Oklahoma
Breast and Cervical Cancer

ANNUAL REPORT
STATE FISCAL YEAR
2020

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Purpose

The Oklahoma Breast and Cervical Cancer Act (OBCCA) was established in 1994 to implement plans to significantly decrease breast and cervical cancer morbidity and mortality in the state of Oklahoma (63 O.S. §1-554). In 2013, the OBCCA was amended and shifted the responsibility of annual reporting from the Breast and Cervical Cancer Prevention and Treatment (BCCPT) Advisory Committee to the Oklahoma State Department of Health (OSDH). The following items in this report are mandated in the OBCCA:

- Identification of populations at highest risk for breast and cervical cancer.
- Identification of priority strategies and emerging technologies, to include newly introduced therapies and preventive vaccines that are effective in preventing and controlling the risk of breast and cervical cancer.
- Funding information for breast and cervical cancer screening activities.
- Recommendations for additional funding, if necessary, to provide screenings and treatment for breast and cervical cancer for uninsured and underinsured women.
- Strategies or actions to reduce the costs of breast and cervical cancer in the state of Oklahoma.

Background

The OBCCA established the Breast and Cervical Cancer Act Revolving Fund. The monies in the revolving fund consist of gifts, donations, and contributions from individual income tax returns. In addition, $20 of each Fight Breast Cancer license plate sold is deposited into the Breast and Cervical Cancer Act Revolving Fund. Samples of the Fight Breast Cancer license plates are shown to the right. All monies in the revolving fund are appropriated to the OSDH to support the implementation of the OBCCA. Past expenditures of funds have paid for breast and cervical cancer screening and diagnostic services for women enrolled in the “Take Charge!” program, Oklahoma’s Breast and Cervical Cancer Early Detection Program (BCCEDP).

Samples of Fight Breast Cancer License Plates

BURDEN OF CANCER IN OKLAHOMA

3-4-64 IN OKLAHOMA

Many Oklahomans suffer from the disproportionate burden of diseases attributable to modifiable risk factors including sedentary lifestyle, poor nutrition, and smoking. These three behaviors in particular, contribute to four chronic diseases - cardiovascular disease, cancer, diabetes, and lung disease that cause 64% of all deaths in Oklahoma.

3 BEHAVIORS

Tobacco Use

Poor Nutrition

Sedentary Lifestyle

4 CHRONIC CONDITIONS

Cardiovascular Disease

Cancer

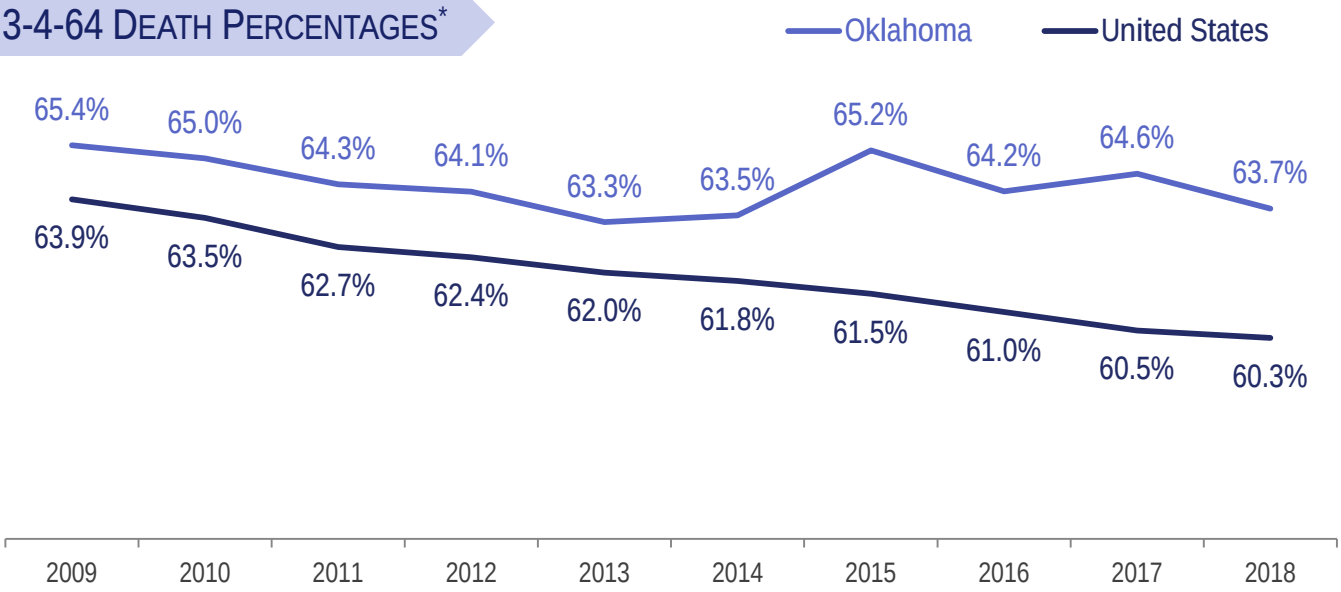
Diabetes

Lung Disease

64% OF DEATHS

Three unhealthy behaviors influence four chronic diseases that account for 64% of all deaths in Oklahoma and for 60% of all deaths in United States.[1]

3-4-64 DEATH PERCENTAGES*



*3-4-65 deaths as a percentage of all causes of death. Deaths include cardiovascular disease, cancer, diabetes, and lung disease.

