

COMPREHENSIVE **CANCER PREVENTION** AND CONTROL PLAN



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CHEROKEE NATION®

2024-2027

An aerial photograph of the Cherokee Nation grounds during sunset. The sky is filled with soft, orange and yellow clouds. In the foreground, a large, multi-story red brick building with a blue roof and a small cupola on top stands prominently. To the left of the building is a large, green lawn with a complex, star-shaped paved walkway. In the background, a dense line of green trees separates the grounds from a town. A church with a tall steeple is visible among the trees. The overall scene is peaceful and well-maintained.

DEDICATION

This Cancer Plan is dedicated to all the Cherokee Nation citizens, their families and friends who have been affected by cancer. The plan is a tribute to your courage in the battle against cancer and your efforts to help reduce and eliminate cancer throughout the Cherokee Nation.

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MESSAGE FROM THE CHIEF

Osiyo,

Each year, the Cherokee Nation Health System sees nearly 400 cancer cases. Tragically, American Indians have some of the lowest cancer survival rates nationwide. In the last few years, Cherokee Nation have strategically been trying to better our cancer efforts and address these gaps.

First passed in 2021 and expanded in 2023, the Public Health and Wellness Fund Act dedicates \$100 million in settlement funds from opioid and e-cigarette lawsuits for a variety of public health initiatives. Together with the Council of the Cherokee Nation, we made this legislation a priority, as we know how health and wellness are vitally important to the Cherokee people.

The Cherokee Nation is also investing \$16 million - split evenly between the University of Oklahoma's Stephenson Cancer Center in Tulsa and Mercy Hospital in Fort Smith, Arkansas - to enhance regional cancer care in the future. These partnerships will improve access to state-of-the-art treatment facilities and offer our citizens the quality care they deserve.

Cherokee Nation's Public Health and Health Services teams are creating the kind of health programs and initiatives that are making healthier Cherokees and improving the well-being for future generations.

Though cancer continues to be one of the most difficult health challenges of our lifetime, and one that affects millions of individuals worldwide, here at Cherokee Nation we are working to expand access to services, programs, and treatments for our citizens and patients, ensuring that no one faces the challenge of cancer alone.

Additionally, when we take into consideration a holistic lifestyle approach that includes better education, research and prevention in areas of early detection screening, physical activity, along with support services and treatment, we can certainly make a difference in extending the lives and the quality of life for Cherokees.

In the following pages, you will find our comprehensive cancer plan. We hope it will help enable you to make needed changes through education, collaboration and action.

In the spirit of "Gadugi" – working together for the collective good – we can break these barriers and make positive change for all Cherokee people.

Wado,



Principal Chief
Chuck Hoskin Jr.

A handwritten signature in black ink that reads "Chuck Hoskin Jr.".



Deputy Principal Chief
Bryan Warner

A handwritten signature in black ink that reads "Bryan Warner".



PUBLIC HEALTH DIRECTOR MESSAGE

Since 1996, the Cherokee Nation Public Health Cancer Programs and the Oklahoma Strategic Tribal Alliance for Health (OSTAH) have led the way in fighting cancer in our communities. Over the past decade, the Cherokee Nation Comprehensive Cancer Prevention and Control Plan has guided our collective efforts in striving toward cancer-free Cherokee Nation communities. Since the development of the last plan in 2022, we've made great strides and have implemented a number of effective strategies.

We saw successes such as more Native American women screened for breast and cervical cancer. More Native American men talking to their health care providers about colon and prostate cancer screening. Furthermore, we are seeing more Native American families becoming engaged in healthy habits and practices. Despite these gains, we estimate that more than 1100 cancers will be diagnosed among American Indians and Alaska Natives (AI/ANs) residing in the Cherokee Nation reservation, and approximately 240 may die from this chronic disease based upon recent data.

Our new Cancer Plan builds upon the previous plan and lays the foundation for our work over the next three years. The Cherokee Nation Cancer Plan sets forth four goals, each of which includes a set of objectives, strategies and partners that will be involved. Cherokee Nation Public Health's Cancer Programs, OSTAH members, and partners have developed strategies that will have the greatest impact on the most prevalent cancers and risk factors.

This Cancer Plan is intended to be a living document that we utilize constantly to guide our collaborative efforts. We must work together to ensure all of Cherokee Nation benefits from advances in cancer prevention, screening, survivorship, and treatment. Join us and help put the Cancer Plan into action!

Sincerely,

Lisa Pivec, MS

Executive Director

Cherokee Nation Public Health



ABOUT THE CHEROKEE NATION

The Cherokee Nation is the federally recognized government of the Cherokee people and has an inherent sovereign status recognized by treaty and law. The Cherokee Nation functions as a tripartite government with executive, legislative, and judicial branches, with the tribal government seat located at Tahlequah, Oklahoma, the capital of the Cherokee Nation. Today, the Cherokee Nation Reservation spans more than 7,000 square miles in Northeast Oklahoma, containing all or part of 14 Oklahoma counties. Today, the Cherokee Nation is the largest tribe in the United States with more than 450,000 tribal citizens worldwide. More than 141,000 Cherokee Nation citizens reside within the tribe's reservation boundaries in northeastern Oklahoma.

The Cherokee Nation offers many services to its citizens and to other Native Americans throughout the Reservation. These services include but are not limited to community services, commerce services, career services, education, health services, human services, and housing. The Cherokee Nation dedicates resources through both federal funding and tribal revenue to provide these and other services to the citizens who need them most. The Cherokee Nation is one of the largest employers in Northeast Oklahoma and employs more than 11,000 employees, in a variety of tribal enterprises ranging from aerospace and defense contracts to entertainment venues.

MISSION:

The Cherokee Nation is committed to protecting our inherent sovereignty, preserving and promoting Cherokee culture, language and values, and improving the quality of life for the next seven generations of Cherokee Nation citizens.



INTRODUCTION

Cancer is the name for a collection of more than 100 diseases. It is a condition that develops when some of the body's cells begin to divide without stopping. Cancer can start anywhere in the body, and sometimes cancer cells spread into surrounding tissues or travel to other places in the body. Cancer is caused by damage to DNA, which results from exposure to certain chemical or environmental agents, such as tobacco, radiation and the sun's ultraviolet rays. It can also arise from genetic changes that were inherited or caused by certain infections. Many types of cancer can be treated with surgery, chemotherapy and radiation.

Several actions can be taken to help lower cancer risk and prevent death, but three specific actions can yield the strongest results. The first is quitting commercial tobacco, which contains thousands of chemicals, many of which have been linked to cancer and other serious health problems. Second on the list are screenings and exams, which are available for several cancers including breast, cervical, prostate, colorectal, skin and oral. These screenings enable health professionals to locate cells before they become cancerous or catch cancer cells at early stages. The third action is immunization against cancer-causing infections, which include Hepatitis B (HBV), human papillomavirus (HPV) and *Helicobacter pylori* (H pylori). HPV-related cancers can also be prevented through screening and treatment of precancerous lesions, if present. H pylori, a major cause of stomach cancer, can be treated with medicine.

While some exposures can be prevented, some are difficult to avoid completely. Age, family history and genetics are examples of uncontrollable risk factors. Also, certain chemicals or other substances in the environment can be harmful and are not always easy to avoid. When possible, limit your exposure to indoor smoke from cooking, heating and outdoor air pollution. In the workplace, some individuals have been exposed to asbestos, coal, radon and other harmful substances that can cause cancer.

To help reduce your risk, follow these general guidelines.

BE AWARE:

- Know your body and look for signs. Report changes to your doctor.
- Check your family's history.
- Understand how infections affect your risk.

GET SCREENED:

- Ask your healthcare provider which screenings are appropriate for you.
- Perform self-exams.

MAKE HEALTHY LIVING CHOICES:

- Avoid commercial tobacco or decide to stop using it.
- Protect yourself from ultraviolet (UV) rays.
- Make healthy food and beverage choices (Increase intake of fruits and veggies, and limit alcohol).
- Maintain a healthy weight and physical activity.
- Get immunized for cancer-causing infections.

LIMIT YOUR ENVIRONMENTAL EXPOSURE:

- When possible, get rid of harmful chemicals and substances where you live, work, learn, and play.

ABOUT THE CANCER PLAN

The Cherokee Nation Comprehensive Cancer Prevention and Control Plan 2024-2027 (Cancer Plan) is a cancer prevention and control framework that addresses the issues specific to cancer in the Cherokee Nation. The purpose of the Cancer Plan is to guide individuals, groups and organizations working in cancer prevention and control with a vision and create goals, objectives, and strategies for reducing cancer. Essentially, it is a road map we all can follow to collectively reduce cancer in the Cherokee Nation.

In previous versions of the plan, community organizations, public health programs, health care providers and other partners worked together toward achieving goals. Many of the strategies were implemented successfully and great work conducted, but there are still areas where work could be done and new emerging issues addressed. Since the release of the previous plan, there have been advances in cancer prevention and control and in cancer patterns. Because of this, Cherokee Nation has updated the cancer plan to include up-to-date information and new strategies.

PLANNING APPROACH AND INPUT GATHERING

The Cancer Plan builds on the work from more than a decade's worth of cancer prevention and control in Cherokee Nation and addresses work that is already underway. Oklahoma Strategic Tribal Alliance for Health (OSTAH), Cherokee Nation's cancer coalition, held feedback sessions to hear from partners and stakeholders on the framework and implementation of the previous plan. With Covid-19 pandemic causing a decline in health care the data showed a drop in many areas of health care. Additionally, each OSTAH Work Group, comprised of Cherokee Nation's cancer prevention and control stakeholders and cancer survivors, convened on a monthly basis virtually and in-person to draft recommendations for the updated plan. This decade's worth of cancer prevention has helped in increasing awareness and resources available to the community with the hopes of reducing the burden of cancer. This plan hopes to continue that great work and build upon it.

Members discussed the existing goals and updated or created new goals, objectives and strategies. As a result of their collective input, the updated plan places a greater emphasis on including strategies that address policy, system, and environmental change, use strategic communications and incorporate Cherokee culture. The goals align with Cherokee Nation's comprehensive approach to the cancer foundational areas. The objectives are based on available, measurable data sources, and are linked to other health improvement efforts, such as the Cherokee Nation Tribal Health Improvement Plan.



USING THE PLAN

The Cancer Plan is divided into 3 main sections.

1. The Cherokee Nation's Comprehensive Approach to Cancer provides background on the Nation's strategy for working toward cancer-free communities.

2. How Cancer Affects Cherokee Nation shows how cancer impacts individuals, families, and caregivers living in communities throughout the tribal service area. It presents a brief profile on cancer data and highlights stories from individuals personally impacted.

3. The Cherokee Nation's Cancer Plan sets the stage for the major issues that will be addressed. It identifies specific goals, objectives, strategies, and cross-cutting areas.

The Cancer plan focuses on the priority areas that must be addressed to reduce cancer within the Cherokee Nation. No one organization, including the cancer programs, cancer prevention organizations or coalitions, can carry out all of these activities on its own.

