% | 6.7 \% | 52.7 \% | 100.0 \% | 25.6 \% |
| Newton County | 19.3 \% | 17.4 \% | 47.4 \% | 10.9 \% | 1.9 \% | 0.4 \% | 100.0 \% | 100.0 \% | 25.0 \% |
| Nolan County | 22.6 \% | 18.9 \% | 46.1 \% | 8.4 \% | 5.2 \% | 4.5 \% | 32.7 \% | 100.0 \% | 24.5 \% |
| Nueces County | 20.8 \% | 18.8 \% | 41.1 \% | 8.0 \% | 7.5 \% | 7.6 \% | 6.4 \% | 7.4 \% | 23.8 \% |
| Ochiltree County | 30.5 \% | 21.6 \% | 33.2 \% | 8.4 \% | 19.6 \% | 12.9 \% | 13.9 \% | 100.0 \% | 26.6 \% |
| Oldham County | 18.0 \% | 20.0 \% | 35.4 \% | 6.6 \% | 2.5 \% | 0.4 \% | 100.0 \% | 100.0 \% | 19.4 \% |
| Orange County | 14.4 \% | 13.6 \% | 35.6 \% | 7.2 \% | 2.7 \% | 1.1 \% | 35.2 \% | 9.9 \% | 20.4 \% |
| Palo Pinto County | 22.2 \% | 15.8 \% | 45.2 \% | 8.3 \% | 6.1 \% | 4.2 \% | 50.2 \% | 30.5 \% | 26.7 \% |
| Panola County | 18.1 \% | 12.8 \% | 35.5 \% | 6.6 \% | 3.5 \% | 0.9 \% | 72.7 \% | 100.0 \% | 20.5 \% |
| Parker County | 13.4 \% | 10.9 \% | 25.5 \% | 6.0 \% | 4.1 \% | 1.4 \% | 56.1 \% | 0.0 \% | 19.8 \% |
| Parmer County | 35.0 \% | 19.7 \% | 47.9 \% | 3.3 \% | 18.6 \% | 11.9 \% | 60.0 \% | 100.0 \% | 30.3 \% |
| Pecos County | 34.9 \% | 17.0 \% | 40.5 \% | 3.1 \% | 16.0 \% | 15.0 \% | 39.8 \% | 100.0 \% | 28.6 \% |
| Polk County | 22.9 \% | 19.9 \% | 48.1 \% | 10.3 \% | 6.1 \% | 1.8 \% | 77.6 \% | 100.0 \% | 28.7 \% |
| Potter County | 24.3 \% | 22.7 \% | 49.1 \% | 6.3 \% | 13.8 \% | 7.3 \% | 9.0 \% | 8.0 \% | 29.1 \% |
| Presidio County | 46.3 \% | 22.9 \% | 58.1 \% | 11.4 \% | 28.2 \% | 30.7 \% | 40.5 \% | 100.0 \% | 39.1 \% |
| Rains County | 18.4 \% | 11.8 \% | 42.1 \% | 8.2 \% | 4.0 \% | 1.1 \% | 93.2 \% | 0.0 \% | 27.1 \% |
| Randall County | 8.4 \% | 9.4 \% | 24.6 \% | 4.4 \% | 4.2 \% | 1.5 \% | 14.4 \% | 5.7 \% | 16.5 \% |


| Population Group | Less than HS <br> Education | Income Below 100\% Poverty | Income Below 250\% Poverty (Age: 40-64) | Unemployed | Foreign Born | Linguistically Isolated | In Rural Areas | In <br> Medically Underserved Areas | No Health Insurance <br> (Age: <br> 40-64) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reagan County | 35.1 \% | 10.8 \% | 31.1 \% | 0.4 \% | 18.2 \% | 12.2 \% | 13.3 \% | 0.0 \% | 26.5 \% |
| Real County | 25.3 \% | 25.1 \% | 52.7 \% | 14.4 \% | 5.6 \% | 3.9 \% | 100.0 \% | 100.0 \% | 34.9 \% |
| Red River County | 26.5 \% | 16.8 \% | 48.2 \% | 6.6 \% | 2.8 \% | 2.1 \% | 75.7 \% | 100.0 \% | 24.6 \% |
| Reeves County | 41.8 \% | 28.4 \% | 48.5 \% | 11.2 \% | 17.2 \% | 15.0 \% | 14.5 \% | 100.0 \% | 28.8 \% |
| Refugio County | 25.4 \% | 16.8 \% | 40.9 \% | 8.6 \% | 3.4 \% | 4.0 \% | 60.7 \% | 100.0 \% | 22.2 \% |
| Roberts County | 7.2 \% | 10.2 \% | 26.3 \% | 4.0 \% | 1.5 \% | 0.0 \% | 100.0 \% | 0.0 \% | 18.0 \% |
| Robertson County | 23.9 \% | 22.1 \% | 43.7 \% | 8.8 \% | 7.2 \% | 2.5 \% | 73.9 \% | 100.0 \% | 25.1 \% |
| Rockwall County | 9.2 \% | 5.5 \% | 16.9 \% | 5.7 \% | 10.3 \% | 2.4 \% | 16.0 \% | 0.0 \% | 15.9 \% |
| Runnels County | 22.2 \% | 20.0 \% | 43.3 \% | 1.9 \% | 5.7 \% | 2.6 \% | 40.8 \% | 100.0 \% | 24.8 \% |
| Rusk County | 19.9 \% | 13.5 \% | 39.6 \% | 4.8 \% | 6.2 \% | 2.2 \% | 65.9 \% | 100.0 \% | 25.1 \% |
| Sabine County | 20.3 \% | 21.8 \% | 45.4 \% | 9.9 \% | 1.0 \% | 1.4 \% | 100.0 \% | 100.0 \% | 23.9 \% |
| San Augustine County | 27.1 \% | 27.2 \% | 50.5 \% | 12.2 \% | 1.8 \% | 1.0 \% | 100.0 \% | 100.0 \% | 25.5 \% |
| San Jacinto County | 22.0 \% | 17.7 \% | 44.5 \% | 12.9 \% | 2.6 \% | 1.6 \% | 100.0 \% | 100.0 \% | 26.9 \% |
| San Patricio County | 23.6 \% | 17.3 \% | 40.5 \% | 7.6 \% | 4.5 \% | 8.2 \% | 19.7 \% | 69.2 \% | 23.0 \% |
| San Saba County | 16.2 \% | 22.0 \% | 46.7 \% | 6.5 \% | 5.8 \% | 6.5 \% | 49.4 \% | 100.0 \% | 30.1 \% |
| Schleicher County | 21.4 \% | 22.4 \% | 37.2 \% | 3.5 \% | 9.4 \% | 3.6 \% | 100.0 \% | 100.0 \% | 24.3 \% |
| Scurry County | 26.1 \% | 18.5 \% | 35.0 \% | 4.7 \% | 7.1 \% | 5.8 \% | 31.7 \% | 0.0 \% | 21.8 \% |
| Shackelford County | 14.6 \% | 13.0 \% | 37.0 \% | 4.4 \% | 3.7 \% | 0.2 \% | 100.0 \% | 100.0 \% | 25.1 \% |
| Shelby County | 23.7 \% | 24.5 \% | 47.4 \% | 7.3 \% | 8.9 \% | 4.5 \% | 79.4 \% | 100.0 \% | 27.7 \% |
| Sherman County | 25.3 \% | 14.0 \% | 38.2 \% | 7.0 \% | 17.8 \% | 8.6 \% | 100.0 \% | 100.0 \% | 30.0 \% |
| Smith County | 15.3 \% | 15.5 \% | 36.9 \% | 7.5 \% | 9.1 \% | 3.1 \% | 31.6 \% | 18.8 \% | 23.2 \% |
| Somervell County | 12.6 \% | 9.0 \% | 30.6 \% | 2.9 \% | 8.0 \% | 0.5 \% | 100.0 \% | 0.0 \% | 21.8 \% |
| Starr County | 53.7 \% | 36.3 \% | 71.3 \% | 10.3 \% | 30.1 \% | 34.3 \% | 23.7 \% | 100.0 \% | 39.7 \% |
| Stephens County | 20.3 \% | 14.9 \% | 45.1 \% | 3.4 \% | 5.4 \% | 2.9 \% | 39.4 \% | 100.0 \% | 28.5 \% |
| Sterling County | 28.0 \% | 14.7 \% | 29.1 \% | 0.0 \% | 10.2 \% | 14.2 \% | 100.0 \% | 100.0 \% | 21.5 \% |
| Stonewall County | 14.3 \% | 18.9 \% | 42.7 \% | 4.6 \% | 1.0 \% | 1.5 \% | 100.0 \% | 100.0 \% | 27.0 \% |
| Sutton County | 29.1 \% | 11.7 \% | 31.5 \% | 2.6 \% | 12.6 \% | 8.2 \% | 18.8 \% | 100.0 \% | 26.5 \% |
| Swisher County | 24.9 \% | 17.2 \% | 46.4 \% | 9.4 \% | 5.8 \% | 5.7 \% | 37.6 \% | 100.0 \% | 27.6 \% |
| Tarrant County | 16.0 \% | 14.2 \% | 32.4 \% | 7.8 \% | 15.6 \% | 6.7 \% | 1.3 \% | 5.2 \% | 21.8 \% |
| Taylor County | 14.8 \% | 16.5 \% | 38.6 \% | 5.3 \% | 5.3 \% | 2.8 \% | 16.0 \% | 19.0 \% | 21.9 \% |
| Terrell County | 17.5 \% | 14.0 \% | 37.8 \% | 0.0 \% | 14.7 \% | 4.0 \% | 100.0 \% | 100.0 \% | 27.0 \% |
| Terry County | 32.7 \% | 16.7 \% | 47.3 \% | 7.0 \% | 9.8 \% | 11.3 \% | 24.7 \% | 100.0 \% | 27.3 \% |
| Throckmorton County | 20.8 \% | 13.3 \% | 39.7 \% | 1.3 \% | 5.1 \% | 2.8 \% | 100.0 \% | 100.0 \% | 32.2 \% |
| Titus County | 27.6 \% | 18.3 \% | 47.2 \% | 7.2 \% | 19.8 \% | 10.1 \% | 50.6 \% | 0.0 \% | 30.2 \% |


|  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

Data are in the percentage of people (men and women) in the population.
Source of health insurance data: US Census Bureau - Small Area Health Insurance Estimates (SAHIE) for 2011.
Source of rural population data: US Census Bureau - Census 2010.
Source of medically underserved data: Health Resources and Services Administration (HRSA) for 2013.
Source of other data: US Census Bureau - American Community Survey (ACS) for 2007-2011.

## Conclusions: Population characteristics

Proportionately, the State of Texas has a slightly larger White female population than the US as a whole, a slightly smaller Black/African-American female population, a slightly smaller Asian and Pacific Islander (API) female population, a slightly smaller American Indian and Alaska Native (AIAN) female population, and a substantially larger Hispanic/Latina female population. The state's female population is slightly younger than that of the US as a whole. The state's education level is slightly lower than and income level is slightly lower than those of the US as a whole. The state's unemployment level is slightly smaller than that of the US as a whole. The state has a slightly larger percentage of people who are foreign born and a substantially larger percentage of people who are linguistically isolated. There are a slightly smaller percentage of people living in rural areas, a substantially larger percentage of people without health insurance, and a substantially larger percentage of people living in medically underserved areas.

The following counties have substantially larger Black/African-American female population percentages than that of the state as a whole:

- Bell County (Komen East Central Texas)
- Bowie County (Komen Texarkana)
- Camp County
- Cass County (Komen Texarkana)
- Coryell County (Komen East Central Texas)
- Dallas County (Komen Dallas County)
- Falls County (Komen East Central Texas)
- Fort Bend County (Komen Houston)
- Gregg County
- Harris County (Komen Houston)
- Harrison County
- Houston County
- Jefferson County
- Limestone County (Komen East Central Texas)
- Marion County
- Morris County
- Nacogdoches County
- Newton County
- Red River County
- Robertson County
- San Augustine County
- Shelby County
- Smith County (Komen East Central Texas)
- Walker County
- Waller County
- Washington County

The following counties have substantially larger API female population percentages than that of the state as a whole:

- Collin County (Komen North Texas)
- Fort Bend County (Komen Houston)

The following counties have substantially larger Hispanic/Latina female population percentages than that of the state as a whole:

- Andrews County
- Atascosa County
- Bailey County (Komen Lubbock Area)
- Bee County
- Bexar County (Komen San Antonio)
- Brewster County
- Brooks County
- Caldwell County (Komen Austin)
- Calhoun County
- Cameron County
- Castro County (Komen Greater Amarillo)
- Cochran County (Komen Lubbock Area)
- Crane County
- Crockett County
- Crosby County (Komen Lubbock Area)
- Culberson County
- Dawson County
- Deaf Smith County (Komen Greater Amarillo)
- Dimmit County
- Duval County
- Ector County
- Edwards County
- El Paso County (Komen El Paso)
- Floyd County (Komen Lubbock Area)
- Frio County
- Gonzales County
- Hale County (Komen Lubbock Area)
- Hidalgo County
- Hockley County (Komen Lubbock Area)
- Hudspeth County
- Jim Hogg County
- Jim Wells County
- Karnes County
- Kenedy County
- Kinney County
- Kleberg County
- Lamb County (Komen Lubbock Area)
- La Salle County
- Lynn County (Komen Lubbock Area)
- Martin County
- Maverick County
- Medina County
- Moore County (Komen Greater Amarillo)
- Nueces County
- Ochiltree County (Komen Greater Amarillo)
- Parmer County (Komen Greater Amarillo)
- Pecos County
- Presidio County
- Reagan County
- Reeves County
- Refugio County
- San Patricio County
- Schleicher County
- Starr County
- Sutton County
- Terrell County
- Terry County (Komen Lubbock Area)
- Upton County
- Uvalde County
- Val Verde County
- Victoria County
- Ward County
- Webb County
- Willacy County
- Winkler County
- Yoakum County (Komen Lubbock Area)
- Zapata County
- Zavala County

The following counties have substantially older female populations than that of the state as a whole:

- Anderson County (Komen East Central Texas)
- Aransas County
- Archer County (Komen North Texas)
- Armstrong County (Komen Greater Amarillo)
- Austin County
- Bandera County
- Baylor County (Komen North Texas)
- Blanco County
- Borden County
- Bosque County (Komen East Central Texas)
- Bowie County (Komen Texarkana)
- Brewster County
- Briscoe County (Komen Greater Amarillo)
- Brooks County
- Brown County
- Burleson County
- Burnet County
- Callahan County
- Camp County
- Carson County (Komen Greater Amarillo)
- Cass County (Komen Texarkana)
- Cherokee County (Komen East Central Texas)
- Childress County (Komen Greater Amarillo)
- Clay County (Komen North Texas)
- Coke County
- Coleman County
- Collingsworth County (Komen Greater Amarillo)
- Colorado County
- Comal County
- Comanche County
- Concho County
- Cooke County (Komen North Texas)
- Cottle County (Komen Lubbock Area)
- Crosby County (Komen Lubbock Area)
- Dawson County
- Delta County
- DeWitt County
- Dickens County (Komen Lubbock Area)
- Donley County (Komen Greater Amarillo)
- Duval County
- Eastland County
- Edwards County
- Falls County (Komen East Central Texas)
- Fannin County (Komen North Texas)
- Fayette County
- Fisher County
- Floyd County (Komen Lubbock Area)
- Foard County
- Franklin County
- Freestone County (Komen East Central Texas)
- Gillespie County
- Goliad County
- Gray County (Komen Greater Amarillo)
- Grayson County (Komen North Texas)
- Hall County (Komen Greater Amarillo)
- Hamilton County
- Hardeman County
- Hartley County (Komen Greater Amarillo)
- Haskell County
- Henderson County (Komen East Central Texas)
- Hill County (Komen East Central Texas)
- Hood County (Komen Greater Fort Worth)
- Hopkins County
- Houston County
- Irion County
- Jack County
- Jackson County
- Jasper County
- Jeff Davis County
- Jones County
- Karnes County
- Kendall County
- Kent County (Komen Lubbock Area)
- Kerr County
- Kimble County
- Kinney County
- Knox County
- Lamar County
- Lampasas County
- Lavaca County
- Lee County
- Leon County
- Limestone County (Komen East Central Texas)
- Live Oak County
- Llano County
- Lynn County (Komen Lubbock Area)
- McCulloch County
- McMullen County
- Madison County
- Marion County
- Mason County
- Menard County
- Milam County (Komen East Central Texas)
- Mills County
- Mitchell County
- Montague County (Komen North Texas)
- Morris County
- Motley County (Komen Lubbock Area)
- Newton County
- Nolan County
- Palo Pinto County
- Panola County
- Polk County
- Presidio County
- Rains County
- Real County
- Red River County
- Refugio County
- Roberts County (Komen Greater Amarillo)
- Robertson County
- Runnels County
- Sabine County
- San Augustine County
- San Jacinto County
- San Saba County
- Scurry County
- Shackelford County
- Stephens County
- Sterling County
- Stonewall County
- Swisher County (Komen Greater Amarillo)
- Terrell County
- Throckmorton County
- Trinity County
- Tyler County
- Upshur County
- Van Zandt County (Komen East Central Texas)
- Washington County
- Wheeler County (Komen Greater Amarillo)
- Wilbarger County (Komen North Texas)
- Wood County
- Young County