Burden of Cancer in Oklahoma

Leading Causes of Death[1]

Cancer is the

leading cause of death in Oklahoma

accounting for **1 in 5 deaths** in Oklahoma.

Oklahoma has the **4th highest cancer death rate** in the nation.

Cancer Incidence in Oklahoma

Breast cancer is the **most common cancer** among **females**.

American Indian and **African American** females have **higher breast cancer rates** than other racial and ethnic groups.

Cancer Mortality in Oklahoma

Breast cancer is the **second most common site/cause** of cancer mortality after lung cancer.

African American females have **higher age-adjusted breast cancer mortality rates** than other racial and ethnic groups.

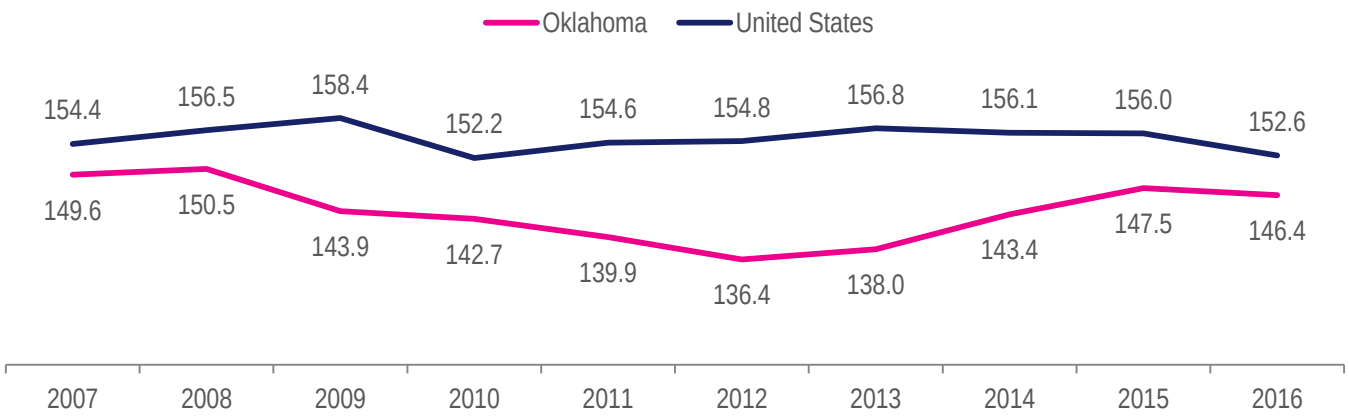
BURDEN OF BREAST CANCER IN OKLAHOMA

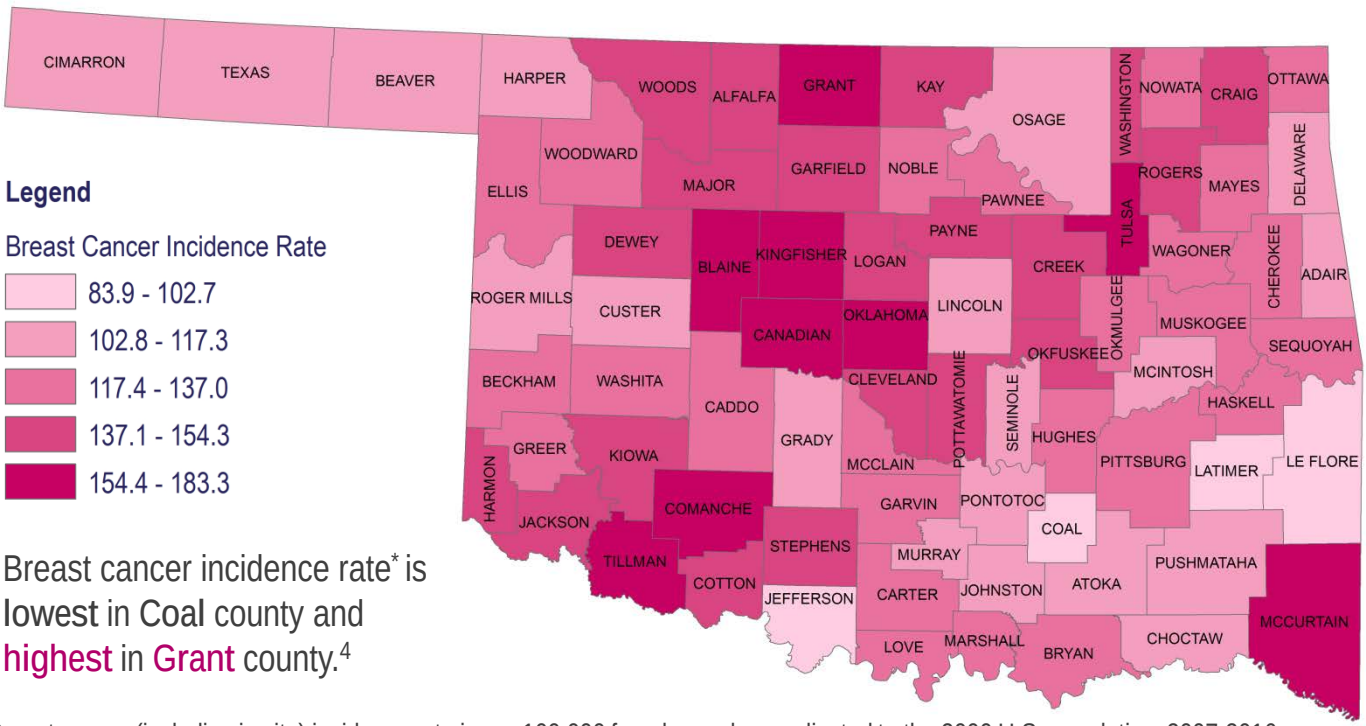
RISK FACTORS[2]

