

Executive Summary

Introduction to the Community Profile Report

Established in 1990 by passionate volunteers to support the individuals in need throughout the Houston area, Komen® Houston has granted \$50 million to local programs for breast cancer education and awareness campaigns, life saving screening and treatment programs, and innovative cutting edge research. Serving Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty and Montgomery counties, Komen Houston continues its commitment to fundraising and grant making so that families battling breast cancer can get the treatment and support they need.

Komen Houston is a leader in the communities it serves. It was named Affiliate of the Year in 2001 and again in 2003 and won an award for Educational Outreach at the Komen Foundation Mission Conference in 2004. Along with The Rose, Komen Houston founded the 1st Annual Breast Health Summit, which led to the creation of the Breast Health Collaborative of Texas in 2005. In 2015, Komen Houston worked to bring the Komen Tissue Bank to Houston and helped recruit 160 women to donate healthy breast tissue.

Komen Houston conducts a Community Profile, also called a community needs assessment, every four years in order to understand the state of the breast cancer burden and needs in the service area. In this year's profile, selected areas of Galveston County were studied at a health systems level and individual level to better understand barriers to mammography access and adherence in the underserved women.

The purpose of the Community Profile is to:

- Establish priorities for grant distribution
- Establish focused education efforts
- Determine public policy activities
- Establish directions for marketing

Quantitative Data: Measuring Breast Cancer Impact in Local Communities

- The quantitative data report considered breast cancer incidence, mortality and screening to identify areas that were not likely to meet the HP2020 goals for each. Based on the quantitative data report, for the Affiliate service area as a whole, the death rate was higher among Blacks/African Americans than Whites and lower among APIs than Whites. Liberty County is not likely to meet either the death rate or late-stage incidence rate HP2020 targets. Chambers and Harris Counties are not likely to meet the late-stage incidence rate HP2020 target.
- Appendices 1, 2, 3 and 4 are tables from the quantitative data report that provide an overview of the data.
- The supplemental quantitative data report considered breast cancer statistics (incidence, late stage incidence and mortality), mammography screening and population characteristics of young women at risk for breast cancer (education level, uninsured, linguistic isolation). The datasets used in the report for generating findings and making conclusions were at a census tract level or other local level of geography, for instance, ZIP code level, which is believed to lead to a more comprehensive and accurate

understanding of breast health and breast cancer in females residing in the service area.

- In order to most effectively use Komen Houston's limited resources to further assess access to breast health in the service area, and to make meaningful recommendations for improving access in a short period of time, a prioritization process was used to determine the target community. The prioritization of the data in this report was late-stage incidence as the primary concern, followed by mortality and screening utilization rates. Secondary considerations included risk factors for young women in the service area. The final consideration was to consider which parts of the service area have already been studied, either in previous profiles or by other groups, and the ability to reasonably affect change based on funding levels and organizational capacity. The overarching rationale for this process was that Komen Houston needs to immediately target areas where there are disparities in breast cancer stage and outcomes in the service area, and that the need to be planning for the future by considering areas where disparities are likely to occur over the coming decade.
- Based on this prioritization process, certain areas of Galveston County, covering the areas of Santa Fe, Dickinson, Bacliff, Texas City, League City, La Marque, Friendswood, Gilchrist, High Island and Port Bolivar, were selected as the target community for further assessment. These areas were selected because a large proportion of the County is at excess risk for late-stage breast cancer diagnosis. Additionally, Galveston had the highest smoothed rates of late-stage incidence in the service area. These rates also exceeded the HP 2020 goals as outlined in the overall quantitative report. Galveston County also has some areas that are experiencing statistically significantly higher than expected mortality based on the standardized mortality ratio (SMR). Galveston County also exceeds the HP 2020 goals for screening mammography, with some areas having 40% of women who are not receiving regular screening.

Health System and Public Policy Analysis

- There are a number of strengths and weaknesses of the continuum of care in Galveston County. While there are a limited number of breast health providers in the target community, at the county level, the health system in Galveston County has already formed a safety net for providing female residents with breast health care through the coordination among a number of stakeholders in cancer control. There are thirty four providers delivering various breast health care for the women with different needs and financial situations across the county. At least four of them are contractors of the Texas Breast and Cervical Cancer Control Services, including UTMB, The Rose, Planned Parenthood Gulf Coast Inc., and the Galveston County Health District. Under the Texas BCCS, these four providers serve low-income, uninsured or underserved women who seek affordable breast and cervical cancer screening and diagnostic services in more than 6 different fixed locations in Galveston. Further, the health providers affiliated with UTMB can offer a broad spectrum of breast health care services for underserved women including the standard breast cancer screening and diagnostic services, treatment and survivorship services and end of life care across its locations. The 17 locations of the mobile mammography units across Galveston County facilitated by The Rose and UTMB spread the breast cancer screening services as well as breast health education to the most underserved and hard-to-reach women, especially minorities who historically lack breast health care. If any female receives an abnormal mammogram

result through the mobile mammography units, she will be referred to other service providers in the next service stage of the CoC. However, when the target community in Galveston is investigated, there are gaps in breast health care that persist in spite of the efforts to date to improve access for underserved women.

- The Texas Breast and Cervical Cancer Services (BCCS), Texas Comprehensive Cancer Control Plan (TCCCP) and the Affordable Care Act's (ACA's) impact in Texas on the delivery and utilization of breast health care in the service area of Komen Houston, especially when it comes to low-income, uninsured, and underserved women remains to be seen. These three breast cancer policies and their resulting programs have an emphasis on serving low-income and underserved women who are more likely to lack breast health care. In the service area of Komen Houston, the uninsured rate is notably high compared to other counties across the state, highlighting the importance of understanding the impact of the Texas BCCS, TCCCP and ACA on the delivery and utilization of breast health care for Komen Houston. Without expanding Medicaid to provide coverage of the health insurance for the nonelderly with incomes up to 133 percent of the poverty level in Texas, it is estimated that more than 1 million eligible adults will still remain uninsured and likely be unable to purchase private health insurance using tax credits from the health insurance marketplace. Consequently, a great number of women whose insurance could be covered by Medicaid Expansion still need to seek affordable breast health care through other potential channels, such as the Texas BCCS.
- The needs in the target community related to health systems and Breast Health CoC can be categorized into three areas: (1) Lack of breast health care services in the treatment, follow-up care, survivorship and end of life care stages based on the Breast Health CoC; (2). Need for more breast health services for low-income and uninsured females overall; (3). Potential transportation barriers preventing access to breast health care within the target community. As a result, four general actions can be taken to address these needs:
 1. Advocate and collaborate to get more services for underserved women in the target community and in Texas in general.
 2. Advocate, collaborate for and fund more services in patient navigation, survivorship and end of life care in the target community.
 3. Collaborate, partner and fund more mobile mammography unit locations in the target community, particularly in areas of high late-stage incidence.
 4. Increase collaboration between health care providers inside and outside the target community, especially the UTMB affiliated clinics, Galveston county health district, hospitals, community health centers and the mobile mammography units operated by The Rose, and the programs funded by D'Feet, Inc. to continue to offer services to women in need.