The following counties have substantially lower education levels than that of the state as a whole:

- Andrews County
- Atascosa County
- Bailey County (Komen Lubbock Area)
- Bee County
- Brooks County
- Cameron County
- Camp County
- Castro County (Komen Greater Amarillo)
- Cherokee County (Komen East Central Texas)
- Cochran County (Komen Lubbock Area)
- Collingsworth County (Komen Greater Amarillo)
- Crane County
- Crockett County
- Crosby County (Komen Lubbock Area)
- Culberson County
- Dallam County (Komen Greater Amarillo)
- Dawson County
- Deaf Smith County (Komen Greater Amarillo)
- Dickens County (Komen Lubbock Area)
- Dimmit County
- Duval County
- Ector County
- Edwards County
- El Paso County (Komen El Paso)
- Floyd County (Komen Lubbock Area)
- Frio County
- Gaines County
- Garza County (Komen Lubbock Area)
- Gonzales County
- Hale County (Komen Lubbock Area)
- Hall County (Komen Greater Amarillo)
- Hidalgo County
- Hockley County (Komen Lubbock Area)
- Howard County
- Hudspeth County
- Jim Hogg County
- Jim Wells County
- Jones County
- Karnes County
- Kenedy County
- Knox County
- Lamb County (Komen Lubbock Area)
- La Salle County
- Liberty County (Komen Houston)
- Martin County
- Maverick County
- Moore County (Komen Greater Amarillo)
- Ochiltree County (Komen Greater Amarillo)
- Parmer County (Komen Greater Amarillo)
- Pecos County
- Presidio County
- Reagan County
- Real County
- Red River County
- Reeves County
- Refugio County
- San Augustine County
- Scurry County
- Sherman County (Komen Greater Amarillo)
- Starr County
- Sterling County
- Sutton County
- Swisher County (Komen Greater Amarillo)
- Terry County (Komen Lubbock Area)
- Titus County
- Upton County
- Uvalde County
- Val Verde County
- Ward County
- Webb County
- Wharton County
- Wilbarger County (Komen North Texas)
- Willacy County
- Winkler County
- Yoakum County (Komen Lubbock Area)
- Zapata County
- Zavala County

The following counties have substantially lower income levels than that of the state as a whole:

- Briscoe County (Komen Greater Amarillo)
- Brooks County
- Cameron County
- Castro County (Komen Greater Amarillo)
- Cherokee County (Komen East Central Texas)
- Coleman County
- Collingsworth County (Komen Greater Amarillo)
- Comanche County
- Crosby County (Komen Lubbock Area)
- Culberson County
- Dimmit County
- Duval County
- El Paso County (Komen El Paso)
- Falls County (Komen East Central Texas)
- Frio County
- Gonzales County
- Hall County (Komen Greater Amarillo)
- Hardeman County
- Hidalgo County
- Hudspeth County
- Jim Wells County
- Kinney County
- Kleberg County
- La Salle County
- Madison County
- Marion County
- Maverick County
- Nacogdoches County
- Potter County (Komen Greater Amarillo)
- Presidio County
- Real County
- Reeves County
- Robertson County
- San Augustine County
- Shelby County
- Starr County
- Uvalde County
- Val Verde County
- Webb County
- Willacy County
- Zapata County
- Zavala County

The following counties have substantially lower employment levels than that of the state as a whole:

- Brooks County
- Caldwell County (Komen Austin)
- Calhoun County
- Cochran County (Komen Lubbock Area)
- Crockett County
- Culberson County
- Dimmit County
- Foard County
- Hardeman County
- Haskell County
- Jim Hogg County
- Kinney County
- Kleberg County
- Liberty County (Komen Houston)
- Maverick County
- Newton County
- Polk County
- Presidio County
- Real County
- Reeves County
- San Augustine County
- San Jacinto County
- Starr County

The counties with substantial foreign born and linguistically isolated populations are:

- Cameron County
- El Paso County (Komen El Paso)
- Gaines County
- Harris County (Komen Houston)
- Hidalgo County
- Hudspeth County
- Maverick County
- Moore County (Komen Greater Amarillo)
- Presidio County
- Starr County
- Val Verde County
- Webb County
- Yoakum County (Komen Lubbock Area)
- Zapata County

The following counties have substantially larger percentages of adults without health insurance than does the state as a whole:

- Bailey County (Komen Lubbock Area)
- Briscoe County (Komen Greater Amarillo)
- Cameron County
- Castro County (Komen Greater Amarillo)
- Cochran County (Komen Lubbock Area)
- Collingsworth County (Komen Greater Amarillo)
- Comanche County
- Cottle County (Komen Lubbock Area)
- Culberson County
- Dallam County (Komen Greater Amarillo)
- Deaf Smith County (Komen Greater Amarillo)
- Edwards County
- El Paso County (Komen El Paso)
- Foard County
- Gaines County
- Hall County (Komen Greater Amarillo)
- Hidalgo County
- Hudspeth County
- Kimble County
- Knox County
- Lamb County (Komen Lubbock Area)
- Maverick County
- Menard County
- Mills County
- Parmer County (Komen Greater Amarillo)
- Presidio County
- Real County
- San Saba County
- Sherman County (Komen Greater Amarillo)
- Starr County
- Throckmorton County
- Titus County
- Uvalde County
- Val Verde County
- Webb County
- Willacy County
- Zapata County
- Zavala County


## Healthy People 2020 Forecasts

Healthy People 2020 is a major federal government program that has set specific targets (called "objectives") for improving Americans' health by the year 2020.

This report shows whether areas are likely to meet the two Healthy People 2020 objectives related to breast cancer: reducing breast cancer death rate and reducing the number of late-stage breast cancers.

Healthy People 2020 (HP2020) is a major federal government initiative that provides specific health objectives for communities and for the country as a whole (Healthy People 2020, 2010). Many national health organizations use HP2020 targets to monitor progress in reducing the burden of disease and improve the health of the nation. Likewise, Komen believes it is important to refer to HP2020 to see how areas across the country are progressing towards reducing the burden of breast cancer.

HP2020 has several cancer-related objectives, including:

- Reducing women's death rate from breast cancer.
- Reducing the number of breast cancers that are found at a late-stage.


## The HP2020 objective for breast cancer death rates

As of the writing of this report, the HP2020 target for the breast cancer death rate is 20.6 breastcancer related deaths per 100,000 females - a 10 percent improvement in comparison to the 2007 rate.

To see how well counties in Texas are progressing toward this target, this report uses the following information:

- County breast cancer death rate data for years 2006 to 2010.
- Estimates for the trend (annual percent change) in county breast cancer death rates for years 2006 to 2010.
- Both the data and the HP2020 target are age-adjusted.

These data are used to estimate how many years it will take for each county to meet the HP2020 objective. Because the target date for meeting the objective is 2020 and 2008 (the middle of the 2006-2010 period) was used as a starting point, a county has 12 years to meet the target.

Death rate data and trends are used to calculate whether an area will meet the HP2020 target, assuming that the trend seen in years 2006 to 2010 continues for 2011 and beyond. The calculation was conducted using the following procedure:

- The annual percent change for 2006-2010 was calculated.
- Using 2008 (the middle of the period 2006-2010) as a starting point, the annual percent change was subtracted from (or added to) the expected death rate (based on the 20062010 death rate) for each year between 2010 and 2020.
- These calculated death rates were then compared with the target.
- If the breast cancer death rate for 2006-2010 was already below the target, it is reported that the area "Currently meets target."
- If it would take more than 12 years (2008 to 2020) to meet the target, it is reported that the area would need " 13 years or longer" to meet the target.
- If the rate is currently below the target but the trend is increasing such that the target will no longer be met in 2020, it is reported that the area would need "13 years or longer" to meet the target.
- In all other cases, the number of years it would take for the area to meet the target is reported. For example, if the area would meet the target in 2016, it would be reported as "eight years," because it's eight years from 2008 to 2016.


## The HP2020 objective for late-stage breast cancer diagnoses

Another Healthy People 2020 objective is a decrease in the number of breast cancers diagnosed at a late stage. As of the writing of this report, the HP2020 target for late-stage diagnosis rate is 41.0 late-stage cases per 100,000 females. For each county in the state, the late-stage incidence rate and trend are used to calculate the amount of time, in years, needed to meet the HP2020 target, assuming that the trend observed from 2006 to 2010 continues for years 2011 and beyond.
The calculation was conducted using the following procedure:

- The annual percent change for 2006-2010 was calculated.
- Using 2008 (the middle of the period 2006-2010) as a starting point, the annual percent change was subtracted from (or added to) the expected late-stage incidence rate (based on the 2006-2010 rate) for each year between 2010 and 2020.
- The calculated late-stage incidence rates were then compared with the target.
- If the late-stage incidence rate for 2006-2010 was already below the target, it is reported that the area "Currently meets target."
- If it would take more than 12 years (2008 to 2020) to meet the target, it is reported that the area would need " 13 years or longer" to meet the target.
- If the rate is currently below the target but the trend is increasing such that the target will no longer be met in 2020, it is reported that the area would need "13 years or longer" to meet the target.
- In all other cases, the number of years it would take for the area to meet the target is reported.


## Identification of HP2020 breast cancer at-risk areas

Identifying geographic areas and groups of women with high needs will help develop effective, targeted breast cancer programs.

Priority areas are identified based on the time needed to meet Healthy People 2020 targets for breast cancer.

The purpose of this report is to combine evidence from many credible sources and use it to identify the highest HP2020 breast cancer at-risk areas (at-risk areas) for breast cancer programs (i.e., the areas of greatest need).

Classification of at-risk areas are based on the time needed to achieve HP2020 targets in each area. These time projections depend on both the starting point and the trends in death rates and late-stage incidence.

Late-stage incidence reflects both the overall breast cancer incidence rate in the population and the mammography screening coverage. The breast cancer death rate reflects the access to care and the quality of care in the healthcare delivery area, as well as cancer stage at diagnosis.

There has not been any indication that either one of the two HP2020 targets is more important than the other. Therefore, the report considers them equally important.

## How counties are classified by need

Counties are classified as follows.

- Counties that are not likely to achieve either of the HP2020 targets are considered to have the highest needs.
- Counties that have already achieved both targets are considered to have the lowest needs.
- Other counties are classified based on the number of years needed to achieve the two targets.

Table 2.9 shows how counties are assigned to at-risk categories.
Table 2.9. Needs/At-risk classification based on the projected time to achieve HP2020 breast cancer targets

|  |  |  | Time to Achieve Late-stage Incidence Reduction Target |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 13 years or <br> longer | $7-12$ yrs. | $0-6$ yrs. | Currently <br> meets target | Unknown |
|  | 13 years or <br> longer | Highest | High | Medium <br> High | Medium | Highest |
| Time to Achieve <br> Death Rate <br> Reduction Target | 7-12 yrs. | High | Medium <br> High | Medium | Medium <br> Low | Medium <br> High |
|  | $0-6$ yrs. | Medium <br> High | Medium | Medium <br> Low | Low | Medium <br> Low |
|  | Currently <br> meets target | Medium | Medium <br> Low | Low | Lowest | Lowest |
|  | Unknown | Highest | Medium <br> High | Medium <br> Low | Lowest | Unknown |

If the time to achieve a target cannot be calculated for one of the HP2020 indicators, then the county is classified based on the other indicator. If both indicators are missing, then the county
is not classified. This doesn't mean that the county may not have high needs; it only means that sufficient data are not available to classify the county.

## Healthy People 2020 forecasts and at-risk areas

The results presented in Table 2.10 help identify which counties have the greatest needs when it comes to meeting the HP2020 breast cancer targets.

- For counties in the "13 years or longer" category, current trends would need to change to achieve the target.
- Some counties may currently meet the target but their rates are increasing and they could fail to meet the target if the trend is not reversed.

Trends can change for a number of reasons, including:

- Improved screening programs could lead to breast cancers being diagnosed earlier, resulting in a decrease in both late-stage incidence rates and death rates.
- Improved socioeconomic conditions, such as reductions in poverty and linguistic isolation could lead to more timely treatment of breast cancer, causing a decrease in death rates.

The data in this table should be considered together with other information on factors that affect breast cancer death rates such as screening percentages and key breast cancer death determinants such as poverty and linguistic isolation.

Table 2.10. Breast cancer at-risk area for Texas with predicted time to achieve the HP2020 breast cancer targets and key population characteristics

| County | Komen Affiliate | Priority | Predicted Time to Achieve Death Rate Target | Predicted Time to Achieve Late-stage Incidence Target | Key Population Characteristics |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Austin County |  | Highest | 13 years or longer | 13 years or longer | Older, rural, medically underserved |
| Bee County |  | Highest | SN | 13 years or longer | \%Hispanic/Latina, education, rural, medically underserved |
| Bosque County | Komen East Central Texas | Highest | SN | 13 years or longer | Older, rural, medically underserved |
| Caldwell County | Komen Austin | Highest | SN | 13 years or longer | \%Hispanic/Latina, employment, rural, medically underserved |
| Calhoun County |  | Highest | SN | 13 years or longer | \%Hispanic/Latina, employment, rural, medically underserved |
| Chambers County | Komen Houston | Highest | SN | 13 years or longer | Rural, medically underserved |
| Comanche County |  | Highest | SN | 13 years or longer | Older, poverty, rural, insurance, medically underserved |
| Eastland County |  | Highest | 13 years or longer | SN | Older, rural, medically underserved |
| Frio County |  | Highest | SN | 13 years or longer | \%Hispanic/Latina, education, poverty, language, rural, medically underserved |
| Hockley County | Komen Lubbock Area | Highest | SN | 13 years or longer | \%Hispanic/Latina, education, rural, medically underserved |
| Hutchinson County | Komen Greater Amarillo | Highest | SN | 13 years or longer | Rural, medically underserved |
| Jasper County |  | Highest | 13 years or longer | 13 years or longer | Older, rural |
| Jefferson County |  | Highest | 13 years or longer | 13 years or longer | \%Black/African-American |
| Johnson County | Komen Greater Fort Worth | Highest | 13 years or longer | 13 years or longer | Rural |
| Jones County |  | Highest | 13 years or longer | 13 years or longer | Older, education, rural, medically underserved |
| Lamb County | Komen Lubbock Area | Highest | SN | 13 years or longer | \%Hispanic/Latina, education, rural, insurance, medically underserved |
| Lavaca County |  | Highest | NA | 13 years or longer | Older, rural, medically underserved |
| Lee County |  | Highest | SN | 13 years or longer | Older, rural, medically underserved |
| Leon County |  | Highest | SN | 13 years or longer | Older, rural, medically underserved |


| County | Komen Affiliate | Priority | Predicted Time to Achieve Death Rate Target | Predicted Time to Achieve Late-stage Incidence Target | Key Population Characteristics |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Liberty County | Komen Houston | Highest | 13 years or longer | 13 years or longer | Education, employment, rural, medically underserved |
| Medina County |  | Highest | 13 years or longer | 13 years or longer | \%Hispanic/Latina, rural, medically underserved |
| Moore County | Komen Greater Amarillo | Highest | SN | 13 years or longer | \%Hispanic/Latina, education, foreign, language |
| Morris County |  | Highest | SN | 13 years or longer | \%Black/African-American, older, rural, medically underserved |
| Nolan County |  | Highest | SN | 13 years or longer | Older, rural, medically underserved |
| Orange County |  | Highest | 13 years or longer | 13 years or longer | Rural |
| Parker County | Komen Greater Fort Worth | Highest | 13 years or longer | 13 years or longer | Rural |
| Potter County | Komen Greater Amarillo | Highest | 13 years or longer | 13 years or longer | Poverty |
| Reeves County |  | Highest | SN | 13 years or longer | \%Hispanic/Latina, education, poverty, employment, language, medically underserved |
| Sabine County |  | Highest | SN | 13 years or longer | Older, rural, medically underserved |
| Trinity County |  | Highest | SN | 13 years or longer | Older, rural, medically underserved |
| Walker County |  | Highest | 13 years or longer | 13 years or longer | \%Black/African-American, rural, medically underserved |
| Washington County |  | Highest | 13 years or longer | 13 years or longer | \%Black/African-American, older, rural, medically underserved |
| Wilson County |  | Highest | 13 years or longer | 13 years or longer | Rural, medically underserved |
| Young County |  | Highest | 13 years or longer | 13 years or longer | Older, rural, medically underserved |
| Ector County |  | High | 11 years | 13 years or longer | \%Hispanic/Latina, education |
| Harris County | Komen Houston | High | 9 years | 13 years or longer | \%Black/African-American, foreign, language |
| Llano County |  | High | 10 years | 13 years or longer | Older, rural, medically underserved |
| Angelina County |  | Medium High | 2 years | 13 years or longer | Rural |
| Bell County | Komen East Central Texas | Medium High | 13 years or longer | 2 years | \%Black/African-American |
| Brazoria County | Komen Houston | Medium High | 13 years or longer | 1 year | Rural |