- female gender
- age >50 years
- breast cancer genes
- early menstrual period
- family history
- overweight or obese
- sedentary lifestyle
- drinking alcohol

BREAST CANCER INCIDENCE

Breast cancer incidence rate* is lower in Oklahoma compared to the United States.[3]



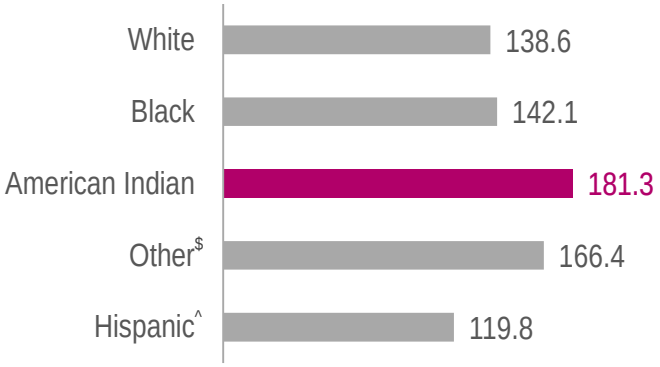


Breast cancer incidence rate* is lowest in Coal county and highest in Grant county.[4]

*Breast cancer (including in situ) incidence rate is per 100,000 females and age adjusted to the 2000 U.S. population, 2007-2016.

RACE/ETHNICITY

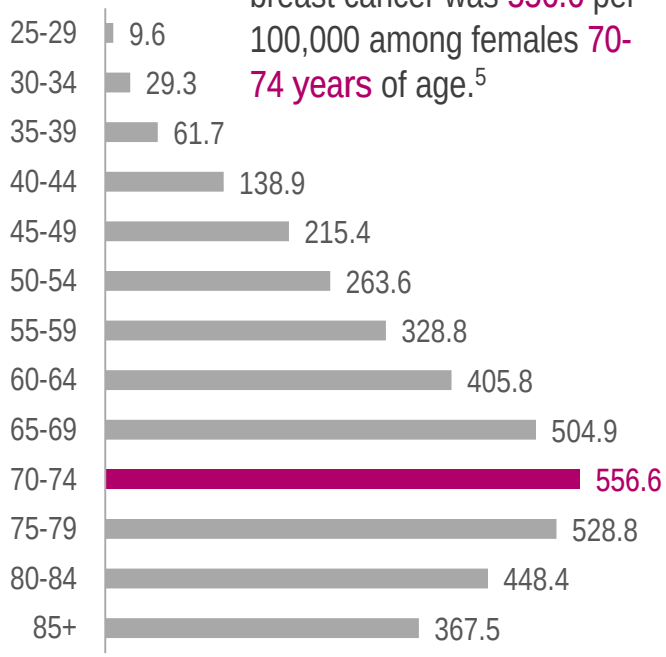
The highest incidence* of breast cancer was 181.3 per 100,000 females among the American Indian race.[5]



*Incidence rate is per 100,000 females and age adjusted to the 2000 U.S. population, 2013-2017; $Other category includes respondents who identify with "some other race" and do not identify with provided major categories; ^Hispanic origin drill level was used to determine rate while other races used IHS linked race.

