

Oklahoma
Breast & Cervical Cancer
Annual Report

State Fiscal Year
2021

TABLE OF CONTENTS

PURPOSE & BACKGROUND

3

BURDEN OF CANCER IN OKLAHOMA

4

BURDEN OF BREAST CANCER IN OKLAHOMA

6

BURDEN OF CERVICAL CANCER IN OKLAHOMA

8

PRIORITY STRATEGIES: PROGRAMS & ACTIVITIES

10

➤ **SUMMARY OF STATE PROGRAMS**

12

EMERGING TECHNOLOGIES

14

RECOMMENDATIONS FOR ADDITIONAL FUNDING

15

RECOMMENDED COST REDUCING STRATEGIES

15

ADVANCEMENT OF WELLNESS ADVISORY COUNCIL

16

REFERENCES

17

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

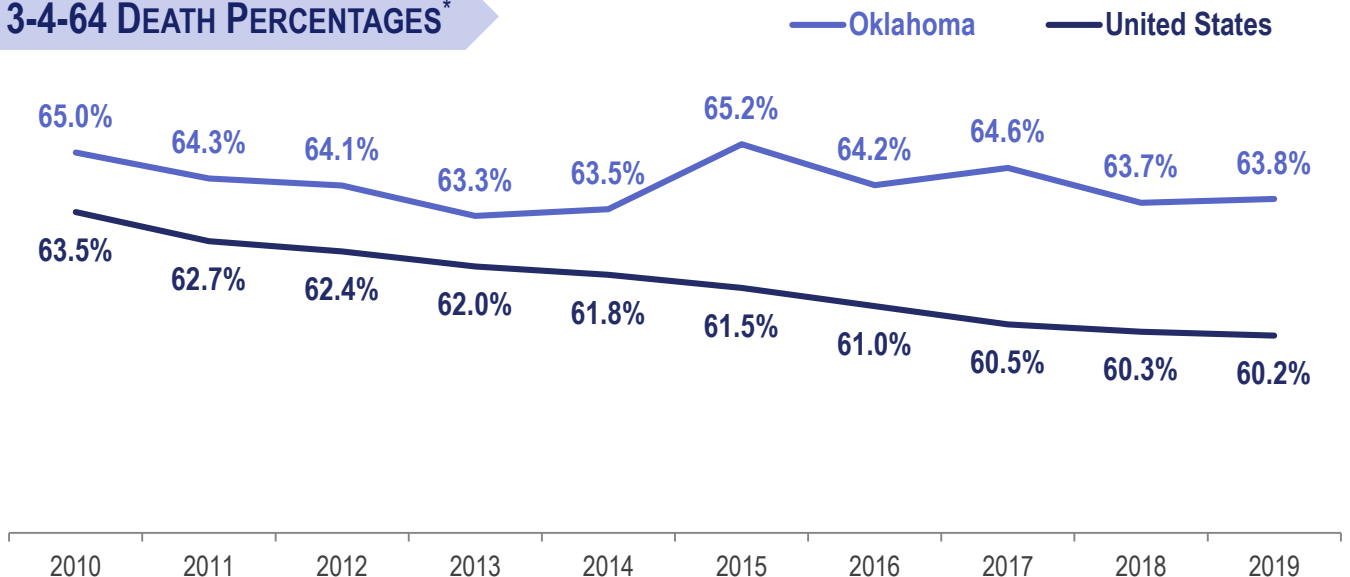