| County | Komen Affiliate | Priority | Predicted Time to Achieve Death Rate Target | Predicted Time to Achieve Late-stage Incidence Target | Key Population Characteristics |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Comal County |  | Medium High | 13 years or longer | 1 year | Older, rural |
| Coryell County | Komen East Central Texas | Medium High | 6 years | 13 years or longer | \%Black/African-American, medically underserved |
| Dallas County | Komen Dallas County | Medium High | 8 years | 8 years | \%Black/African-American, foreign |
| Dawson County |  | Medium High | SN | 7 years | \%Hispanic/Latina, older, education, medically underserved |
| DeWitt County |  | Medium High | 13 years or longer | 3 years | Older, rural, medically underserved |
| Gregg County |  | Medium High | 13 years or longer | 2 years | \%Black/African-American |
| Hardin County |  | Medium High | 13 years or longer | 6 years | Rural, medically underserved |
| Kleberg County |  | Medium High | 13 years or longer | 1 year | \%Hispanic/Latina, poverty, employment, medically underserved |
| McLennan County | Komen East Central Texas | Medium High | 13 years or longer | 4 years | Rural, medically underserved |
| Nacogdoches County |  | Medium High | 13 years or longer | 3 years | \%Black/African-American, poverty, rural |
| Polk County |  | Medium High | 2 years | 13 years or longer | Older, employment, rural, medically underserved |
| Randall County | Komen Greater Amarillo | Medium High | 13 years or longer | 1 year |  |
| Victoria County |  | Medium High | 13 years or longer | 1 year | \%Hispanic/Latina, rural |
| Aransas County |  | Medium | 7 years | 2 years | Older, rural, medically underserved |
| Atascosa County |  | Medium | Currently meets target | 13 years or longer | \%Hispanic/Latina, education, rural, medically underserved |
| Bastrop County | Komen Austin | Medium | Currently meets target | 13 years or longer | Rural, medically underserved |
| Brown County |  | Medium | 13 years or longer | Currently meets target | Older, rural, medically underserved |
| Burnet County |  | Medium | Currently meets target | 13 years or longer | Older, rural, medically underserved |
| Cass County | Komen Texarkana | Medium | 13 years or longer | Currently meets target | \%Black/African-American, older, rural, medically underserved |
| Fayette County |  | Medium | 13 years or longer | Currently meets target | Older, rural, medically underserved |
| Grayson County | Komen North Texas | Medium | Currently meets target | 13 years or longer | Older, rural |


| County | Komen Affiliate | Priority | Predicted Time to Achieve Death Rate Target | Predicted Time to Achieve Late-stage Incidence Target | Key Population Characteristics |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Grimes County |  | Medium | 13 years or longer | Currently meets target | Rural, medically underserved |
| Guadalupe County |  | Medium | Currently meets target | 13 years or longer | Rural |
| Hale County | Komen Lubbock Area | Medium | 13 years or longer | Currently meets target | \%Hispanic/Latina, education, rural |
| Hopkins County |  | Medium | 13 years or longer | Currently meets target | Older, rural, medically underserved |
| Hunt County | Komen North Texas | Medium | 13 years or longer | Currently meets target | Rural, medically underserved |
| Kaufman County | Komen East Central Texas | Medium | 13 years or longer | Currently meets target | Rural |
| Lamar County |  | Medium | Currently meets target | 13 years or longer | Older, rural, medically underserved |
| Navarro County | Komen East Central Texas | Medium | 13 years or longer | Currently meets target | Rural, medically underserved |
| Palo Pinto County |  | Medium | 13 years or longer | Currently meets target | Older, rural |
| Rusk County |  | Medium | 13 years or longer | Currently meets target | Rural, medically underserved |
| San Jacinto County |  | Medium | 5 years | 7 years | Older, employment, rural, medically underserved |
| Starr County |  | Medium | 13 years or longer | Currently meets target | \%Hispanic/Latina, education, poverty, employment, foreign, language, rural, insurance, medically underserved |
| Taylor County |  | Medium | 13 years or longer | Currently meets target |  |
| Tom Green County |  | Medium | Currently meets target | 13 years or longer |  |
| Val Verde County |  | Medium | Currently meets target | 13 years or longer | \%Hispanic/Latina, education, poverty, foreign, language, insurance, medically underserved |
| Van Zandt County | Komen East Central Texas | Medium | Currently meets target | 13 years or longer | Older, rural, medically underserved |
| Waller County |  | Medium | 13 years or longer | Currently meets target | \%Black/African-American, rural, medically underserved |
| Wise County | Komen North Texas | Medium | Currently meets target | 13 years or longer | Rural |
| Bowie County | Komen Texarkana | Medium Low | 6 years | 5 years | \%Black/African-American, older, rural |
| Callahan County |  | Medium Low | SN | 2 years | Older, rural, medically underserved |


| County | Komen Affiliate | Priority | Predicted Time to Achieve Death Rate Target | Predicted Time to Achieve Late-stage Incidence Target | Key Population Characteristics |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Erath County |  | Medium Low | SN | 2 years | Rural, medically underserved |
| Fannin County | Komen North Texas | Medium Low | SN | 1 year | Older, rural, medically underserved |
| Gaines County |  | Medium Low | SN | 2 years | Education, foreign, language, rural, insurance, medically underserved |
| Galveston County | Komen Houston | Medium Low | 11 years | Currently meets target |  |
| Gray County | Komen Greater Amarillo | Medium Low | SN | 4 years | Older |
| Lubbock County | Komen Lubbock Area | Medium Low | 5 years | 1 year |  |
| Montgomery County | Komen Houston | Medium Low | 12 years | Currently meets target | Rural |
| Red River County |  | Medium Low | SN | 1 year | \%Black/African-American, older, education, rural, medically underserved |
| Robertson County |  | Medium Low | SN | 2 years | \%Black/African-American, older, poverty, rural, medically underserved |
| Scurry County |  | Medium Low | SN | 4 years | Older, education, rural |
| Tarrant County | Komen Greater Fort Worth | Medium Low | 1 year | 1 year |  |
| Tyler County |  | Medium Low | 7 years | Currently meets target | Older, rural, medically underserved |
| Anderson County | Komen East Central Texas | Low | 2 years | Currently meets target | Older, rural, medically underserved |
| Bexar County | Komen San Antonio | Low | 3 years | Currently meets target | \%Hispanic/Latina |
| Cherokee County | Komen East Central Texas | Low | 6 years | Currently meets target | Older, education, poverty, rural, medically underserved |
| Denton County | Komen North Texas | Low | 1 year | Currently meets target |  |
| El Paso County | Komen El Paso | Low | 2 years | Currently meets target | \%Hispanic/Latina, education, poverty, foreign, language, insurance, medically underserved |
| Ellis County | Komen East Central Texas | Low | Currently meets target | 1 year | Rural, medically underserved |
| Gillespie County |  | Low | 1 year | Currently meets target | Older, rural |
| Hays County | Komen Austin | Low | 4 years | Currently meets target | Rural, medically underserved |


| County | Komen Affiliate | Priority | Predicted Time to Achieve Death Rate Target | Predicted Time to Achieve Late-stage Incidence Target | Key Population Characteristics |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Henderson County | Komen East Central Texas | Low | Currently meets target | 6 years | Older, rural |
| Jim Wells County |  | Low | Currently meets target | 1 year | \%Hispanic/Latina, education, poverty, rural, medically underserved |
| Kerr County |  | Low | Currently meets target | 1 year | Older, rural |
| Matagorda County |  | Low | 5 years | Currently meets target | Rural, medically underserved |
| Milam County | Komen East Central Texas | Low | Currently meets target | 1 year | Older, rural, medically underserved |
| Nueces County |  | Low | 4 years | Currently meets target | \%Hispanic/Latina |
| San Patricio County |  | Low | 5 years | Currently meets target | \%Hispanic/Latina, medically underserved |
| Shelby County |  | Low | 3 years | Currently meets target | \%Black/African-American, poverty, rural, medically underserved |
| Smith County | Komen East Central Texas | Low | Currently meets target | 4 years | \%Black/African-American, rural |
| Travis County | Komen Austin | Low | Currently meets target | 1 year |  |
| Upshur County |  | Low | 3 years | Currently meets target | Older, rural, medically underserved |
| Wharton County |  | Low | 4 years | Currently meets target | Education, rural, medically underserved |
| Williamson County | Komen Austin | Low | Currently meets target | 1 year | Medically underserved |
| Bandera County |  | Lowest | SN | Currently meets target | Older, rural, medically underserved |
| Brazos County |  | Lowest | Currently meets target | Currently meets target |  |
| Burleson County |  | Lowest | SN | Currently meets target | Older, rural, medically underserved |
| Cameron County |  | Lowest | Currently meets target | Currently meets target | \%Hispanic/Latina, education, poverty, foreign, language, insurance, medically underserved |
| Collin County | Komen North Texas | Lowest | Currently meets target | Currently meets target | \%API |
| Colorado County |  | Lowest | SN | Currently meets target | Older, rural |
| Cooke County | Komen North Texas | Lowest | Currently meets target | Currently meets target | Older, rural, medically underserved |


| County | Komen Affiliate | Priority | Predicted Time to Achieve Death Rate Target | Predicted Time to Achieve Late-stage Incidence Target | Key Population Characteristics |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Falls County | Komen East Central Texas | Lowest | SN | Currently meets target | \%Black/African-American, older, poverty, rural, medically underserved |
| Fort Bend County | Komen Houston | Lowest | Currently meets target | Currently meets target | \%Black/African-American, \%API, foreign |
| Freestone County |  | Lowest | NA | Currently meets target | Older, rural, medically underserved |
| Gonzales County |  | Lowest | SN | Currently meets target | \%Hispanic/Latina, education, poverty, rural, medically underserved |
| Harrison County |  | Lowest | Currently meets target | Currently meets target | \%Black/African-American, rural, medically underserved |
| Hidalgo County |  | Lowest | Currently meets target | Currently meets target | \%Hispanic/Latina, education, poverty, foreign, language, insurance, medically underserved |
| Hill County | Komen East Central Texas | Lowest | Currently meets target | Currently meets target | Older, rural, medically underserved |
| Hood County | Komen Greater Fort Worth | Lowest | Currently meets target | Currently meets target | Older, rural |
| Houston County |  | Lowest | Currently meets target | Currently meets target | \%Black/African-American, older, rural, medically underserved |
| Howard County |  | Lowest | Currently meets target | NA | Education, medically underserved |
| Kendall County |  | Lowest | NA | Currently meets target | Older, rural |
| Lampasas County |  | Lowest | SN | Currently meets target | Older, rural, medically underserved |
| Maverick County |  | Lowest | NA | Currently meets target | \%Hispanic/Latina, education, poverty, employment, foreign, language, insurance, medically underserved |
| Midland County |  | Lowest | Currently meets target | Currently meets target |  |
| Montague County | Komen North Texas | Lowest | SN | Currently meets target | Older, rural, medically underserved |
| Newton County |  | Lowest | SN | Currently meets target | \%Black/Latina, older, employment, rural, medically underserved |
| Panola County |  | Lowest | SN | Currently meets target | Older, rural, medically underserved |
| Rockwall County |  | Lowest | NA | Currently meets target |  |
| Titus County |  | Lowest | NA | Currently meets target | Education, rural, insurance |


| County | Komen Affiliate | Priority | Predicted Time to Achieve Death Rate Target | Predicted Time to Achieve Late-stage Incidence Target | Key Population Characteristics |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Uvalde County |  | Lowest | NA | Currently meets target | \%Hispanic/Latina, education, poverty, rural, insurance, medically underserved |
| Webb County |  | Lowest | Currently meets target | Currently meets target | \%Hispanic/Latina, education, poverty, foreign, language, insurance, medically underserved |
| Wichita County | Komen North Texas | Lowest | Currently meets target | Currently meets target |  |
| Wood County |  | Lowest | Currently meets target | Currently meets target | Older, rural, medically underserved |
| Andrews County |  | Undetermined | SN | SN | \%Hispanic/Latina, education, language |
| Archer County | Komen North Texas | Undetermined | SN | SN | Older, rural, medically underserved |
| Armstrong County | Komen Greater Amarillo | Undetermined | SN | SN | Older, rural, medically underserved |
| Bailey County | Komen Lubbock Area | Undetermined | SN | SN | \%Hispanic/Latina, education, rural, insurance |
| Baylor County | Komen North Texas | Undetermined | SN | SN | Older, rural, medically underserved |
| Blanco County |  | Undetermined | SN | SN | Older, rural, medically underserved |
| Borden County |  | Undetermined | SN | SN | Older, rural, medically underserved |
| Brewster County |  | Undetermined | SN | SN | \%Hispanic/Latina, older, rural, medically underserved |
| Briscoe County | Komen Greater Amarillo | Undetermined | SN | SN | Older, poverty, rural, insurance, medically underserved |
| Brooks County |  | Undetermined | SN | SN | \%Hispanic/Latina, older, education, poverty, employment, language, rural, medically underserved |
| Camp County |  | Undetermined | SN | NA | \%Black/African-American, older, education, rural, medically underserved |
| Carson County | Komen Greater Amarillo | Undetermined | SN | SN | Older, rural, medically underserved |
| Castro County | Komen Greater Amarillo | Undetermined | SN | SN | \%Hispanic/Latina, education, poverty, language, rural, insurance, medically underserved |
| Childress County | Komen Greater Amarillo | Undetermined | SN | SN | Older, rural, medically underserved |
| Clay County | Komen North Texas | Undetermined | SN | SN | Older, rural, medically underserved |


| County | Komen Affiliate | Priority | Predicted Time to Achieve Death Rate Target | Predicted Time to Achieve Late-stage Incidence Target | Key Population Characteristics |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Cochran County | Komen Lubbock Area | Undetermined | SN | SN | \%Hispanic/Latina, education, employment, rural, insurance, medically underserved |
| Coke County |  | Undetermined | SN | SN | Older, rural, medically underserved |
| Coleman County |  | Undetermined | SN | SN | Older, poverty, rural, medically underserved |
| Collingsworth County | Komen Greater Amarillo | Undetermined | SN | SN | Older, education, poverty, rural, insurance, medically underserved |
| Concho County |  | Undetermined | SN | SN | Older, foreign, rural, medically underserved |
| Cottle County | Komen Lubbock Area | Undetermined | SN | SN | Older, rural, insurance, medically underserved |
| Crane County |  | Undetermined | SN | SN | \%Hispanic/Latina, education, language, medically underserved |
| Crockett County |  | Undetermined | SN | SN | \%Hispanic/Latina, education, employment, language, rural, medically underserved |
| Crosby County | Komen Lubbock Area | Undetermined | SN | SN | \%Hispanic/Latina, older, education, poverty, rural, medically underserved |
| Culberson County |  | Undetermined | SN | SN | \%Hispanic/Latina, education, poverty, employment, language, rural, insurance, medically underserved |
| Dallam County | Komen Greater Amarillo | Undetermined | SN | SN | Education, rural, insurance, medically underserved |
| Deaf Smith County | Komen Greater Amarillo | Undetermined | SN | SN | \%Hispanic/Latina, education, language, insurance, medically underserved |
| Delta County |  | Undetermined | SN | SN | Older, rural, medically underserved |
| Dickens County | Komen Lubbock Area | Undetermined | SN | SN | Older, education, rural, medically underserved |
| Dimmit County |  | Undetermined | SN | SN | \%Hispanic/Latina, education, poverty, employment, language, rural, medically underserved |
| Donley County | Komen Greater Amarillo | Undetermined | SN | SN | Older, rural, medically underserved |
| Duval County |  | Undetermined | SN | SN | \%Hispanic/Latina, older, education, poverty, language, rural, medically underserved |
| Edwards County |  | Undetermined | SN | SN | \%Hispanic/Latina, older, education, rural, insurance, medically underserved |


| County | Komen Affiliate | Priority | Predicted Time to <br> Achieve Death <br> Rate <br> Target | Predicted Time to <br> Achieve Late-stage <br> Incidence Target | Key Population <br> Characteristics |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Fisher County |  | Undetermined | SN | SN | Older, rural, medically <br> underserved |
| Floyd County | Komen Lubbock Area | Undetermined | SN | SN | \%Hispanic/Latina, older, <br> education, rural, medically <br> underserved |
| Foard County |  | Undetermined | SN |  | SN |


| County | Komen Affiliate | Priority | Predicted Time to Achieve Death Rate Target | Predicted Time to Achieve Late-stage Incidence Target | Key Population Characteristics |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Karnes County |  | Undetermined | SN | SN | \%Hispanic/Latina, older, education, rural, medically underserved |
| Kenedy County |  | Undetermined | SN | SN | \%Hispanic/Latina, education, rural, medically underserved |
| Kent County | Komen Lubbock Area | Undetermined | SN | SN | Older, rural, medically underserved |
| Kimble County |  | Undetermined | SN | SN | Older, rural, insurance, medically underserved |
| King County |  | Undetermined | SN | SN | Rural, medically underserved |
| Kinney County |  | Undetermined | SN | SN | \%Hispanic/Latina, older, poverty, employment, rural, medically underserved |
| Knox County |  | Undetermined | SN | SN | Older, education, rural, insurance, medically underserved |
| La Salle County |  | Undetermined | SN | SN | \%Hispanic/Latina, education, poverty, language, rural, medically underserved |
| Limestone County | Komen East Central Texas | Undetermined | SN | SN | \%Black/African-American, older, rural, medically underserved |
| Lipscomb County | Komen Greater Amarillo | Undetermined | SN | SN | Rural |
| Live Oak County |  | Undetermined | SN | SN | Older, rural, medically underserved |
| Loving County |  | Undetermined | SN | SN | Rural |
| Lynn County | Komen Lubbock Area | Undetermined | SN | SN | \%Hispanic/Latina, older, rural, medically underserved |
| Madison County |  | Undetermined | SN | SN | Older, poverty, rural, medically underserved |
| Marion County |  | Undetermined | SN | SN | \%Black/African-American, older, poverty, rural, medically underserved |
| Martin County |  | Undetermined | SN | SN | \%Hispanic/Latina, education, rural |
| Mason County |  | Undetermined | SN | SN | Older, rural, medically underserved |
| McCulloch County |  | Undetermined | SN | SN | Older, rural, medically underserved |
| McMullen County |  | Undetermined | SN | SN | Older, rural, medically underserved |
| Menard County |  | Undetermined | SN | SN | Older, rural, insurance, medically underserved |