Therefore, the Cancer Plan is intended to be a guide for everyone interested in cancer prevention and control within the Cherokee Nation. Strategies selected can be implemented by individuals, health professionals, community group or organization involved in any aspect of cancer prevention and control.

EVALUATION

The Cancer Plan will be evaluated annually with work groups reporting goal progress during OSTAH Coalition meetings. OSTAH's mission is to reduce the burden of cancer in Cherokee Nation communities through culturally relevant prevention, awareness, education, outreach, and partnerships. OSTAH is a network of public health workers, healthcare providers, community health workers, organizations, cancer patients, cancer survivors, and others dedicated to reducing cancer and its impact within the Cherokee Nation. OSTAH work groups comprised from this network will utilize data from:

- Cherokee Nation Public Health- Monitor, Surveillance & Evaluation Team
- Cherokee Nation Surveillance
- Behavioral Risk Factor Surveillance System (BRFSS)
- Centers for Disease Control (CDC)
- Youth Risk Behavior Survey (YRBS)
- Cherokee Nation Health Services.

CHEROKEE NATION'S COMPREHENSIVE APPROACH TO CANCER

Comprehensive cancer prevention and control is a collaborative and strategic approach to prevent and reduce cancer illnesses and deaths, and to improve the quality of life of cancer patients and others who are impacted. Individuals, community organizations, advocates and public health workers and health care workers coordinate resources and implement proven strategies to reduce the impact of cancer.

The Cherokee Nation's comprehensive cancer prevention and control approach includes the focus areas, cross-cutting areas, partners and resources, as illustrated in Figure 1. All are necessary for implementing a comprehensive and integrated plan that moves Cherokee Nation toward a vision of "cancer-free communities." Each component is described and illustrated on the next page.



Figure 1. Cherokee Nation Comprehensive Cancer Prevention and Control Framework

PREVENTION	SCREENING & EARLY DETECTION	DIAGNOSIS & TREATMENT	QUALITY OF LIFE
AIM			
Prevent future occurrences of cancer by promoting healthy behaviors, raising awareness, and creating healthy environments through policy	Detect pre-cancer or cancer early through screening	Available, accessible, quality and culturally appropriate healthcare services	Facilitate the mental, spiritual, and physical recovery of those diagnosed. Address the treatable long-term or late effects of cancer caused by chemotherapy, radiation, surgery. Reduce recurrence of cancer by encouraging healthy behaviors
KEY INTERVENTIONS			
<ul style="list-style-type: none"> •Tobacco Use •Healthy Weight (Nutrition, Physical Activity) •Alcohol Use •Virus Exposure (HPV) •Other risk factors(Occupational, environmental,UV exposure) 	<ul style="list-style-type: none"> •Breast cancer screening(Mammogram) •Cervical cancer screening (PapTest) •Colorectal cancer screening(FOBT, Endoscopy) •Lung cancer (LDCT) 	<ul style="list-style-type: none"> •Referrals •Treatment methods (e.g.,surgery, chemo, radiation,pain management) •Follow-up care after treatment 	<ul style="list-style-type: none"> •Patient-providercommunication •Coordination of care •Support services(home health, hospice,palliative care) •Health promotion (Reducingrisk of factors associated with the primary cancer)
CROSS-CUTTING AREAS			
<p>Health Equity: Assuring all Cherokee Nation benefits from advances in cancer prevention, screening, and treatment by eliminating health disparities; facilitated by focusing on the social determinants of health and addressing the needs of underserved communities.</p> <p>Policy: Building and enforcing laws, rules, and protocols, and by taking actions to create healthier environments, change community perceptions and encourage healthy choices.</p> <p>Communications: Using useful, relevant, and timely methods to provide education and information that increases the community's awareness, knowledge and understanding of cancer prevention, treatment and resources. Using compelling information that motivates the community to act.</p> <p>Culture: Incorporating Cherokee values in our approach to comprehensive cancer prevention, control and treatment of individuals, families and caregivers impacted by cancer.</p> <p>Data and Surveillance: Collect data and information that contributes to effective comprehensive cancer control planning. Improving capacity to measure cancer morbidity, mortality and risk factors, and evaluating comprehensive cancer control programs, partnerships and efforts.</p> <p>Quality of Care: Provide services and treatment that improve the quality of life for people impacted or affected by cancer by involving individuals in making decisions about their own journey.</p>			

FOCUS AREAS

The foundational areas upon which Cherokee Nation focuses cancer prevention and control strategies are:

- Prevention:** Prevent cancer from occurring by promoting healthy behaviors through raising awareness and creating healthy environments through policy.
- Screening and Early Detection:** Detect pre-cancer or cancer early through screening.
- Diagnosis and Treatment:** Make quality and culturally appropriate health care services available and accessible.
- Quality of Life:** Facilitate the mental, spiritual, and physical recovery of those diagnosed. Address the treatable long-term or late effects of cancer caused by chemotherapy, radiation and surgery. Reduce recurrence of cancer by encouraging healthy behaviors.

CROSS-CUTTING AREAS

These topics are relevant to all aspects of Cherokee Nation comprehensive cancer prevention and were considered throughout the development of the plan's goals, objectives, and strategies.

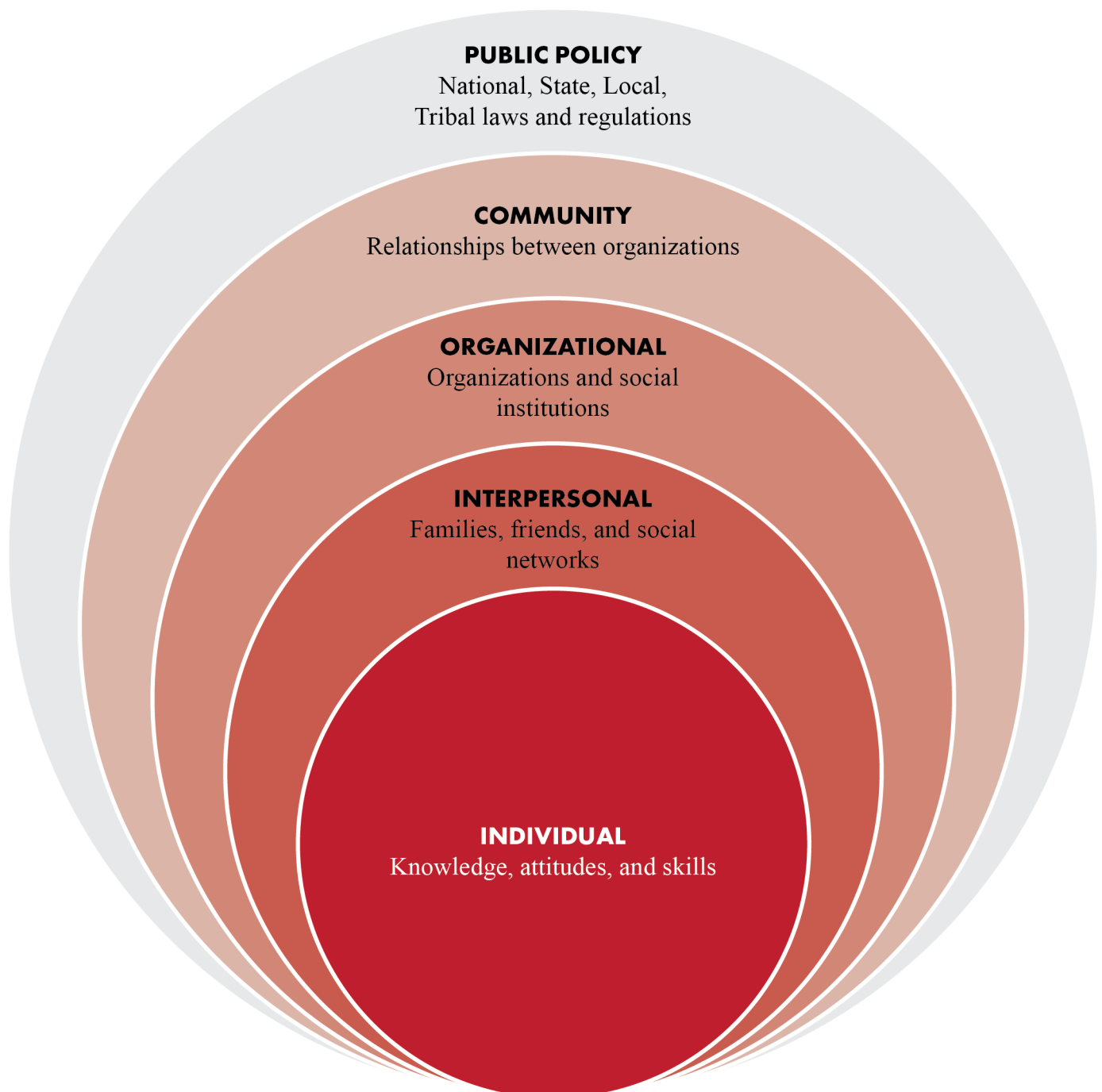
- Communications:** Using useful, relevant, and timely methods to provide education and information that increases the community's awareness, knowledge and understanding of cancer prevention, treatment and resources. Using compelling information that motivates the community to act.
- Culture:** Incorporating Cherokee values in our approach to comprehensive cancer prevention, control, and treatment of individuals, families and caregivers impacted by cancer.
- Data and Surveillance:** Collecting data and information that contributes to effective Comprehensive cancer control planning. Improving capacity to measure cancer morbidity, mortality and risk factors, and evaluating comprehensive cancer control programs, partnerships and efforts.
- Health Equity:** Assuring all of Cherokee Nation benefits from advances in cancer prevention, screening and treatment by eliminating health disparities. This will be accomplished by focusing on the social determinants of health and addressing the needs of underserved communities.
- Policy:** Building and enforcing laws, rules and protocols, and by taking actions to create healthier environments, change community perceptions, and encourage healthy choices.
- Quality of Care:** Provide services and treatment that improve the quality of life for people impacted or affected by cancer by involving individuals in making decisions about their own journey.



Cherokee Nation's public health services are multifaceted and use a socio-ecological approach to facilitate policy, system and environmental change. Public Health administers a broad array of programs and services, such as community-based health education and prevention, community health workers, chronic disease surveillance and reporting, Women Infant and Child nutrition program (WIC), Wellness Centers, and access to clinical care; the department also houses Cancer Programs.

