

Cancer Health Disparities in Texas by Race/Ethnicity, 2011-2015

Prepared by the Texas Cancer Registry
Texas Department of State Health Services

May 2018

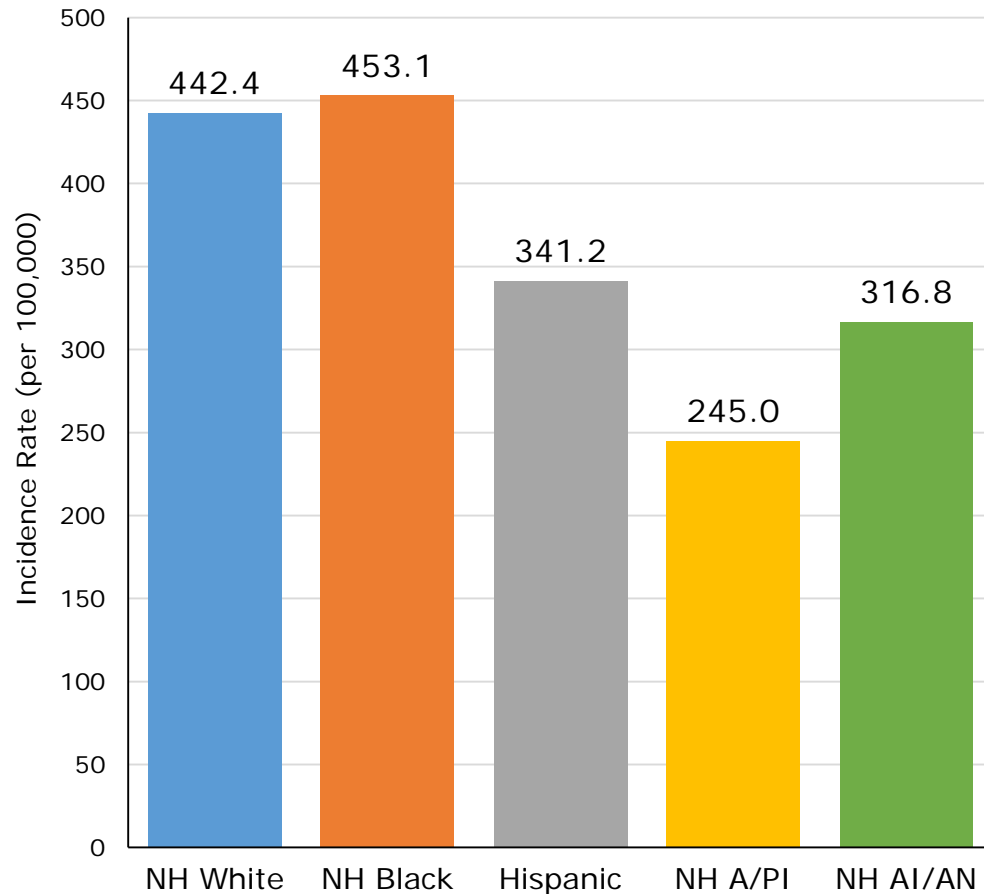
What are Cancer Health Disparities?

- Differences in the occurrence and outcome of cancer between different populations
- Population groups may be characterized by the following:
 - Race/ethnicity
 - Gender
 - Age
 - Socioeconomic status
 - Geographic areas (e.g., Metropolitan vs. Non-metropolitan)

Definitions/Abbreviations

- **Age-Adjusted Incidence Rate:** the number of new cancer cases per 100,000 of the base population per year. Rates are age-adjusted to allow for comparisons of populations with dissimilar age distributions.
- **Age-Adjusted Mortality Rate:** the number of cancer deaths per 100,000 of the base population per year. Rates are age-adjusted to allow for comparisons of populations with dissimilar age distributions.
- **Racial/Ethnic Group Abbreviations:** Non-Hispanic (NH), Asian/Pacific Islander (A/PI), American Indian/Alaska Native (AI/AN)

Cancer Incidence Rates for All Cancers by Race/Ethnicity, 2011-2015



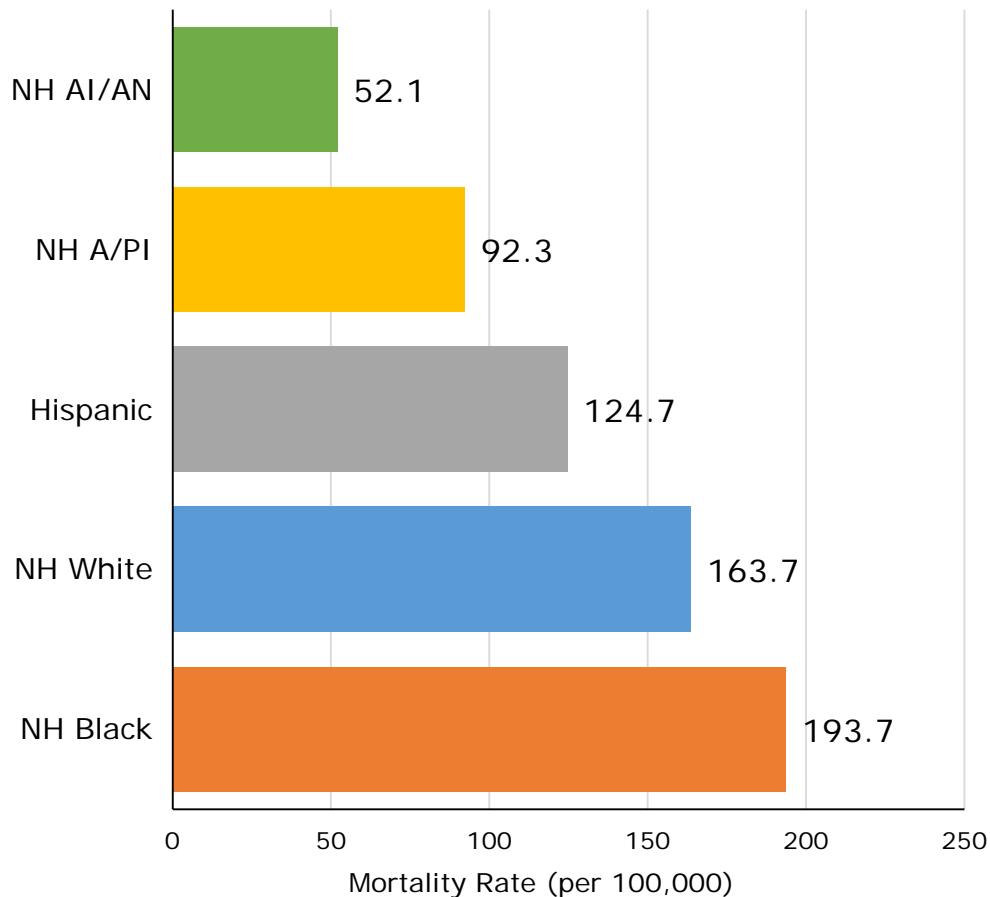
- Non-Hispanic blacks have the highest incidence rates of all cancers combined (453.1 per 100,000).
- Non-Hispanic whites have the second highest incidence rates of all cancers combined (442.4 per 100,000).

NH = Non-Hispanic; A/PI = Asian/Pacific Islander; AI/AN = American Indian/Alaska Native

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups – Census P25-1130)

Data Source: Texas Cancer Registry (www.dshs.texas.gov/tcr) SEER*Stat Database, 1995-2015 Incidence, Texas statewide, created December 2017

Cancer Mortality Rates for All Cancers by Race/Ethnicity, 2011-2015



- Although non-Hispanic blacks have a similar incidence rate to non-Hispanic whites of all cancers combined, the mortality rate is nearly 20% higher (193.7 per 100,000 vs 163.7 per 100,000 respectively).