Qualitative Data: Ensuring Community Input

- In the qualitative data report, we explored explanations for barriers and facilitators to screening in Galveston County by interviewing patients and providers. The two key questions were:
 - 1) *“What are the individual and system-level barriers and facilitators to screening access*

and adherence experienced by underserved women residing in at-risk areas of Galveston County?"

2) "What are the system-level barriers and facilitators to mammography screening access as identified by providers involved in the system of mammography screening delivery in Galveston County?"

The main variables studied included "patient and provider (organization) characteristics", "the system of breast cancer screening", "barriers and facilitators to breast cancer screening", "the use of evidence-based approaches as a facilitator", "the level of integrated care", and "recommendations to improve access to breast cancer screening".

- In total, an ethnically/ racially diverse sample of 15 eligible patients was interviewed who had had at least one mammogram in Galveston County in the last five years. Results from the patient interviews were used as input for the subsequent 10 provider interviews (mobile and clinic providers). Provider interviews were incorporated to provide systems-level insight on the barriers and facilitators experienced by patients. The phone interviews were audio recorded and subsequently transcribed verbatim by Adept Word Management, Inc. (Houston, Texas) for the purpose of content analysis.
- Patients explained that they were personally motivated to get screened because of health awareness (e.g., fear of getting cancer, it gives a confirmation that you are healthy), breast pain, and a family history with breast cancer. At the interpersonal level, they saw cancer in their surroundings, and got encouragement from family and the community to get screened. Also, women liked to stay healthy for their family, what additionally motivated them. Individual barriers that women experienced included: getting screened not being a priority ("just trying to survive"), procrastination, the pain of screening, and having no transportation. At the interpersonal level, single parenthood can be a barrier (e.g., because of financial reasons), and family got the priority. Providers recognized a number of motivators and barriers of the patients for obtaining their mammograms. In addition, they mentioned barriers such as not having money to pay, intermittent phone service to receive reminders, transportation issues, inability to take time off of work, and a low risk perception of getting cancer.
- Besides these personal and interpersonal barriers and motivators for breast cancer screening, the qualitative assessment gained insight into what seemed to work well in the system of breast cancer screening and what might be improved.
 - Facilitating factors included: a doctor's recommendation, availability of free screening, convenient screening location (e.g., because of mobiles; multiple services at one location), positive experiences (e.g., friendly providers that explain procedures), and appointment making for follow-up and yearly reminders.
 - Help and information is needed about where women now qualify to get screened. The Affordable Care Act (ACA) created a challenge for both patients and providers: some women cannot go back to their old screening locations because they have insurance now; others have the opposite problem and are told to get ACA, otherwise they cannot get screened anymore. Providers don't know how to help them and where to send them now.
 - The use of evidence-based approaches and continuum of care (integrated care) can be further improved. Collaborations can be further improved, if organizations formally

communicate with each other, and jointly plan how to offer services more effectively and efficiently to the community (e.g., by joint fund raising).

- Finally, patients and providers recommended:
 - 1) More education about the importance and availability of breast cancer screening;
 - 2) Patient navigation (e.g., appointment making, reminders, translation)
 - 3) Transportation
 - 4) Investing in “one-stop shop” services
 - 5) Continue providing screening and diagnostic services (at convenient locations and times)
 - 6) Better tracking systems for no-shows and reasons for not attending a planned screening.

Mission Action Plan

Problem statements identified in the mission action plan include:

- *Use of evidence-based approaches for education and outreach are suboptimal*
- *Use of evidence-based approaches for screening referrals, appointment compliance and re-screening of women are suboptimal*
- *Late stage diagnosis, mortality and young women at risk due to linguistic isolation in the service area*
- *Late stage diagnosis and higher mortality in selected areas of Galveston County*
- *For the Affiliate service area as a whole, the death rate was higher among Blacks/African Americans than Whites*
- *Liberty County is not likely to meet either the death rate or late-stage incidence rate HP2020 targets*
- *Chambers and Harris Counties are not likely to meet the late-stage incidence rate HP2020 target*

Komen Houston Priorities for 2016-2017:

1. Komen Houston will form a new coalition to improve the health care system around breast cancer screening, diagnostic, treatment and support services in identified areas of Galveston County.
2. Komen Houston will fund programs that use innovative or evidence-based approaches through collaboration that result in documented linkages to local breast cancer screening, diagnostic, treatment, survivorship, follow up care and end of life services among:
 - a. Selected areas of Galveston County (e.g. see Appendix 5)
 - b. the Komen Houston service area for African Americans, Chambers and Liberty Counties and selected areas of Harris County (e.g. see Appendix 5)
 - c. Selected areas of Brazoria, Fort Bend and Montgomery Counties (e.g. see Appendix 5)
3. Komen Houston will fund the development of a patient navigation protocol to assist those with insurance under ACA find breast health services.

Appendix 1

Table 1: Female Breast Cancer Incidence Rates and Trends, Death Rates and Trends, and Late-stage Rates and Trends
Affiliate: Komen Houston Affiliate