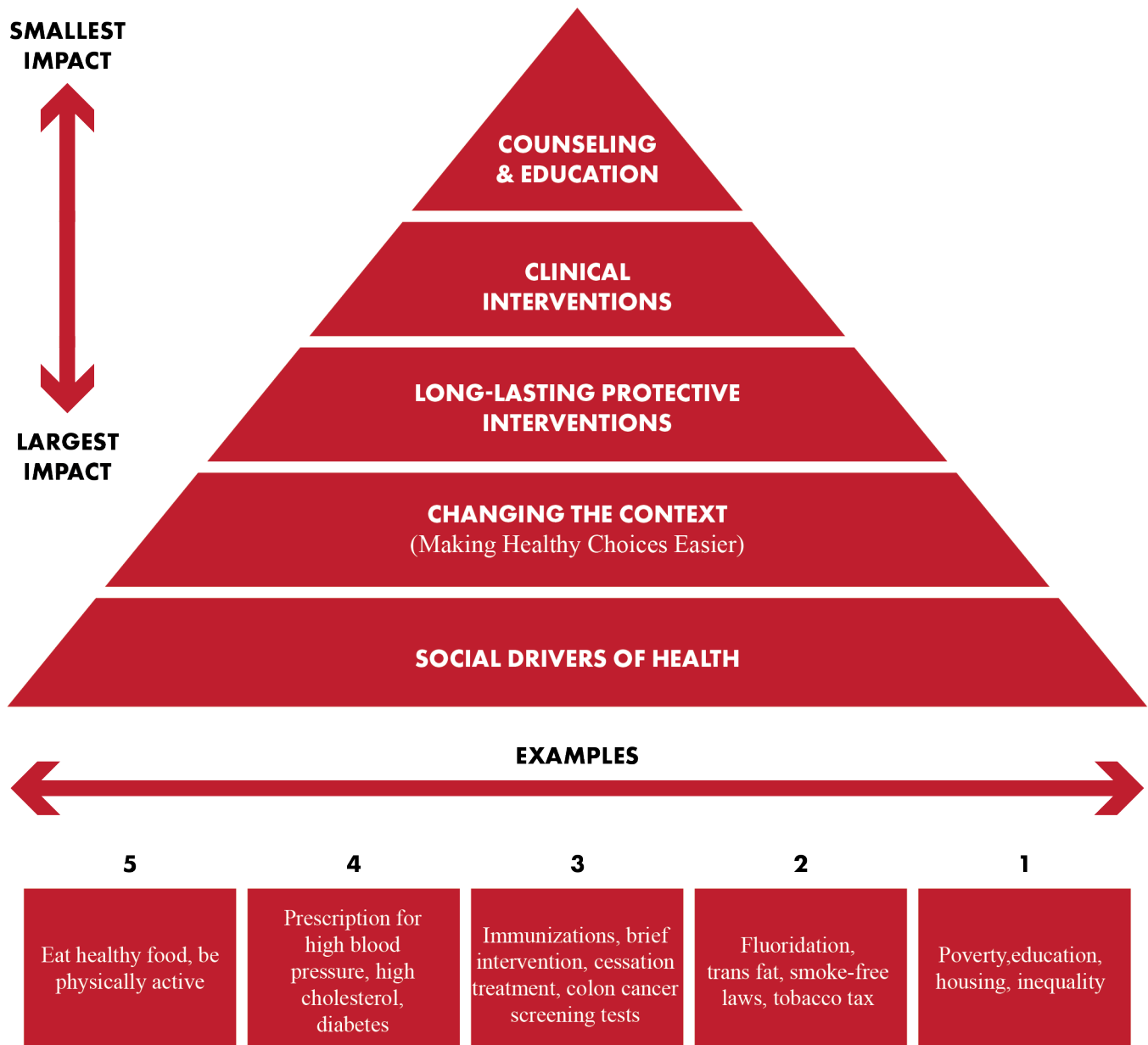
The Socio-Ecological Model (SEM) of population health is the foundation for the Plan. The SEM is operationalized by addressing socioeconomic factors and put into action by using the policy, systems and environmental (PSE) change approaches. The SEM is used when developing sustainable solutions for individuals and communities because it recognizes that multiple factors at multiple levels can affect the health of a population. The SEM example below shows that organizational, community, and public policy factors are important in determining the behaviors of individuals and their exposures to disease risks.

SOCIO-ECOLOGICAL MODEL OF POPULATION HEALTH



Another example of how the SEM is operationalized can be seen in the following Centers for Disease Control and Prevention (CDC) Health Impact Pyramid. The pyramid shows the increasing impact of moving from one-on-one approaches to addressing socioeconomic factors.

HEALTH IMPACT PYRAMID



The SEM can be put into action by using the PSE change approach — a strategy for providing accessible and healthy options to all community members and for making healthy options the easier choice. These focused efforts can minimize cancer burden within the Cherokee Nation Reservation by developing long-term sustainable solutions “that extend beyond individual behaviors and into the structures, systems, and environments such as school, work, neighborhood, etc. of the individual. These approaches also address health equity issues.”¹ The diagram below highlights examples of various PSE change strategies. For more information on PSE Change in Comprehensive Cancer Control, please consult the American Cancer Society’s PSE Change Guide.

EXAMPLES OF PSE CHANGE STRATEGIES			
SETTING	POLICY CHANGE (Legislative/ Governmental or Organizational)	SYSTEMS CHANGE (Organizational rules, structures or procedures)	ENVIRONMENTAL CHANGE (Physical Changes)
SCHOOL	Prohibiting the sale of soda on school grounds.	Incorporating local produce into the lunch menu and integrating lessons on nutrition into classrooms.	Increasing shade in high-use areas of schools, such as lunch areas, walkways, playgrounds and bus stops.
WORKPLACE	Implementing a comprehensive tobacco-free worksite policy that addresses all burned tobacco products, e-cigarettes (vaping), hookahs and smokeless tobacco.	Providing employees access to breast cancer, cervical cancer and colorectal cancer screenings with no out-of-pocket costs.	Providing employees an on-site workout room with a variety of equipment and offering classes such as basic yoga or cardio routines.
COMMUNITY	Educating decision makers about the benefits of providing palliative care for patients with cancer from the time of diagnosis.	Providing cancer screening and treatment navigation for groups experiencing disadvantages.	Launching a complete streets initiative to ensure neighborhood streets are accessible for walking and biking.

Sources for table:

Townsend JS, Sitaker M, Rose JM, Rohan EA, Gardner A, Moore AR. Capacity building for an implementation of policy, systems, and environmental change: results from a survey of the National Comprehensive Control

Program. *Population Health Management* 2019;22(4):330–338. Accessed at https://www.aacs4ccc.org/wp-content/uploads/2022/02/PSE-in-CCC-Guide_FINAL.pdf.

National Center for Chronic Disease Prevention and Health Promotion. Communities Putting Prevention to Work (CPPW). Centers for Disease Control and Prevention. March 7, 2017. Accessed August 8, 2020.

www.cdc.gov/nccdphp/dch/programs/communitiesputtingpreventiontowork/communities/.

CHEROKEE NATION PUBLIC HEALTH CANCER PREVENTION PROGRAMS

Cherokee Nation Public Health Cancer Prevention Programs consists of two components, including a Breast and Cervical Cancer Early Detection Program (BCCEDP), and a Comprehensive Cancer Control Program (CCCP), which are described below.

- The BCCEDP provides breast and cervical cancer screening and early detection services, health education, outreach and intensive tracking and follow-up through detailed nurse case management. The program works in collaboration with Cherokee Nation Health Centers, Cherokee Nation W.W. Hastings Hospital and Claremore Indian Hospital to provide screening and early detection services throughout and around the Cherokee Nation tribal service area.
- The CCCP assists in the development of networks and collaboration that produce an infrastructure for a comprehensive approach to cancer within the Cherokee Nation. CCCP staff provide administrative coordination for the Oklahoma Strategic Tribal Alliance for Health (OSTAH), Cherokee Nation's cancer coalition. Priority areas are lung cancer, breast cancer, cervical cancer/HPV vaccinations, colorectal cancer, nutrition, improving cancer survivors' quality of life and reducing cancer disparities.



CHEROKEE NATION CANCER COALITION: OSTA

OSTA's mission is to reduce the burden of cancer in Cherokee Nation communities through culturally relevant prevention, awareness, education, outreach, and partnerships. OSTA is a network of public health workers, health care providers, community health workers, organizations, cancer patients, cancer survivors and others dedicated to reducing cancer and its impact within Cherokee Nation. OSTA is always looking to add new members and organizations to our coalition and all are welcome (See Page 35 for additional information).

Members are committed to identifying areas of cancer concern, planning interventions and prioritizing the greatest areas of identified need. OSTA works closely with Cherokee Nation Public Health Cancer Programs staff to update the cancer control plan by considering resources and emerging issues, and by developing new goals, objectives and strategies. OSTA, its partners and Cherokee Nation Public Health staff all work together to implement many of the strategies outlined in the plan.

OSTA includes seven Work Groups, each associated with one or more focus areas or cross-cutting areas. The Work Groups implement strategies and activities and develop annual work plans to support the overall cancer prevention control efforts.

- The Screening and Early Detection Work Group** works to improve awareness and access to screenings and increase cancer screening rates.
- The Tobacco Work Group** works to prevent and reduce cancer risk but focuses on preventing youth from using tobacco and eliminating or reducing tobacco use and exposure in communities.
- The Quality of Life, Treatment, and Care Work Group** works on the "Diagnosis and Treatment" and the "Quality of Life" focus areas described in the comprehensive approach to cancer. Members support both people who are diagnosed and their caregivers and promote health to reduce risk of cancer recurrence.
- The Nutrition Work Group** works to prevent and reduce cancer risk through educating the community of healthy eating habits along with traditional foods nutrition value.
- The Physical Activity/Prevention Work Group** works to prevent cancer and reduce cancer risk and recurrence through promoting physical activity events within the community.
- The Communication Work Group** assists work groups in communications, media, outreach and promotion activities such as social media, advertising, graphic design, news releases and presentation materials.
- The Data and Evaluation Work Group** supports coalition members and work groups in their data needs (data collection, statistical analysis), as well as monitoring the performance of the plan's targets and evaluating cancer programs.

Disclaimer: The term tobacco is referring to commercial tobacco products and not traditional tobacco.

HOW CANCER AFFECTS CHEROKEE NATION

To understand how cancer affects people in the Cherokee Nation, we reviewed the most recent available data. We examined the figures on cancer survival, incidence, mortality and risk factors and quality of life. The data originate from several sources throughout the Cherokee Nation and cancer prevention partners listed in Appendix.

We also listened to cancer survivors and their caregivers as they shared their experiences with cancer diagnosis, treatment, recovery, and well-being. Their stories, along with the data and input from people working toward a cancer-free Cherokee Nation, helped us identify priorities and outline strategies for the plan.