NH = Non-Hispanic; A/PI = Asian/Pacific Islander; AI/AN = American Indian/Alaska Native
Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups – Census P25-1130)
Data Source: Texas Cancer Registry (www.dshs.texas.gov/tcr) SEER*Stat Database, 1990-2015 Mortality, Texas statewide, created January 2018

Lung & Bronchus Cancer

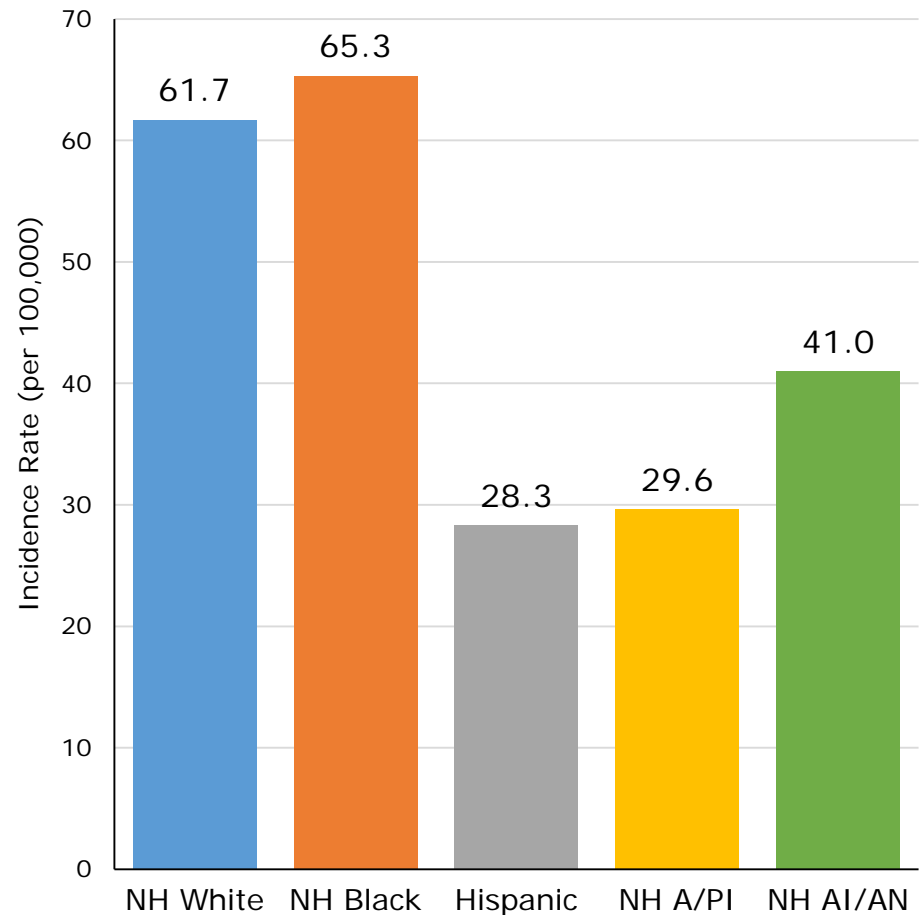
2nd most common cancer diagnosis (after prostate cancer) and leading cause of cancer death among men in Texas

2nd most common cancer diagnosis (after breast cancer) and leading cause of cancer death in women in Texas

Lung & Bronchus Cancer Incidence Rates by Race/Ethnicity, 2011-2015

- Non-Hispanic blacks have the highest incidence of lung and bronchus cancer (65.3 per 100,000).
- Cigarette smoking is the number one risk factor for lung cancer. In Texas among adults 20 years or older, non-Hispanic American Indian/Alaska Natives have the highest prevalence of cigarette use (27.8%) with non-Hispanic whites (16.7%) and non-Hispanic blacks (14.7%) with the next highest prevalence of cigarette use.¹

¹ CDC. State Tobacco Activities Tracking and Evaluation (STATE) System — Texas, 2015-2016. Accessed April 2018.



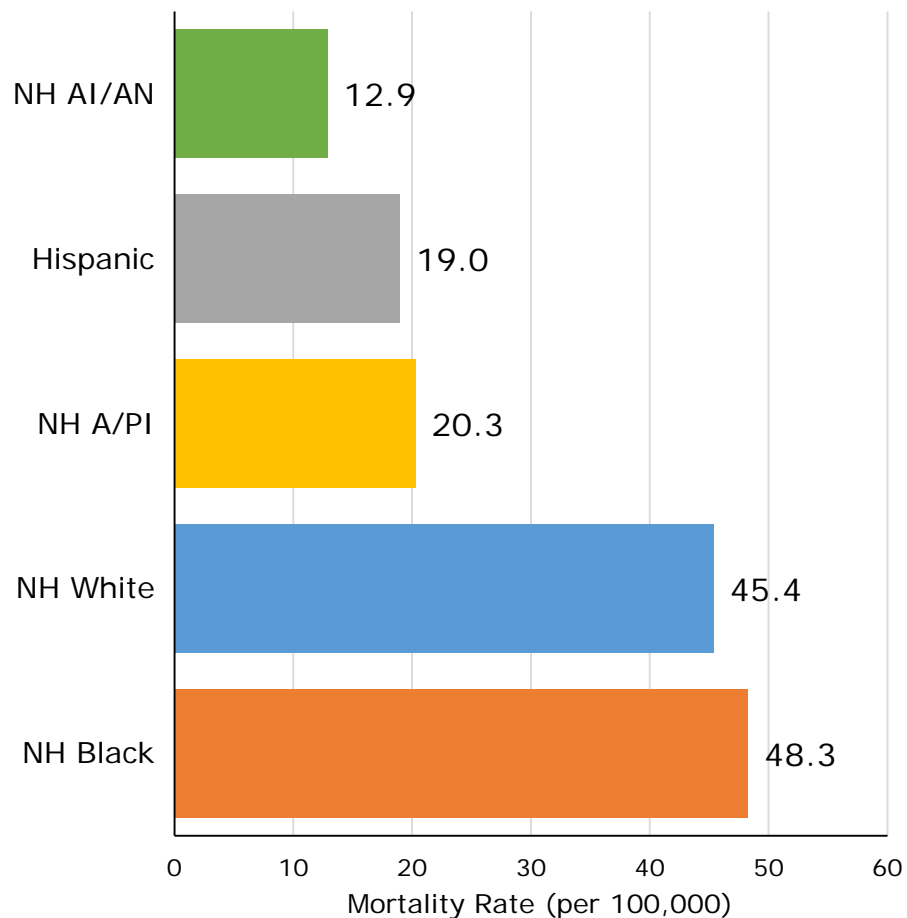
NH = Non-Hispanic; A/PI = Asian/Pacific Islander; AI/AN = American Indian/Alaska Native

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups – Census P25-1130)

Data Source: Texas Cancer Registry (www.dshs.texas.gov/tcr) SEER*Stat Database, 1995-2015 Incidence, Texas statewide, created December 2017

Lung & Bronchus Cancer Mortality Rates by Race/Ethnicity, 2011-2015

- Lung and bronchus cancer is the leading cause of cancer deaths among both men and women in Texas.
- Non-Hispanic blacks have the highest mortality rate of lung and bronchus cancer (48.3 per 100,000).
- Non-Hispanic black and non-Hispanic white Texans have mortality rates that are more than twice as large as rates for other race/ethnicity groups.