| | | Incidence Rates and Trends | | | Death Rates and Trends | | | Late-stage Rates and Trends | | |
|--------------------------------------|-----------------------------------|---------------------------------|----------------------------|-------------------------------|------------------------------|----------------------------|-------------------------------|---------------------------------|----------------------------|-------------------------------|
| Population Group | Female Population- Annual Average | # of New Cases (Annual Average) | Age-adjusted Rate/ 100,000 | Trend (Annual Percent Change) | # of Deaths (Annual Average) | Age-adjusted Rate/ 100,000 | Trend (Annual Percent Change) | # of New Cases (Annual Average) | Age-adjusted Rate/ 100,000 | Trend (Annual Percent Change) |
| US | 154,540,194 | 182,234 | 122.1 | -0.2% | 40,736 | 22.6 | -1.9% | 64,590 | 43.8 | -1.2% |
| HP2020 | . | - | - | - | - | 20.6 | - | - | 41.0 | - |
| Texas | 12,251,113 | 13,742 | 114.4 | -0.4% | 2,610 | 21.8 | -1.8% | 4,905 | 40.7 | -3.2% |
| Komen Houston Affiliate Service Area | 2,823,047 | 3,141 | 121.1 | 0.2% | 586 | 23.6 | NA | 1,093 | 41.7 | -1.3% |
| White | 2,063,101 | 2,399 | 123.5 | 0.7% | 415 | 22.2 | NA | 795 | 40.7 | -0.9% |
| Black/African American | 535,840 | 557 | 121.2 | -0.6% | 157 | 35.6 | NA | 235 | 50.1 | -1.5% |
| AIAN | 27,393 | 8 | 45.4 | 4.4% | SN | SN | SN | SN | SN | SN |
| API | 196,713 | 103 | 56.0 | 6.2% | 13 | 8.0 | NA | 37 | 19.3 | -0.4% |
| Non-Hispanic/ Latina | 1,883,831 | 2,653 | 130.0 | 0.7% | 503 | 25.0 | NA | 893 | 43.6 | -1.0% |
| Hispanic/ Latina | 939,217 | 488 | 86.4 | -1.6% | 82 | 17.2 | NA | 200 | 34.1 | -2.7% |
| Brazoria County - TX | 147,578 | 160 | 112.2 | 2.2% | 34 | 24.6 | -1.1% | 60 | 41.6 | -2.0% |
| Chambers County - TX | 16,086 | 16 | 100.7 | -0.7% | SN | SN | SN | 7 | 44.8 | 10.4% |
| Fort Bend County - TX | 275,815 | 307 | 121.8 | 0.3% | 41 | 17.7 | -3.1% | 97 | 37.9 | -3.3% |
| Galveston County - TX | 144,934 | 201 | 129.4 | -2.5% | 39 | 25.4 | -2.0% | 56 | 35.8 | -6.9% |
| Harris County - TX | 1,984,833 | 2,152 | 121.7 | 0.2% | 410 | 24.2 | -1.9% | 771 | 43.0 | -0.2% |
| Liberty County - TX | 38,086 | 36 | 90.8 | 5.4% | 11 | 26.9 | -1.5% | 14 | 35.0 | 2.9% |
| Montgomery County - TX | 215,716 | 268 | 121.9 | 0.6% | 49 | 23.3 | -1.1% | 88 | 39.9 | -6.0% |

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 or deaths per 100,000.

Age-adjusted rates are adjusted to the 2000 US standard population.

Source of incidence and late-stage data: NAACCR – CINA Deluxe Analytic File.

Source of death rate data: CDC – NCHS mortality data in SEER*Stat.

Source of death trend data: NCI/CDC State Cancer Profiles

Appendix 2

Table 2: Proportion of Women (ages 50-74) with Screening Mammography in the Last Two Years, Self-report, 2012
 Affiliate: Komen Houston Affiliate

| | # of Women Interviewed (Sample Size) | # w/ Self-Reported Mammogram | Proportion Screened (Weighted 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% |
| Komen Houston Affiliate Service Area | 255 | 190 | 73.3% | 66.3%-79.2% |
| White | 204 | 153 | 73.2% | 65.7%-79.6% |
| Black/African American | 35 | 27 | 75.0% | 55.6%-87.8% |
| AIAN | SN | SN | SN | SN |
| API | SN | SN | SN | SN |
| Hispanic/ Latina | 27 | 17 | 67.5% | 47.7%-82.5% |
| Non-Hispanic/ Latina | 225 | 170 | 74.4% | 67.2%-80.4% |
| Brazoria County - TX | 16 | 9 | 57.8% | 33.0%-79.1% |
| Chambers County - TX | SN | SN | SN | SN |
| Fort Bend County - TX | 28 | 20 | 67.7% | 44.2%-84.7% |
| Galveston County - TX | 11 | 9 | 80.5% | 39.7%-96.3% |
| Harris County - TX | 160 | 126 | 78.5% | 70.1%-85.0% |
| Liberty County - TX | SN | SN | SN | SN |
| Montgomery County - TX | 28 | 19 | 63.3% | 41.2%-81.0% |

SN – data suppressed due to small numbers (fewer than 10 samples).

Data are for 2012.

Source: CDC – Behavioral Risk Factor Surveillance System (BRFSS).

Appendix 3
 Table 3: Population Characteristics (in percent) - Race and Age
 Affiliate: Komen Houston Affiliate

| Population Group | White | Black /African American | AIAN | API | Non-Hispanic /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 % |
| Komen Houston Affiliate Service Area | 72.7 % | 18.8 % | 1.1 % | 7.4 % | 65.0 % | 35.0 % | 41.6 % | 27.5 % | 9.8 % |
| Brazoria County - TX | 80.3 % | 12.6 % | 0.9 % | 6.2 % | 72.2 % | 27.8 % | 43.4 % | 28.9 % | 10.9 % |
| Chambers County - TX | 88.4 % | 9.0 % | 1.1 % | 1.6 % | 80.7 % | 19.3 % | 44.6 % | 29.6 % | 10.4 % |
| Fort Bend County - TX | 58.4 % | 22.8 % | 0.7 % | 18.1 % | 76.2 % | 23.8 % | 43.8 % | 27.8 % | 8.4 % |
| Galveston County - TX | 80.4 % | 15.0 % | 0.9 % | 3.6 % | 77.5 % | 22.5 % | 47.7 % | 33.3 % | 12.6 % |
| Harris County - TX | 71.2 % | 20.7 % | 1.2 % | 6.9 % | 59.9 % | 40.1 % | 40.0 % | 26.5 % | 9.4 % |
| Liberty County - TX | 86.0 % | 12.1 % | 1.0 % | 0.8 % | 82.0 % | 18.0 % | 45.9 % | 31.6 % | 12.3 % |
| Montgomery County - TX | 91.0 % | 5.1 % | 1.1 % | 2.8 % | 79.4 % | 20.6 % | 46.1 % | 31.4 % | 11.8 % |

Data are for 2011.

Data are in the percentage of women in the population.