| County | Komen Affiliate | Priority | Predicted Time to Achieve Death Rate Target | Predicted Time to Achieve Late-stage Incidence Target | Key Population Characteristics |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Mills County |  | Undetermined | SN | SN | Older, rural, insurance, medically underserved |
| Mitchell County |  | Undetermined | SN | SN | Older, rural, medically underserved |
| Motley County | Komen Lubbock Area | Undetermined | SN | SN | Older, rural, medically underserved |
| Ochiltree County | Komen Greater Amarillo | Undetermined | SN | SN | \%Hispanic/Latina, education, language, medically underserved |
| Oldham County | Komen Greater Amarillo | Undetermined | SN | SN | Rural, medically underserved |
| Parmer County | Komen Greater Amarillo | Undetermined | SN | SN | \%Hispanic/Latina, education, language, rural, insurance, medically underserved |
| Pecos County |  | Undetermined | SN | SN | \%Hispanic/Latina, education, language, rural, medically underserved |
| Presidio County |  | Undetermined | SN | SN | \%Hispanic/Latina, older, education, poverty, employment, foreign, language, rural, insurance, medically underserved |
| Rains County |  | Undetermined | SN | SN | Older, rural |
| Reagan County |  | Undetermined | SN | SN | \%Hispanic/Latina, education, language |
| Real County |  | Undetermined | SN | SN | Older, education, poverty, employment, rural, insurance, medically underserved |
| Refugio County |  | Undetermined | SN | SN | \%Hispanic/Latina, older, education, rural, medically underserved |
| Roberts County | Komen Greater Amarillo | Undetermined | SN | SN | Older, rural |
| Runnels County |  | Undetermined | SN | SN | Older, rural, medically underserved |
| San Augustine County |  | Undetermined | SN | SN | \%Black/African-American, older, education, poverty, employment, rural, medically underserved |
| San Saba County |  | Undetermined | SN | SN | Older, rural, insurance, medically underserved |
| Schleicher County |  | Undetermined | SN | SN | \%Hispanic/Latina, rural, medically underserved |
| Shackelford County |  | Undetermined | SN | SN | Older, rural, medically underserved |
| Sherman County | Komen Greater Amarillo | Undetermined | SN | SN | Education, rural, insurance, medically underserved |


| County | Komen Affiliate | Priority | Predicted Time to Achieve Death Rate Target | Predicted Time to Achieve Late-stage Incidence Target | Key Population Characteristics |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Somervell County |  | Undetermined | SN | SN | Rural |
| Stephens County |  | Undetermined | SN | SN | Older, rural, medically underserved |
| Sterling County |  | Undetermined | SN | SN | Older, education, language, rural, medically underserved |
| Stonewall County |  | Undetermined | SN | SN | Older, rural, medically underserved |
| Sutton County |  | Undetermined | SN | SN | \%Hispanic/Latina, education, medically underserved |
| Swisher County | Komen Greater Amarillo | Undetermined | SN | SN | Older, education, rural, medically underserved |
| Terrell County |  | Undetermined | SN | SN | \%Hispanic/Latina, older, rural, medically underserved |
| Terry County | Komen Lubbock Area | Undetermined | SN | SN | \%Hispanic/Latina, education, language, rural, medically underserved |
| Throckmorton County |  | Undetermined | SN | SN | Older, rural, insurance, medically underserved |
| Upton County |  | Undetermined | SN | SN | \%Hispanic/Latina, education, rural, medically underserved |
| Ward County |  | Undetermined | SN | SN | \%Hispanic/Latina, education, rural, medically underserved |
| Wheeler County | Komen Greater Amarillo | Undetermined | SN | SN | Older, rural |
| Wilbarger County | Komen North Texas | Undetermined | SN | SN | Older, education, rural, medically underserved |
| Willacy County |  | Undetermined | SN | SN | \%Hispanic/Latina, education, poverty, language, rural, insurance, medically underserved |
| Winkler County |  | Undetermined | SN | SN | \%Hispanic/Latina, education, language, medically underserved |
| Yoakum County | Komen Lubbock Area | Undetermined | SN | SN | \%Hispanic/Latina, education, foreign, language, rural, medically underserved |
| Zapata County |  | Undetermined | SN | SN | \%Hispanic/Latina, education, poverty, foreign, language, rural, insurance, medically underserved |
| Zavala County |  | Undetermined | SN | SN | \%Hispanic/Latina, education, poverty, language, rural, insurance, medically underserved |

NA - data not available.
SN - data suppressed due to small numbers ( 15 cases or fewer for the 5 -year data period).

## Map of intervention at-risk areas

Figure 2.4 shows a map of the intervention categories for the counties in Texas. When both of the indicators used to establish a category for a county are not available, the priority is shown as "undetermined" on the map.

Texas Counties
Priority Areas

*Map with counties labeled is available in Appendix.
Figure 2.4. Intervention categories

## Data Limitations

The quantitative data in this report have been gathered from credible sources and uses the most current data available at the time.

## Recent data

The most recent data available were used but, for cancer incidence and death rates, these data are still several years behind. The most recent breast cancer incidence and death rates data available in 2013 were data from 2010. For the US as a whole and for most states, breast cancer incidence and death rates do not often change rapidly. Rates in individual counties might change more rapidly. In particular if a cancer control program has been implemented in 2011-2013, any impact of the program on incidence and death rates would not be reflected in this report.

Over the planning period for this report (2015 to 2019), the data will become more out-of-date. The trend data included in the report can help estimate more current values. Also, the State Cancer Profiles Web site (http://statecancerprofiles.cancer.gov/) is updated annually with the latest cancer data for states and can be a valuable source of information about the latest breast cancer rates for your community.

## Data availability

For some areas, data might not be available or might be of varying quality. Cancer surveillance programs vary from state to state in their level of funding and this can impact the quality and completeness of the data in the cancer registries and the state programs for collecting death information. There are also differences in the legislative and administrative rules for the release of cancer statistics for studies such as these. These factors can result in missing data for some of the data categories in this report.

## Small populations

Areas with small populations might not have enough breast cancer cases or breast cancer deaths each year to support the generation of reliable statistics. Because breast cancer has relatively good survival rates, breast cancer deaths occur less often in an area than breast cancer cases. So it may happen that breast cancer incidence rates are reported for a county with a small number of people but not breast cancer death rates.

The screening mammography data have a similar limitation because they are based on a survey of a small sample of the total population. So screening proportions may not be available for some of the smaller counties. Finally, it may be possible to report a late-stage incidence rate but not have enough data to report a late-stage trend and to calculate the number of years needed to reach the HP2020 late-stage target.

Data on population characteristics were obtained for all counties, regardless of their size. These data should be used to help guide planning for smaller counties where there are not enough specific breast cancer data to calculate a priority based on HP2020 targets.

## Other cancer data sources

If a person has access to other sources of cancer data for their state, they might notice minor differences in the values of the data, even for the same time period. There are often several sources of cancer statistics for a given population and geographic area. State registries and vital statistics offices provide their data to several national organizations that compile the data. This report used incidence data compiled by the North American Association of Central Cancer Registries (NAACCR) and the National Cancer Institute (NCI) and death data compiled by the National Center for Health Statistics (NCHS).

Individual state registries and health departments often publish their own cancer data. These data might be different from the data in this report for several reasons. The most common reason is differences in the timing of when cases are reported.

Sometimes, a small number of cancer cases are reported to cancer registries with as much as a five year delay. Because of this delay, counts of cancer cases for a particular year may differ. In addition, data need to be checked to see whether the same case might have been counted twice in different areas. If a case is counted twice, one of the two reports is deleted. These small adjustments may explain small inconsistencies in the number of cases diagnosed and the rates for a specific year. However, such adjustments shouldn't have a substantial effect on cancer rates at the state level.

## Specific groups of people

Data on cancer rates for specific racial and ethnic subgroups such as Somali, Hmong, or Ethiopian are not generally available. Records in cancer registries often record where a person was born if they were born in a foreign country. However, matching data about the population in an area are needed to calculate a rate (the number of cases per 100,000 people) and these matching population data are often not available.

## Inter-dependent statistics

The various types of breast cancer data in this report are inter-dependent. For example, an increase in screening can result in fewer late-stage diagnoses and fewer deaths. However, an increase in screening mammography can also result in an increase in breast cancer incidence simply because previously undetected cases are now being diagnosed. Therefore, caution is needed in drawing conclusions about the causes of changes in breast cancer statistics.

It is important to consider possible time delay between a favorable change in one statistic such as screening and the impact being reflected in other statistics such as the death rate. There can take 10 to 20 years for favorable changes in breast cancer control activities to be reflected in death rates.

## Missing factors

There are many factors that impact breast cancer risk and survival for which quantitative data are not available. Some examples include family history, genetic markers like HER2 and

BRCA, other medical conditions that can complicate treatment, and the level of family and community support available to the patient. Good quantitative data are not available on how factors such as these vary from place to place. The quantitative data in this report should be supplemented by qualitative information about these other factors from your communities whenever possible.

## Trend limitations

The calculation of the years needed to meet the HP2020 objectives assume that the current trends will continue until 2020. However, the trends can change for a number of reasons. For example, breast cancer programs, if they are successful, should change the trends. In fact, this is the primary goal of breast cancer programs.

However, trends could also change from differences in the population characteristics of the area such as shifts in the race or ethnicity of the people in the area or changes in their general socioeconomics. Areas with high migration rates, either new people moving into an area or existing residents moving elsewhere, are particularly likely to see this second type of change in breast cancer trends.

## Late-stage data and un-staged cases

Not all breast cancer cases have a stage indication. Breast cancer might be suspected in very elderly women and a biopsy may not be performed. Also, some breast cancer cases may be known only through an indication of cause-of-death on a death certificate. When comparing late-stage statistics, it is assumed that the rates of unknown staging don't change and are similar between counties. This may not be a good assumption when comparing data between urban and rural areas or between areas with younger and older populations. It is also assumed that the size and types of unknown cases do not change over time when the trends in late-stage statistics are calculated.

In this report, both late-stage incidence rates and late-stage proportions are provided. These two statistics differ in how un-staged cases are represented. With late-stage incidence rates, un-staged cases are excluded from the numerator (the number of late-stage cases) but are included in the denominator (total number of people in the population). With late-stage proportions, un-staged cases are excluded from both the numerator (the number of late-stage cases) and the denominator (number of staged cases). These differences can explain why comparisons using the two late-stage statistics may get different results

## Conclusions: Healthy People 2020 Forecasts

## Breast Cancer Death Rates

The State of Texas as a whole is likely to achieve the HP2020 death rate target. The state had a base rate of 21.8 breast cancer deaths per 100,000 females per year from 2006 to 2010 (ageadjusted). This rate coupled with a desirable direction (decrease) in the recent death rate trend, indicates that the State of Texas will likely achieve the HP2020 target of 20.6 female breast cancer deaths per 100,000.

The following counties currently meet the HP2020 breast cancer death rate target of 20.6:

- Atascosa County
- Bastrop County (Komen Austin)
- Brazos County
- Burnet County
- Cameron County
- Collin County (Komen North Texas)
- Cooke County (Komen North Texas)
- Ellis County (Komen East Central Texas)
- Fort Bend County (Komen Houston)
- Grayson County (Komen North Texas)
- Guadalupe County
- Harrison County
- Henderson County (Komen East Central Texas)
- Hidalgo County
- Hill County (Komen East Central Texas)
- Hood County (Komen Greater Fort Worth)
- Houston County
- Howard County
- Jim Wells County
- Kerr County
- Lamar County
- Midland County
- Milam County (Komen East Central Texas)
- Smith County (Komen East Central Texas)
- Tom Green County
- Travis County (Komen Austin)
- Val Verde County
- Van Zandt County (Komen East Central Texas)
- Webb County
- Wichita County (Komen North Texas)
- Williamson County (Komen Austin)
- Wise County (Komen North Texas)
- Wood County

The following counties are likely to miss the HP2020 breast cancer death rate target unless the death rate falls at a faster rate than currently estimated:

- Austin County
- Bell County (Komen East Central Texas)
- Brazoria County (Komen Houston)
- Brown County
- Cass County (Komen Texarkana)
- Comal County
- DeWitt County
- Eastland County
- Fayette County
- Gregg County
- Grimes County
- Hale County (Komen Lubbock Area)
- Hardin County
- Hopkins County
- Hunt County (Komen North Texas)
- Jasper County
- Jefferson County
- Johnson County (Komen Greater Fort Worth)
- Jones County
- Kaufman County (Komen East Central Texas)
- Kleberg County
- Liberty County (Komen Houston)
- McLennan County (Komen East Central Texas)
- Medina County
- Nacogdoches County
- Navarro County (Komen East Central Texas)
- Orange County
- Palo Pinto County
- Parker County (Komen Greater Fort Worth)
- Potter County (Komen Greater Amarillo)
- Randall County (Komen Greater Amarillo)
- Rusk County
- Starr County
- Taylor County
- Victoria County
- Walker County
- Waller County
- Washington County
- Wilson County
- Young County

Because data for small numbers of people are not reliable, it can't be predicted whether Andrews County, Archer County, Armstrong County, Bailey County, Bandera County, Baylor County, Bee County, Blanco County, Borden County, Bosque County, Brewster County, Briscoe County, Brooks County, Burleson County, Caldwell County, Calhoun County, Callahan County, Camp County, Carson County, Castro County, Chambers County, Childress County, Clay

County, Cochran County, Coke County, Coleman County, Collingsworth County, Colorado County, Comanche County, Concho County, Cottle County, Crane County, Crockett County, Crosby County, Culberson County, Dallam County, Dawson County, Deaf Smith County, Delta County, Dickens County, Dimmit County, Donley County, Duval County, Edwards County, Erath County, Falls County, Fannin County, Fisher County, Floyd County, Foard County, Franklin County, Freestone County, Frio County, Gaines County, Garza County, Glasscock County, Goliad County, Gonzales County, Gray County, Hall County, Hamilton County, Hansford County, Hardeman County, Hartley County, Haskell County, Hemphill County, Hockley County, Hudspeth County, Hutchinson County, Irion County, Jack County, Jackson County, Jeff Davis County, Jim Hogg County, Karnes County, Kendall County, Kenedy County, Kent County, Kimble County, King County, Kinney County, Knox County, Lamb County, Lampasas County, La Salle County, Lavaca County, Lee County, Leon County, Limestone County, Lipscomb County, Live Oak County, Loving County, Lynn County, McCulloch County, McMullen County, Madison County, Marion County, Martin County, Mason County, Maverick County, Menard County, Mills County, Mitchell County, Montague County, Moore County, Morris County, Motley County, Newton County, Nolan County, Ochiltree County, Oldham County, Panola County, Parmer County, Pecos County, Presidio County, Rains County, Reagan County, Real County, Red River County, Reeves County, Refugio County, Roberts County, Robertson County, Rockwall County, Runnels County, Sabine County, San Augustine County, San Saba County, Schleicher County, Scurry County, Shackelford County, Sherman County, Somervell County, Stephens County, Sterling County, Stonewall County, Sutton County, Swisher County, Terrell County, Terry County, Throckmorton County, Titus County, Trinity County, Upton County, Uvalde County, Ward County, Wheeler County, Wilbarger County, Willacy County, Winkler County, Yoakum County, Zapata County and Zavala County will reach the death rate target.

The remaining counties are likely to achieve the target by 2020 or earlier.

## Breast Cancer Late-Stage Incidence Rates

The State of Texas as a whole currently meets the HP2020 late-stage incidence rate target. The state had a base rate of 40.7 new late-stage cases per 100,000 females per year from 2006 to 2010 (age-adjusted). This rate coupled with a desirable direction (decrease) in the recent late-stage incidence rate trend, indicates that the State of Texas will meet the HP2020 target of 41.0 new late-stage cases per 100,000.