Lung Disease

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*



*3-4-64 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 DEATH¹

Cancer is the
2nd
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 FACTORS²



female gender



age >50 years



breast cancer genes



early menstrual period



family history



overweight or obese



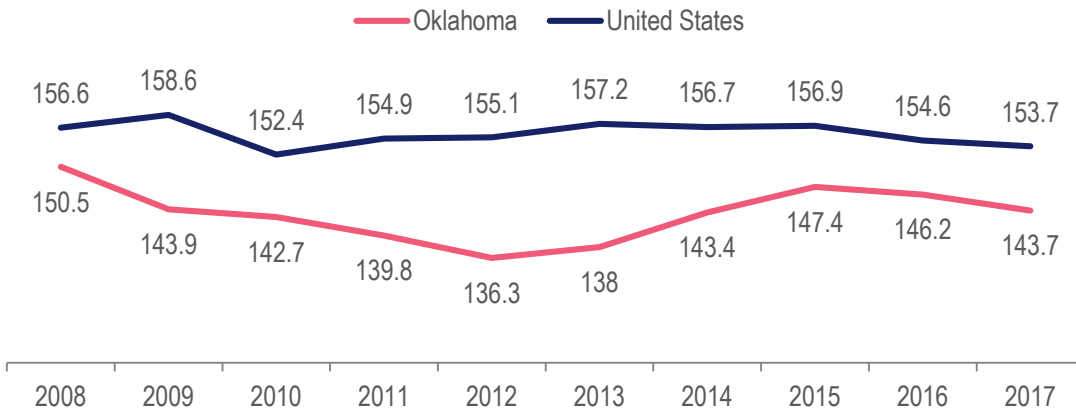
sedentary lifestyle



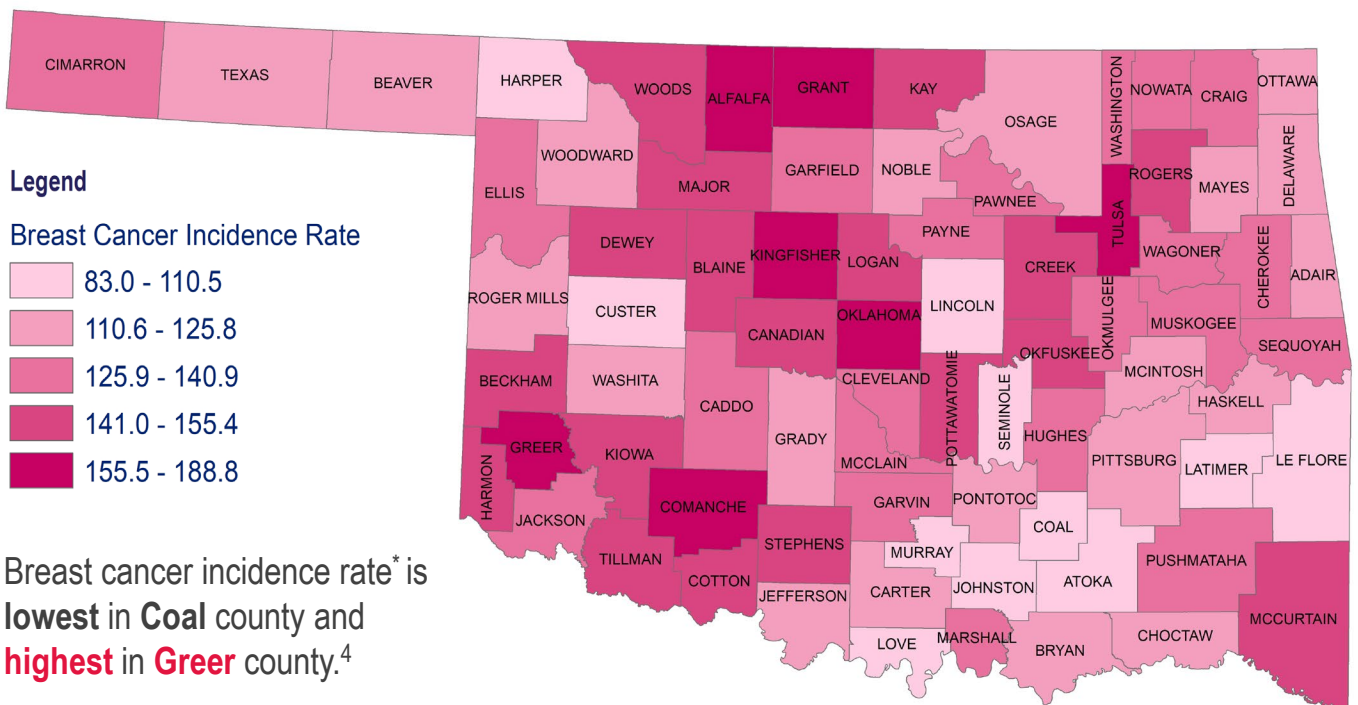
drinking alcohol

BREAST CANCER INCIDENCE

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