Source: US Census Bureau – Population Estimates

Appendix 4
Table 4: Population Characteristics (in percent) – Socioeconomic
Affiliate: Komen Houston Affiliate

| Population Group | Less than HS Education | Income Below 100% Poverty | Income Below 250% Poverty (Age: 40-64) | Un-employed | Foreign Born | Linguistically Isolated | In Rural Areas | In Medically Underserved Areas | No Health Insurance (Age: 40-64) |
|--------------------------------------|------------------------|---------------------------|--|-------------|--------------|-------------------------|----------------|--------------------------------|----------------------------------|
| US | 14.6 % | 14.3 % | 33.3 % | 8.7 % | 12.8 % | 4.7 % | 19.3 % | 23.3 % | 16.6 % |
| Texas | 19.6 % | 17.0 % | 37.1 % | 7.3 % | 16.2 % | 8.2 % | 15.3 % | 32.2 % | 24.7 % |
| Komen Houston Affiliate Service Area | 19.6 % | 15.3 % | 33.9 % | 7.2 % | 22.2 % | 10.3 % | 5.8 % | 20.2 % | 24.5 % |
| Brazoria County - TX | 15.1 % | 10.7 % | 26.6 % | 5.7 % | 12.0 % | 4.0 % | 22.5 % | 14.6 % | 20.7 % |
| Chambers County - TX | 14.2 % | 8.3 % | 22.4 % | 5.6 % | 6.1 % | 2.8 % | 45.7 % | 100.0 % | 16.8 % |
| Fort Bend County - TX | 11.4 % | 8.3 % | 21.6 % | 5.1 % | 25.0 % | 6.5 % | 5.5 % | 22.0 % | 18.9 % |
| Galveston County - TX | 13.6 % | 13.1 % | 28.6 % | 7.7 % | 9.7 % | 3.5 % | 6.1 % | 8.6 % | 19.6 % |
| Harris County - TX | 22.1 % | 17.3 % | 38.1 % | 7.6 % | 25.0 % | 12.6 % | 1.2 % | 17.1 % | 26.9 % |
| Liberty County - TX | 24.9 % | 16.2 % | 41.3 % | 10.4 % | 6.6 % | 3.2 % | 63.2 % | 100.0 % | 26.5 % |
| Montgomery County - TX | 13.9 % | 11.5 % | 24.6 % | 6.6 % | 12.3 % | 4.2 % | 22.7 % | 36.8 % | 19.1 % |

Data are in the percentage of people (men and women) in the population.

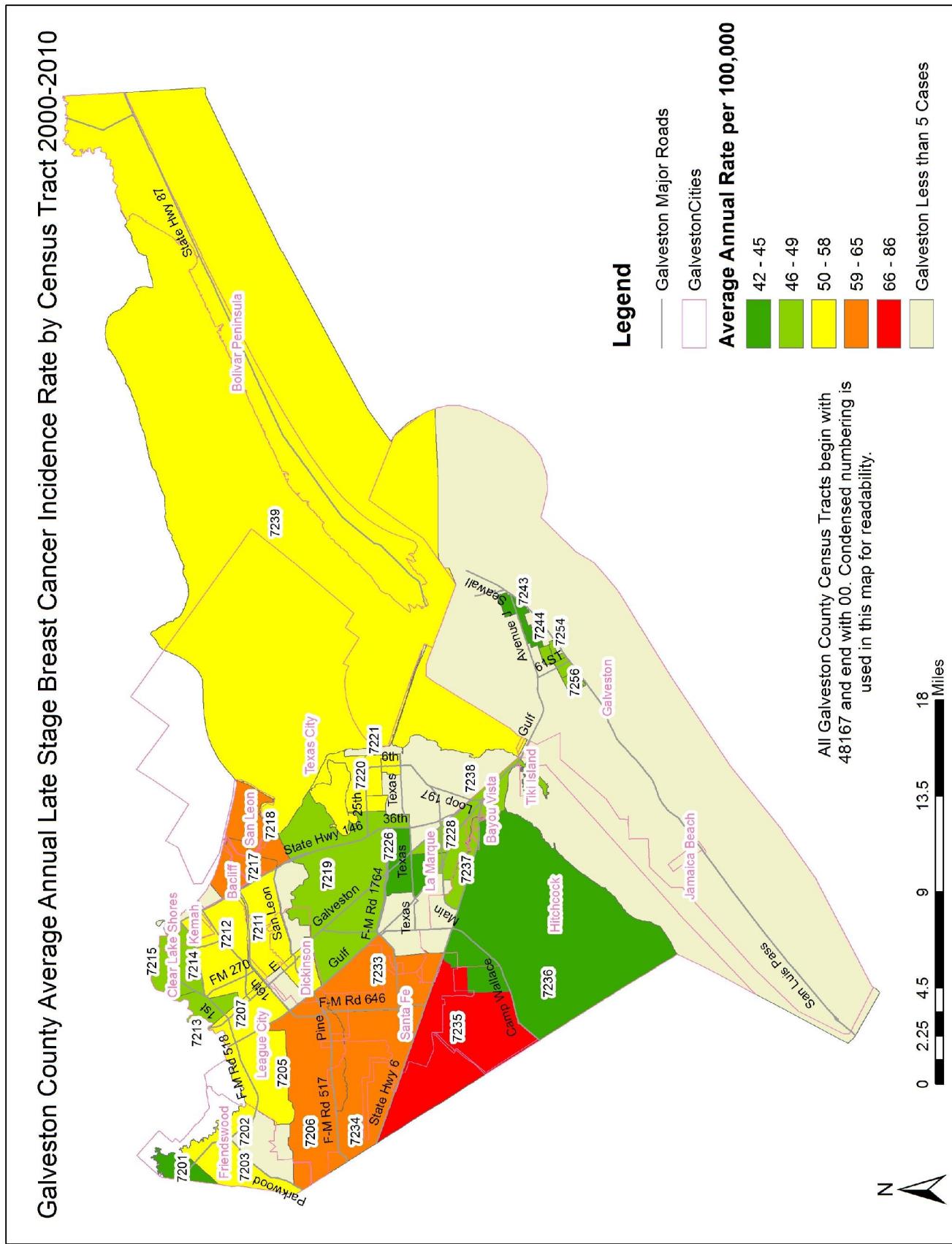
Source of health insurance data: US Census Bureau – Small Area Health Insurance Estimates (SAHIE) for 2011.