NH = Non-Hispanic; A/PI = Asian/Pacific Islander; AI/AN = American Indian/Alaska Native
Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups – Census P25-1130)
Data Source: Texas Cancer Registry (www.dshs.texas.gov/tcr) SEER*Stat Database, 1990-2015 Mortality, Texas statewide, created January 2018

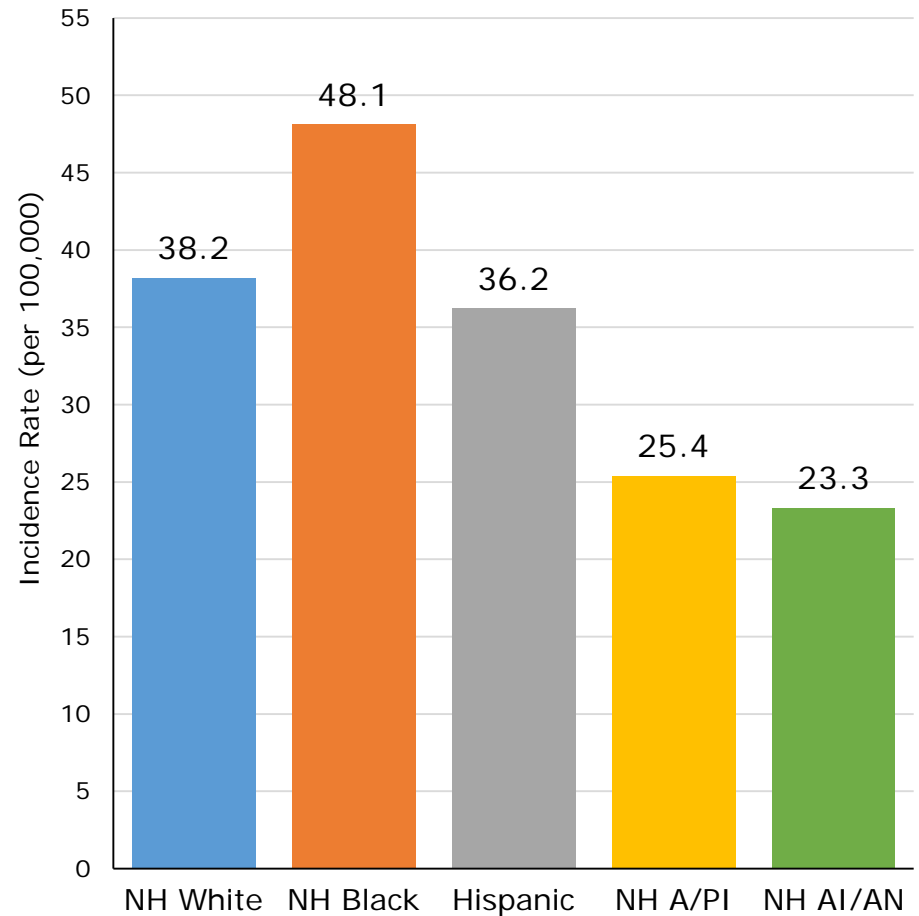
Colorectal Cancer

3rd most common cancer diagnosis and 3rd leading cause of cancer death among men in Texas

3rd most common cancer diagnosis and 3rd leading cause of cancer death among women in Texas

Colorectal Cancer Incidence Rates by Race/Ethnicity, 2011-2015

- Non-Hispanic blacks have the highest incidence of colon and rectum cancer (48.1 per 100,000).
- Non-Hispanic whites have the second highest incidence of colon and rectum cancer (38.2 per 100,000).
- Non-Hispanic Asian/Pacific Islanders have the lowest incidence of colon and rectum cancer (25.4 per 100,000).

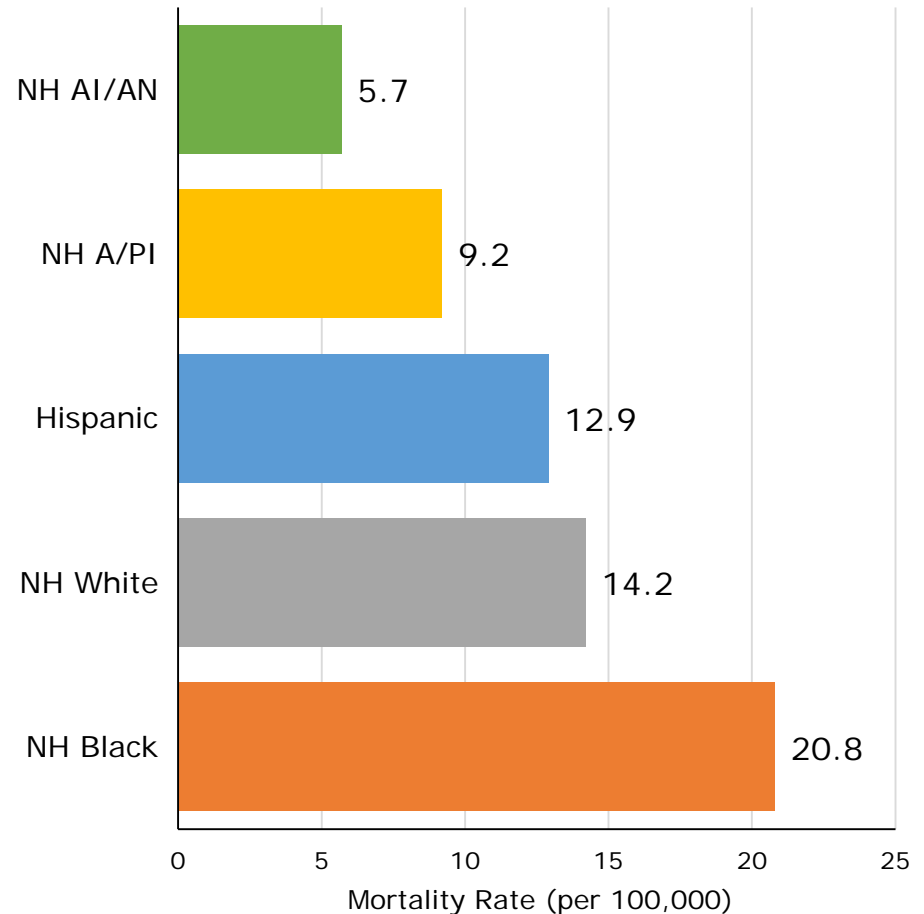


NH = Non-Hispanic; A/PI = Asian/Pacific Islander; AI/AN = American Indian/Alaska Native
Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups – Census P25-1130)
Data Source: Texas Cancer Registry (www.dshs.texas.gov/tcr) SEER*Stat Database, 1995-2015 Incidence, Texas statewide, created December 2017

Colorectal Cancer Mortality Rates by Race/Ethnicity, 2011-2015

- Non-Hispanic blacks have the highest mortality rate of colorectal cancer (20.8 per 100,000).
- Colorectal cancer outcomes are associated with cancer screening. In the U.S., 65.9% of whites, 65.5% of blacks, and 53.1% of Hispanics were up-to-date with colorectal screening.²

² CDC. Vital signs: colorectal cancer screening test use—United States, 2012. MMWR Morb Mortal Wkly Rep 2013;62:881–8.