The following counties currently meet the HP2020 late-stage incidence rate target of 41.0:

- Anderson County (Komen East Central Texas)
- Bandera County
- Bexar County (Komen San Antonio)
- Brazos County
- Brown County
- Burleson County
- Cameron County
- Cass County (Komen Texarkana)
- Cherokee County (Komen East Central Texas)
- Collin County (Komen North Texas)
- Colorado County
- Cooke County (Komen North Texas)
- Denton County (Komen North Texas)
- El Paso County (Komen El Paso)
- Falls County (Komen East Central Texas)
- Fayette County
- Fort Bend County (Komen Houston)
- Freestone County (Komen East Central Texas)
- Galveston County (Komen Houston)
- Gillespie County
- Gonzales County
- Grimes County
- Hale County (Komen Lubbock Area)
- Harrison County
- Hays County (Komen Austin)
- Hidalgo County
- Hill County (Komen East Central Texas)
- Hood County (Komen Greater Fort Worth)
- Hopkins County
- Houston County
- Hunt County (Komen North Texas)
- Kaufman County (Komen East Central Texas)
- Kendall County
- Lampasas County
- Matagorda County
- Maverick County
- Midland County
- Montague County (Komen North Texas)
- Montgomery County (Komen Houston)
- Navarro County (Komen East Central Texas)
- Newton County
- Nueces County
- Palo Pinto County
- Panola County
- Rockwall County
- Rusk County
- San Patricio County
- Shelby County
- Starr County
- Taylor County
- Titus County
- Tyler County
- Upshur County
- Uvalde County
- Waller County
- Webb County
- Wharton County
- Wichita County (Komen North Texas)
- Wood County

The following counties are likely to miss the HP2020 late-stage incidence rate target unless the late-stage incidence rate falls at a faster rate than currently estimated:

- Angelina County
- Atascosa County
- Austin County
- Bastrop County (Komen Austin)
- Bee County
- Bosque County (Komen East Central Texas)
- Burnet County
- Caldwell County (Komen Austin)
- Calhoun County
- Chambers County (Komen Houston)
- Comanche County
- Coryell County (Komen East Central Texas)
- Ector County
- Frio County
- Grayson County (Komen North Texas)
- Guadalupe County
- Harris County (Komen Houston)
- Hockley County (Komen Lubbock Area)
- Hutchinson County (Komen Greater Amarillo)
- Jasper County
- Jefferson County
- Johnson County (Komen Greater Fort Worth)
- Jones County
- Lamar County
- Lamb County (Komen Lubbock Area)
- Lavaca County
- Lee County
- Leon County
- Liberty County (Komen Houston)
- Llano County
- Medina County
- Moore County (Komen Greater Amarillo)
- Morris County
- Nolan County
- Orange County
- Parker County (Komen Greater Fort Worth)
- Polk County
- Potter County (Komen Greater Amarillo)
- Reeves County
- Sabine County
- Tom Green County
- Trinity County
- Val Verde County
- Van Zandt County (Komen East Central Texas)
- Walker County
- Washington County
- Wilson County
- Wise County (Komen North Texas)
- Young County

Because data for small numbers of people are not reliable, it can't be predicted whether Andrews County, Archer County, Armstrong County, Bailey County, Baylor County, Blanco County, Borden County, Brewster County, Briscoe County, Brooks County, Camp County, Carson County, Castro County, Childress County, Clay County, Cochran County, Coke County, Coleman County, Collingsworth County, Concho County, Cottle County, Crane County, Crockett County, Crosby County, Culberson County, Dallam County, Deaf Smith County, Delta County, Dickens County, Dimmit County, Donley County, Duval County, Eastland County, Edwards County, Fisher County, Floyd County, Foard County, Franklin County, Garza County, Glasscock County, Goliad County, Hall County, Hamilton County, Hansford County, Hardeman County, Hartley County, Haskell County, Hemphill County, Howard County, Hudspeth County, Irion County, Jack County, Jackson County, Jeff Davis County, Jim Hogg County, Karnes County, Kenedy County, Kent County, Kimble County, King County, Kinney County, Knox County, La Salle County, Limestone County, Lipscomb County, Live Oak County, Loving County, Lynn County, McCulloch County, McMullen County, Madison County, Marion County, Martin County, Mason County, Menard County, Mills County, Mitchell County, Motley County, Ochiltree County, Oldham County, Parmer County, Pecos County, Presidio County, Rains County, Reagan County, Real County, Refugio County, Roberts County, Runnels County, San Augustine County, San Saba County, Schleicher County, Shackelford County, Sherman County, Somervell County, Stephens County, Sterling County, Stonewall County, Sutton County, Swisher County, Terrell County, Terry County, Throckmorton County, Upton County, Ward County, Wheeler County, Wilbarger County, Willacy County, Winkler County, Yoakum County, Zapata County and Zavala County will reach the late-stage incidence rate target.

The remaining counties are likely to achieve the target by 2020 or earlier.

## HP2020 Conclusions

## Highest priority areas

Thirty-four counties in the State of Texas are in the highest priority category. Fourteen of the thirty-four, Austin County, Jasper County, Jefferson County, Johnson County, Jones County, Liberty County, Medina County, Orange County, Parker County, Potter County, Walker County, Washington County, Wilson County and Young County, are not likely to meet either the death rate or late-stage incidence rate HP2020 targets. One of the thirty-four, Eastland County is not likely to meet the death rate HP2020 target. Nineteen of the thirty-four, Bee County, Bosque County, Caldwell County, Calhoun County, Chambers County, Comanche County, Frio County, Hockley County, Hutchinson County, Lamb County, Lavaca County, Lee County, Leon County, Moore County, Morris County, Nolan County, Reeves County, Sabine County and Trinity County, are not likely to meet the late-stage incidence rate HP2020 target.

The age-adjusted incidence rates in Austin County (141.0 per 100,000), Parker County (130.6 per 100,000 ) and Washington County ( 149.4 per 100,000 ) are significantly higher than the state as a whole (114.4 per 100,000). The age-adjusted death rates in Jefferson County ( 25.9 per 100,000 ) and Young County ( 45.7 per 100,000) are significantly higher than the state as a whole (21.8 per 100,000). The age-adjusted late-stage incidence rates in Jasper County (55.4 per 100,000), Jefferson County ( 58.5 per 100,000) and Orange County ( 53.2 per 100,000) are significantly higher than the state as a whole ( 40.7 per 100,000). Late-stage incidence trends in Austin County ( 28.5 percent per year) are significantly less favorable than the state as a whole (-3.2 percent per year).

Austin County has an older population. Bee County has a relatively large Hispanic/Latina population and low education levels. Bosque County has an older population. Caldwell County has a relatively large Hispanic/Latina population and high unemployment. Calhoun County has a relatively large Hispanic/Latina population and high unemployment. Comanche County has an older population and high poverty levels. Eastland County has an older population. Frio County has a relatively large Hispanic/Latina population, low education levels, high poverty levels and a relatively large number of households with little English. Hockley County has a relatively large Hispanic/Latina population and low education levels. Jasper County has an older population. Jefferson County has a relatively large Black/African-American population. Jones County has an older population and low education levels. Lamb County has a relatively large Hispanic/Latina population and low education levels. Lavaca County has an older population. Lee County has an older population. Leon County has an older population. Liberty County has low education levels and high unemployment. Medina County has a relatively large Hispanic/Latina population. Moore County has a relatively large Hispanic/Latina population, low education levels, a relatively large foreign-born population and a relatively large number of households with little English. Morris County has a relatively large Black/African-American population and an older population. Nolan County has an older population. Potter County has high poverty levels. Reeves County has a relatively large Hispanic/Latina population, low education levels, high poverty levels, high unemployment and a relatively large number of households with little English. Sabine County has an older population. Trinity County has an older population. Walker County has a relatively large Black/African-American population. Washington County has a
relatively large Black/African-American population and an older population. Young County has an older population.

## High priority areas

Three counties in the State of Texas are in the high priority category. All of the three, Ector County, Harris County and Llano County, are not likely to meet the late-stage incidence rate HP2020 target.

The age-adjusted incidence rates in Harris County (121.7 per 100,000) are significantly higher than the state as a whole (114.4 per 100,000). The age-adjusted death rates in Harris County $(24.2$ per 100,000$)$ are significantly higher than the state as a whole ( 21.8 per 100,000). The age-adjusted late-stage incidence rates in Ector County ( 53.1 per 100,000) and Harris County ( 43.0 per 100,000 ) are significantly higher than the state as a whole ( 40.7 per 100,000).
Ector County has a relatively large Hispanic/Latina population and low education levels. Harris County has a relatively large Black/African-American population, a relatively large foreign-born population and a relatively large number of households with little English. Llano County has an older population.

## Health Systems Analysis

This section of the state report tells the story of the breast cancer continuum of care and the delivery of quality health care in the community. Key to this section is the observation of potential strengths and weaknesses in the health care system that could compromise a women's health as she works her way through the continuum of care (e.g., screening, diagnosis, treatment and follow-up/survivorship services).

## Health Systems Analysis Data Sources

## Breast Cancer Programs and Services

An inventory of breast cancer programs and services in the state were collected through a comprehensive internet search to identify the following types of health care facilities or community organizations that may provide breast cancer related services:

- Hospitals- Public or private, for-profit or nonprofit.
- Community Health Centers (CHC) - Community based organizations that provide primary care regardless of ability to pay; include Federally Qualified Health Centers (FQHCs) and FQHC look-alikes.
- Free Clinic- Free and charitable clinics are safety-net health care organizations that utilize a volunteer/staff model and restrict eligibility for their services to individuals who are uninsured, underinsured and/or have limited or no access to primary health care.
- Health Department- Local health department run by government entity (e.g. county, city) focused on the general health of its citizens.
- Title X Provider- Family planning centers that also offer breast and cervical cancer screening. Services are provided through state, county, and local health departments; community health centers; Planned Parenthood centers; and hospital-based, schoolbased, faith-based, other private nonprofits.
- Other- Any institution that is not a hospital, CHC, free clinic, health department or Title $X$ provider (e.g., FDA certified mammography center that is not a hospital/CHC, community organization that is not a medical provider but does connect people to services or provide support services such as financial/legal assistance).

Information collected through these means was inputted into a Health Systems Analysis spreadsheet by service type: screening, diagnostics, treatment, and support. The screening service category encompasses clinical breast exams (CBEs), screening mammograms, mobile mammography units, ultrasounds, and patient navigation. The category of diagnostics includes diagnostic mammograms, ultrasounds, biopsy, MRI, and patient navigation. Treatment modalities counted were chemotherapy, radiation, surgery consultations, surgery, reconstruction, and patient navigations. Support encompasses a broad range of services including support groups, wigs, mastectomy wear, individual counseling/psychotherapy, exercise/nutrition programs, complementary therapies, transportation assistance, financial assistance for cost of living expenses, as well as end of life care, legal services, and education.

In order to understand the effect available health systems have on the state, the identified resources were plotted on an asset map by Susan G. Komen Information Technology (IT) staff to visually illustrate the services (or lack thereof) available in the state. While every effort was
made to ensure these findings were comprehensive, it may be possible that a facility or organization was missed or has since closed; as a result, these findings should not be considered exhaustive and/or final.

## Quality of Care Indicators

For all health care facilities and hospitals, an additional layer of analysis was applied using quality of care indicators. Quality of care indicators are quantifiable measures related to the process of care, outcomes of care, and patient satisfaction levels from a particular program and/or organization. Multiple national organizations have developed key quality of care indicators for breast health services, and if an organization meets all of the key indicators they are designated an "accredited" health care institution. These accreditations outline key quality of care indicators health care institutions must meet in order to obtain and/or retain accreditation status. The following five accreditations were considered high quality of care indicators in the state's health system analysis.

- FDA Approved Mammography Facilities

The Food and Drug Administration (FDA) passed the Mammography Quality Standards Act (MQSA) in 1992 to ensure facilities meet standards for performing high quality mammography. Accreditation bodies administer the MQSA to evaluate and accredit mammography facilities based upon quality standards. These quality standards are extensive and outline how a facility can operate. For instance, physicians interpreting mammograms must be licensed to practice medicine, be certified to interpret radiological procedures including mammography, and must complete continuing experience or education to maintain their qualifications (US Food and Drug Administration [US FDA], 2014). Radiologic technologists must also be trained and licensed to perform general radiographic procedures and complete continuing experience or education to maintain their qualifications. Facilities are required to maintain personnel records to document the qualifications of all personnel who work at the facility such as physicians, radiologic technologists or medical physicists.

All radiographic equipment used in FDA approved mammography centers must be specifically designed for mammography and must not be equipment designed for general purpose or equipment that has been modified with special attachments for mammography. Equipment regulations also apply to compression paddles, image receptor size, light fields and magnification, focal spot selection, x-ray film, film processing solutions, lighting and film masking devices. Facilities must also prepare a written report of the results of each mammography examination performed under its certificate. The report must include the name of the patient and an additional patient identifier, date of examination, the name of the interpreting physician, and the overall final assessment of findings. Findings from mammograms are classified into four different categories, including negative, benign, probably benign, and highly suggestive of malignancy. An assessment can also be assigned as incomplete indicating additional imaging evaluation is needed.

FDA approved mammography facilities are obligated to communicate the results of mammograms to the patient and the patient's primary care provider in a written report within 30 days. Each facility must also maintain mammography films and reports in a permanent medical record for a period of no less than five years or longer if mandated by State or local law. Patients can request to permanently or temporarily transfer the original mammograms and patient report to a medical institution, physician, health care provider, or to the patient directly. Any fees for providing transfer services shall not exceed the documented costs associated with this service.

A quality assurance program must be established at each facility to ensure safety, reliability, clarity, and accuracy of mammography services. At least once a year, each facility undergoes a survey by a medical physicist that includes the performance of tests to ensure the facility meets quality assurance requirements. The FDA evaluates the performance of each certificated agency annually through the use of performance indicators that address the adequacy of program performance in certification, inspection, and enforcement activities. Only facilities that are accredited by FDA accrediting bodies or are undergoing accreditation by accrediting bodies may obtain a certificate from the FDA to legally perform mammography (US FDA, 2014). Only FDA approved mammography centers were included in the health system analysis for each target community.

- American College of Surgeons Commission on Cancer Certification (CoCC) Applying and sustaining an American College of Surgeons Commission on Cancer Certification (CoCC) is a voluntary effort a cancer program can undertake to ensure a range of services necessary to diagnose and treat cancer, as well as rehabilitate and support patients and their families, are available (American College of Surgeons [ACoS], 2013). There are various categories of cancer programs, and each facility is assigned a category based on the type of facility or organization, services provided, and cases accessioned or recorded. Program categories include: Integrated Network Cancer Program (INCP); NCI-Designated Comprehensive Cancer Center Program (NCIP); Academic Comprehensive Cancer Program (ACAD); Veterans Affairs Cancer Program (VACP); Comprehensive Community Cancer Program (CCCP); Hospital Associate Cancer Program (HACP); Pediatric Cancer Program (PCP); and Freestanding Cancer Center Program (FCCP) (ACoS, 2013).

CoCC cancer programs are surveyed every three years. In preparation for survey, the cancer committee for that facility must assess program compliance with the requirements for all standards outlined in Cancer Program Standards 2012: Ensuring Patient-Centered Care. An individual must then review and complete an online Survey Application Record (SAR). In addition, the individual responsible for completing the SAR will perform a self-assessment and rate compliance with each standard using the Cancer Program Ratings Scale.

The surveyor's role is to assist in accurately defining the standards and verifying the facility's cancer program is in compliance. To accomplish this task, the surveyor will meet with the cancer committee, cancer registry staff and cancer liaison physicians, review pathology reports, and attend a cancer conference to observe the multidisciplinary patient management discussions and confirm treatment is planned using nationally recognized, evidence-based treatment guidelines. CoCC-accredited programs must also submit documentation of cancer program activities with the SAR using multiple sources such as policies, procedures, manuals, and grids.

Each cancer program standard is rated on a compliance scale that consists of the score of ( $1+$ ) commendation, (1) compliance, (5) noncompliance, and (8) not applicable. A deficiency is defined as any standard with a rating of five. A deficiency in one or more standards will affect the accreditation award. Commendation ratings (+1) are valid for eight standards, can only be earned at the time of survey, and are used to determine the accreditation award and award level (bronze, silver, or gold). Accreditation awards are based on consensus ratings by the cancer program surveyor, CoCC staff and when necessary, the Program Review Subcommittee. A program can earn one of the following Accreditation Awards; three-year with commendation accreditation, three-year accreditation, three-year accreditation with contingency, provisional accreditation, or no accreditation. Programs are surveyed at three-year intervals from the date of survey.

Award notification takes place within 45 days following the completed survey and will include The Accredited Cancer Program Performance Report. This report includes a comprehensive summary of the survey outcome and accreditation award, the facility's compliance rating for each standard, an overall rating compared with other accredited facilities nation- and state-wide, and the category of accreditation. In addition, a narrative description of deficiencies that require correction, suggestions to improve or enhance the program, and commendations awarded are also included.

- American College of Surgeons National Accreditation Program for Breast Centers (NAPBC)
The American College of Surgeons' National Accreditation Program for Breast Centers (NAPBC) is a consortium of national professional organizations focused on breast health and dedicated to improving quality of care and outcomes for patients with diseases of the breast (ACoS, 2014). The NAPBC utilizes evidence-based standards as well as patient and provider education, and encourages leaders from major disciplines to work together to diagnose and treat breast disease. The NAPBC has defined 28 program standards and 17 program components of care that provide the most efficient and contemporary care for patients diagnosed with diseases of the breast. Quality standards cover a range of topics and levels of operation including leadership, clinical management, research, community outreach, professional education, and quality improvement (ACoS, 2014).

To be considered for initial survey, breast center leadership must ensure clinical services, interdisciplinary/multidisciplinary conference(s), and quality management programs are in place and ensure a facility can meet the requirements outlined for all standards. Critical standards include having breast program leadership that is responsible and accountable for services and also establishes, monitors, and evaluates the interdisciplinary breast cancer conference frequency, multidisciplinary and individual attendance, prospective case presentation, and total case presentation annually. In addition, the interdisciplinary patient management standard requires patient management to be conducted by an interdisciplinary team after a patient is diagnosed with breast cancer.