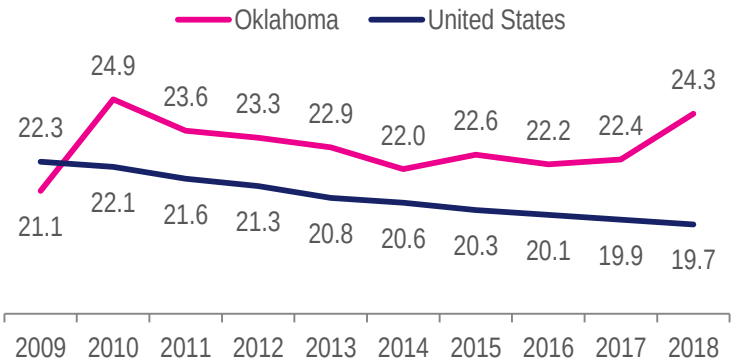
AGE

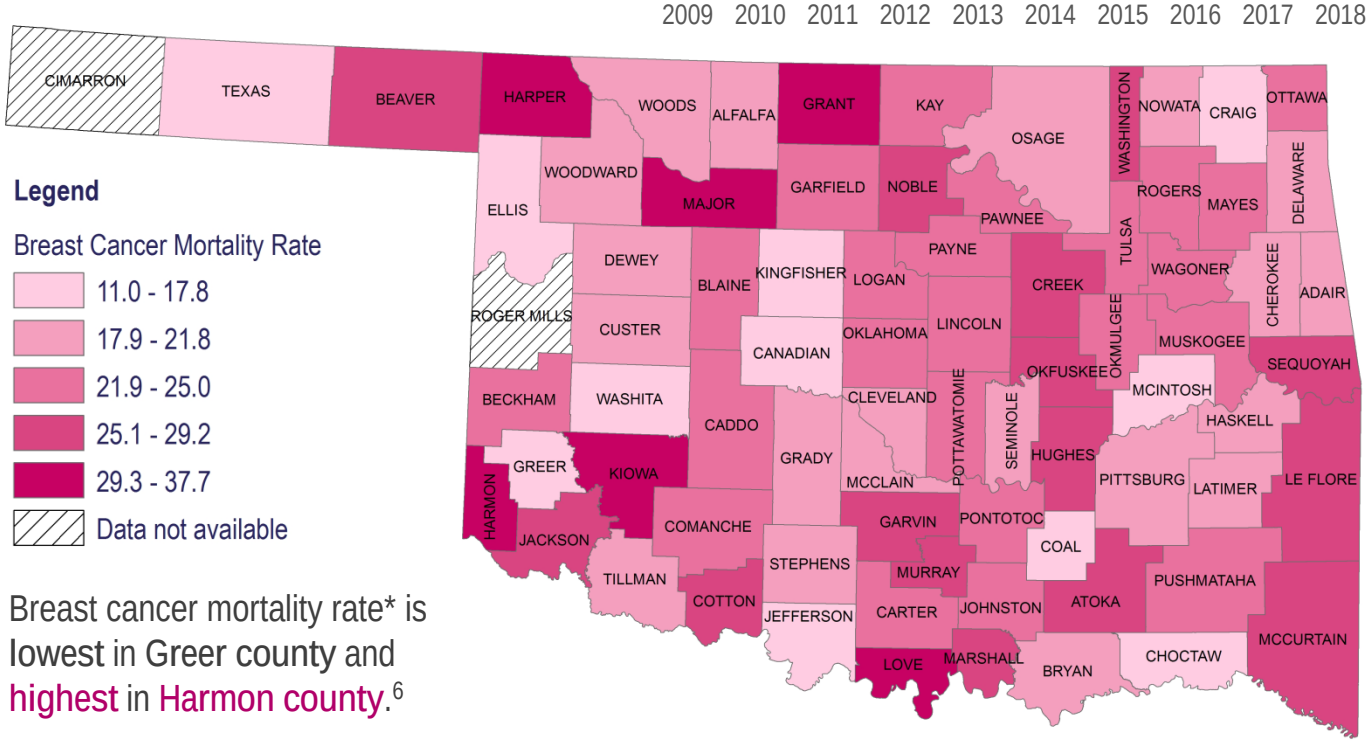
The highest incidence* of breast cancer was 556.6 per 100,000 among females 70-74 years of age.[5]



BREAST CANCER MORTALITY

Over the last 10 years, the breast cancer mortality rate* in Oklahoma has remained slightly higher than the United States rate since 2010.[1]





Breast cancer mortality rate* is lowest in Greer county and highest in Harmon county.[6]

*Mortality rate is per 100,000 females and age adjusted to the 2000 U.S. population, 2009-2018.