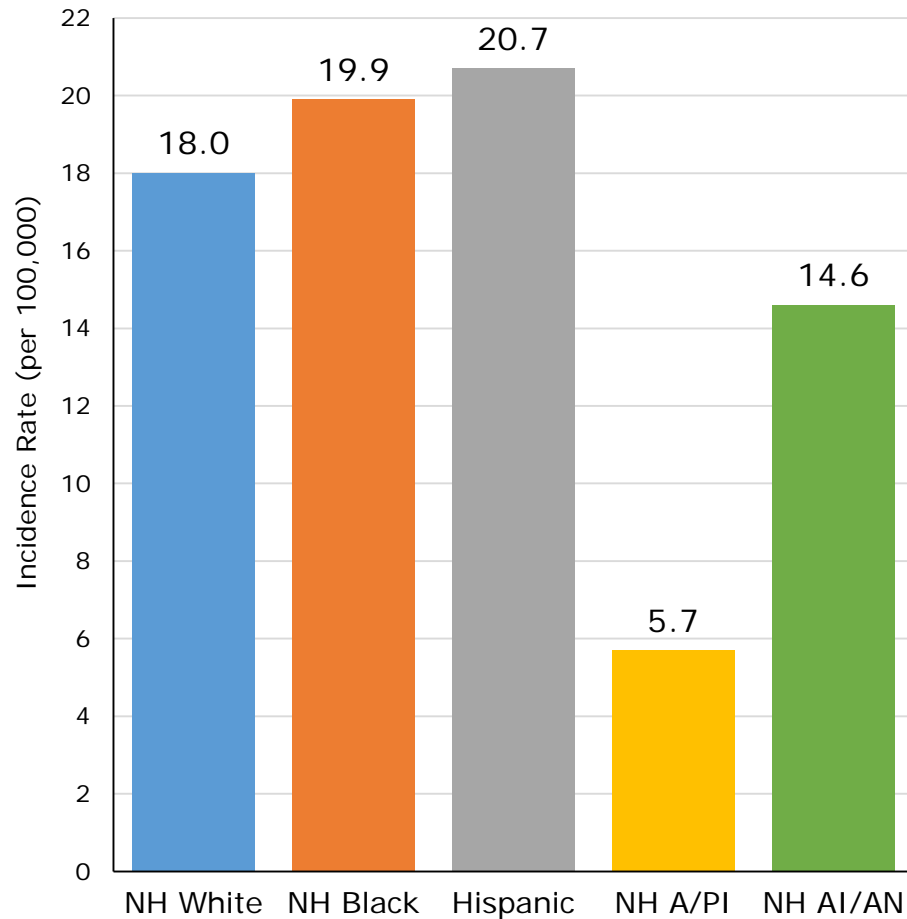
NH = Non-Hispanic; A/PI = Asian/Pacific Islander; AI/AN = American Indian/Alaska Native
Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups – Census P25-1130)
Data Source: Texas Cancer Registry (www.dshs.texas.gov/tcr) SEER*Stat Database, 1990-2015 Mortality, Texas statewide, created January 2018

Kidney & Renal Pelvis Cancer

5th most common cancer diagnosis and 8th leading cause of cancer death among men in Texas

7th most common cancer diagnosis and 11th leading cause of cancer death among women in Texas

Kidney & Renal Pelvis Cancer Incidence Rates by Race/Ethnicity, 2011-2015



- Obesity is a risk factor for kidney and renal pelvis cancer.³ Among adults 18 years and older, 37.0% of Hispanic, 30.2% of white, and 23.5% of black Texans were obese in 2015.⁴
- Hispanics have the highest incidence of kidney and renal pelvis cancer (20.7 per 100,000).

³ CDC. Kidney Cancer. 2018. Accessed April 2018. <https://www.cdc.gov/cancer/kidney/index.htm>

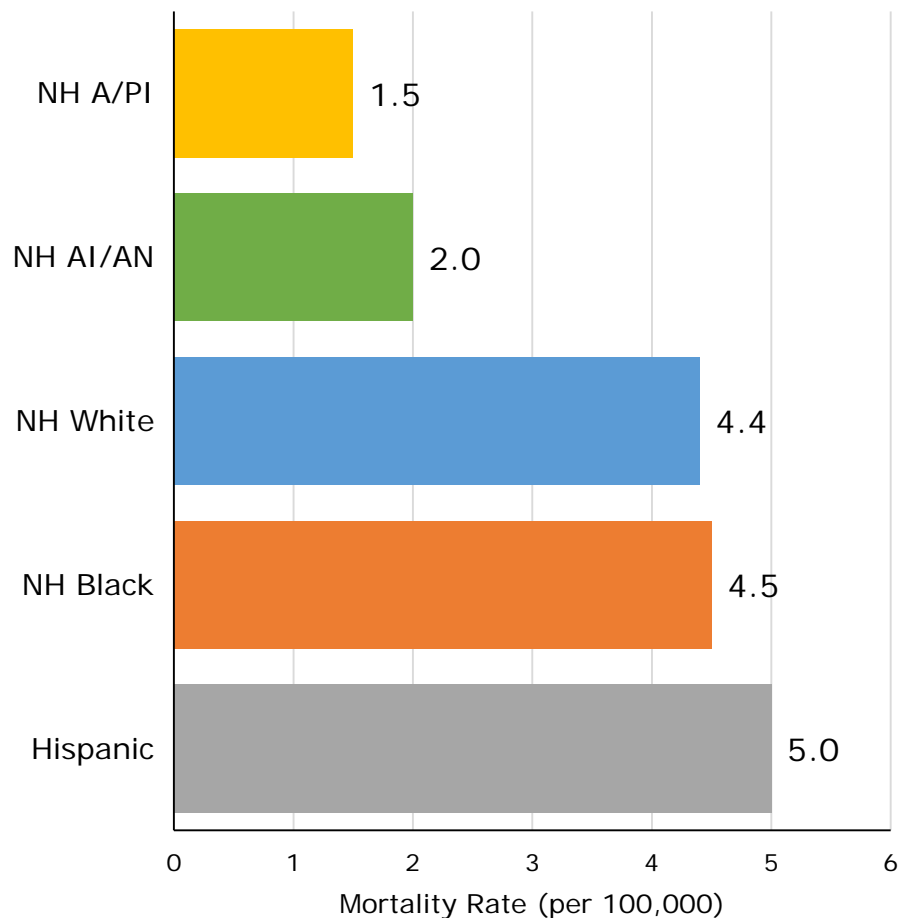
⁴ Texas Department of State Health Services. Center for Health Statistics. Texas Health Data. 2015. Accessed April 2018. <http://healthdata.dshs.texas.gov/HealthRisks/BRFSS>

NH = Non-Hispanic; A/PI = Asian/Pacific Islander; AI/AN = American Indian/Alaska Native

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups – Census P25-1130)

Data Source: Texas Cancer Registry (www.dshs.texas.gov/tcr) SEER*Stat Database, 1995-2015 Incidence, Texas statewide, created December 2017

Kidney & Renal Pelvis Cancer Mortality Rates by Race/Ethnicity, 2011-2015



- Hispanics have the highest mortality rate of kidney and renal pelvis cancer (5.0 per 100,000).
- Non-Hispanic blacks have the second highest mortality rate of kidney and renal pelvis cancer (4.5 per 100,000).
- Non-Hispanic Asian/Pacific Islanders have the lowest mortality rate of kidney and renal pelvis cancer (1.5 per 100,000).

NH = Non-Hispanic; A/PI = Asian/Pacific Islander; AI/AN = American Indian/Alaska Native

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups – Census P25-1130)

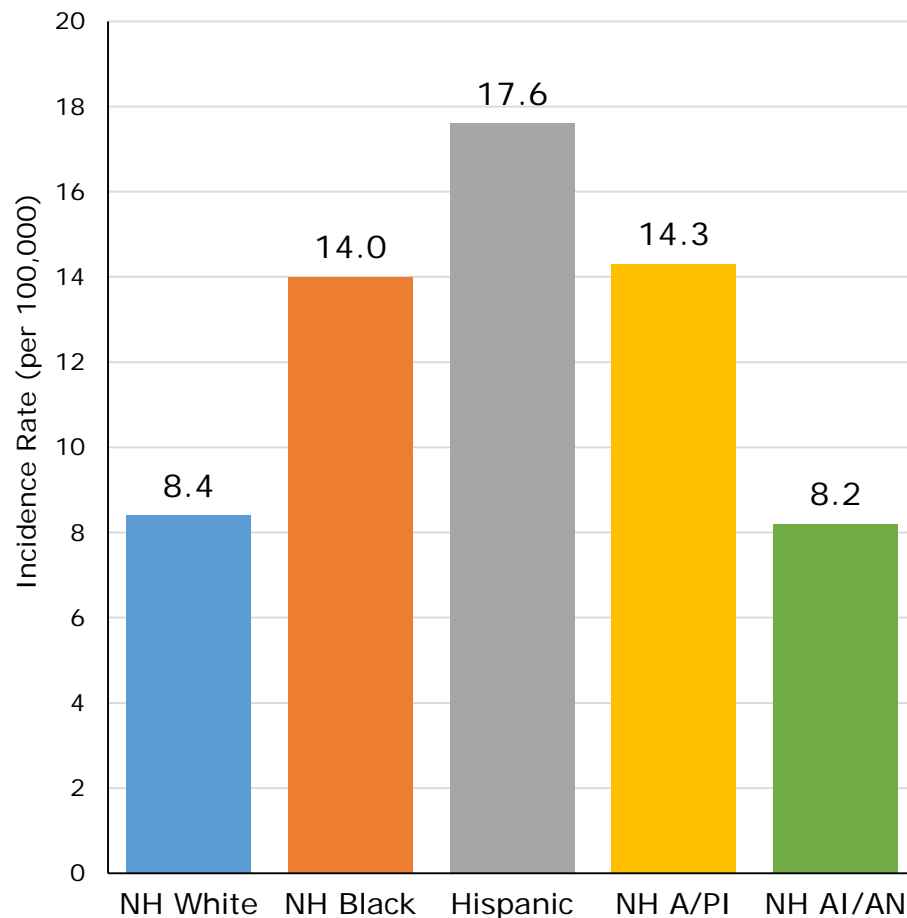
Data Source: Texas Cancer Registry (www.dshs.texas.gov/tcr) SEER*Stat Database, 1990-2015 Mortality, Texas statewide, created January 2018