Box A. Common Cancer Data Terms

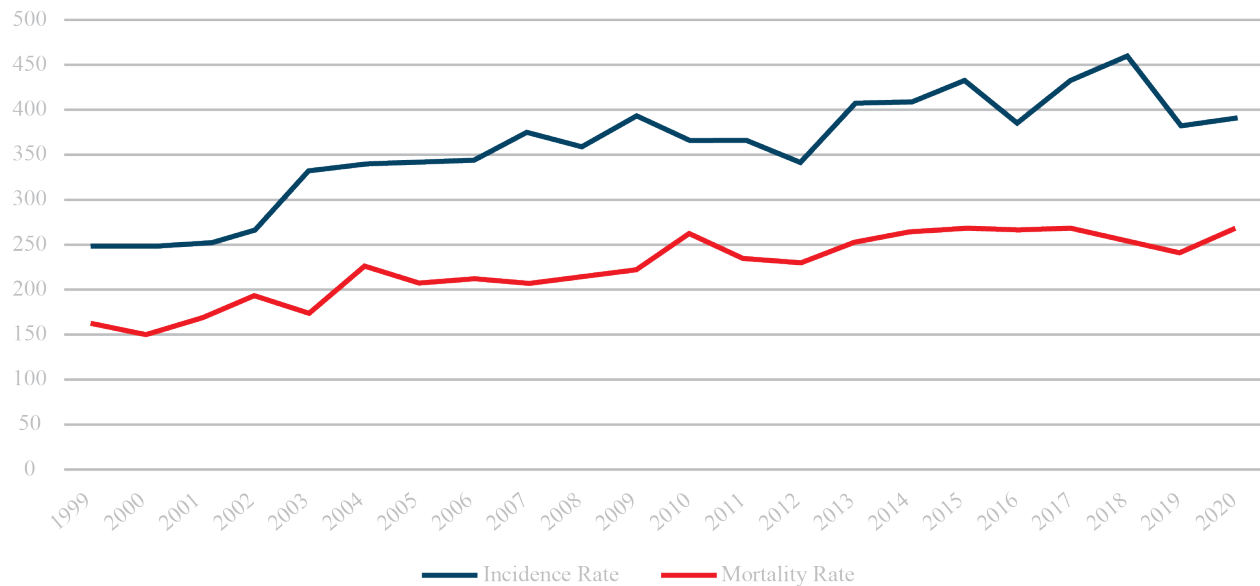
COMMON CANCER DATA

Terms The definitions below will help you understand common terms used to describe cancer data. Cancer Survivorship tells you the percentage of people diagnosed with cancer still alive after a particular amount of time beyond diagnosis, usually 5 years. Survival varies among cancers by site and type. Incidence refers to the number of new cases of a disease diagnosed during a specific period. Cancer incidence rate is the number of new cancers of a specific site or type occurring in a population during a specified time, often a year, divided by the population at risk. Mortality refers to the number of deaths. Mortality rate, a term also used for death rate, is the number of deaths in a certain group of people in a certain period. Cancer mortality may be reported for certain sites by where a person lives, sex, age, and racial or ethnic group. Quality of Life (QOL) in cancer prevention and control is the overall enjoyment of life. Cancer treatment can affect a person's quality of life, which can be measured by an individual's sense of well-being, self-reported health level, number of days with good or poor physical or mental health or the ability to carry out various activities. Risk factor is something that increases the chance of developing a disease. Common risk factors for cancer include aging, family history of cancer, commercial tobacco use, harmful exposures (sun, radiation, radon, indoor smoke, and other substances), some viruses and bacteria, alcohol intake, unhealthy diet, physical inactivity or being overweight or obese. Years of Potential Life Lost (YPLL) is a measure of premature death, typically based on death before age 75. That means, every death occurring before the age of 75 contributes to the total number of years of potential life lost. For example, a person who dies at age 25 contributes 50 years of life lost to a population's YPLL. YPLL emphasizes deaths of younger persons and draws attention to areas where deaths could have been prevented.



CANCER INCIDENCE AND DEATHS

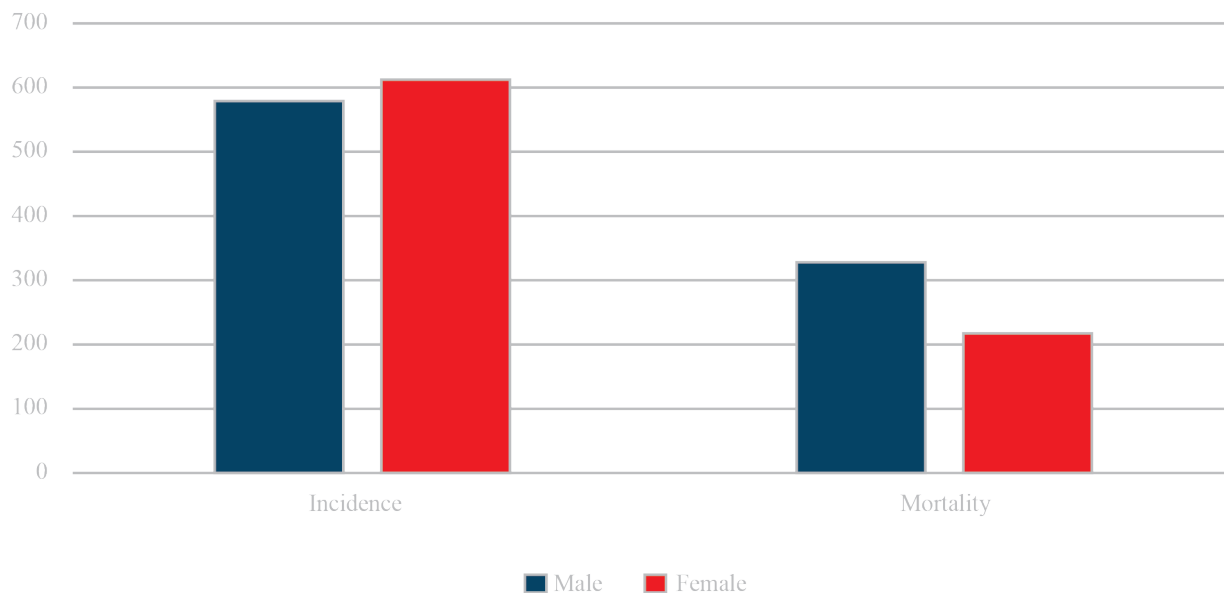
Cancer incidence and mortality rates among American Indian adults (ages 20+) in NE Oklahoma, 1999-2020



According to data from the Oklahoma Central Cancer Registry, in 2020 there were 676 new cancer diagnoses among American Indians living in Northeast Oklahoma. The overall cancer incidence rate in 2020 was 391.6 per 100,000 people. In 2020, there were 290 deaths caused by cancer among American Indian population. The cancer mortality rate for 2020 was 268.4 per 100,000 people. This represents a decline in cancer incidence since 2015 but an increase in cancer mortality in the same period.

DIFFERENCES BY SEX

Rates of cancer incidence and mortality (per 100,000)
among American Indian adults (ages 20+), 2020

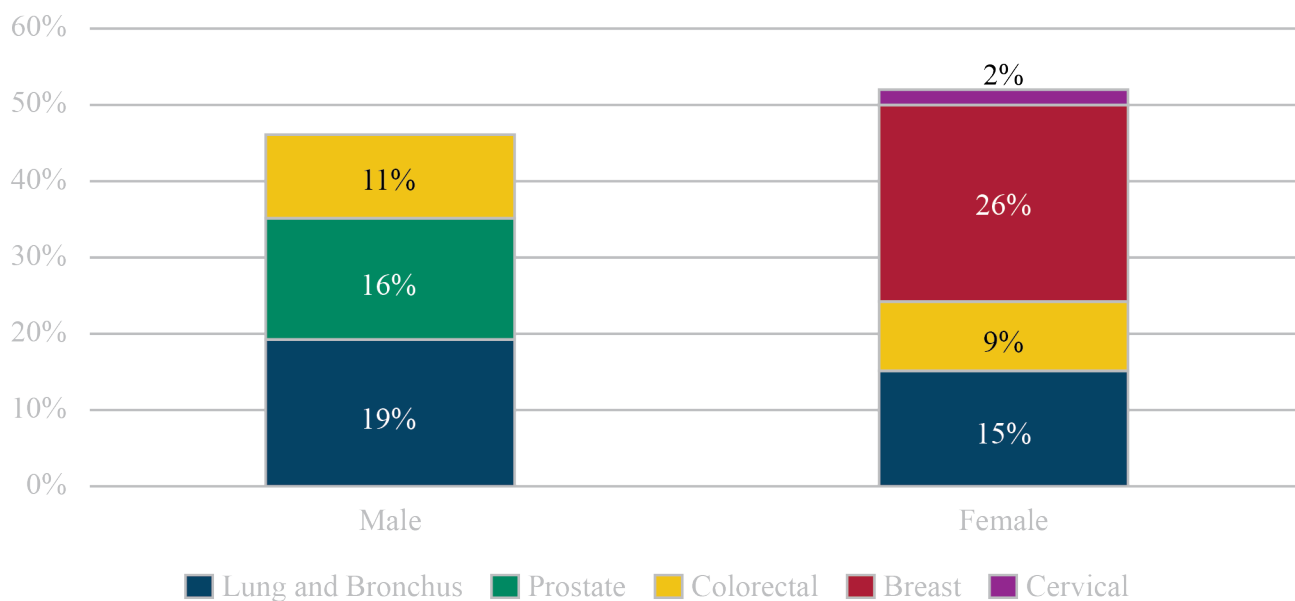


Among American Indian adults ages 20+ living in Northeast Oklahoma, the cancer incidence rate in 2020 was 609.8 per 100,000 among women, compared with 579.5 per 100,000 among men. However, the mortality rate among men (325.1 per 100,000) was much higher than among women (215.2 per 100,000).



COMMON TYPES OF CANCER BY SEX

Most common types of cancer among American Indian adults (ages 20+) in NE Oklahoma by sex, 2018-2020



Most common types of cancer among AI adults (ages 20+) in NE Oklahoma by Sex: For men, the three most common types of cancer were lung (19% of cancers), prostate (16%), and colorectal (11%). Among women, the three most common types of cancer were breast (26%), lung (15%), and colorectal (9%). These disparities may be influenced by differences in which types of cancer are most common among men and among women.