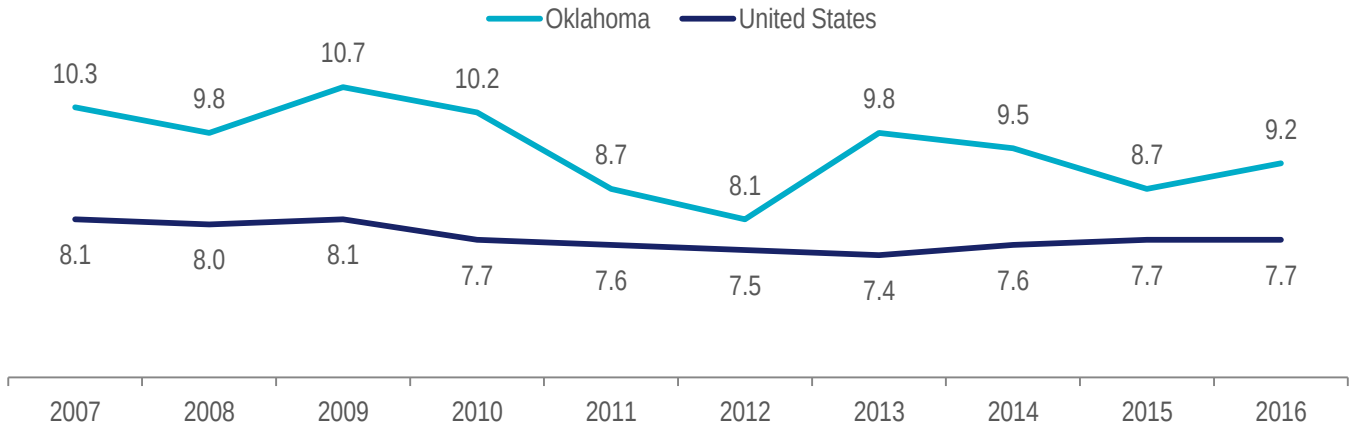
BURDEN OF CERVICAL CANCER IN OKLAHOMA

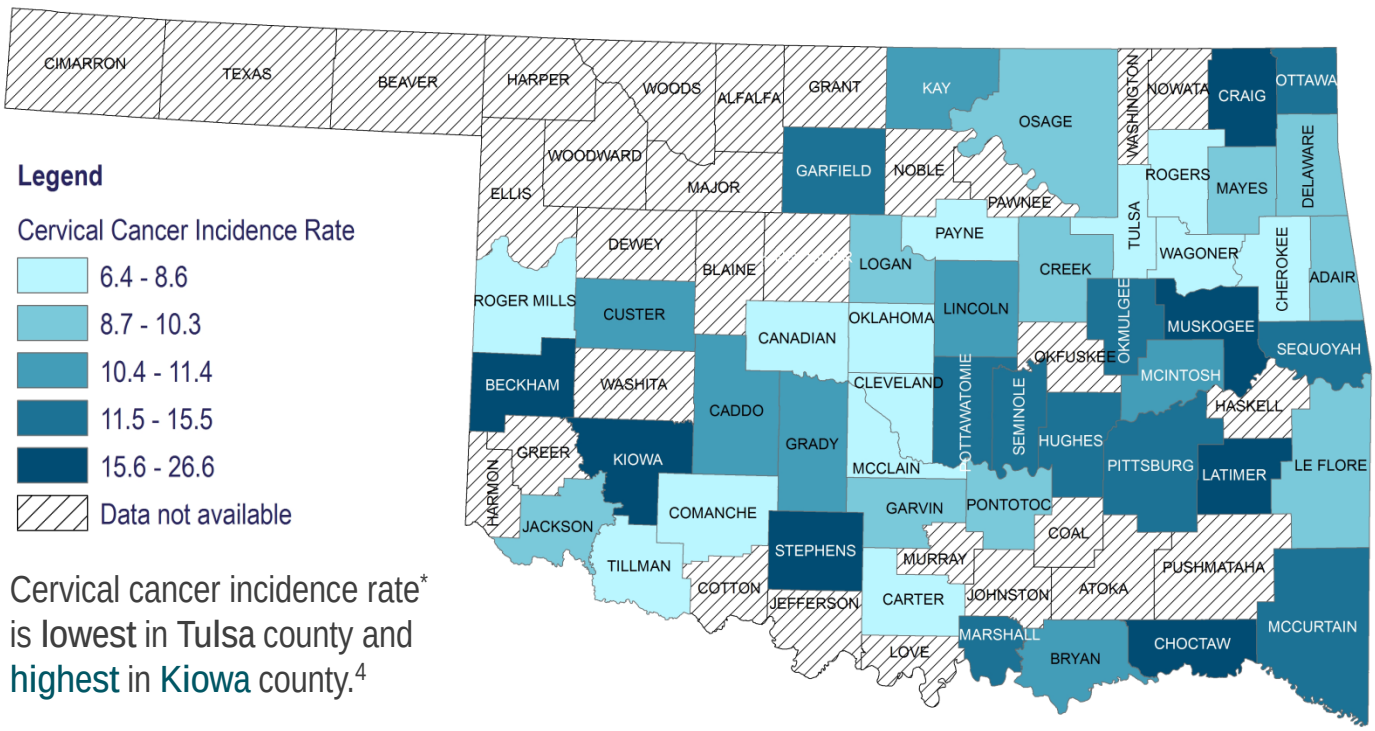
RISK FACTORS[7]

- lack of HPV immunization
- smoking
- multiple sexual partners
- immunosuppression
- 5+ years on birth control pills

CERVICAL CANCER INCIDENCE

Cervical cancer incidence rate* is higher in Oklahoma compared to the United States.[3]



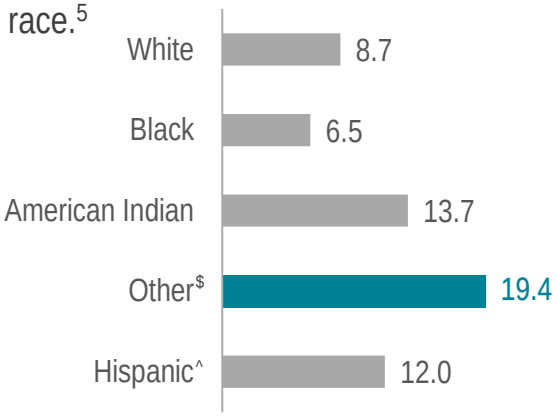


Cervical cancer incidence rate* is lowest in Tulsa county and highest in Kiowa county.[4]

*Incidence rate is per 100,000 females and age adjusted to the 2000 U.S. population, 2007-2016.

RACE/ETHNICITY

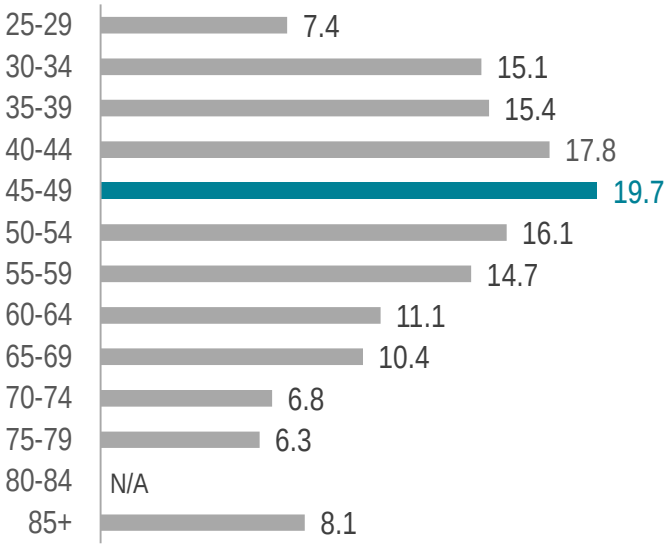
The highest incidence* of cervical cancer was 19.4 per 100,000 females among the Other race.[5]



*Incidence rate is per 100,000 females and age adjusted to the 2000 U.S. population, 2013-2017; $Other category includes respondents who identify with "some other race" and do not identify with provided major categories; ^Hispanic origin drill level was used to determine rate while other races used IHS linked race.