Liver & Intrahepatic Bile Duct (IHBD) Cancer

9th most common cancer diagnosis and 4th leading cause of cancer deaths among men in Texas

13th most common cancer diagnosis and 7th leading cause of cancer death among women in Texas

Liver & IHBD Cancer Incidence Rates by Race/Ethnicity, 2011-2015



- Non-Hispanic Asian/Pacific Islanders have the second highest incidence of liver and IHBD cancer (14.3 per 100,000).
- Liver cancer among Non-Hispanic Asian/Pacific Islanders may be related to the high prevalence of chronic Hepatitis B infection, a major risk factor for liver cancer.^{5,6}

⁵ CDC. Viral Hepatitis, Asian Americans and Pacific Islanders and Chronic Hepatitis B. 2016. Accessed March 2018.

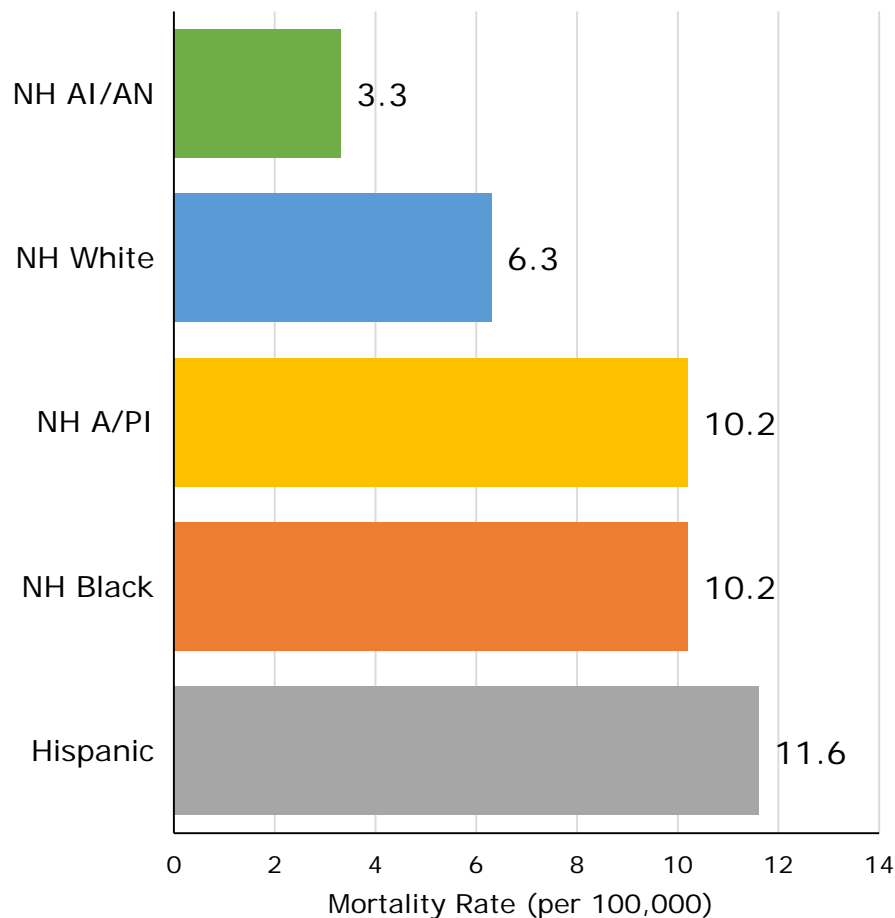
⁶ CDC. Viral Hepatitis. Liver Cancer and Viral Hepatitis. 2017. Accessed March 2018.

NH = Non-Hispanic; A/PI = Asian/Pacific Islander; AI/AN = American Indian/Alaska Native; IHBD = Intrahepatic Bile Duct

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups – Census P25-1130)

Data Source: Texas Cancer Registry (www.dshs.texas.gov/tcr) SEER*Stat Database, 1995-2015 Incidence, Texas statewide, created December 2017

Liver & IHBD Cancer Mortality Rates by Race/Ethnicity, 2011-2015



- Hispanics have the highest mortality rate of liver and IHBD cancer (11.6 per 100,000).
- Non-Hispanic blacks and non-Hispanic Asian/Pacific Islanders are tied for the second highest mortality rate of liver and IHBD cancer (10.2 per 100,000).
- Non-Hispanic American Indian/Alaska Natives have the lowest mortality rate of liver and IHBD cancer (3.3 per 100,000).

NH = Non-Hispanic; A/PI = Asian/Pacific Islander; AI/AN = American Indian/Alaska Native; IHBD = Intrahepatic Bile Duct

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups – Census P25-1130)

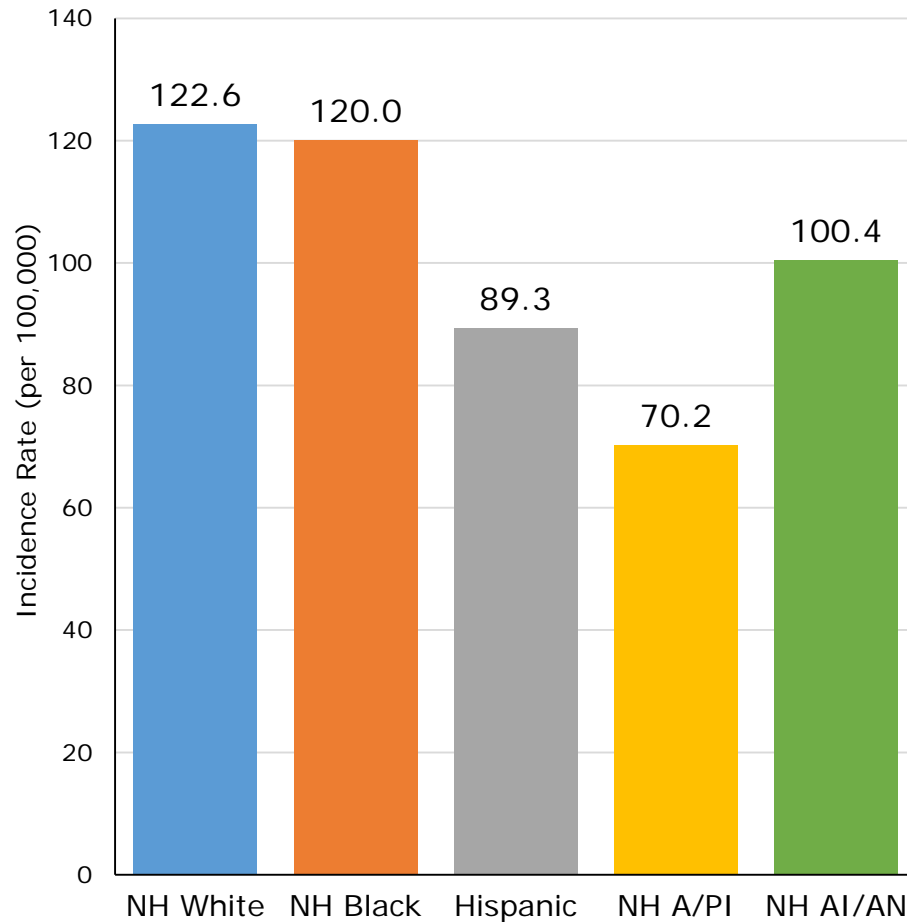
Data Source: Texas Cancer Registry (www.dshs.texas.gov/tcr) SEER*Stat Database, 1990-2015 Mortality, Texas statewide, created January 2018