Breast center leadership then completes a pre-application to participate and pay for the survey fee within 30 days of the receipt from the NAPBC. To prepare for a survey, the breast center must complete a Survey Application Record (SAR) prior to the on-site visit. The SAR is intended to capture information about the breast center activity and includes portions of individuals to perform a self-assessment and rate compliance with each standard using a provided rating system. The NAPBC will then complete a survey of the facility within six months. A survey of a facility typically includes a tour of the center, a meeting between the surveyor and breast center leadership and staff, chart and medical record review, and the attendance of a breast conference.

Accreditation awards are based on consensus ratings by the surveyor, the NAPBC staff, and, if required, the Standards and Accreditation Committee. Accreditation award is based on compliance with 28 standards. A three year, full accreditation is granted to centers that comply with 90 percent or more of the standards with resolution of all deficient standards documented within 12 months of survey. Centers that do not resolve all deficiencies within the 12 month period risk losing NAPBC accreditation status and are required to reapply. Once a performance report and certificate of accreditation are issued, these centers are surveyed every three years.

A three-year contingency accreditation is granted to centers that meet less than 90 percent, but more than 75 percent of the standards at the time of survey. The contingency status is resolved by the submission of documentation of compliance within 12 months from the date of survey. A performance report and certificate of accreditation are issued, and these facilities are surveyed every three years. An accreditation can be deferred if a center meets less than 75 percent of the standards at the time of the survey. The deferred status is resolved by the submission of documentation of compliance within 12 months from the date of survey. Based on the resolution of deficiencies and survey results, a performance report and certificate of accreditation are issued, and these facilities are surveyed every three years. For the complete list of NAPBC quality standards, visit: http://www.napbc-breast.org/standards/standards.html.

- American College of Radiology Breast Imaging Centers of Excellence (BICOE) The American College of Radiology (ACR) Breast Imaging Centers of Excellence (BICOE) designation is awarded to breast imaging centers that seek and earn accreditation in the ACR's entire voluntary breast imaging accreditation programs and modules, in addition to the Mandatory Mammography Accreditation Program (MMAP) (American College of Radiology [ACR], n.d.). The ACR MMAP is designed to provide facilities with peer review and constructive feedback on staff qualifications, equipment, quality control, quality assurance, image quality, and radiation dose. This ensures facilities comply with the 1992 Mammography Quality Standards Act (MQSA), which requires all mammography facilities be accredited. In order to receive the ACR's BICOE designation, a facility must be accredited by the ACR in mammography, stereotactic breast biopsy, breast ultrasound, and effective January 1, 2016, breast MRI.

The ACR will send a BICOE certificate to each facility that fulfills the necessary requirements. The designation remains in effect as long as all breast imaging facilities (an organizations home location or a different location) remain accredited in all required breast imaging services provided. If the center or facility neglects to renew any of its accreditations or fails during renewal, the facility will be notified that it no longer has the BICOE designation and the BICOE certificate must be removed from public display. Some centers will need to specifically request a BICOE designation, while in most cases the ACR will consult its database and automatically provide an eligible center a BICOE certificate if the center is at a single physical location and meets all breast imaging requirements (ACR, n.d.).

- National Cancer Institute Designated Cancer Centers

A National Cancer Institute ( NCl ) designated Cancer Center is an institution dedicated to researching the development of more effective approaches to the prevention, diagnosis, and treatment of cancer (National Cancer Institute [NCI], 2012). A NCI-designated Cancer Center conducts cancer research that is multidisciplinary and incorporates collaboration between institutions and university medical centers. This collaboration also provides training for scientists, physicians, and other professionals interested in specialized training or board certification in cancer-related disciplines. NCI-designated Cancer Centers also provide clinical programs that offer the most current forms of treatment for various types of cancers and typically incorporate access to clinical trials of experimental treatments. In addition, public education and community outreach regarding cancer prevention and screening are important activities of a NCl -designated Cancer Center (NCI, 2012).

## HRSA Shortage Designations

The US Department of Health and Human Services-Health Resources and Services Administration (HRSA) designations for Health Professional Shortage Areas (HSPAs) and Medically Underserved Areas/Populations (MUA/Ps) were used to identify areas within the state where individuals may have inadequate access to primary care providers and facilities (US Department of Health and Human Services, n.d.).

- Health Professional Shortage Areas (HPSAs) are designated by HRSA as having shortages of primary medical care, dental or mental health providers and may be geographic (a county or service area), population (e.g. low income or Medicaid eligible) or facilities (e.g. federally qualified health center or other state or federal prisons).
- Medically Underserved Areas/Populations (MUA/Ps) are areas or populations designated by HRSA as having too few primary care providers, high infant deaths, high poverty or a high elderly population.


## Breast Cancer Continuum of Care

The Breast Cancer Continuum of Care (CoC), shown in Figure 3.1, is a model that shows how a woman typically moves through the health care system for breast care. A woman would ideally move through the CoC quickly and seamlessly, receiving timely, quality care in order to have the best outcomes.
Education can play an important role throughout the entire CoC.

While a woman may enter the continuum at any point, ideally, a woman would enter the CoC by getting screened for breast cancer with a clinical breast exam or a screening mammogram. If the screening test results are normal, she would loop back into followup care, where she would get another screening exam at the recommended interval. Education


Figure 3.1. Breast Cancer Continuum of Care (CoC) plays a role in both providing education to encourage women to get screened and reinforcing the need to continue to get screened routinely thereafter.

If a screening exam resulted in abnormal results, diagnostic tests would be needed, possibly several, to determine if the abnormal finding is in fact breast cancer. These tests might include a diagnostic mammogram, breast ultrasound, or biopsy. If the tests were negative (or benign) and breast cancer was not found, she would go into the follow-up loop and return for screening at the recommended interval. The recommended intervals may range from three to six months for some women to 12 months for most women. Education plays a role in communicating the importance of proactively getting test results, keeping follow-up appointments, and understanding what everything means. Education can empower a woman and help manage anxiety and fear.

The woman would proceed to treatment if breast cancer is diagnosed. Education can cover such topics as treatment options, how a pathology reports determines the best options for
treatment, understanding side effects and how to manage them, and helping to formulate questions a woman may have for her providers.

For some breast cancer patients, treatment may last a few months and for others, it may last years. While the CoC model shows that follow-up and survivorship come after treatment ends, they actually may occur at the same time. Follow-up and survivorship may include things like navigating insurance issues, locating financial assistance, symptom management, such as pain, fatigue, sexual issues, bone health, etc. Education may address topics such as making healthy lifestyle choices, long term effects of treatment, managing side effects, the importance of followup appointments, and communication with their providers. Most women will return to screening at a recommended interval after treatment ends, or for some, during treatment (such as those taking long term hormone therapy).

There are often delays in moving from one point of the continuum to another - at the point of follow-up of abnormal screening exam results, starting treatment, and completing treatment that can all contribute to poorer outcomes. There are also many reasons why a woman does not enter or continue in the breast cancer CoC. These barriers can include things such as lack of transportation, system issues including long waits for appointments and inconvenient clinic hours, language barriers, fear, and lack of information or the wrong information (myths and misconceptions). Education can address some of these barriers and help a woman enter and progress through the CoC more quickly.

## Health Systems Analysis Findings

In the State of Texas there were 976 locations found to provide breast cancer services varying between screening, diagnostic, treatment, and survivorship (Figure 3.2). There were 976 locations that provided screening services, 498 locations in the state that provide diagnostic services and 222 locations providing treatment services. In the state there were 139 locations that provided survivorship services or care. Identified facilities that provide mammography services were all accredited by the Federal Drug Administration. There are 96 locations that are accredited by the American College of Surgeons Commission on Cancer, 70 locations accredited by the American College of Radiology as a Breast Imaging Center of Excellence and 30 locations accredited as an American College of Surgeons NAPBC program. There were four locations designated as a NCI Cancer Center.

The following counties are designated as a Medically Underserved Area/Population and/or a Health Professional Shortage Area for primary care: Anderson, Andrews, Angelina, Aransas, Archer, Armstrong, Atascosa, Austin, Bailey, Bandera, Bastrop, Baylor, Bee, Bell, Bexar, Blanco, Borden, Bosque, Bowie, Brazoria, Brazos, Brewster, Briscoe, Brooks, Brown, Burleson, Burnet, Caldwell, Calhoun, Callahan, Cameron, Camp, Carson, Cass, Castro, Chambers, Cherokee, Childress, Clay, Cochran, Coke, Coleman, Collin, Collingsworth, Colorado, Comal, Comanche, Concho, Cooke, Coryell, Cottle, Crane, Crockett, Crosby, Culberson, Dallam, Dallas, Dawson, Deaf Smith, Delta, Denton, DeWitt, Dickens, Dimmit, Donley, Duval, Eastland, Ector, Edwards, El Paso, Ellis, Erath, Falls, Fannin, Fayette, Fisher, Floyd, Foard, Fort Bend,

Franklin, Freestone, Frio, Gaines, Galveston, Garza, Glasscock, Goliad, Gonzales, Gray, Grayson, Gregg, Grimes, Guadalupe, Hale, Hall, Hamilton, Hansford, Hardeman, Hardin, Harris, Harrison, Hartley, Haskell, Hays, Hemphill, Henderson, Hidalgo, Hill, Hockley, Hopkins, Houston, Howard, Hudspeth, Hunt, Hutchinson, Irion, Jack, Jackson, Jasper, Jeff Davis, Jefferson, Jim Hogg, Jim Wells, Johnson, Jones, Karnes, Kaufman, Kenedy, Kent, Kerr, Kimble, King, Kinney, Kleberg, Knox, La Salle, Lamar, Lamb, Lampasas, Lavaca, Lee, Leon, Liberty, Limestone, Lipscomb, Live Oak, Llano, Loving, Lubbock, Lynn, Madison, Marion, Martin, Mason, Matagorda, Maverick, McCulloch, McLennan, McMullen, Medina, Menard, Midland, Milam, Mills, Mitchell, Montague, Montgomery, Moore, Morris, Motley, Nacodoches, Navarro, Newton, Nolan, Nueces, Ochiltree, Oldham, Orange, Palo Pinto, Panola, Parmer, Pecos, Polk, Potter, Presidio, Rains, Randall, Reagan, Real, Red River, Reeves, Refugio, Roberts, Robertson, Runnels, Rusk, Sabine, San Augustine, San Jacinto, San Patricio, San Saba, Schleicher, Scurry, Shackelford, Shelby, Sherman, Smith, Starr, Stephens, Sterling, Stonewall, Sutton, Swisher, Tarrant, Taylor, Terrell, Terry, Throckmorton, Titus, Tom Green, Travis, Trinity, Tyler, Upshur, Upton, Uvalde, Val Verde, Van Zandt, Victoria, Walker, Waller, Ward, Washington, Webb, Wharton, Wheeler, Wichita, Wilbarger, Willacy, Williamson, Wilson, Winkler, Wood, Yoakum, Young, Zapata and Zavala.

## Texas

Affiliate Office


## Statistics

Total Locations in Region: 976



Figure 3.2. Breast cancer services available in Texas

## Public Policy Overview

In recent years, public policies pertaining to breast cancer have undergone substantial changes that will affect at-risk women across the United States. States have responded differently to the public policy developments concerning access to services within the breast cancer continuum of care (screening, diagnostic, treatment and survivorship care); therefore, women are dependent on their state's agenda and action on health care reform. This section of the state report will focus on the following public policies that affect breast cancer care in the state: National Breast and Cervical Cancer Early Detection Program, State Comprehensive Cancer Control Plan, the Affordable Care Act and Medicaid Expansion.

## Susan G. Komen Advocacy

Susan G. Komen is the voice for the more than three million breast cancer survivors and those who love them, working to ensure that the fight against breast cancer is a priority among policymakers in Washington, D.C., and every Capitol across the country.

Each year, Komen works to identify, through a transparent and broad-based, intensive vetting and selection process, the policy issues that have the greatest potential impact on Komen's mission. This process includes the collection of feedback from Komen Headquarters leadership, policy staff, and subject matter experts; Komen Affiliates from across the country; advisory groups including the Komen Advocacy Advisory Taskforce (KAAT), Advocates in Science (AIS), and Komen Scholars; and other stakeholders with a vested interest in breast cancer-related issues.

The selected issues are the basis for Komen's state and federal advocacy work in the coming year. While the priority issues may change on an annual basis, the general focus for Komen's advocacy work is to ensure high-quality, affordable care for all, though access to services and an increased investment in research to ensure the continued development of the latest technologies and treatments. For more information on Komen's current Advocacy Priorities, please visit: http://ww5.komen.org/WhatWeDo/Advocacy/Advocacy.html.

## National Breast and Cervical Cancer Early Detection Program

The United States Congress passed the Breast and Cervical Cancer Mortality Prevention Act of 1990, which directed the Centers for Disease Control and Prevention (CDC) to create the National Breast and Cervical Cancer Early Detection Program (NBCCEDP) to improve access to screening (CDC, 2015a). NBCCEDP is a federal-state partnership which requires states to satisfy a $1: 3$ matching obligation (\$1 in state funds or in-kind funds for every $\$ 3$ in federal funds provided to that state) (CDC, n.d.). Currently, the NBCCEDP funds all 50 states, the District of Columbia, five US territories, and 11 American Indian/Alaska Native tribes or tribal organizations, to provide the following services to women (CDC, 2015a; CDC, n.d.):

- Breast and cervical cancer screening for women with priority to low-income women.
- Providing appropriate follow-up and support services (i.e., case management and referrals for medical treatment).
- Developing and disseminating public information and education programs.
- Improving the education, training and skills of health professionals.
- Monitoring screening procedure quality and interpretation.

To be eligible to receive NBCCEDP services, uninsured and underinsured women must be at or below 250 percent of the federal poverty level and between the ages of 40 to 64 for breast cancer screening (CDC, 2015a; CDC, n.d.). Uninsured women between the ages of 50 and 64 who are low-income (up to 250 percent federal poverty level) and who have not been screened in the past year are a priority population for NBCCEDP (CDC, n.d.).

While federal guidelines are provided by the CDC, there are some variations among states, tribal organizations and territories (CDC, 2015b):

- Program funding, clinical costs and additional eligibility guidelines vary by state, tribal organization and territory which influence the number of services that can be provided.
- Flexibility of the program allows each state, tribal organization and territory to adopt an operational model that is appropriate for their respective public health infrastructure and legislative polices.

Since the launch of the program in 1991, NBCCEDP has served more than 4.8 million women providing over 12 million breast and cervical cancer screening services that has resulted in more than 67,900 women being diagnosed with breast cancer (CDC, 2015a).

Congress passed the Breast and Cervical Cancer Prevention and Treatment Act in 2000 to provide states the option to offer Medicaid coverage for breast cancer treatment for women who were diagnosed when receiving services through from the NBCCEDP (CDC, 2015a). To date, all 50 states and the District of Columbia have approved provision of Medicaid coverage for cancer treatment; therefore, providing low-income, uninsured and underinsured women coverage from screening through completion of treatment (CDC, 2015a). Congress expanded this option 2001, with the passage of the Native American Breast and Cervical Cancer Treatment Technical Amendment Act, to include eligible American Indians and Alaska Natives that receive services by the Indian Health Service or by a tribal organization (CDC, 2015a).

In the State of Texas, the NBCCEDP is known as Texas's Breast and Cervical Cancer Services program and is administered by the Texas Department of State Health Services. From July 2009 to June 2014, Texas's Breast and Cervical Cancer Services program provided 128,199 cancer and cervical cancer screening and diagnostic services to women. The program provided 59,617 mammograms that resulted in 7,418 women receiving an abnormal result and 767 women being diagnosed with breast cancer (NBCCEDP Minimum Data Elements, 2015). To find out more information about getting screened and eligibility, contact the Breast and Cervical Cancer Services program (1-512-776-7796).

## State Comprehensive Cancer Control Plan

Comprehensive cancer control is a process through which communities and partner organizations pool resources to reduce cancer risk, find cancers earlier, improve treatments, increase the number of people who survive cancer and improve quality of life for cancer survivors to ultimately reduce the burden of cancer in the state (CDC, 2015d).

## The National Comprehensive Cancer Control Program (NCCCP)

(http://www.cdc.gov/cancer/ncccp/) is an initiative by the CDC to help states, tribes, US affiliated Pacific Islands, and territories form or support existing coalitions to fight cancer by using local data to determine the greatest cancer-related needs in their area (2015d). Once areas have been identified, the state coalition works collaborative to develop and implement a State Comprehensive Cancer Control Plan to meet the identified needs (CDC, 2015d). These plans include initiatives involving healthy lifestyles, promotion of cancer screening tests, access to good cancer care, and improvement in the quality of life for people who survive cancer (CDC, 2015d). State Comprehensive Cancer Control Plans (2015c) can be located at the following link: http://www.cdc.gov/cancer/ncccp/ccc plans.htm.

Texas' comprehensive cancer control plan for 2012-2016 (http://www.cprit.state.tx.us/images/uploads/tcp2012 web v2a.pdf) includes the following goal, objectives and strategies specific to breast cancer:

Goal: Increase proportion of early stage diagnosis through screening and early detection to reduce deaths from breast cancer.

## Objectives:

- Increase proportion of women who receive breast cancer screening according to national guidelines.
- Reduce the rate of late-stage diagnosis of breast cancer.