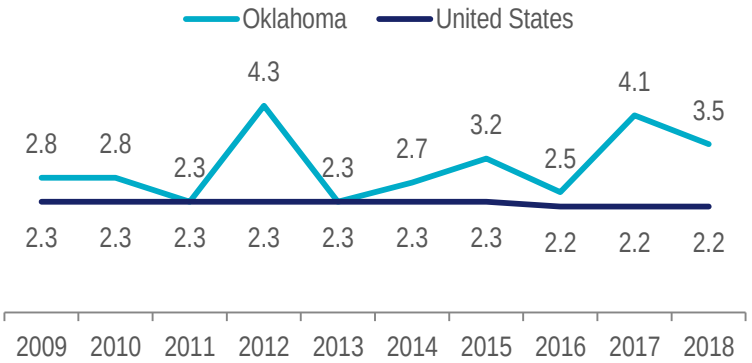
AGE

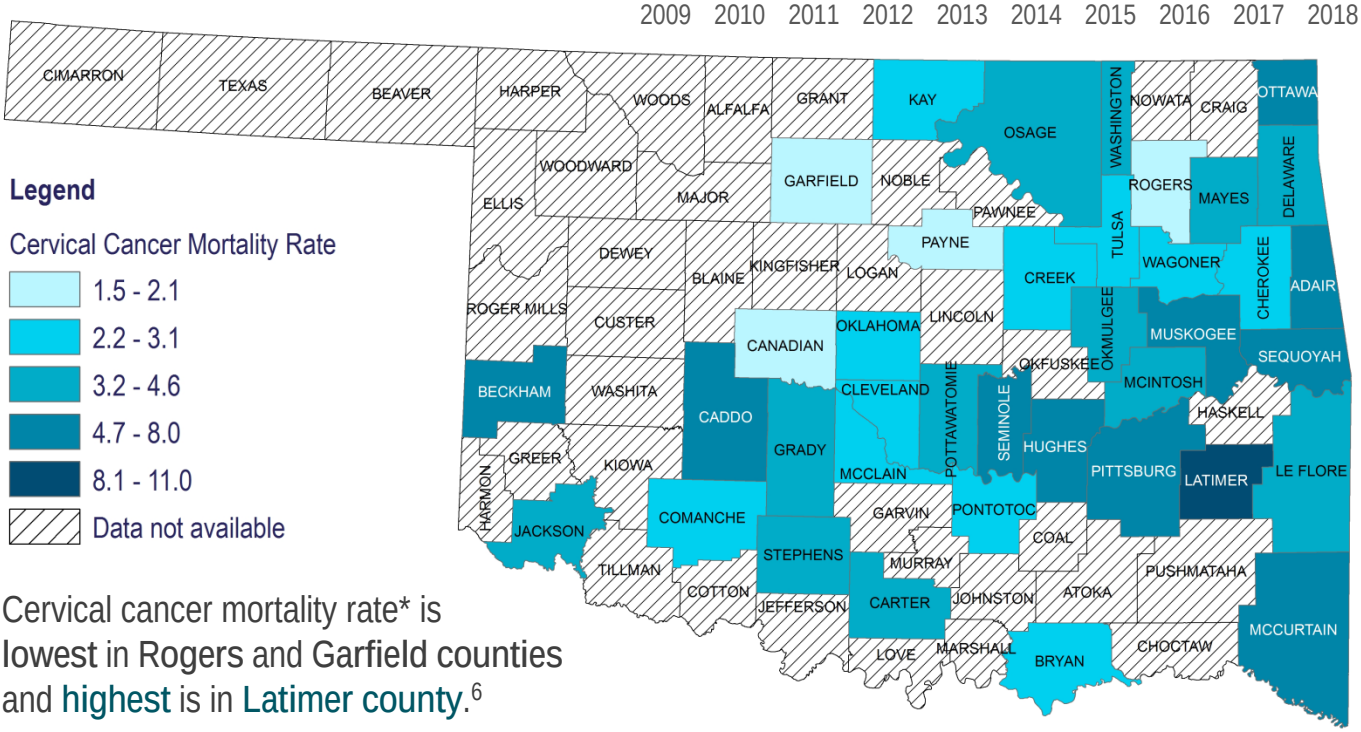
The highest incidence* of cervical cancer was 19.7 per 100,000 females among those 45-49 years.[5]



CERVICAL CANCER MORTALITY

While the cervical cancer mortality rate* has remained constant in the United States over the last 10 years, Oklahoma's rates have fluctuated while remaining higher than the nation.[1]





Cervical cancer mortality rate* is lowest in Rogers and Garfield counties and highest is in Latimer county.[6]

*Mortality rate is per 100,000 females and age adjusted to the 2000 U.S. population, 2009-2018.

PRIORITY STRATEGIES: PROGRAMS & ACTIVITIES

BREAST AND CERVICAL CANCER EARLY DETECTION PROGRAMS (BCCEDP)

Oklahoma has three screening programs serving low-income, uninsured, and underinsured women.

- Cherokee Nation Breast and Cervical Cancer Early Detection Program
- Kaw Nation Women's Health Program
- Oklahoma State Department of Health Take Charge! Program

Oklahoma's BCCEDP receive funding through a cooperative agreement with the Centers for Disease Control and Prevention (CDC) and work in partnership to ensure Oklahoma women are enrolled in the screening program that best fits their needs.