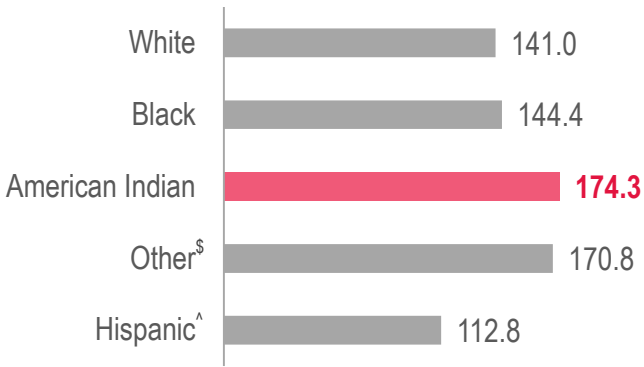
In 2018, Oklahoma's breast cancer incidence rate is **144.3**. US data is not yet available for 2018.



*Breast cancer (including in situ) incidence rate is per 100,000 females and age adjusted to the 2000 U.S. population, 2009-2018.

RACE/ETHNICITY

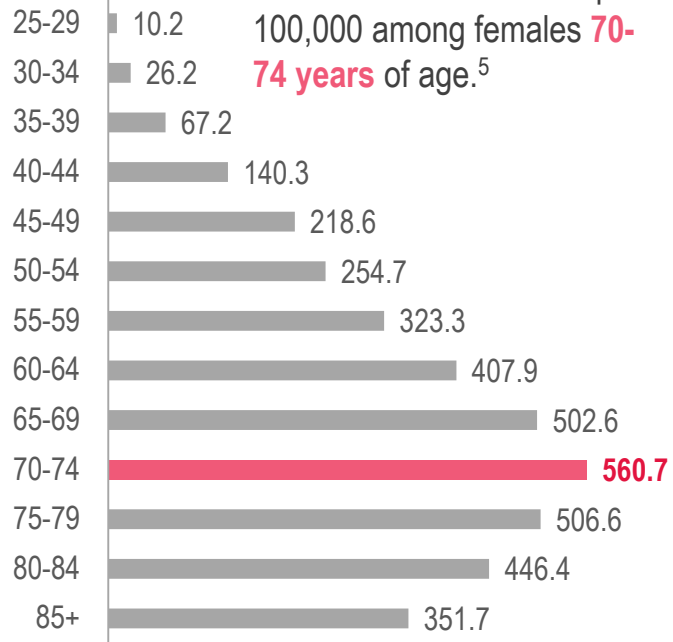
The highest incidence* of breast cancer was **174.3** per 100,000 females among the **American Indian** race.⁵



*Incidence rate is per 100,000 females and age adjusted to the 2000 U.S. population, 2014-2018; [§]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.