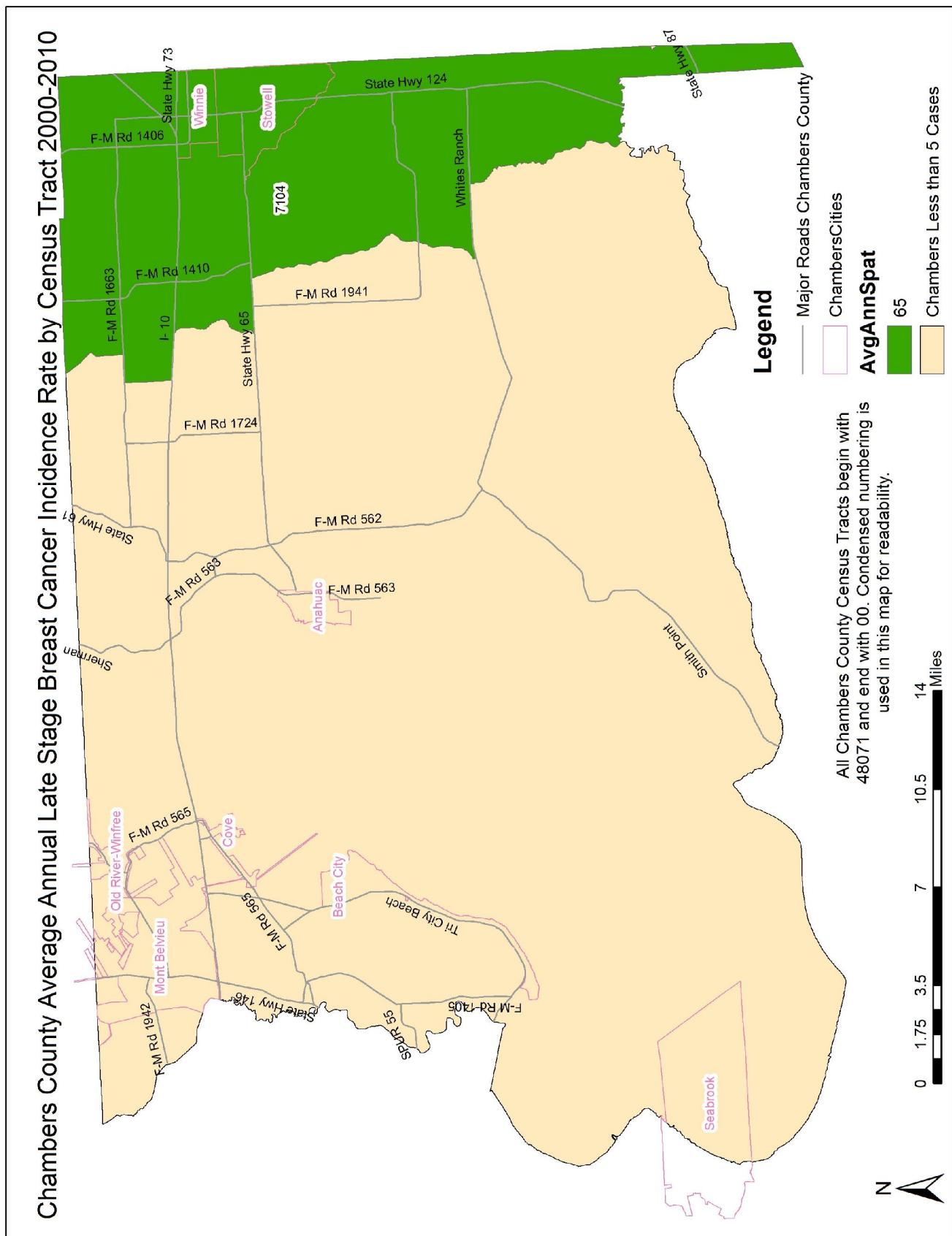
Source of rural population data: US Census Bureau – Census 2010.

Source of medically underserved data: Health Resources and Services Administration (HRSA) for 2013.

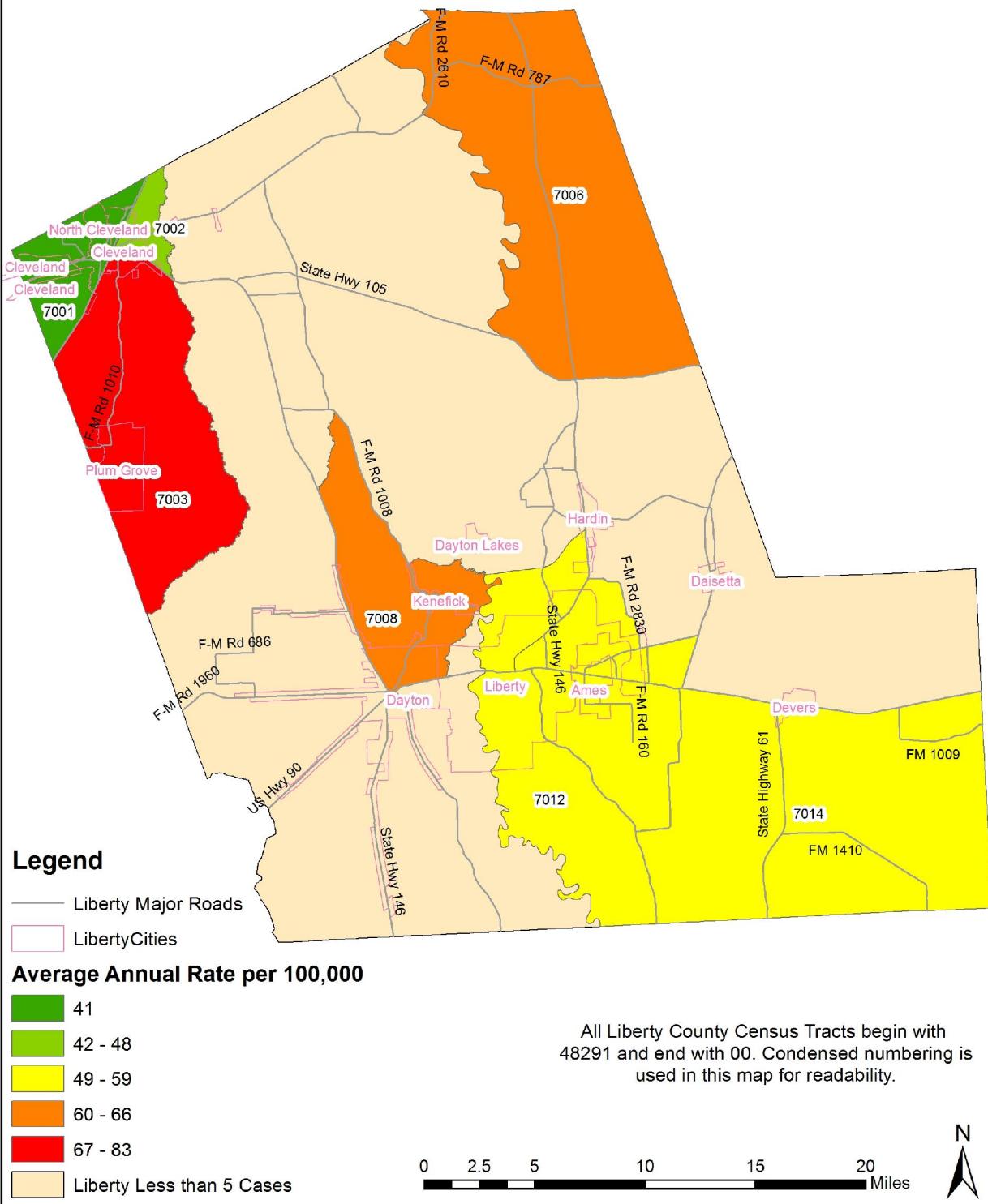
Source of other data: US Census Bureau – American Community Survey (ACS) for 2007-2011.