PURPOSE

- facilitate early screening
- ensure prompt diagnosis
- improve access to treatment

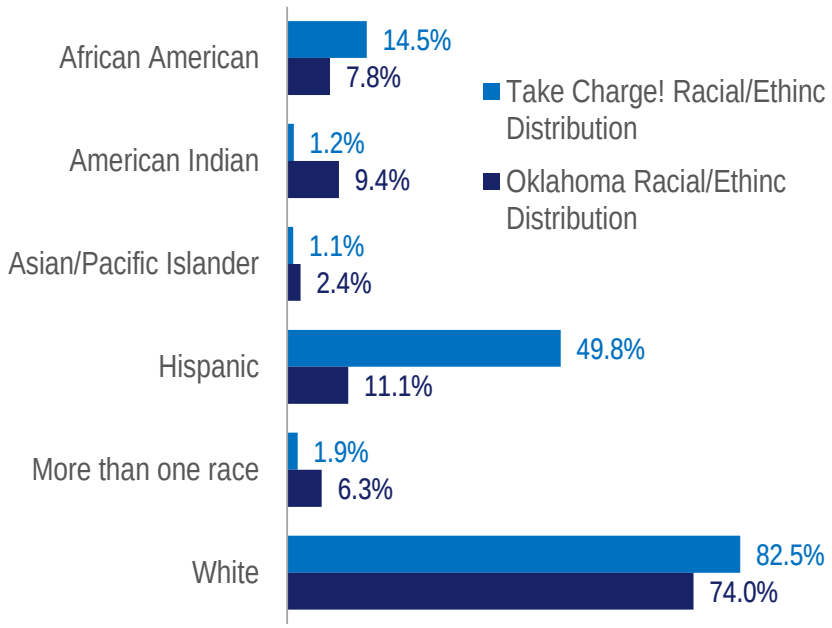
PROVIDES ACCESS TO SCREENING SERVICES

- Clinical breast exam
- Mammogram
- Pelvic exam
- Pap test
- HPV co-testing

HIGH RISK

In State Fiscal Year (SFY) 2019, a greater proportion of African American and Hispanic women received screening through Take Charge![8] than was represented among the population of the state.[9]

It should be noted that American Indian women are also served through the Cherokee Nation and Kaw Nation BCCEDPs, in addition to Take Charge!.



Note: White and Hispanic clients served through Take Charge! are not mutually exclusive.

Priority Strategies: Programs & Activities

OKLAHOMA DIAGNOSTIC AND TREATMENT PROGRAM: OKLAHOMA CARES

Women with abnormal findings on breast and/or cervical cancer screening examinations receive a referral and access to diagnostic and treatment services.

Oklahoma Cares
SoonerCare Medicaid program

Women must be:

- 19-64 years of age
- Not insured
- Low income
- Meet medical eligibility requirements

Oklahoma's three screening programs encourage women in need of diagnostic or treatment services to apply for Oklahoma Cares. Additionally,

- Cherokee Nation BCCEDP provides diagnostic services for women who are screened regardless of their eligibility for Oklahoma Cares.
- Take Charge! Program provides diagnostic services for women who are screened through Take Charge! and are ineligible for Oklahoma Cares.

STATEWIDE BREAST AND CERVICAL CANCER ACTIVITIES

Approximately 4,500* Oklahomans participated in public education awareness events or outreach campaigns through multiple community organizations in SFY 2020.

Community organizations and partners:

- American Cancer Society Making Strides against Breast Cancer Walk® (virtual)
- Cherokee Nation Breast and Cervical Cancer Program
- Kaw Nation Breast Cancer
- Komen 2020 More Than Pink Walk® (virtual)
- Oklahoma Health Care Authority
- Oklahoma Project Woman
- Take Charge!

*Participation was down due to the Covid-19 pandemic limiting the number of events that were held.

BCCEDP Program

Cherokee Nation	Kaw Nation	Take Charge! Program
Began: 1996	Began: 2001	Began: 1995

Priority Population

Breast Cancer Screening

Cherokee Nation	Kaw Nation	Take Charge! Program
American Indian (AI) women enrolled in a federally recognized tribe, 40-64 years of age, with an income at or below 250% of the federal poverty level (FPL), and uninsured or underinsured.	AI women 50-64 years of age, with an income at or below 250% of the FPL, and uninsured or underinsured.	Oklahoma women 50-65 years of age, with an income at or below 185% of the FPL, and uninsured or underinsured.

Cervical Cancer Screening

Cherokee Nation	Kaw Nation	Take Charge! Program
AI women enrolled in a federally recognized tribe, 21-64 years of age who have not had a Pap test in five or more years, with the same income and insurance guidelines as breast cancer screening.	AI women 21-64 years of age who have not had a Pap test in five or more years, with the same income and insurance guidelines as breast cancer screening.	Oklahoma women 35-65 years of age who have not had a Pap test in five or more years, with the same income and insurance guidelines as breast cancer screening.