Female Breast Cancer

Most common cancer diagnosis among women in Texas

2nd leading cause of cancer death among women in Texas

Female Breast Cancer Incidence Rates by Race/Ethnicity, 2011-2015



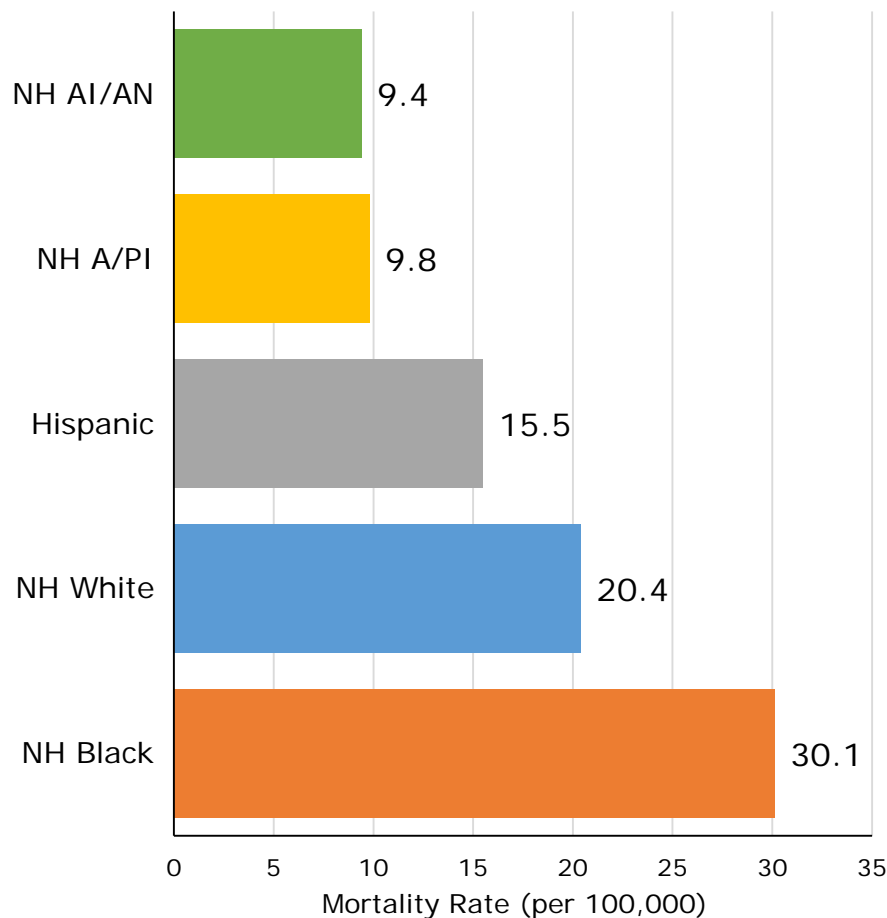
- Non-Hispanic white females have the highest incidence of breast cancer (122.6 per 100,000).
- Non-Hispanic black females have the second highest incidence of breast cancer (120.0 per 100,000).

NH = Non-Hispanic; A/PI = Asian/Pacific Islander; AI/AN = American Indian/Alaska Native

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups – Census P25-1130)

Data Source: Texas Cancer Registry (www.dshs.texas.gov/tcr) SEER*Stat Database, 1995-2015 Incidence, Texas statewide, created December 2017

Female Breast Cancer Mortality Rates by Race/Ethnicity, 2011-2015



- Despite having a lower incidence rate of breast cancer compared to non-Hispanic white females, non-Hispanic black females have the highest mortality rate of breast cancer (30.1 per 100,000) and have a mortality rate that is nearly 50% higher than non-Hispanic white females (20.4 per 100,000).
- Lack of health insurance, late detection of cancer due to difficulties accessing screening tests, and unequal access to top cancer treatments may influence the differences in mortality rate due to breast cancer.⁷

⁷ Cancer Health Disparities. National Cancer Institute. 2018. Accessed March 2018.

NH = Non-Hispanic; A/PI = Asian/Pacific Islander; AI/AN = American Indian/Alaska Native

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups – Census P25-1130)

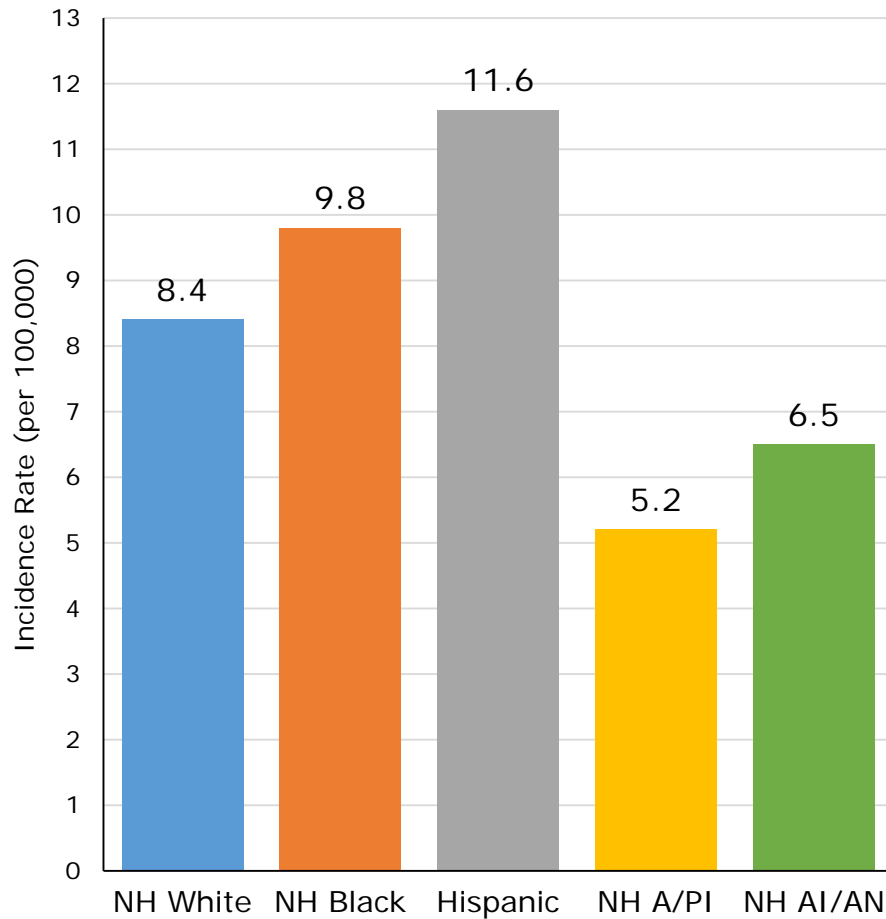
Data Source: Texas Cancer Registry (www.dshs.texas.gov/tcr) SEER*Stat Database, 1990-2015 Mortality, Texas statewide, created January 2018

Cervical Cancer

12th most common cancer diagnosis among women in Texas

12th leading cause of cancer death among women in Texas

Cervical Cancer Incidence Rates by Race/Ethnicity, 2011-2015



- Infection with certain strains of human papillomavirus (HPV) is the main cause for most cases of cervical cancer.⁸
- Approximately 70% of all cervical cancers can be prevented if vaccinated against two strains of HPV found in the HPV vaccine.⁹
- Hispanic and black women have the highest rates of cervical cancer nationwide and in Texas.¹⁰

⁸ CDC. Gynecologic Cancers, What Are the Risk Factors for Cervical Cancer? 2017. Accessed April 2018.