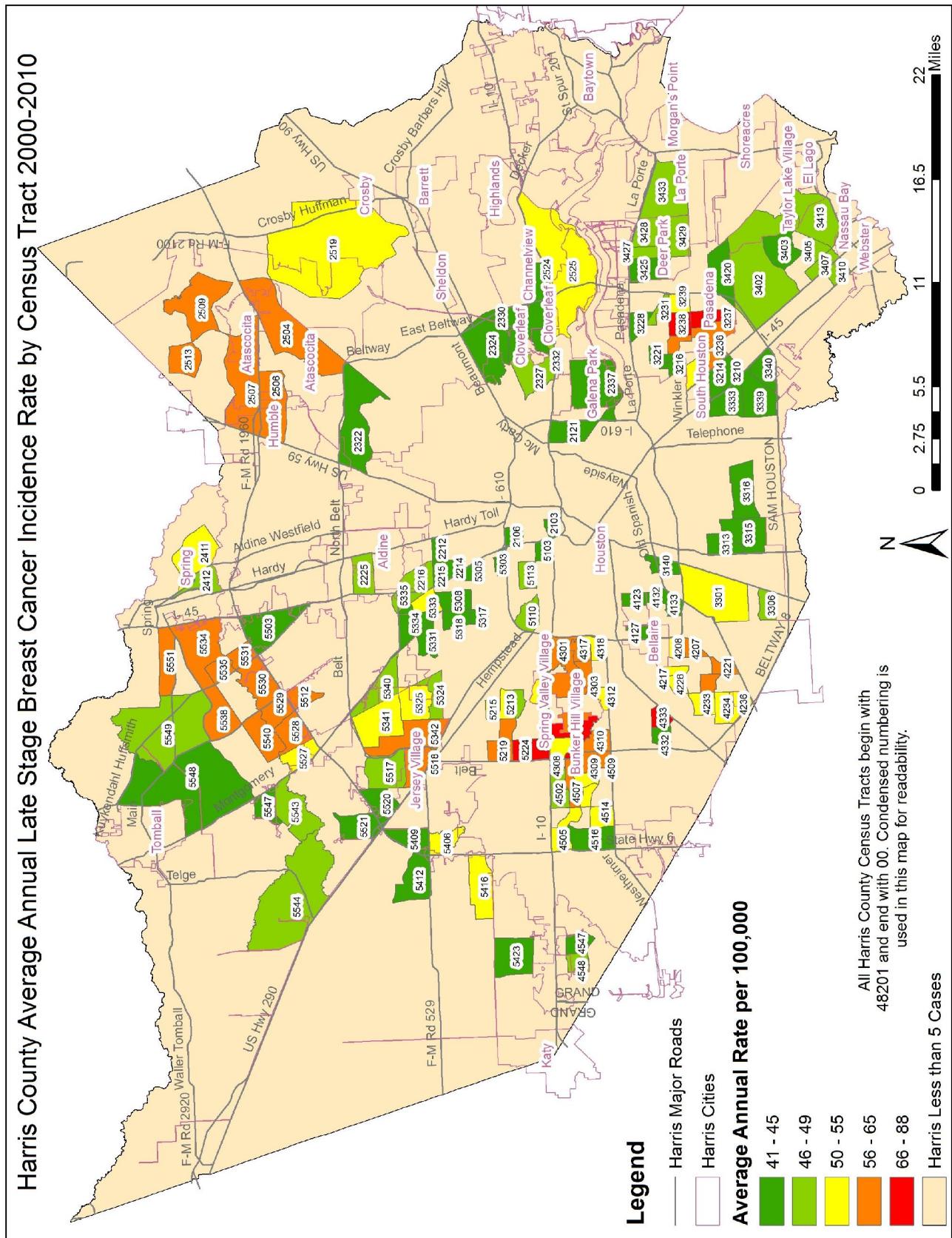
Appendix 5
County Maps of Average Annual Late Stage Breast Cancer Incidence Rate
by Census Tract 2000-2010