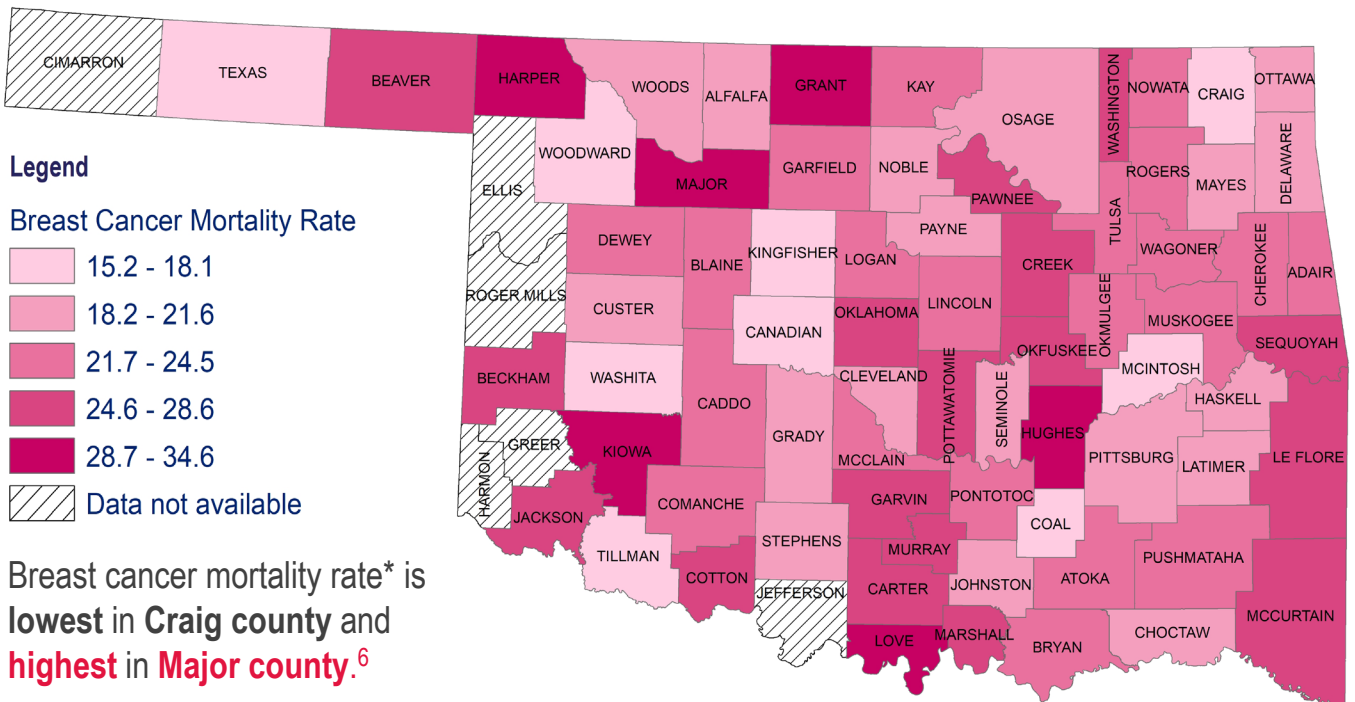
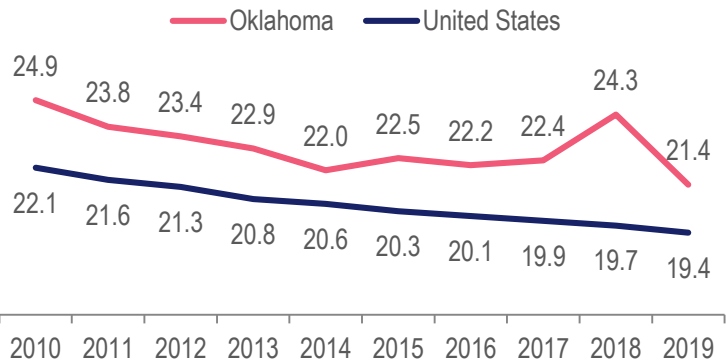
AGE

The highest incidence* of breast cancer was **560.7** 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



*Mortality rate is per 100,000 females and age adjusted to the 2000 U.S. population, 2010-2019.