⁹ National Cancer Institute. Human Papillomavirus (HPV) Vaccines. 2016. Accessed March 2018.

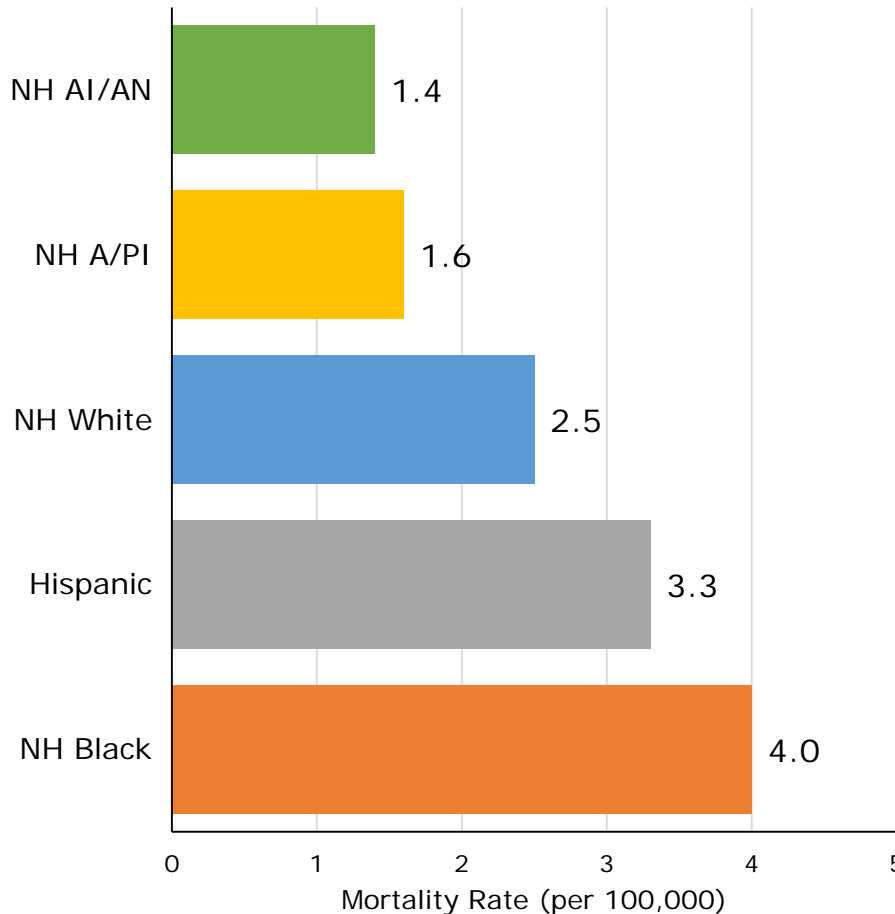
¹⁰ National Cancer Institute. Cancer Health Disparities. 2008. Accessed March 2018.

NH = Non-Hispanic; A/PI = Asian/Pacific Islander; AI/AN = American Indian/Alaska Native

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups – Census P25-1130)

Data Source: Texas Cancer Registry (www.dshs.texas.gov/tcr) SEER*Stat Database, 1995-2015 Incidence, Texas statewide, created December 2017

Cervical Cancer Mortality Rates by Race/Ethnicity, 2011-2015



- Despite having the 2nd highest incidence rate, non-Hispanic black females have the highest mortality rate of cervical cancer (4.0 per 100,000) and have a mortality rate that is 60% higher than non-Hispanic white females (2.5 per 100,000).
- Higher cervical cancer mortality rates are often a result of multiple factors including low socioeconomic status, differences in healthcare access, and a lower screening rate.¹¹

¹¹ Freeman HP, Wingrove BK. Excess Cervical Cancer Mortality: A Marker for Low Access to Health Care in Poor Communities. Rockville, MD: National Cancer Institute, Center to Reduce Cancer Health Disparities, May 2005. NIH Pub. No. 05-5282.

NH = Non-Hispanic; A/PI = Asian/Pacific Islander; AI/AN = American Indian/Alaska Native

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups – Census P25-1130)

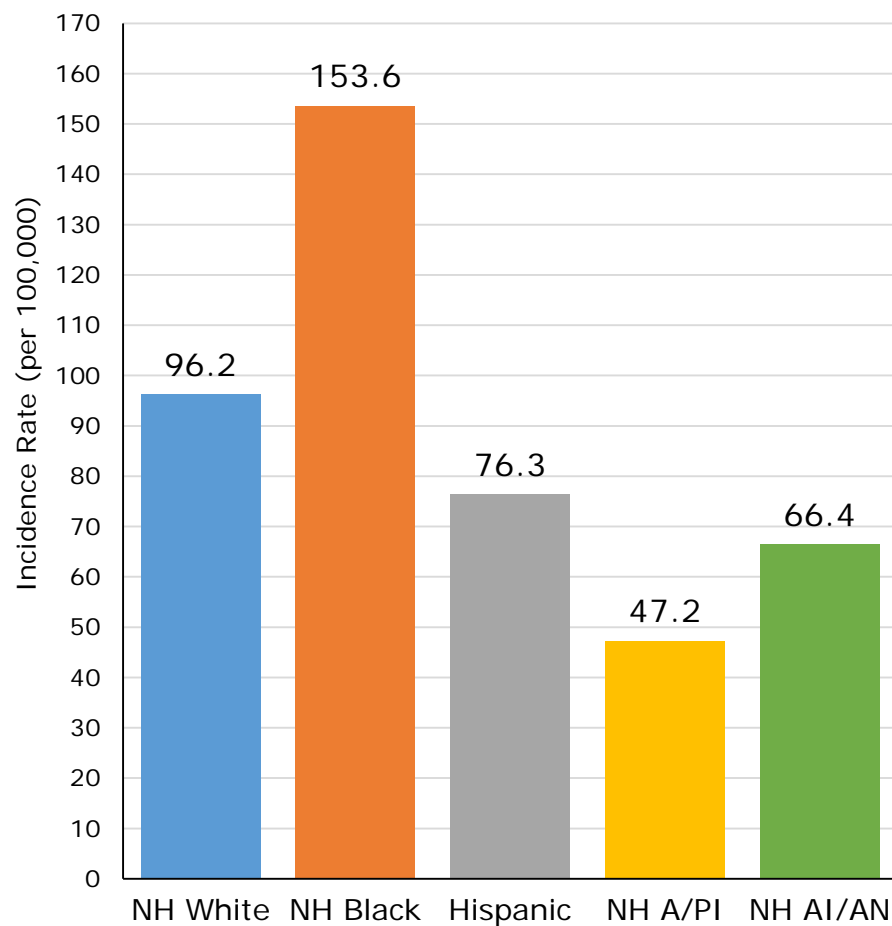
Data Source: Texas Cancer Registry (www.dshs.texas.gov/tcr) SEER*Stat Database, 1990-2015 Mortality, Texas statewide, created January 2018

Prostate Cancer

Most common cancer diagnosis among men in Texas

2nd leading cause of cancer death among men in Texas

Prostate Cancer Incidence Rates by Race/Ethnicity, 2011-2015



- Prostate cancer is the most commonly diagnosed cancer among men in Texas.
- Non-Hispanic black males have the highest incidence of prostate cancer (153.6 per 100,000) that is nearly 60% higher than non-Hispanic white males (96.2 per 100,000).
- Recent studies have identified changes in DNA (genetic variants) that increase the risk of prostate cancer. Most of these genetic variants are found in African American men.¹²