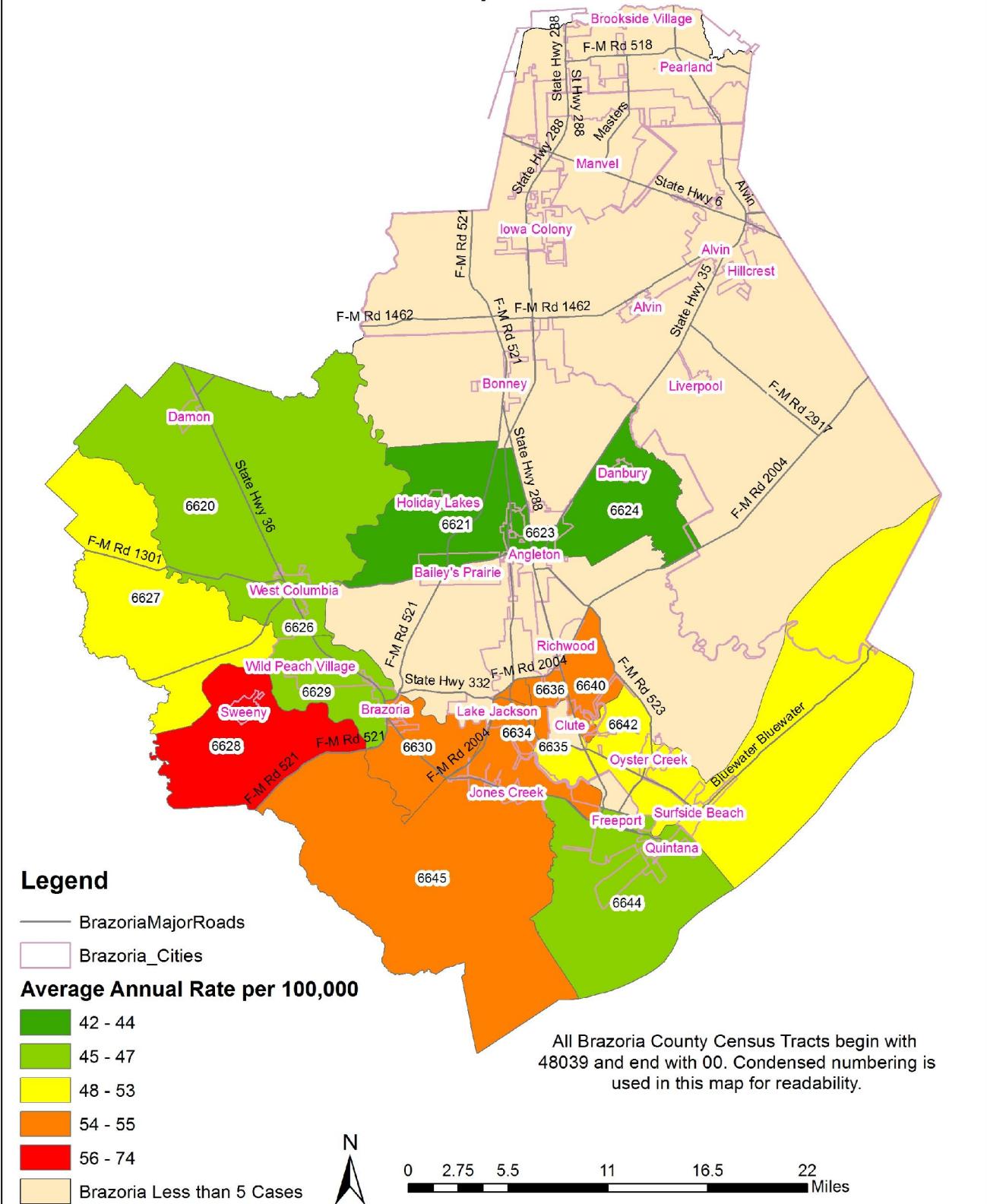


Liberty County Average Annual Late Stage Breast Cancer Incidence Rate by Census Tract 2000-2010

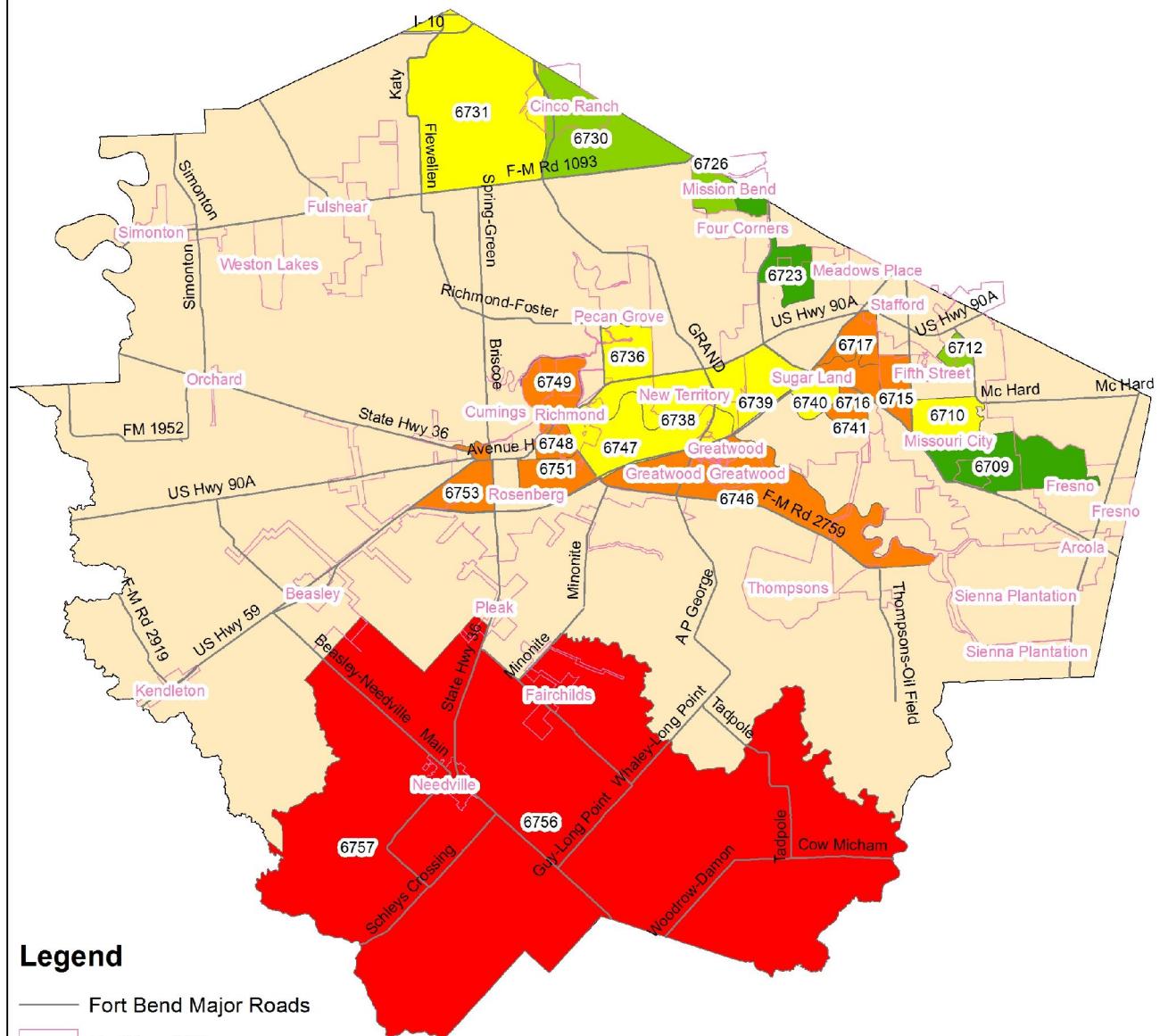




Brazoria County Average Annual Late Stage Breast Cancer Incidence Rate by Census Tract 2000-2010



Fort Bend County Average Annual Late Stage Breast Cancer Incidence Rate by Census Tract 2000-2010



Legend

— Fort Bend Major Roads

■ FortBendCities

Average Annual Rate per 100,000

| | |
|---|-----------------------------|
| | 41 - 43 |
| | 44 - 45 |
| | 46 - 47 |
| | 48 - 50 |
| | 51 - 52 |
| | Fort Bend Less than 5 Cases |