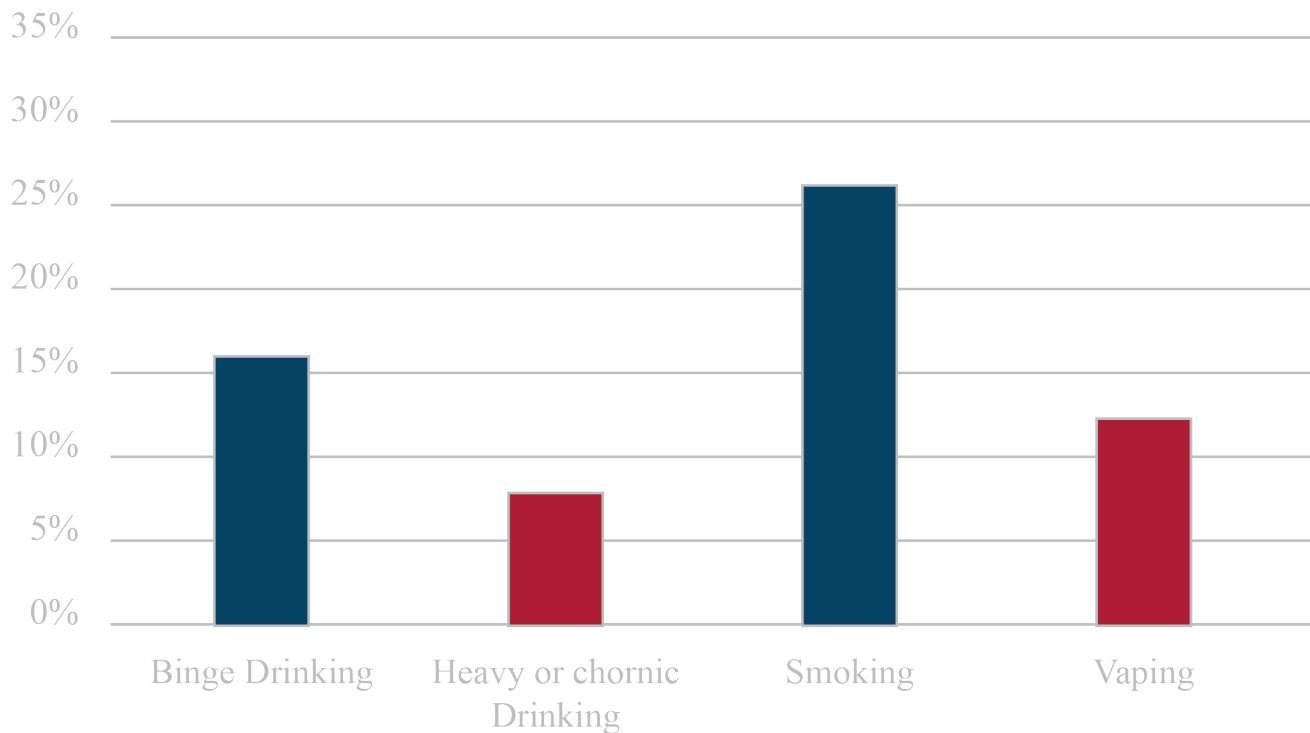
RISK FACTORS

Through the creation of healthier communities and reduction of risk factors that are associated with chronic diseases, the Cherokee Nation can work towards preventing cancer over time. The risk of cancer is reduced through individual changes such as the prevention or cessation of commercial tobacco use as well as improving one's diet. There are also broader efforts that can be made to reduce risk. The Cherokee Nation addresses these factors via the environment such as influencing community member opportunities to be healthy. Things such as creating policies that promote healthy nutrition in schools and smoke-free policies in public areas all have a great impact on the health of the community.



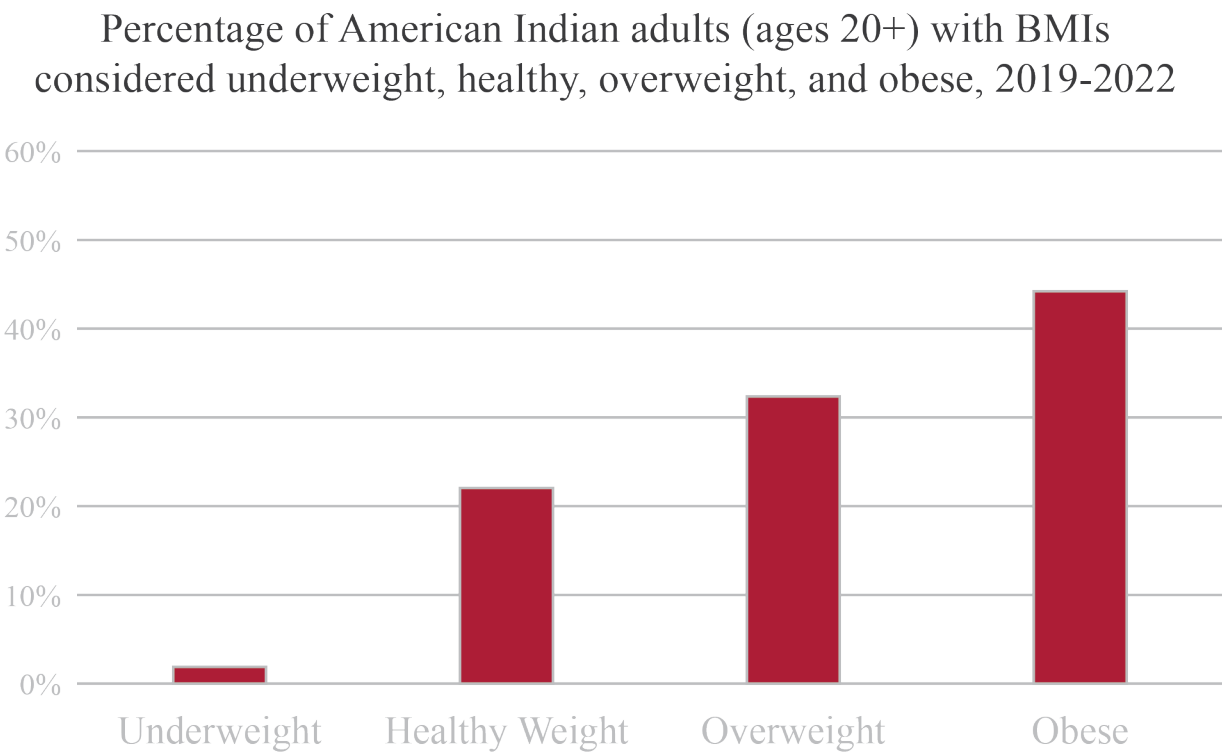
ALCOHOL AND TOBACCO

Prevalence of alcohol and tobacco risk behaviors
among American Indian adults (ages 20+) in NE
Oklahoma, 2019-2022



Excessive alcohol and commercial tobacco use are both harmful and addictive to one's health and are linked to various forms of cancer. According to the Oklahoma BRFSS, 16% of American Indian adults ages 20+ living in NE Oklahoma reported binge drinking. Among the same group, 7.8% reported heavy or chronic drinking. Among American Indian Adults living in NE Oklahoma, 26.1% said they smoke and 12.3% said they use electronic cigarettes or vapor devices.

WEIGHT STATUS



Weight status is another risk factor that can contribute to chronic diseases and can be harmful to one’s health. According to Oklahoma BRFSS, 44.2% of American Indian adults 20 years and older living in Northeast Oklahoma from 2019-2022 had a BMI that was considered overweight. Among the same group, 1.7% was reported underweight, 32.3% overweight, and only 21.8% having a healthy BMI.



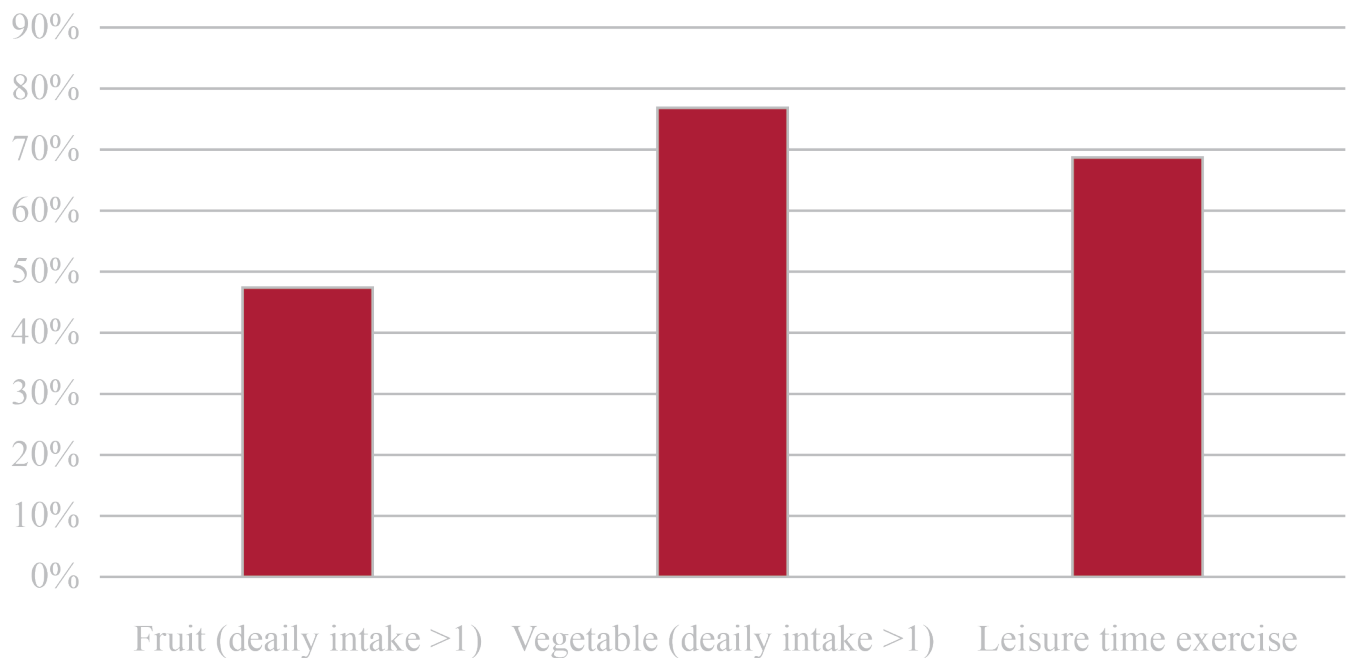
PROTECTIVE FACTORS

Protective factors are important components in reducing negative health outcomes and cancer risk. Individuals can use these things to be proactive in their health care. Things such as nutrition, physical activity, and early screening and detection can all lead to better health outcomes in the future. It is important that we emphasize just how important these factors are in reducing cancer risk and leading to better overall health. The Cherokee Nation addresses these factors by influencing community members' opportunities to be healthy. Creating policies that promote healthy nutrition within our schools, producing smoke-free policies in public areas, and promoting physical activity all have a great impact on producing protective factors that protect against cancer risk and other negative health outcomes.