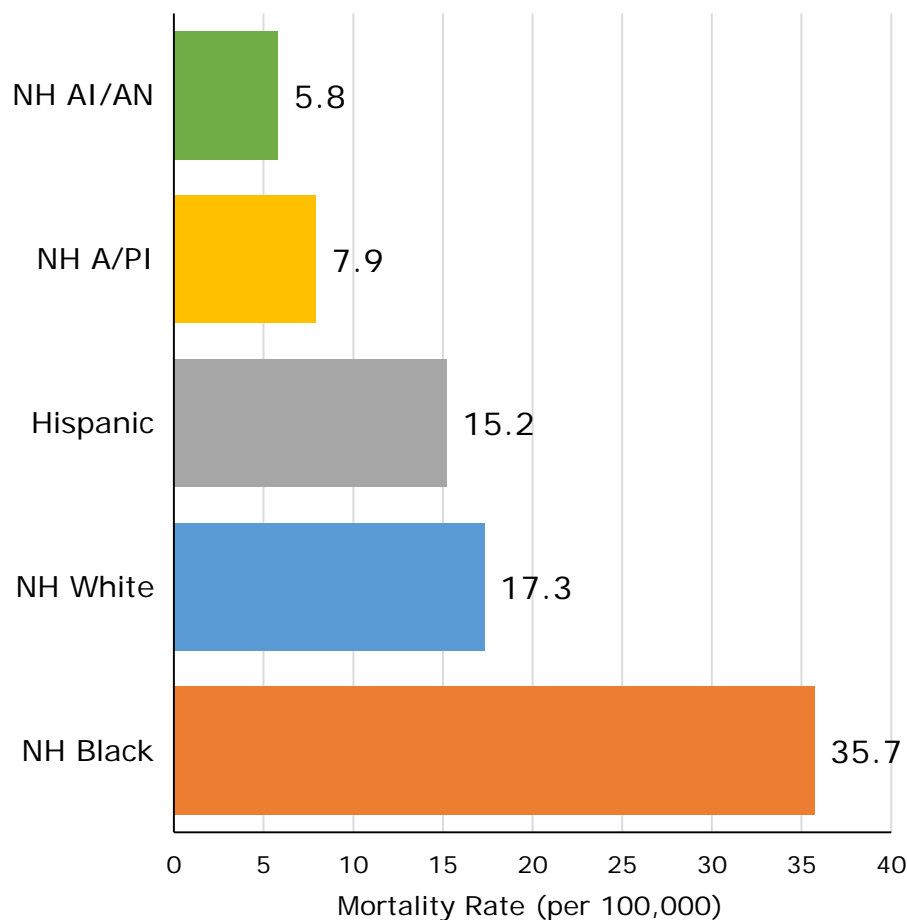
¹² Haiman CA, Patterson N, Freedman ML, et al. Multiple regions within 8q24 independently affect risk for prostate cancer. *Nature Genetics*, 2007; 39(5): 638-644.

NH = Non-Hispanic; A/PI = Asian/Pacific Islander; AI/AN = American Indian/Alaska Native

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups – Census P25-1130)

Data Source: Texas Cancer Registry (www.dshs.texas.gov/tcr) SEER*Stat Database, 1995-2015 Incidence, Texas statewide, created December 2017

Prostate Cancer Mortality Rates by Race/Ethnicity, 2011-2015



- Prostate cancer is the second leading cause of cancer deaths among men in Texas.
- Non-Hispanic black males have the highest mortality rate of prostate cancer (35.7 per 100,000) that is more than double the mortality rate of the next highest group.
- Non-Hispanic black males have greater barriers to cancer care such as lack of health care coverage, lower health care access, and lower socioeconomic status leading to lower screening rates.¹³

¹³ Talcott TA, Spain P, Clark JA, et al. Hidden barriers between knowledge and behavior: The North Carolina Prostate Cancer Screening and Treatment Experience. *Cancer*, 2007; 109(8): 1899-1606

NH = Non-Hispanic; A/PI = Asian/Pacific Islander; AI/AN = American Indian/Alaska Native

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups – Census P25-1130)

Data Source: Texas Cancer Registry (www.dshs.texas.gov/tcr) SEER*Stat Database, 1990-2015 Mortality, Texas statewide, created January 2018

Technical notes

- Data Sources:
 - Texas Cancer Registry (www.dshs.state.tx.us/tcr) SEER*Stat Database, 1995 -2015 Incidence, Texas statewide, created December 2017, based on NPCR-CSS Submission, cut-off 11/13/2017.
 - Texas Cancer Registry (www.dshs.state.tx.us/tcr) SEER*Stat Database, 1990 -2015 Mortality, Texas statewide, created January 2018.
- Both incidence and mortality rates are age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

References

1. CDC. State Tobacco Activities Tracking and Evaluation (STATE) System — Texas, 2015-2016. Accessed April 2018. https://nccd.cdc.gov/STATESystem/rdPage.aspx?rdReport=OSH_STATE.Highlights
2. CDC. Vital signs: colorectal cancer screening test use—United States, 2012. MMWR Morb Mortal Wkly Rep 2013;62:881–8.
3. CDC. Kidney Cancer. 2018. Accessed April 2018. <https://www.cdc.gov/cancer/kidney/index.htm>
4. Texas Department of State Health Services. Center for Health Statistics. Texas Health Data. 2015. Accessed April 2018. <http://healthdata.dshs.texas.gov/HealthRisks/BRFSS>
5. CDC. Viral Hepatitis, Asian Americans and Pacific Islanders and Chronic Hepatitis B. 2016. Accessed March 2018. <https://www.cdc.gov/hepatitis/populations/api.htm>
6. CDC. Viral Hepatitis. Liver Cancer and Viral Hepatitis. 2017. Accessed March 2018. <https://www.cdc.gov/hepatitis/featuredtopics/livercancerandhepatitis.htm>
7. Cancer Health Disparities. National Cancer Institute. 2018. Accessed March 2018. <https://www.cancer.gov/about-nci/organization/crhd/cancer-health-disparities-fact-sheet#r5>
8. CDC. Gynecologic Cancers, What Are the Risk Factors for Cervical Cancer? 2017. Accessed April 2018. https://www.cdc.gov/cancer/cervical/basic_info/risk_factors.htm
9. National Cancer Institute. Human Papillomavirus (HPV) Vaccines. 2016. Accessed March 2018. <https://www.cancer.gov/about-cancer/causes-prevention/risk/infectious-agents/hpv-vaccine-fact-sheet>
10. National Cancer Institute. Cancer Health Disparities. 2008. Accessed March 2018. <https://www.cancer.gov/about-nci/organization/crhd/cancer-health-disparities-fact-sheet>
11. Freeman HP, Wingrove BK. Excess Cervical Cancer Mortality: A Marker for Low Access to Health Care in Poor Communities. Rockville, MD: National Cancer Institute, Center to Reduce Cancer Health Disparities, May 2005. NIH Pub. No. 05–5282.
12. Haiman CA, Patterson N, Freedman ML, et al. Multiple regions within 8q24 independently affect risk for prostate cancer. Nature Genetics, 2007; 39(5); 638-644.

Acknowledgment

The Texas Cancer Registry (TCR) recognizes the following whose financial support is essential to accomplishing the Registry's mission for our State.

Federal Grant Funding

- We acknowledge the Centers for Disease Control and Prevention (CDC) for its financial support under Cooperative Agreement #1NU58DP006308.

State Agency Funding

- Texas Department of State Health Services
- Texas Health and Human Services Commission
- Cancer Prevention and Research Institute of Texas

The TCR also wants to thank all cancer reporters for their hard work and collaboration. Cancer reporters help us meet national high quality and timeliness standards, and enable us to serve as the primary source of cancer data in Texas.