## Strategic Actions:

- Increase and improve access to care by reducing structural and financial barriers. Evidence-based strategies may include:
- Increasing hours of operation.
- Increasing access to transportation services.
- Increasing mobile and other alternative screening opportunities.
- Increasing access to insurance coverage.
- Promoting investments in and increasing availability of patient navigation services.
- Using best practice models for increasing collaboration among service providers to ensure continuum of care (access to treatment).
- Ensuring appropriate follow-up for those who receive abnormal breast-cancer screening results.
- Using evidence-based interventions, provide education on breast cancer and promote screening guidelines and awareness of insurance coverage options, including all underserved populations.
- Promote the provision of screening services through medical homes, accountable-care organizations, and other emerging models of healthcare delivery.
- Increase availability and utilization of electronic medical records and implementation of clinical system changes to increase utilization of evidence-based cancer screening.
- Improve health professional knowledge, practice behaviors, and system support related to improving service delivery.
- Implement evidence-based interventions related to diagnosis, treatment, and palliation to decrease disparities in racial/ethnic populations, populations with less education, underserved adolescents and young adults, and underserved geographic areas of the state.

For more information regarding Texas' comprehensive cancer plan please visit: http://www.cprit.state.tx.us/about-cprit/texas-cancer-plan/.

## Affordable Care Act

In 2010, Congress passed the Patient Protection and Affordable Care Act (commonly known as Affordable Care Act or ACA) to expand access to care through insurance coverage, enhance the quality of health care, improve health care coverage for those with health insurance and to make health care more affordable (US Department of Health and Human Services, 2015a).

The ACA includes the following mandates to improve health insurance coverage and enhance health care quality (US Department of Health and Human Services, 2015a):

- Prohibit insurers from denying coverage based on pre-existing conditions
- Prohibit insurers from rescinding coverage
- Prohibit annual and lifetime caps on coverage
- Provide coverage of preventive services with no cost-sharing (including screening mammography, well women visits)
- Establish minimum benefits standards, known as the Essential Health Benefits (EHB)

The ACA provides tax subsidies for middle-income individuals to purchase insurance through the health insurance exchanges (commonly called the Marketplace). To be eligible to receive health coverage through the Marketplace, an individuals must live in the United States, be a US citizen or national (or lawfully present), cannot be incarcerated, fall into certain income guidelines and cannot be eligible for other insurance coverage (i.e., Medicaid, Medicare and employer sponsored health care coverage) (US Centers for Medicare and Medicaid Services, n.d.).

Based on 2015 data, of the estimated 4,425,000 total number of uninsured in Texas, 11.0 percent are Medicaid eligible, 23.0 percent are eligible for tax subsidies and 48.0 percent are
ineligible for financial assistance due to income, employer sponsored insurance offer or citizenship status (Garfield et al., 2015).

Some of the ways that the ACA has affected Texas over the past five years include (US Department of Health and Human Service, 2015b):

- Making health care more affordable and accessible through Health Insurance Marketplaces.
- In Texas, 1,205,174 consumers selected or were automatically re-enrolled in health insurance coverage.
- Reducing the number of uninsured.
- The number of uninsured in Texas decreased to 24.4 percent (2014) from 27.0 percent (2013).
- Removing lifetime limits on health benefits and discrimination for pre-existing conditions resulting in cancer patients not having to worry about going without treatment.
- In Texas, over 2,771,000 women no longer have to worry about lifetime limits on coverage.
- Making prescription drug coverage more affordable for those on Medicare.
- In Texas, Medicare covered individuals have saved nearly \$971,785,893 on prescription drugs.
- Covering preventive services, such as screening mammograms, with no deductible or co-pay.
- In Texas, over 2,211,000 women received preventive services without costsharing.
- Providing increased funding to support health care delivery improvement projects that offer a broader array of primary care services, extend hours of operations, employ more providers and improve health care facilities.
- Texas received $\$ 470,331,234$ under the health care law.

For more information about the Affordable Care Act or to obtain coverage, please visit the following websites:

- US Department of Health and Human Services: http://www.hhs.gov/healthcare
- Information about health insurance coverage: 1-800-318-2596 or www.healthcare.gov
- ACA assistance in the local community: https://localhelp.healthcare.gov/\#intro


## Medicaid Expansion

Traditional Medicaid had gaps in coverage for adults because eligibility was restricted to specific categories of low-income individuals (i.e., children, their parents, pregnant women, the elderly, or individuals with disabilities) (Figure 4.1) (The Henry J. Kaiser Family Foundation, 2014). In most states, non-elderly adults without dependent children were ineligible for Medicaid, regardless of their income.

Under the ACA, states were provided the option to expand Medicaid coverage to a greater number of non-elderly adults with incomes at or below 138 percent of poverty (about \$16,242 per year for an individual in 2015); thus reducing the number of uninsured, low-income adults (The Henry J. Kaiser Family Foundation, n.d.). As of January 2016, 32 states including the District of Columbia have adopted and implemented Medicaid Expansion, three states are still considering adopting Medicaid Expansion and 16 are not adopting Medicaid Expansion at this time (The Henry J. Kaiser Family Foundation, n.d.).


NOTE: The June 2012 Supreme Court decision in National Federation of Independent Business v. Sebelius maintained the Medicaid expansion, but limited the Secretary's authority to enforce it, effectively making the expansion optional for states. $138 \% \mathrm{FPL}=\$ 15,856$ for an individual and $\$ 26,951$ for a family of three in 2013.

Figure 4.1. The ACA Medicaid Expansion fills current gaps in coverage

Additional information regarding Medicaid Expansion can be found at the following websites:

- The Henry J. Kaiser Family Foundation State Health Facts: http://kff.org/
- US Centers for Medicare and Medicaid Services: https://www.healthcare.gov/medicaid-chip/medicaid-expansion-and-you/

As of January 2016, Texas has not adopted Medicaid Expansion. In states that did not adopt Medicaid Expansion, low-income "adults fall into a 'coverage gap' of having incomes above Medicaid eligibility limits but below the lower limit for Marketplace premium tax credits (Figure 4.2) (Garfield and Damico, 2016).


Figure 4.2. Gap in coverage for adults in states that do not expand Medicaid under ACA
In Texas, 766,000 people fall within the "coverage gap". Of those in the "coverage gap", 67.0 percent are people of color, 66.0 percent are adults without dependent children, 55.0 percent are female and 69.0 percent are part of a working family (the individual, or a family member, is employed but still living below the poverty line) (Note: individuals can be classified in more than one category) (Garfield and Damico, 2016). If Texas would have adopted Medicaid Expansion, an estimated 1,314,000 uninsured adults (including those in the coverage gap) would have been eligible for Medicaid coverage (Garfield and Damico, 2016).

## Affordable Care Act, Medicaid Expansion and Unisured Women

Even after implementation of the ACA and Medicaid Expansion (in some states), there are approximately 12.8 million women (ages 19 to 64) in the US that remain uninsured (The Henry J. Kaiser Family Foundation, 2016). Uninsured women have been found to have inadequate access to care and receive a lower standard of care within health systems that lead to poorer health outcomes (Kaiser Commission on Medicaid and the Uninsured, 2013). Women that are single parents, have incomes below 100 percent federal poverty level, have less than a high school education, are women of color or immigrants are at greatest risk of being uninsured (Figure 4.3) (The Henry J. Kaiser Family Foundation, 2016).


Note: The Federal Poverty Level (FPL) in 2014 was $\$ 19,790$ for a family of three
SOURCE: Kaiser Family Foundation analysis of 2015 Current Population Survey, U.S. Census Bureau.
Figure 4.3. Women at greatest risk of being uninsured, 2014

A 2014 survey by The Henry J. Kaiser Family Foundation (2016) found that 47.0 percent of uninsured women indicated that insurance was too expensive, 13.0 percent were unemployed/work does not offer/not eligible through work, 8.0 percent tried to obtain coverage but were told they were ineligible, 7.0 percent were not eligible due to immigration status and 4.0 percent indicated that they did not need coverage. Of the $8,221,000$ women in Texas, 1,808,620 (22.0 percent) were without health insurance coverage in 2014 (The Henry J. Kaiser Family Foundation, 2016).

## Community Profile Summary

## Introduction to the Community Profile Report

Susan G. Komen is the world's largest breast cancer organization, funding more breast cancer research than any other nonprofit while providing real-time help to those facing the disease. Since its founding in 1982, Komen has funded more than $\$ 889$ million in research and provided $\$ 1.95$ billion in funding to screening, education, treatment and psychosocial support programs serving millions of people in more than 30 countries worldwide. Komen was founded by Nancy G. Brinker, who promised her sister, Susan G. Komen, that she would end the disease that claimed Suzy's life.

The purpose of the Texas Community Profile is to assess breast cancer burden within the state by identifying areas at highest risk of negative breast cancer outcomes. Through the Community Profile, populations most at-risk of dying from breast cancer and their demographic and socioeconomic characteristics can be identified; as well as, the needs and disparities that exist in availability, access and utilization of quality care.

## Quantitative Data: Measuring Breast Cancer Impact in Local Communities

After review of breast cancer late-stage diagnosis and death rates and trends for each county in the state, areas of greatest need were identified based on if the county would meet Healthy People 2020 late-stage diagnosis rate ( 41.0 per 100,000 women) and death rate ( 20.6 per 100,000 women) targets.

## Breast Cancer Death Rates

The State of Texas as a whole is likely to achieve the HP2020 death rate target. The state had a base rate of 21.8 breast cancer deaths per 100,000 females per year from 2006 to 2010 (ageadjusted). This rate coupled with a desirable direction (decrease) in the recent death rate trend, indicates that the State of Texas will likely achieve the HP2020 target of 20.6 female breast cancer deaths per 100,000.

The following counties currently meet the HP2020 breast cancer death rate target of 20.6:

- Atascosa County
- Bastrop County (Komen Austin)
- Brazos County
- Burnet County
- Cameron County
- Collin County (Komen North Texas)
- Cooke County (Komen North Texas)
- Ellis County (Komen East Central Texas)
- Fort Bend County (Komen Houston)
- Grayson County (Komen North Texas)
- Guadalupe County
- Harrison County
- Henderson County (Komen East Central Texas)
- Hidalgo County
- Hill County (Komen East Central Texas)
- Hood County (Komen Greater Fort Worth)
- Houston County
- Howard County
- Jim Wells County
- Kerr County
- Lamar County
- Midland County
- Milam County (Komen East Central Texas)
- Smith County (Komen East Central Texas)
- Tom Green County
- Travis County (Komen Austin)
- Val Verde County
- Van Zandt County (Komen East Central Texas)
- Webb County
- Wichita County (Komen North Texas)
- Williamson County (Komen Austin)
- Wise County (Komen North Texas)
- Wood County

The following counties are likely to miss the HP2020 breast cancer death rate target unless the death rate falls at a faster rate than currently estimated:

- Austin County
- Bell County (Komen East Central Texas)
- Brazoria County (Komen Houston)
- Brown County
- Cass County (Komen Texarkana)
- Comal County
- DeWitt County
- Eastland County
- Fayette County
- Gregg County
- Grimes County
- Hale County (Komen Lubbock Area)
- Hardin County
- Hopkins County
- Hunt County (Komen North Texas)
- Jasper County
- Jefferson County
- Johnson County (Komen Greater Fort Worth)
- Jones County
- Kaufman County (Komen East Central Texas)
- Kleberg County
- Liberty County (Komen Houston)
- McLennan County (Komen East Central Texas)
- Medina County
- Nacogdoches County
- Navarro County
- Orange County
- Palo Pinto County
- Parker County (Komen Greater Fort Worth)
- Potter County (Komen Greater Amarillo)
- Randall County (Komen Greater Amarillo)
- Rusk County
- Starr County
- Taylor County
- Victoria County
- Walker County
- Waller County
- Washington County
- Wilson County
- Young County

Because data for small numbers of people are not reliable, it can't be predicted whether Andrews County, Archer County, Armstrong County, Bailey County, Bandera County, Baylor County, Bee County, Blanco County, Borden County, Bosque County, Brewster County, Briscoe County, Brooks County, Burleson County, Caldwell County, Calhoun County, Callahan County, Camp County, Carson County, Castro County, Chambers County, Childress County, Clay County, Cochran County, Coke County, Coleman County, Collingsworth County, Colorado County, Comanche County, Concho County, Cottle County, Crane County, Crockett County, Crosby County, Culberson County, Dallam County, Dawson County, Deaf Smith County, Delta County, Dickens County, Dimmit County, Donley County, Duval County, Edwards County, Erath County, Falls County, Fannin County, Fisher County, Floyd County, Foard County, Franklin County, Freestone County, Frio County, Gaines County, Garza County, Glasscock County, Goliad County, Gonzales County, Gray County, Hall County, Hamilton County, Hansford County, Hardeman County, Hartley County, Haskell County, Hemphill County, Hockley County, Hudspeth County, Hutchinson County, Irion County, Jack County, Jackson County, Jeff Davis County, Jim Hogg County, Karnes County, Kendall County, Kenedy County, Kent County, Kimble County, King County, Kinney County, Knox County, Lamb County, Lampasas County, La Salle County, Lavaca County, Lee County, Leon County, Limestone County, Lipscomb County, Live Oak County, Loving County, Lynn County, McCulloch County, McMullen County, Madison County, Marion County, Martin County, Mason County, Maverick County, Menard County, Mills County, Mitchell County, Montague County, Moore County, Morris County, Motley

County, Newton County, Nolan County, Ochiltree County, Oldham County, Panola County, Parmer County, Pecos County, Presidio County, Rains County, Reagan County, Real County, Red River County, Reeves County, Refugio County, Roberts County, Robertson County, Rockwall County, Runnels County, Sabine County, San Augustine County, San Saba County, Schleicher County, Scurry County, Shackelford County, Sherman County, Somervell County, Stephens County, Sterling County, Stonewall County, Sutton County, Swisher County, Terrell County, Terry County, Throckmorton County, Titus County, Trinity County, Upton County, Uvalde County, Ward County, Wheeler County, Wilbarger County, Willacy County, Winkler County, Yoakum County, Zapata County and Zavala County will reach the death rate target.

The remaining counties are likely to achieve the target by 2020 or earlier.

## Breast Cancer Late-Stage Incidence Rates

The State of Texas as a whole currently meets the HP2020 late-stage incidence rate target.
The state had a base rate of 40.7 new late-stage cases per 100,000 females per year from 2006 to 2010 (age-adjusted). This rate coupled with a desirable direction (decrease) in the recent late-stage incidence rate trend, indicates that the State of Texas will meet the HP2020 target of 41.0 new late-stage cases per 100,000.

The following counties currently meet the HP2020 late-stage incidence rate target of 41.0:

- Anderson County (Komen East Central Texas)
- Bandera County
- Bexar County (Komen San Antonio)
- Brazos County
- Brown County
- Burleson County
- Cameron County
- Cass County (Komen Texarkana)
- Cherokee County (Komen East Central Texas)
- Collin County (Komen North Texas)
- Colorado County
- Cooke County (Komen North Texas)
- Denton County (Komen North Texas)
- El Paso County (Komen El Paso)
- Falls County (Komen East Central Texas)
- Fayette County
- Fort Bend County (Komen Houston)
- Freestone County (Komen East Central Texas)
- Galveston County (Komen Houston)
- Gillespie County
- Gonzales County
- Grimes County
- Hale County (Komen Lubbock Area)
- Harrison County
- Hays County (Komen Austin)
- Hidalgo County
- Hill County (Komen East Central Texas)
- Hood County (Komen Greater Fort Worth)
- Hopkins County
- Houston County
- Hunt County (Komen North Texas)
- Kaufman County (Komen East Central Texas)
- Kendall County
- Lampasas County
- Matagorda County
- Maverick County
- Midland County
- Montague County (Komen North Texas)
- Montgomery County (Komen Houston)
- Navarro County
- Newton County
- Nueces County
- Palo Pinto County
- Panola County
- Rockwall County
- Rusk County
- San Patricio County
- Shelby County
- Starr County
- Taylor County
- Titus County
- Tyler County
- Upshur County
- Uvalde County
- Waller County
- Webb County
- Wharton County
- Wichita County (Komen North Texas)
- Wood County

The following counties are likely to miss the HP2020 late-stage incidence rate target unless the late-stage incidence rate falls at a faster rate than currently estimated:

- Angelina County
- Atascosa County
- Austin County
- Bastrop County (Komen Austin)
- Bee County
- Bosque County (Komen East Central Texas)
- Burnet County
- Caldwell County (Komen Austin)
- Calhoun County
- Chambers County (Komen Houston)
- Comanche County
- Coryell County (Komen East Central Texas)
- Ector County
- Frio County
- Grayson County (Komen North Texas)
- Guadalupe County
- Harris County (Komen Houston)
- Hockley County (Komen Lubbock Area)
- Hutchinson County (Komen Greater Amarillo)
- Jasper County
- Jefferson County
- Johnson County (Komen Greater Fort Worth)
- Jones County
- Lamar County
- Lamb County (Komen Lubbock Area)
- Lavaca County
- Lee County
- Leon County
- Liberty County (Komen Houston)
- Llano County
- Medina County
- Moore County (Komen Greater Amarillo)
- Morris County
- Nolan County
- Orange County
- Parker County (Komen Greater Fort Worth)
- Polk County
- Potter County (Komen Greater Amarillo)
- Reeves County
- Sabine County
- Tom Green County
- Trinity County
- Val Verde County
- Van Zandt County (Komen East Central Texas)
- Walker County
- Washington County
- Wilson County
- Wise County (Komen North Texas)
- Young County

Because data for small numbers of people are not reliable, it can't be predicted whether Andrews County, Archer County, Armstrong County, Bailey County, Baylor County, Blanco County, Borden County, Brewster County, Briscoe County, Brooks County, Camp County, Carson County, Castro County, Childress County, Clay County, Cochran County, Coke County, Coleman County, Collingsworth County, Concho County, Cottle County, Crane County, Crockett County, Crosby County, Culberson County, Dallam County, Deaf Smith County, Delta County, Dickens County, Dimmit County, Donley County, Duval County, Eastland County, Edwards County, Fisher County, Floyd County, Foard County, Franklin County, Garza County, Glasscock County, Goliad County, Hall County, Hamilton County, Hansford County, Hardeman County, Hartley County, Haskell County, Hemphill County, Howard County, Hudspeth County, Irion County, Jack County, Jackson County, Jeff Davis County, Jim Hogg County, Karnes County, Kenedy County, Kent County, Kimble County, King County, Kinney County, Knox County, La Salle County, Limestone County, Lipscomb County, Live Oak County, Loving County, Lynn County, McCulloch County, McMullen County, Madison County, Marion County, Martin County, Mason County, Menard County, Mills County, Mitchell County, Motley County, Ochiltree County, Oldham County, Parmer County, Pecos County, Presidio County, Rains County, Reagan County, Real County, Refugio County, Roberts County, Runnels County, San Augustine County, San Saba County, Schleicher County, Shackelford County, Sherman County, Somervell County, Stephens County, Sterling County, Stonewall County, Sutton County, Swisher County, Terrell County, Terry County, Throckmorton County, Upton County, Ward County, Wheeler County, Wilbarger County, Willacy County, Winkler County, Yoakum County, Zapata County and Zavala County will reach the late-stage incidence rate target.