BURDEN OF CERVICAL CANCER IN OKLAHOMA

RISK FACTORS⁷



lack of HPV immunization



smoking



multiple sexual partners



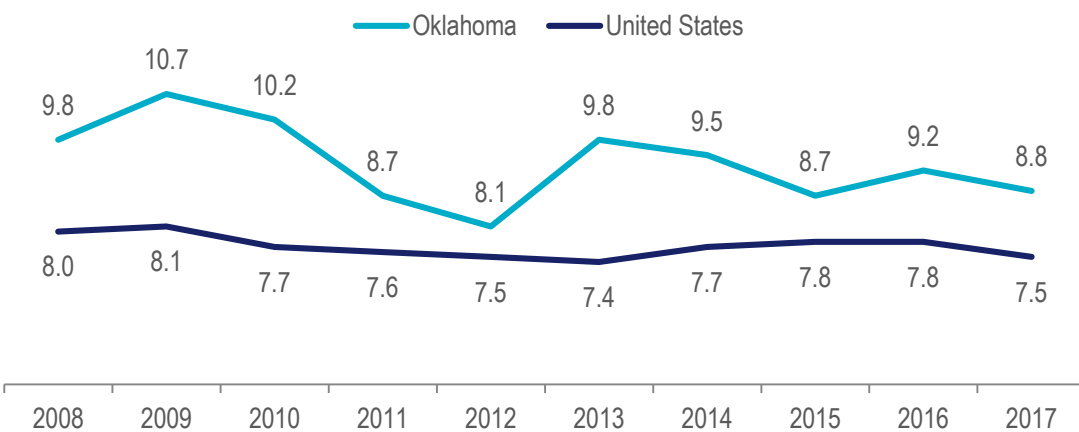
immunosuppression



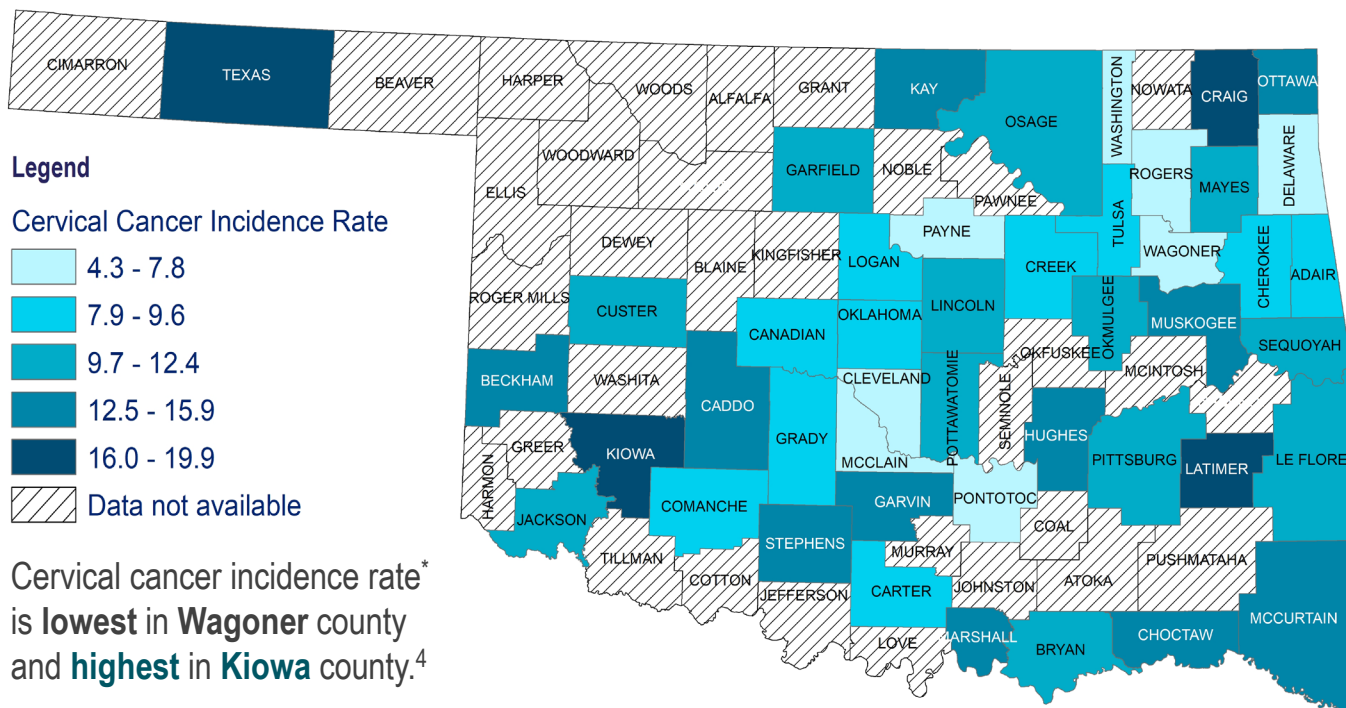
5+ years on birth control pills

CERVICAL CANCER INCIDENCE

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



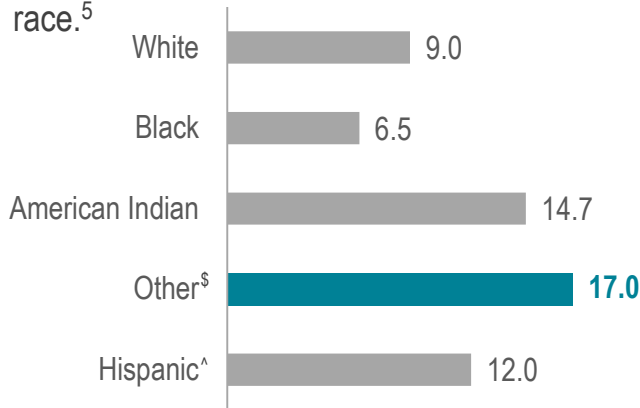
In 2018, Oklahoma's cervical cancer incidence rate is **10.8**. US data is not yet available for 2018.