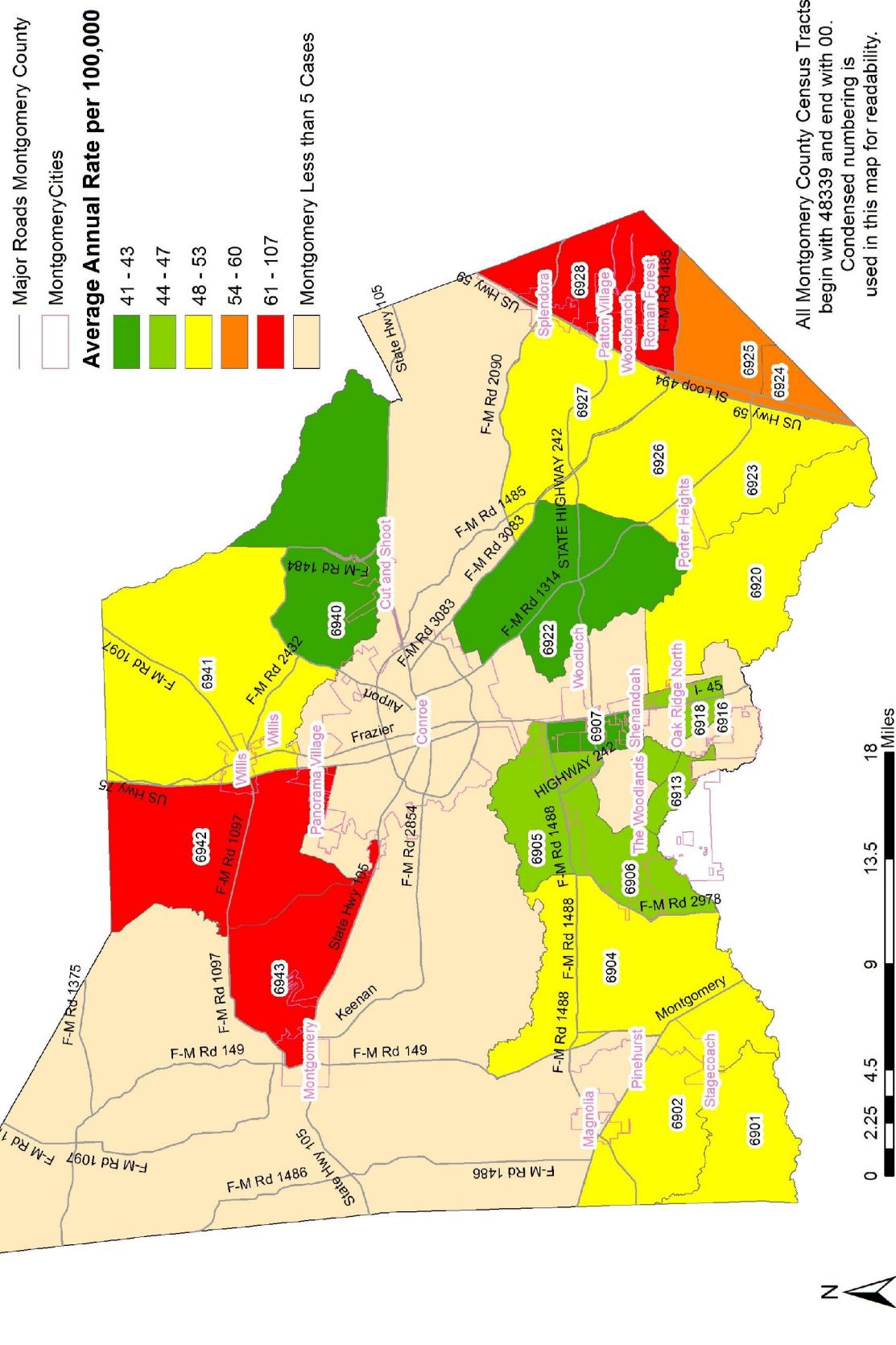
All Fort Bend County Census Tracts begin with 48157 and end with 00. Condensed numbering is used in this map for readability.

0 2 4 8 12 16 Miles



Montgomery County Average Annual Late Stage Breast Cancer Incidence Rate by Census Tract 2000-2010

Legend



Community Profile **Data Limitations and Frequently Asked Questions**

Are there more recent cancer data?

The most recent data available were used but, for cancer incidence and mortality, these data are still several years behind. The most recent breast cancer incidence and mortality data available in 2013 were data from 2010. For the US as a whole and for most states, breast cancer incidence and mortality 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 mortality 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.

Why were the data age-adjusted to the 2000 Census and not the 2010 Census?

Starting with the November 2004 SEER submission of data (diagnoses through 2002), the SEER Program age-adjusts using the 2000 US standard population based on single years of age from the [Census P25-1130 \(PDF\)](#)^{¶1} series estimates of the 2000 US population. For the 5-year age groups, the single year of age populations are summarized from the five single-year of age populations. Here is a summary of the reasoning:
http://seer.cancer.gov/stdpopulations/single_age.html. Age-adjusting to 2000 US standard population is what is used by NCI-SEER and NACCR for consistency.

Why do Hispanic/Latina women have such low incidence and mortality rates?

The low incidence and mortality rates may be due to several reporting factors:

- Hispanics are determined by self-identification
- Not every cancer registry collects the ethnicity data in the same way (no standardized process)
- Data may come from medical records that are completed by the doctor based on name and visual appearance and less on them asking the patient about their ethnicity
- If diagnosed with breast cancer Hispanic/Latinas may return to their home country and therefore if they pass away are not counted in the US
- Hispanic/Latina data are not reflective of the social factors

How were the late stage incidence rates calculated for the GIS maps?

Breast cancer incidence rates show the frequency of new cases of breast cancer in females living in an area during a certain time period. Additional data on breast cancer incidence of females residing in the service area were calculated at the census tract level. New cases of breast cancer from 2000 to 2010 were obtained under a data sharing agreement with the Episcopal Health Foundation. The data were provided to the Foundation by the Texas Cancer Registry for women at the census tract level under institutional review board (IRB) agreement.

Crude late-stage incidence rates were calculated for women over 40 years of age and smoothed to address the problem of small numbers of late-stage breast cancer cases in the study area. When numbers of new late-stage breast cancer cases are small (e.g., < 10), then special methods are required in order to calculate reliable rates.

“Smoothing” was used on the maps and refers to the process of shrinking or leveling off areas on the map which appear to have very high values. It is a well-known problem that when disease rates are calculated with small numbers, the reported values may appear to be very high, but in reality these estimates have very wide confidence intervals. This means that the estimate of the rate is unstable or suspicious. Smoothing brings these estimates back toward the mean and effectively removes these so-called outliers, leading to reliable estimates. It is important to note that smoothed rates may go up or down from the corresponding crude rate. The smoothed rates reported here were calculated in the software program Geoda (Center for Spatially Integrated Social Science, 2003).

In this report, the Affiliate used k-nearest neighbors, which is a method for defining a “neighborhood” around a given census tract. For each census tract, the Affiliate used their six nearest census tracts (based on distance) as their defined neighborhood (Center for Spatially Integrated Social Science, 2003).

Reference:

Center for Spatially Integrated Social Science (2003). GeoDa 0.9 Users Manual. Available at:
<http://www.uni-kassel.de/~rkosfeld/lehre/spatial/geoda093.pdf> Accessed March, 2014.