NUTRITION/PHYSICAL ACTIVITY

Prevalence of daily fruit intake, daily vegetable intake, and daily leisure time exercise among American Indian adults (ages 20+) in NE Oklahoma, 2019-2022

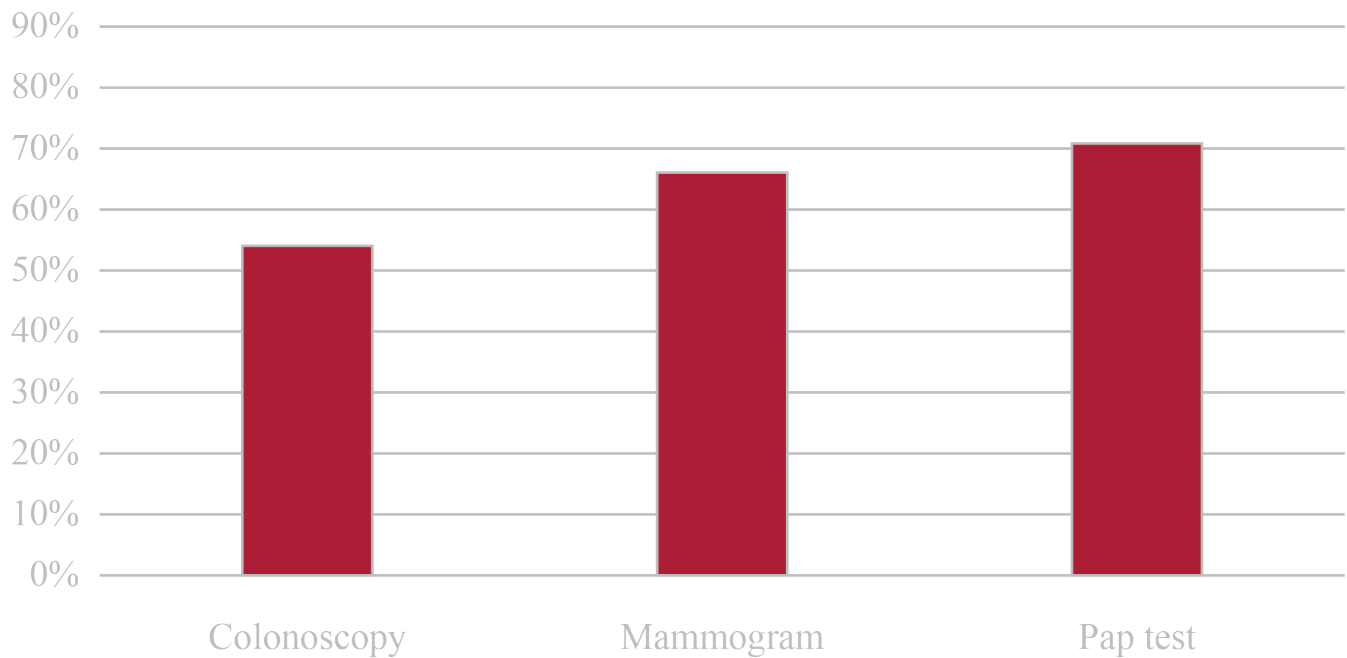


Proper nutrition leads to better health. Practicing healthy eating habits and staying physically active to maintain a healthy weight can actually reduce the risk of cancer. Both of these habits are considered protective factors. When regarding these protective factors, 47.2% of American Indian adults reported eating at least one serving of fruit per day, 76.7% reported eating at least one serving of vegetables per day, and 68.8% reported participating in leisure time physical activity at least once per month.



EARLY SCREENING AND DETECTION

Prevalence of recent cancer screening among American Indian adults (ages 20+) in NE Oklahoma, 2019-2022



Early screening and detection are very important protective factors. For a number of cancers, screening tests can detect cancer or pre-cancerous changes at an early stage when they are most curable and treatment is most likely to be successful. Among American Indian adults living in NE Oklahoma, the data showed that between: 2019-2022, 54.2% eligible were screened for colorectal cancer, 65.9% of active female patients had a mammogram, and 70.8% of eligible female patients were screened with a Pap test.

CANCER SURVIVORS' COMMENTS ABOUT THEIR JOURNEY THROUGH CANCER

Cancer Survivor is a term used for people who have been diagnosed with cancer. Cancer patients face physical tolls as well as emotional, social, spiritual, and financial hardships and challenges. In addition to the cancer patient, family members, friends and caregivers are also affected by a cancer diagnosis. Cancer survivors continue to have public health needs long after treatment has completed.

We are so proud to feature the stories of several different cancer survivors and their caregivers who have bravely fought cancer in the Cherokee Nation. All their experiences are different. All of them are unique and their stories prove that there is hope and life beyond cancer.



HEATHER DRYWATER

“I want people to not be scared to get checked if you have a concern.”

Breast Cancer Survivor

Heather Lynn Drywater, 38, who grew up in Tahlequah, Oklahoma, was no stranger to cancer. She lost two great aunts to breast cancer years ago and watched her “Nanny” go through ovarian cancer and beat it twice. When she was 17 years old, she lost her mom to colon cancer at the age of 40. She always had a fear of cancer, not catching it in time and leaving her loved ones early in this life.

In 2023, Heather found a lump on her breast and would soon find out that it was stage three metastatic carcinoma breast cancer and thought it would be the end of her life.

After finding the lump, Heather found support at the Cherokee Nation Wilma P. Mankiller Health Center, where she was able to see a doctor, schedule a mammogram, an ultrasound and then a biopsy for cancer detection, all in the first day she was seen. The Wilma P. Mankiller Health Center appointed Youlanda Cain, who talked her through the steps of what was to come and support her through the process.

Heather, who is going on six years working for Cherokee Nation Contract Health, is grateful for her career because it has taught her so much about health care and the referral process, which with her diagnosis, had to utilize for herself.

She’s thankful for her coworkers at Contract Health, where they supported her through every step of the journey. She said they encouraged her, wore shirts and her supervisor, Suzanna Fine, was there when she just needed to vent, cry and support her through her emotions.



Through her treatments, Heather would put on a brave face and tell everyone it wasn’t that bad but now admits that there were times where she would cry in the parking lot or would sit in the chemo chair, wanting to give up. With the support from her family, friends and health care team, she kept fighting.

“The support of my kids, family, friends and coworkers were always there for me,” Heather said. “I am now cancer free and have follow-up appointments to keep checking but I will always fight against cancer.”

Heather urges that others be attentive about getting checked, especially if they have any concern and hopes that her story can help someone else out there.

“I am grateful for how fast Cherokee Nation has helped with the whole process and helped me fight breast cancer.”

MARK BATT

“He’s the strongest person in our family, church and community”

Leukemia Survivor



Mark Batt is a prostate cancer survivor. His journey with cancer has been long and very trying for him mentally, physically, and emotionally.

As a survivor one only knows to keep going forward because you learn to appreciate your surroundings, time with family, and your life.

In April 2020, at the age of 60, Mark was diagnosed with Prostate Cancer. Mark’s children were with him every step of the way, through surgery and recovery. Mark, who strongly loves his family, saw that as a blessing.

At the time, Mark lived alone so he was grateful that his daughter was a nurse and a strong advocate for him with his medical team. As a person diagnosed with cancer it is very important to have a good caregiver.

Mark recovered and returned to his occupation as a welder until his urologist, he was seeing for hormonal injections, informed Mark in October 2023 that his prostate-specific antigen count was increasing which was an indication Mark’s cancer had spread beyond the prostate. Test results revealed the news to Mark that his cancer was metastatic and had developed in his stomach and abdomen area.

Mark was now a stage IV cancer survivor.

In March 2023, Mark started chemo treatment, where he would endure six rounds.

Unfortunately, after the second treatment Mark had a mishap in his home and ended up losing his left arm. This was very devastating for Mark as he was healing, but he continued with his chemo treatments. Mark completed his treatments but was unfortunately unable to return to his job as a welder due to the loss of his arm.

Though Mark was taking hormonal shots and chemo medication to keep the PSA’s down, unfortunately, the PSA count increased. Mark, who is now 65, is presently going through nuclear medicine treatment with the goal of targeting and killing cancer cells.

Mark encourages all those going through cancer to not give up and always go forward.



LISA WHITEWATER

“Please wear sunscreen and have regular skin checks. Remember tanning doesn’t make you beautiful....protect your skin.”

Skin Cancer Survivor

Growing up, Lisa Whitewater would enjoy the creek on summer day, sunbathing with baby oil and iodine and unfortunately, never wore sunscreen. Lisa mentioned that her skin was always tan and never burned.

As she continued to get older, Lisa would continue to enjoy days on lake, rarely wearing sunscreen and when the tanning bed craze began, she would tan on her lunch break every day. Around 40, she quit using tanning beds, but still didn’t wear much sunscreen.

Lisa soon would notice a spot on her nose, though it wasn’t very obvious. It would get a little red and scaly, she would put Vaseline on it, and it would get better. This went on for at least three years. Lisa felt she needed to have it checked out, but it would get better every time she had a primary care doctor appointment and would forget about it.

Thankfully, her daughter, Kindle, kept at her to make an appointment to get a skin check at a skin cancer center. At the appointment, Lisa showed the provider the spot on her nose and another spot that she had some concern about. Lisa and the provider bonded over the fact that they both loved being in the sun in the 80s.



Being concerned of the spot, the doctor wanted a biopsy of it that day. When Lisa went back a couple of weeks later to get stitches out, the results had come in. It was basal cell carcinoma.

Another physician who specialized with faces did Lisa Mohs surgery, which is a procedure to treat skin cancer. The physician found that it was much worse than they had originally thought, but thankfully, were able to remove it. The doctor ended having to go in six times, where Lisa ended up with 20 stitches from her eye to almost her lip.

Lisa now encourages others to regularly wear sunscreen and get regular skin checks, as she feels like if she had had it checked when it first came up, then it wouldn’t have been as bad as it was.

SAM BILBY

“He’s the strongest person in our family, church and community”

Leukemia Survivor

Sam Bilby’s story is one of hope, resilience, and strength. As a child Sam lived a life full of energy, positivity, humor, and love for his family. All the while he faced a serious health concern.

“Sam was sick on and off, for a while and the doctors thought that it was just a viral infection,” his father Greg Bilby said.

Initially, it seemed that Sam was dealing with issues from the common viruses that young children go through throughout the year. However this sickness seemed to linger, this caused Greg and his wife to become worried. Sam was often fatigued and not as energetic as usual. During Sam’s initial hospital visit, his mother, Melissa was raised by a nurse and well versed in the medical world. She was a strong advocate for Sam and demanded that they run full blood testing on him.

Greg recounts the day Sam was first diagnosed very well. On October 25, 2016, he was diagnosed with acute lymphoblastic leukemia. Greg said that after conducting the bloodwork and getting the results back he remembers the doctor coming in with a pale look on their face.

Thanks to an action-oriented care team, Sam began his first chemotherapy session within 48 hours of his diagnosis. He was referred to St. Francis Hospital in Tulsa. His doctors were very optimistic. Dr. Kirkpatrick, Sam’s pediatric oncologist, assured the Bilby’s that this cancer was beatable. “He told me it was a pretty immature strain and that there was a very good chance he could beat it,” Greg said.

The Bilby’s learned soon thereafter that the St. Jude’s Children’s Hospital and Ronald McDonald Foundation would handle medical expenses and housing. With a huge financial burden removed, they could focus on Sam’s treatment and recovery.

Sam never let his spirits get down and maintained his positivity and humor throughout the process. He did however not enjoy the hospital food as it made him sick.



Melissa and her mother, as well as countless friends would bring food from various food places that Sam enjoyed. “We were very thankful that he could eat,” Greg added.

By March of 2017, Sam entered remission. It was a huge milestone in his journey. Sam finished his treatment in February of 2020 right before the shutdowns due to COVID-19. Sam is adventurous and would love to go try new foods during their checkup trips to St. Francis. One of his favorite places to visit during their trips was to a sushi restaurant. Sam, now five years in remission only goes for checkups every six months.