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

RACE/ETHNICITY

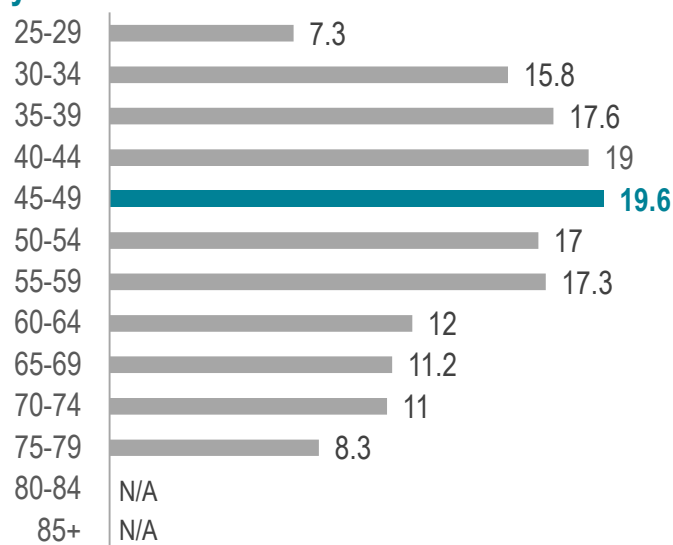
The highest incidence* of cervical cancer was **17.0** per 100,000 females among the **Other** race.⁵



*Incidence rate is per 100,000 females and age adjusted to the 2000 U.S. population, 2014-2018; [§]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.

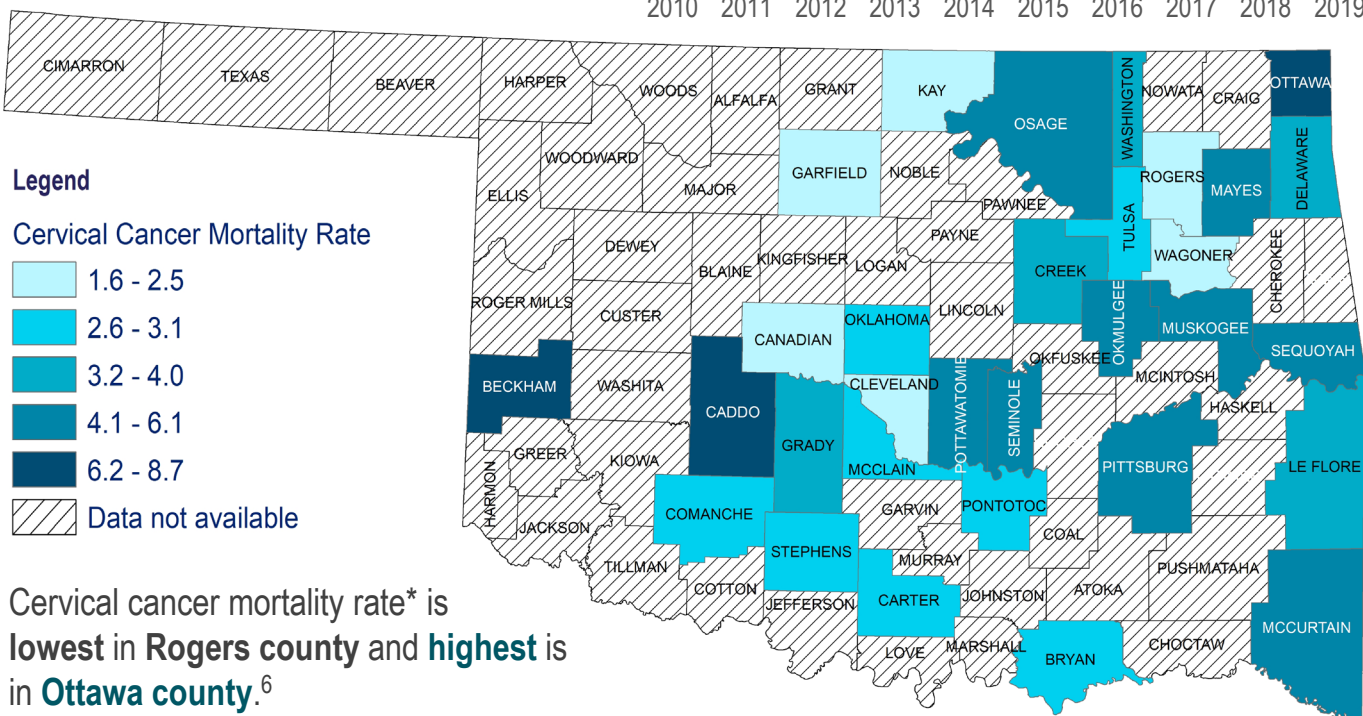
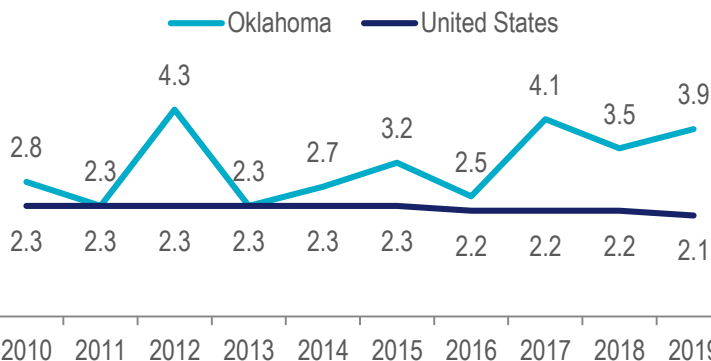
AGE