Provides Services Through

Cherokee Nation	Kaw Nation	Take Charge! Program
✓ Cherokee Nation Health Facilities ✓ Cherokee Nation W.W. Hastings Hospital ✓ Cherokee Nation healthcare providers ✓ Mobile mammography facility	Memorandums of Understanding (MOUs) with: ✓ Kanza Clinic ✓ Ponca Tribe clinics ✓ Pawnee Tribe clinics ✓ Osage Tribe clinics ✓ Iowa Tribe clinics	✓ Federally Qualified Health Centers (FQHC) ✓ Health care organizations ✓ Laboratories ✓ Surgical consultants ✓ Mammography facilities ✓ Colposcopy providers

BCCEDP Program

Cherokee Nation	Kaw Nation	Take Charge! Program

Services Provided in SFY 2019

Cherokee Nation

26,378 eligible women screened since inception

1,487 breast cancer screenings

1,442 cervical cancer screenings

Kaw Nation

4,808 eligible women screened since inception

233 breast cancer screenings

362 cervical cancer screenings

Take Charge! Program

73,530 eligible women screened since inception

1,257 breast cancer screenings

620 cervical cancer screenings

Funding SFY 2019

Cherokee Nation

Federal: $845,000

Tribal: $281,667

Total: $1,126,667

Note: Federal BCCEDP funds require a $3:$1 match in the amount of $281,667.

Kaw Nation

Federal: $397,367

Tribal: $147,522

Total: $544,889

Note: Federal BCCEDP funds require a $3:$1 match in the amount of $132,456.

Take Charge! Program

Federal: $1,000,000

State: $333,333

Revolving: $14,880

Total: $1,348,213

Note: Federal BCCEDP funds require a $3:$1 match in the amount of $333,333.

EMERGING TECHNOLOGIES

This section covers newly introduced therapies and preventive vaccines that are effective in preventing and controlling the risk for breast[10,11,12,13] and cervical cancer.[14]

BREAST CANCER

Artificial Intelligence (AI) as a helpmate in diagnosis of breast cancer.

- An AI system enriched with mammogram data was able to read faster than several radiologists and helped reduce caseloads of independent radiologists by 88%.
- The iBreast is a handheld tool, used for sensing tumors, and is currently being used on a trial basis in Nigeria. It allows for more screening by nurses and other health care providers prior to the start of scheduled mammography.
- Using serum and nipple aspirate to identify molecular markers of cancer is also considered an emerging technology that allows treatment to begin at much earlier stages of the disease process.

CERVICAL CANCER

Artificial Intelligence (AI) and other emerging technology as helpmates in diagnosis for cervical cancer.

- AI technology can be used to screen for cancerous/precancerous cells on the cervix by using a camera on a wand within clinics or personal residences. The inserted camera could take a picture using a smartphone or tablet and then scan the image for possible cancers.
- There is an AI in development to scan the mouth and throat for HPV related cancerous/precancerous lesions. This application can detect some oral pharyngeal lesions better than professionals who are screening people for these issues daily.
- Other new and emerging technologies include at home screening kits; these kits could become common especially in rural areas with a lack of primary care providers available.

Recommendations for Additional Funding

Promote the Belle Maxine Hilliard Breast and Cervical Cancer Treatment Revolving Fund which provides funding for breast and cervical cancer treatment.

Promote the Breast and Cervical Cancer Revolving Fund which provides mammograms for uninsured and underinsured women.

Recommended Cost Reducing Strategies

Increase high quality breast and cervical cancer screening in Oklahoma in collaboration with partners.

Encourage evidence-based breast and cervical cancer public education and targeted outreach to women at highest risk.

Utilize policy approaches and health systems changes to improve implementation of breast and cervical guidelines and practices for healthcare professionals.

Encourage patient navigation services to assist with access to screening and diagnostic services.

Decrease structural barriers (transportation, availability, and accessibility) that limit access to breast and cervical cancer screening, and diagnostic and treatment services in collaboration with partners.

ADVANCEMENT OF WELLNESS ADVISORY COUNCIL

BACKGROUND

The Advancement of Wellness Advisory Council (63 O.S. §1-103a.1) is comprised of seven members serving three-year terms who are appointed by the Governor, Speaker of the House of Representatives, President Pro Tempore of the Senate, and the Oklahoma State Board of Health.

All members of the council are knowledgeable of issues that arise in the area of advancing the health of all Oklahomans with one member being an expert in breast and cervical cancer issues. The Oklahoma Breast and Cervical Cancer Annual Report is authorized by statute (63 O.S. §1-556) and must give consideration to the recommendations of the council.

COUNCIL RECOMMENDATIONS

The State of Oklahoma should continue to support the efforts of the breast and cervical cancer screening program and maintain the funds in the Breast and Cervical Cancer Act Revolving Fund (63 O.S. §1-557).

The State of Oklahoma should increase funding for breast and cervical cancer services beyond the required 3:1 match of the federal grant to support the program mission.

The Oklahoma State Department of Health (OSDH) should maintain current staffing levels of the Take Charge! program and cross train staff in additional program responsibilities to ensure program continuity.

The OSDH should collaborate with the Oklahoma Health Care Authority (OHCA) to leverage resources to facilitate increase access to breast and cervical cancer services to additional Oklahoma women.

The OSDH should collaborate with the OHCA to be in alignment with Medicaid expansion to ensure income guidelines for breast and cervical cancer screening services allow for increased access to services for low income women.

The OSDH should increase education and promotion of the Human Papillomavirus (HPV) vaccine and identify funding opportunities to increase HPV vaccination for individuals not covered by health insurance.

The OSDH should expand patient navigation services to facilitate access to breast and cervical cancer services (screening, diagnostics, and treatment) including referrals to healthcare providers that accept the client's form of reimbursement for services.

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