The remaining counties are likely to achieve the target by 2020 or earlier.

## HP2020 Conclusions

## Highest priority areas

Thirty-four counties in the State of Texas are in the highest priority category. Fourteen of the thirty-four, Austin County, Jasper County, Jefferson County, Johnson County, Jones County, Liberty County, Medina County, Orange County, Parker County, Potter County, Walker County, Washington County, Wilson County and Young County, are not likely to meet either the death rate or late-stage incidence rate HP2020 targets. One of the thirty-four, Eastland County is not likely to meet the death rate HP2020 target. Nineteen of the thirty-four, Bee County, Bosque County, Caldwell County, Calhoun County, Chambers County, Comanche County, Frio County, Hockley County, Hutchinson County, Lamb County, Lavaca County, Lee County, Leon County, Moore County, Morris County, Nolan County, Reeves County, Sabine County and Trinity County, are not likely to meet the late-stage incidence rate HP2020 target.

The age-adjusted incidence rates in Austin County (141.0 per 100,000), Parker County (130.6 per 100,000 ) and Washington County ( 149.4 per 100,000 ) are significantly higher than the state as a whole ( 114.4 per 100,000). The age-adjusted death rates in Jefferson County ( 25.9 per 100,000 ) and Young County ( 45.7 per 100,000 ) are significantly higher than the state as a whole (21.8 per 100,000). The age-adjusted late-stage incidence rates in Jasper County (55.4 per 100,000), Jefferson County ( 58.5 per 100,000) and Orange County ( 53.2 per 100,000) are significantly higher than the state as a whole ( 40.7 per 100,000). Late-stage incidence trends in Austin County ( 28.5 percent per year) are significantly less favorable than the state as a whole (-3.2 percent per year).

Austin County has an older population. Bee County has a relatively large Hispanic/Latina population and low education levels. Bosque County has an older population. Caldwell County has a relatively large Hispanic/Latina population and high unemployment. Calhoun County has a relatively large Hispanic/Latina population and high unemployment. Comanche County has an older population and high poverty levels. Eastland County has an older population. Frio County has a relatively large Hispanic/Latina population, low education levels, high poverty levels and a relatively large number of households with little English. Hockley County has a relatively large Hispanic/Latina population and low education levels. Jasper County has an older population. Jefferson County has a relatively large Black/African-American population. Jones County has an older population and low education levels. Lamb County has a relatively large Hispanic/Latina population and low education levels. Lavaca County has an older population. Lee County has an older population. Leon County has an older population. Liberty County has low education levels and high unemployment. Medina County has a relatively large Hispanic/Latina population. Moore County has a relatively large Hispanic/Latina population, low education levels, a relatively large foreign-born population and a relatively large number of households with little English. Morris County has a relatively large Black/African-American population and an older population. Nolan County has an older population. Potter County has high poverty levels.
Reeves County has a relatively large Hispanic/Latina population, low education levels, high poverty levels, high unemployment and a relatively large number of households with little English. Sabine County has an older population. Trinity County has an older population. Walker County has a relatively large Black/African-American population. Washington County has a relatively large Black/African-American population and an older population. Young County has an older population.

## High priority areas

Three counties in the State of Texas are in the high priority category. All of the three, Ector County, Harris County and Llano County, are not likely to meet the late-stage incidence rate HP2020 target.

The age-adjusted incidence rates in Harris County ( 121.7 per 100,000) are significantly higher than the state as a whole (114.4 per 100,000). The age-adjusted death rates in Harris County ( 24.2 per 100,000 ) are significantly higher than the state as a whole ( 21.8 per 100,000). The age-adjusted late-stage incidence rates in Ector County (53.1 per 100,000) and Harris County ( 43.0 per 100,000 ) are significantly higher than the state as a whole ( 40.7 per 100,000).

Ector County has a relatively large Hispanic/Latina population and low education levels. Harris County has a relatively large Black/African-American population, a relatively large foreign-born population and a relatively large number of households with little English. Llano County has an older population.

## Health Systems Analysis

The Breast Cancer Continuum of Care (CoC), shown in Figure 5.1, is a model that shows how a woman typically moves through the health care system for breast care. A woman would ideally move through the CoC quickly and seamlessly, receiving timely, quality care in order to have the best outcomes. Education can play an important role throughout the entire CoC.

There are often delays in moving from one point of the continuum to another - at the point of follow-up of abnormal screening exam results, starting treatment, and completing treatment that can all contribute to poorer outcomes. There are also many reasons why a woman does not enter or continue in the breast cancer CoC. These barriers can include things such as lack of access to services, lack of


Figure 5.1. Breast Cancer Continuum of Care (CoC) transportation, system issues including long waits for appointments and inconvenient clinic hours, language barriers, fear, and lack of information or the wrong information (myths and misconceptions).

In the State of Texas there were 976 locations found to provide breast cancer services varying between screening, diagnostic, treatment, and survivorship (Figure 5.2). There were 976 locations that provided screening services, 498 locations in the state that provide diagnostic services and 222 locations providing treatment services. In the state there were 139 locations that provided survivorship services or care. Identified facilities that provide mammography services were all accredited by the Federal Drug Administration. There are 96 locations that are accredited by the American College of Surgeons Commission on Cancer, 70 locations accredited by the American College of Radiology as a Breast Imaging Center of Excellence and 30 locations accredited as an American College of Surgeons NAPBC program. There were four locations designated as a NCI Cancer Center.

The following counties are designated as a Medically Underserved Area/Population and/or a Health Professional Shortage Area for primary care: Anderson, Andrews, Angelina, Aransas, Archer, Armstrong, Atascosa, Austin, Bailey, Bandera, Bastrop, Baylor, Bee, Bell, Bexar,

Blanco, Borden, Bosque, Bowie, Brazoria, Brazos, Brewster, Briscoe, Brooks, Brown, Burleson, Burnet, Caldwell, Calhoun, Callahan, Cameron, Camp, Carson, Cass, Castro, Chambers, Cherokee, Childress, Clay, Cochran, Coke, Coleman, Collin, Collingsworth, Colorado, Comal, Comanche, Concho, Cooke, Coryell, Cottle, Crane, Crockett, Crosby, Culberson, Dallam, Dallas, Dawson, Deaf Smith, Delta, Denton, DeWitt, Dickens, Dimmit, Donley, Duval, Eastland, Ector, Edwards, El Paso, Ellis, Erath, Falls, Fannin, Fayette, Fisher, Floyd, Foard, Fort Bend, Franklin, Freestone, Frio, Gaines, Galveston, Garza, Glasscock, Goliad, Gonzales, Gray, Grayson, Gregg, Grimes, Guadalupe, Hale, Hall, Hamilton, Hansford, Hardeman, Hardin, Harris, Harrison, Hartley, Haskell, Hays, Hemphill, Henderson, Hidalgo, Hill, Hockley, Hopkins, Houston, Howard, Hudspeth, Hunt, Hutchinson, Irion, Jack, Jackson, Jasper, Jeff Davis, Jefferson, Jim Hogg, Jim Wells, Johnson, Jones, Karnes, Kaufman, Kenedy, Kent, Kerr, Kimble, King, Kinney, Kleberg, Knox, La Salle, Lamar, Lamb, Lampasas, Lavaca, Lee, Leon, Liberty, Limestone, Lipscomb, Live Oak, Llano, Loving, Lubbock, Lynn, Madison, Marion, Martin, Mason, Matagorda, Maverick, McCulloch, McLennan, McMullen, Medina, Menard, Midland, Milam, Mills, Mitchell, Montague, Montgomery, Moore, Morris, Motley, Nacodoches, Navarro, Newton, Nolan, Nueces, Ochiltree, Oldham, Orange, Palo Pinto, Panola, Parmer, Pecos, Polk, Potter, Presidio, Rains, Randall, Reagan, Real, Red River, Reeves, Refugio, Roberts, Robertson, Runnels, Rusk, Sabine, San Augustine, San Jacinto, San Patricio, San Saba, Schleicher, Scurry, Shackelford, Shelby, Sherman, Smith, Starr, Stephens, Sterling, Stonewall, Sutton, Swisher, Tarrant, Taylor, Terrell, Terry, Throckmorton, Titus, Tom Green, Travis, Trinity, Tyler, Upshur, Upton, Uvalde, Val Verde, Van Zandt, Victoria, Walker, Waller, Ward, Washington, Webb, Wharton, Wheeler, Wichita, Wilbarger, Willacy, Williamson, Wilson, Winkler, Wood, Yoakum, Young, Zapata and Zavala.


Figure 5.2. Breast cancer services available in Texas

## Public Policy Overview

In recent years, public policies pertaining to breast cancer have undergone substantial changes that will affect at-risk women across the United States. States have responded differently to the public policy developments concerning access to services within the breast cancer continuum of care (screening, diagnostic, treatment and survivorship care); therefore, women are dependent on their state's agenda and action on health care reform.

## National Breast and Cervical Cancer Early Detection Program (NBCCEDP)

The NBCCEDP is a nationwide program that provides low-income women with breast and cervical cancer screening, follow-up and support services (i.e., case management and referrals for medical treatment), developing and disseminating public information and education programs and improving the education, training and skills of health professionals.

In the State of Texas, the NBCCEDP is known as Texas's Breast and Cervical Cancer Services program and is administered by the Texas Department of State Health Services. From July 2009 to June 2014, Texas's Breast and Cervical Cancer Services program provided 128,199 cancer and cervical cancer screening and diagnostic services to women. The program provided 59,617 mammograms that resulted in 7,418 women receiving an abnormal result and 767 women being diagnosed with breast cancer (NBCCEDP Minimum Data Elements, 2015). To find out more information about getting screened and eligibility, contact the Breast and Cervical Cancer Services program (1-512-776-7796).

## State Comprehensive Cancer Control Plan

Comprehensive cancer control is a process through which communities and partner organizations pool resources to reduce cancer risk, find cancers earlier, improve treatments, increase the number of people who survive cancer and improve quality of life for cancer survivors to ultimately reduce the burden of cancer in the state. Under the National Comprehensive Cancer Control Program (NCCCP), state cancer coalitions develop and implement a State Comprehensive Cancer Control Plan to meet identified cancer needs.

Texas' comprehensive cancer control plan for 2012-2016 (http://www.cprit.state.tx.us/images/uploads/tcp2012 web v2a.pdf) includes the following goal, objectives and strategies specific to breast cancer:

Goal: Increase proportion of early stage diagnosis through screening and early detection to reduce deaths from breast cancer.

## Objectives:

- Increase proportion of women who receive breast cancer screening according to national guidelines.
- Reduce the rate of late-stage diagnosis of breast cancer.


## Strategic Actions:

- Increase and improve access to care by reducing structural and financial barriers. Evidence-based strategies may include:
- Increasing hours of operation.
- Increasing access to transportation services.
- Increasing mobile and other alternative screening opportunities.
- Increasing access to insurance coverage.
- Promoting investments in and increasing availability of patient navigation services.
- Using best practice models for increasing collaboration among service providers to ensure continuum of care (access to treatment).
- Ensuring appropriate follow-up for those who receive abnormal breast-cancer screening results.
- Using evidence-based interventions, provide education on breast cancer and promote screening guidelines and awareness of insurance coverage options, including all underserved populations.
- Promote the provision of screening services through medical homes, accountable-care organizations, and other emerging models of healthcare delivery.
- Increase availability and utilization of electronic medical records and implementation of clinical system changes to increase utilization of evidence-based cancer screening.
- Improve health professional knowledge, practice behaviors, and system support related to improving service delivery.
- Implement evidence-based interventions related to diagnosis, treatment, and palliation to decrease disparities in racial/ethnic populations, populations with less education, underserved adolescents and young adults, and underserved geographic areas of the state.

For more information regarding Texas' comprehensive cancer plan please visit: http://www.cprit.state.tx.us/about-cprit/texas-cancer-plan/

## Affordable Care Act

In 2010, Congress passed the Patient Protection and Affordable Care Act (commonly known as Affordable Care Act or ACA) to expand access to care through insurance coverage, enhance the quality of health care, improve health care coverage for those with health insurance and to make health care more affordable.

The ACA includes the following mandates to improve health insurance coverage and enhance health care quality (US Department of Health and Human Services, 2015a):

- Prohibit insurers from denying coverage based on pre-existing conditions
- Prohibit insurers from rescinding coverage
- Prohibit annual and lifetime caps on coverage
- Provide coverage of preventive services with no cost-sharing (including screening mammography, well women visits)
- Establish minimum benefits standards, known as the Essential Health Benefits (EHB)

The ACA provides tax subsidies for middle-income individuals to purchase insurance through the health insurance exchanges (commonly called the Marketplace). To be eligible to receive health coverage through the Marketplace, an individuals must live in the United States, be a US citizen or national (or lawfully present), cannot be incarcerated, fall into certain income guidelines and cannot be eligible for other insurance coverage (i.e., Medicaid, Medicare and employer sponsored health care coverage) (US Centers for Medicare and Medicaid Services, n.d.).

Based on 2015 data, of the estimated 4,425,000 total number of uninsured in Texas, 11.0 percent are Medicaid eligible, 23.0 percent are eligible for tax subsidies and 48.0 percent are ineligible for financial assistance due to income, employer sponsored insurance offer or citizenship status (Garfield et al., 2015).

## Medicaid Expansion

Traditional Medicaid had gaps in coverage for adults because eligibility was restricted to specific categories of low-income individuals (i.e., children, their parents, pregnant women, the elderly, or individuals with disabilities). In most states, non-elderly adults without dependent children were ineligible for Medicaid, regardless of their income.

Under the ACA, states were provided the option to expand Medicaid coverage to a greater number of non-elderly adults with incomes at or below 138 percent of poverty (about $\$ 16,242$ per year for an individual in 2015); thus reducing the number of uninsured, low-income adults.

As of January 2016, Texas has not adopted Medicaid Expansion. If Texas would have adopted Medicaid Expansion, an estimated 1,314,000 uninsured adults (including those in the coverage gap) would have been eligible for Medicaid coverage (Garfield and Damico, 2016).

## Affordable Care Act, Medicaid Expansion and Uninsured Women

Even after implementation of the ACA and Medicaid Expansion (in some states), there are approximately 12.8 million women (ages 19 to 64) in the US that remain uninsured. Of the $8,221,000$ women in Texas, 1,808,620 (22.0 percent) were without health insurance coverage in 2014.

Uninsured women have been found to have inadequate access to care and receive a lower standard of care within health systems that lead to poorer health outcomes. Women that are single parents, have incomes below 100 percent federal poverty level, have less than a high school education, are women of color or immigrants are at greatest risk of being uninsured.

## Conclusions

Overall, Texas currently meets the HP2020 late-stage incidence target and is likely to achieve the HP2020 death rate target. A total of 976 locations were identified as providing at least one type of breast cancer service along the continuum of care. While all of the facilities providing mammography services were accredited by the FDA, only 20.0 percent of the locations have been recognized as receiving additional quality of care accreditations. Texas also has many designated areas that are rural and/or medically underserved - where individuals may have inadequate access to health care. Although Texas has implemented programs (i.e., NBCCEDP) to assist low-income and uninsured individuals, there are still far too many individuals that have inadequate access to health care and may be receiving a lower standard of care. Both may contribute to poorer breast cancer outcomes.

The information provided in this report can be used by public health organizations, local service providers and policymakers to identify areas of greatest need and the potential demographic and socioeconomic factors that may be causing suboptimal breast cancer outcomes. Susan G. Komen will continue to utilize evidence-based practices to reduce breast cancer late-stage diagnosis and death rates by empowering others, ensuring quality care for all and energizing science to find the cures.

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## Appendix

## Appendix A.

## State Map with County Names



Source: US Census Bureau, 2014