The highest incidence* of cervical cancer was **19.6** 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** county and **highest** is in **Ottawa** county.⁶

*Mortality rate is per 100,000 females and age adjusted to the 2000 U.S. population, 2010-2019.

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

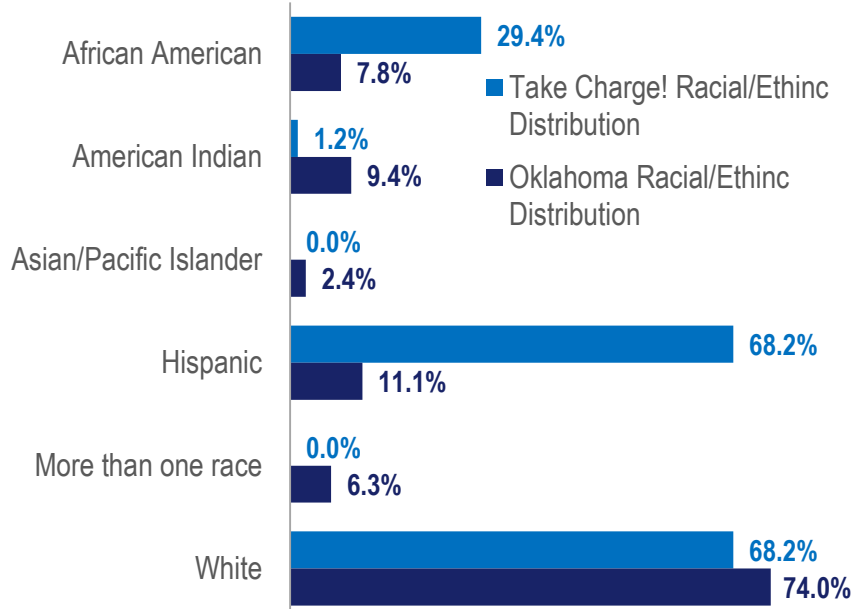
PROVIDES ACCESS TO SCREENING SERVICES

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

HIGH RISK

In State Fiscal Year (SFY) 2020, 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

Oklahomans participated in **public education awareness events** or **outreach campaigns** through multiple **community organizations** in SFY 2021. However, the pandemic forced most of the events to be postponed or delivered virtually so participant count was unable to be captured.



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!



BCCEDP PROGRAM

Cherokee Nation

Began: 1996

Kaw Nation

Began: 2001

Take Charge! Program

Began: 1995

PRIORITY POPULATION



Breast Cancer Screening

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

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 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

Contracts with:

- ✓ Federally Qualified Health Centers (FQHC)
- ✓ Health care organizations
- ✓ A Laboratory
- ✓ Surgical consultants
- ✓ Mammography facilities
- ✓ Colposcopy providers