Greg credits their family, church and community for the support they’ve provided throughout Sam’s treatments. From the food to the various items they brought to the family, it was all appreciated and helped tremendously.

The Bilby’s are also very thankful for the early detection and great service they received from Sam’s medical team. Most importantly the Bilby’s credit their faith. The family leaned on the support from the community and their faith as it was difficult on them mentally but got through it together. Greg stated that, “Sam is living breathing testimony to God’s healing powers, will, and grace.”

Now over eight years later, Sam enjoys skating, playing the piano, drums, and the guitar. Greg recounts one night that he woke up to Sam playing the drums well into the night. Sam also plays in his church worship band. Sam is doing great things in school maintaining A’s in all his courses. Sam also works at the local skate-house and helps his grandpa around their family farm.

Sam’s story is important to share as it shows that there is hope for others that may be going through a similar journey. Everyone was overjoyed about sharing the inspiring updates on Sam and hope that it brings inspiration to those going on a similar journey.

CHEROKEE NATION'S COMPREHENSIVE CANCER PREVENTION AND CONTROL PLAN

Cherokee Nation's Comprehensive Cancer Prevention and Control Plan The Cherokee Nation's Cancer Plan is a strategic action plan to reduce the cancer burden within the Cherokee Nation reservation and among all citizens. The Cancer Plan addresses all aspects of Cherokee Nation's Comprehensive Approach to Cancer (See Page 9). The plan is structured around goals, objectives, strategies, and targets. The goals reflect one or more focus areas (primary prevention, early detection and screening, treatment, quality of life).

Priorities outline the major content areas to be addressed with each goal. Objectives describe what we aim to accomplish. The strategies and activities define the key approaches individuals and organizations can take to make an impact on cancer, and the targets show how we will measure progress and expected outcomes if we successfully implement the strategies and activities.

FIGURE 10. SUMMARY OF GOALS AND PRIORITIES NUTRITION

PREVENTION	
Goal: Increase awareness and education of protective and risk factors associated with cancer rates ¹	
1	NUTRITION
2	PHYSICAL ACTIVITY
3	TOBACCO USE
4	HPV
QUALITY OF LIFE, TREATMENT, AND CARE/SURVIVORSHIP	
Goal: Increase partnerships, education, and resources to disburse to everyone affected by cancer	
1	OSTAH MEMBERS/SUPPORT GROUPS/FAIR
2	PARTNERSHIPS/EDUCATION
3	EVALUATION PLANS/CARE PLANNERS
SCREENING AND EARLY DETECTION	
Goal: Increase awareness and education in the benefits associated with cancer screenings	
1	SCREENINGS AND DETECTION
2	EDUCATIONAL SCREENING MATERIALS

PREVENTION

Goal 1: Increase awareness and education of protective and risk factors associated with cancer rates.

Objective 1.1: By 2027, OSTAH Coalition will educate the Native American communities on the dangers and harmful effects of tobacco and nicotine use in Oklahoma	
Strategies and Activities: <ul style="list-style-type: none"> • Educate the community on dangers of tobacco • Increase number of participants in smoking cessation classes • Increase cessation services within the community • Increase tobacco awareness through media 	Measure: Number of tobacco and nicotine users who have completed cessation services. Baseline: 0 participants Target: 85 participants
	Measure: Number of Native Americans utilizing Quitline with Cherokee Reservation Baseline: 1481 calls per year Target: 1750 calls per year
Objective 1.2: By 2027, the OSTAH coalition will assist in increasing education on the importance of proper nutrition as well as provide information on resources available to aid in the consumption of more fruit and vegetables within the Cherokee Nation Reservation through community events	
Strategies and Activities: <ul style="list-style-type: none"> • Offer nutritional demonstrations • Promote water intake • Educate nutritional value of traditional dish 	Measure: Amount of events where fruits and vegetables are offered Baseline: 0 Events Target: 60 Events



PREVENTION

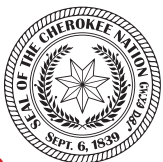
Goal 1: Increase awareness and education of protective and risk factors associated with cancer rates.

Objective 1.3: By 2027, the CNCCCP will have increased the number of active women members ages 30-40 in WINGS physical activity events by 20%	
Strategies and Activities: <ul style="list-style-type: none">• Increase WINGS participation in runs, walking groups, and events• Disburse educational material emphasizing the importance of being active• Display materials of encouragement for physical activity• Train the Trainer classes	Measure: Number of Wings active members Baseline: 163 Target: 196

QUALITY OF LIFE, TREATMENT, AND CARE

Goal 2: Timely access to quality cancer treatment, follow up, and survivorship support beginning at diagnosis.

Objective 2.1: By 2027, CNCCCP will disseminate survivor care planners to cancer patients receiving services with Cherokee Nation Health Services.	
Strategies and Activities: <ul style="list-style-type: none">• Disburse care planners to cancer patients• Assess effectiveness of cancer care planners for patients	Measure: Number of survivor care planners assigned Baseline: 22 Target: 50
Objective 2.2: By 2027, the CNCCCP will have met 4 times annually within 4 year Cancer Plan with external and internal partners to monitor progress of EBIs	
Strategies and Activities: <ul style="list-style-type: none">• Review data for progress of work plan• Review community needs assessments• Develop list of lead partners internally and externally of Cherokee Nation	Measure: Amount of meetings with partners Baseline: 0 Target: 4
Objective 2.3: By 2027, CNCCCP will have new OSTA coalition members within Oklahoma at all levels	
Strategies and Activities: <ul style="list-style-type: none">• Present and distribute plan to community events• Identify and develop partnership with community program• Monitor and report progress of EBIs of Cancer Plans	Measure: Amount of new OSTA members Baseline: 0 Target: 5



QUALITY OF LIFE, TREATMENT, AND CARE

Goal 2: Timely access to quality cancer treatment, follow up, and survivorship support beginning at diagnosis.

Objective 2.4: By 2027 CNCCP and OSTAHC Coalition will increase cancer resources to cancer patients, family, and caregivers within Cherokee Nation Reservation	
Strategies and Activities: <ul style="list-style-type: none"> • Disperse education and information • Resource packets 	Measure: Educational Events Baseline: 0 Target: 20
Objective 2.5: By 2027 Offer an educational fair related to cancer survivorship and avenues to meet needs of survivors and caregivers at all stages of the disease	
Strategies and Activities: <ul style="list-style-type: none"> • Surveys to determine outcome of fair • Educational material for fair • Guest Speakers • Secure facility • Inform public of event 	Measure: Cancer Fair Annually Baseline: 0 Target: 1
Objective 2.6: By 2027 CNCCCP will have implemented within Cherokee Nation Reservation and submit evaluation plans to CDC	
Strategies and Activities: <ul style="list-style-type: none"> • Report via monthly meetings • CCC Staff disburse program evaluation reports to OSTAHC, Public Health, and partners 	Measure: Submitted Evaluation Plans Baseline: 0 Target: 5

QUALITY OF LIFE, TREATMENT, AND CARE

Goal 3: Increase partnerships, education, and resources to disburse to everyone affected by cancer

Objective 3.1: By 2027 CNCCP and OSTAHC Coalition will present to providers to improve knowledge of cancer survivorship issues and how they impact survivors, their families, and their caregivers to the nine outlining clinics	
Strategies and Activities: <ul style="list-style-type: none">• Disperse education and information• Offer trainings/presentations	Measure: Educational Presentations Baseline: 0 Target: 9
Objective 3.2: By 2027 CNCCP and OSTAHC Coalition will increase cancer resources to cancer patients, family, and caregivers within Cherokee Nation Reservation	
Strategies and Activities: <ul style="list-style-type: none">• Gather support groups• Disperse education and information• Resource packets• Offer mental health resources	Measure: Support Groups Baseline: 0 Target: 2



SCREENINGS AND EARLY DETECTION

Goal 4: Detect and treat cancer at the earliest stage.

Objective 4.1: By 2027 CNCCCP and OSTAHC Coalition will provide education, and resources available with the goal of increasing breast, cervical, and colorectal cancer	
Strategies and Activities: <ul style="list-style-type: none"> • Monitor data on screenings • Offer educational classes • Disburse culturally appropriate materials within Cherokee Nation Reservation • Mobile Reminders • Screening Events 	Measure: Breast, Cervical, and Colorectal Cancer Screenings Baseline: 54.2% Colorectal, 65.9% Breast, and 70.8% Cervical Target: 57.2% Colorectal, 68.9% Breast, and 73.8% Cervical
Objective 4.2: By 2027, OSTAHC will partner with NBCCEDP to increase the rate of early diagnosis of cancer by removing barriers for screenings.	
Strategies and Activities: <ul style="list-style-type: none"> • Develop educational materials to encourage screenings • Establish system to link patients with resources to reduce barriers • Increase components of early detection • Emphasis on screening activities • Use QR codes of material to determine effectiveness in messages 	Measure: Number of education materials distributed Baseline: 0 Target: 500

CALL TO ACTION

Whether you are a cancer survivor, caregiver, policymaker, employer, educator, student, community leader, public health, or healthcare professional, your efforts for cancer prevention and control are critical in the fight against cancer.

Academic, Medical and Dental Communities

- Educate physicians and trainees about facilitating informed decision-making around screening
- Recruit and train more providers from disadvantaged minority backgrounds Collect and report on cancer-related data

Cancer Survivors

- Communicate your needs to your provider
- Stay up to date with routine medical and dental care
- Share personal experiences to help educate the public about the needs of survivors
- Talk to family members about the importance of sharing family history with the provider
- Participate in survivorship surveys
- Mentor other survivors
- Consider joining an advocacy group or organization working to improve survivors' experience
- Gather information and knowledge about clinical trial participation

Community Health Workers and Navigators

- Stay up-to date on current screening guidelines
- Serve as a bridge between the patient and access to care, services, and resources
- Provide educational resources to patients, including cancer awareness information
- Provide community education on cancer risk reduction and wellness strategies
- Communicate with the patient's medical care team
- Offer emotional support to cancer patients
- Participate in ongoing training related to CHW and navigator work
- Use performance indicators and quality metrics to demonstrate improved outcomes, value, and cost savings of navigation services to inform policy and advocate for funding

Elected Officials and Policy Makers

- Sponsor or support policies and/or legislation that provides funding for cancer prevention and control
- Promote system and funding changes that will increase access to cancer screenings, medications, and care
- Advance policies that help reduce the cancer burden for the Cherokee Nation
- Support access to affordable health insurance
- Support policies that make it easier for Cherokees to live healthy, tobacco-free lives
- Promote systematic approaches that address issues related to health equity and social determinants of health (such as food insecurity, inadequate access to health care, transportation, and education)