BCCEDP PROGRAM

Cherokee Nation

Kaw Nation

Take Charge! Program

SERVICES PROVIDED IN SFY 2020



27,199
eligible women
screened since
inception



5,148
eligible women
screened since
inception



72,640
eligible women
screened since
inception

1,572
breast
cancer
screenings



271
breast
cancer
screenings



535
breast
cancer
screenings



1,101
cervical
cancer
screenings



155
cervical
cancer
screenings



316
cervical
cancer
screenings

FUNDING SFY 2020



Federal:
\$845,000



Federal:
\$386,669



Federal:
\$800,000



Tribal:
\$281,667



Tribal:
\$128,889



State:
\$266,667
Revolving:
\$31,862



Total:
\$1,126,667



Total:
\$515,558



Total:
\$1,098,529

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

Note: Federal BCCEDP funds require a 3:\$1 match in the amount of \$128,889.

Note: Federal BCCEDP funds require a 3:\$1 match in the amount of \$266,667.

EMERGING TECHNOLOGIES

This section covers newly introduced therapies and preventive vaccines that appear to be effective in preventing and controlling the risk for breast^{10,11} and cervical cancer¹².

BREAST CANCER

- The **Galleri test** is able to **detect over 50 types of cancer** including **breast**, with **one blood draw**. The test is meant to **complement** current guideline recommended **cancer screenings**, not to replace them.
- The “**liquid biopsy**” helps with cancer diagnosis, prognosis, and treatment by using differential centrifugation to measure circulating tumor cells. This **technology** uses a chip to **measure** the **number metastatic of cancer cells** in the bloodstream. It will be available soon in the form of an automated handheld device or laboratory apparatus.
- Utilizing **3D printing** to produce Scaffold-Grown Tumor Cells and personalize cancer treatment. The technology uses the **patient’s own cancer cells to grow a tumor** and then medical professionals use various types of **chemotherapy** to test which drug or combination of drugs will be the **most effective** on **reducing/killing** the **tumor**.

CERVICAL CANCER

- The **Galleri test** is able to **detect over 50 types of cancer** including **Cervix Uteri, HPV-Mediated Oropharyngeal, Oral Cavity, Oropharynx and Hypopharynx, Vagina and Vulva**, with **one blood draw**. The test is meant to **complement** current guideline recommended **cancer screenings**, not to replace them.
- **Point-of-care detection technology** delivers an **immediate diagnosis** by using a **high-definition, digital colposcope** that inserts into the center of the cervix where a **light** and an **algorithm detect** the likelihood of **cancerous** and **precancerous lesions**, allowing for the oncologist to map and test the advancement of cancers.
- The **ZedScan** uses patented electrical impedance spectroscopy technology and takes **10 to 12 readings of the cervix**. It allows for enhanced diagnosis of cervical cancer and pre-cancers by reducing the need for some biopsies. The **ZedScan** is able to **detect** the **cancerous** and **precancerous lesions** in **real time**.

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, with a focus on **increasing health equity** within communities experiencing high rates of inequity.



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.



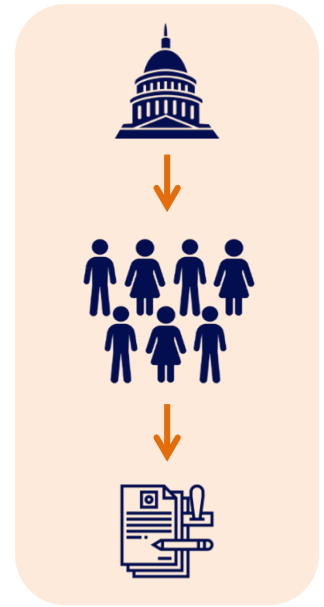
Decrease structural barriers (transportation, availability, and accessibility) that limit access to breast and cervical cancer screening, and diagnostic and treatment services in collaboration with partners.

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 Oklahoma State Department of Health should **increase education and promotion efforts** around the Human Papillomavirus (HPV) and the **importance of vaccinations**.



The State of Oklahoma should **review the income guidelines** for breast and cervical cancer services in partnership with Medicaid to determine if the guidelines could be changed to 200% or 250% of FPL.



The State of Oklahoma should ensure **vacancies are filled** within six months of staff departures to maintain program continuity and should **increase funding** beyond the required 3:1 match of the federal grant to support program needs as needed.



The Oklahoma State Department of Health should **increase education and promotion efforts** around **cancer risk reduction areas** such as nutrition, physical activity, tobacco prevention and alcohol use.

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