Employers and Businesses

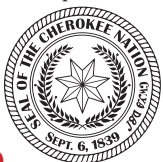
- Offer employee benefits that encourage wellness
- Implement tobacco-free policies
- Provide healthy foods and beverages in vending machines and cafeterias
- Incentivize employees to take time during the day for physical activity
- Educate employees about best practices for cancer screening and treatment
- Promote health and wellness at corporate events
- Seek out alternatives to toxic and hazardous workplace chemicals: ensure employee compliance with PPE
- Provide sun protection to employees who work outside
- Provide paid time off for recommended cancer screening and immunizations
- Provide affordable health insurance coverage and carry or offer short and long-term disability insurance for all employees
- Support cancer survivors so they can continue to be successful employees

Faith-Based Organizations

- Provide spiritual support services for members during cancer treatment
- Encourage healthy lifestyle modifications
- Provide spiritual counseling services with a clergy member or representatives from multiple faiths
- Collaborate with the community to provide cancer prevention and screening programs
- Provide cancer awareness information
- Join and actively participate in the OSTA Coalition

Individuals

- Join the OSTA Coalition
- Maintain a healthy weight by eating a healthy diet and being physically active
- Discuss your family health history with other family members and your healthcare provider
- Get screened for cancer according to national guidelines
- Stop smoking or vaping or never start
- Avoid secondhand smoke
- Limit alcohol consumption
- Wear sunscreen, seek shade, and wear protective eye wear and clothing when outdoors
- Stay up to date on cancer prevention vaccines: human papillomavirus vaccine (HPV) and hepatitis B vaccine (HBV)
- Participate in research studies and volunteer with those whose lives are impacted by cancer



Healthcare Providers

- Perform a cancer risk assessment on every patient
- Provide appropriate medical care, information, and referrals for survivors
- Perform a hereditary cancer risk assessment at each patient visit
- Offer patient navigators and community health workers for cancer screening, treatment, and survivorship
- Use electronic medical records and reminders to keep individuals up to date on cancer screenings and vaccinations
- Promote cancer prevention vaccines the same way/same day as other routine vaccinations
- Routinely ask patients about healthy behaviors such as smoking, alcohol use, poor diet, and physical activity
- Integrate tobacco treatment clinical practice guidelines into clinical protocols
- Incorporate wellness related to diet and exercise in patient treatment plans
- Submit accurate and timely cancer data to the cancer registry
- Make earlier referrals to palliative care, treatment and/or hospice for end-of-life care
- Support initiatives and payment models that encourage providers to help patients complete advance directives

Health Systems or Health Care Organizations

- Collaborate to sponsor community screening programs. With treatment services lined up, if needed
- Educate providers on shared decision making
- Identify clinic and provider screening and vaccination rates
- Develop and offer palliative care services to patients and families
- Implement office-based reminders that identify patients due for cancer prevention and screening services
- Increase navigation services

Health Insurers

- Cover routine cancer screening and diagnostic tests
- Support access to and coverage of smoking cessation classes, nutrition programs, mental health providers, and cancer treatment drugs
- Ensure no cost sharing for all recommended cancer screenings and immunizations
- Ensure palliative care and hospice services are fully covered services

Schools

- Provide healthy/whole or natural foods and drinks
- Provide daily recess and incorporate physical activity into regular classroom lessons
- Encourage sun-safe behaviors
- Provide educational opportunities for parents and students to learn about the HPV vaccine to prevent cancer
- Incorporate healthy living messages in classes
- Maintain smoke, tobacco, and vape-free campuses
- Increase physical education requirements and physical activity opportunities
- Offer sun-protected play areas for children
- Provide educational opportunities for parents to learn about the importance of healthy food and physical activity for their family
- Educate school personnel on how to ease a student's or staff member's return to school after cancer treatment
- Provide counseling services for students whose parents are going through cancer treatment

State and Local Health Departments and Other Community Organizations

- Collaborate to remove barriers to cancer prevention, screening, treatment, and support
- Provide or host cancer survivor support groups
- Provide or promote health screening events
- Promote patient navigation and community health worker programs
- Assist community members with signing up for insurance
- Support culturally and linguistically appropriate policies, systems, and environmental changes for cancer prevention and control
- Provide cancer information and resources that are appropriate for those you serve
- Ensure access to education about access to testing kits, and cancer mitigation
- Encourage local government agencies to develop healthy living programs and clean air and water policies
- Be actively involved and promote the cancer plan

JOIN THE OSTAH COALITION TODAY!

OUR NEXT STEPS FORWARD

Cherokee Nation's Cancer Plan 2024-2027 details an agenda that will help us collectively move toward reducing cancer in the Cherokee Nation. The Plan goes beyond what happens in Hospitals and clinics. It proposes a comprehensive approach with a heavy focus on prevention in every aspect of our lives. While the Cancer Plan does address specific health priorities and strategies, it is important to acknowledge that we will continue to support other health initiatives to ensure the overall health of all Cherokee citizens, families and communities remains a priority. The strategic goals, initiatives and measures presented in the Cancer Plan will focus our attention and help us monitor progress toward a cancer-free community. Implementation of the Cancer Plan will begin immediately. We all have a role in cancer prevention, so the Cancer Plan will be the responsibility of all partners and community members. Cherokee Nation Public Health Programs and OSTA are committed to working in tandem with individuals and community partners over the next three years. Together, we will address the key priority areas that will have the greatest impact on our community. As more information is gathered and learned, Cherokee Nation will continue to implement new strategies, and make further adjustments to achieve and maintain a healthier community. Coalition members will monitor activities on an annual basis and will make annual reports available to the public so you can see the changes being made over time. Just as the Cancer Plan is a living document that will change constantly, we'll continue to adapt and alter best practices to protect the well-being of Cherokee Nation residents.

INDIVIDUALS

- Eat a healthy diet.
- Find ways to be physically active.
- Maintain a healthy weight.
- Avoid tobacco use.

HEALTHCARE PROFESSIONALS & ORGANIZATIONS

- Talk to patients about healthy lifestyle choices.
- Make healthy lifestyle recommendations clear, direct and personal.
- Promote HPV vaccine and screening reminders.

BUSINESS AND EMPLOYEES

- Provide access to and support physical activities for employees.
- Provide healthy food options at meetings and events.

GOVERNMENT AND POLICYMAKERS

- Ensure community infrastructure provides access to healthy lifestyle options, such as physical activity and fresh foods.
- Support PSE changes for schools and communities to improve healthy options and health education.

TOGETHER, WE WILL ENSURE A HEALTHY FUTURE FOR THIS GENERATION AND GENERATIONS TO COME!



GETTING INVOLVED

The OSTAH coalition is dedicated to reducing the burden of cancer among Native American communities served by the Cherokee Nation. The mission is to foster collaboration with community leaders and members, clinical staff, CCCP and BCCP staff, and other organizations to create and implement effective cancer prevention and control strategies.

WHAT WE DO

The coalition meets on a monthly basis to plan, implement, and oversee the various activities that align with the comprehensive cancer plan. Together we develop and maintain the plan ensuring that it meets the unique needs of our Native American community.

In addition to planning, we also focus on educating the community on cancer prevention, early detection, and support for our survivors, with the goal of catching cancer at the earliest stage possible or even preventing its occurrence.

WHO WE ARE LOOKING FOR

We welcome and invite all community leaders and members, clinical staff, Cherokee Nation Public Health staff, and other organizations that are interested in reducing the impact of cancer within our communities to join us in our efforts.

Your insights and dedication can make a significant difference in this collective effort to save lives.

HOW TO JOIN

If you or your organization is interested in contributing to this vital work, we encourage and urge you to become a member of the OSTAH coalition. To express your interest, please do not hesitate to contact us directly.

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Taryn Evans

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Community Health Worker
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Lanell Byrd

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Dr. Cara Monroe

OU Stephenson Cancer Center

Dr. Elizabeth Hile

OU Stephenson Cancer Center

Edie Tolbert

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Tammy Marshall

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Farrah Phillips

Community Health Worker
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Reneta Acorn

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Lacy Eidson

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Katherine McCullar

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Oklahoma State Department of Health

Bethany Stoller

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RESOURCES AND PARTNERS

As a national leader in tribal public health and the first tribe to achieve public health accreditation, Cherokee Nation works with partners nationally, throughout the state of Oklahoma and in local communities to decrease the burden of cancer through community education on prevention and screening as well as policy development and implementation of systems and environmental changes. Representatives from Cherokee Nation Public Health Services, Cherokee Nation Public Health Cancer Prevention Programs and Cherokee Nation Public Health cancer coalition (OSTAH), work with tribal, local, regional, state and national public health and health care partners to implement the plan.

Oklahoma Strategic Tribal Alliance for Health (OSTAH) Partners

- American Cancer Society Inc., High Plains Division
- Cherokee Nation Health Services
- Northeastern State University, Tahlequah, Oklahoma
- Oklahoma State Department
- Oklahoma State University
- Oklahoma Tobacco Coalition
- Oklahoma State Department of Health Chronic Disease Prevention Services
- Oklahoma State Comprehensive Cancer Control Program
- Southern Plains Tribal Epidemiology Center
- University of Oklahoma
- University of Oklahoma, Health Sciences Center
- Warren Cancer Research Center
- Cherokee Nation Cancer Registry
- Triage Cancer Center
- Sequoyah High School
- Tahlequah Public Schools
- Cherokee Nation Businesses
- Tobacco Settlement Endowment Trust
- American Indian Cancer Foundation
- Eastern Oklahoma Development District
- Cherokee Nation Home Health Services
- Evolution Foundation



CHEROKEE NATION CANCER PROGRAMS STAFF

Comprehensive Cancer Control Program

Mary Owl, CCCP Coordinator

Jordan Hare MPH, CCCP Coordinator

Cancer Registry

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Travis Wickliffe, Certified Tumor Registrar

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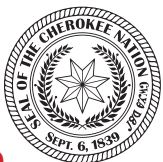
Kimberly McAffrey, RN-Vinita Health Center

Katie Eubanks-Trapp, BSN, RN-Cherokee Nation Outpatient Health Center Tahlequah

Terry Hibbler, LPN-Three Rivers Health Center

ACRONYMS

- AI/AN-American Indian and Alaska Native
- BRFSS-Behavioral Risk Factor Surveillance System
- CCC-Comprehensive Cancer Control
- CDC-Centers for Disease Control and Prevention
- CHR-Community Health Representatives
- CN-Cherokee Nation
- CNBCCEDP-Cherokee Nation Breast & Cervical Early Detection Program
- CNCCCP-Cherokee Nation Comprehensive Cancer Control Program
- CNCP-Cherokee Nation Cancer Programs
- CNHS-Cherokee Nation Health Services
- FOBT-Fecal Occult Blood Test
- HBV-Hepatitis B
- HPV-Human Papilloma Virus
- IHS-Indian Health Services
- OSTAHOklahoma Strategic Tribal Alliance for Health
- UV-Ultraviolet
- YPLL-Years of Potential Life Lost
- YRBS-Youth Risk Behavior Survey



SOURCES OF CANCER DATA

This table outlines the sources of data and known limitations to the Cancer Plan’s indicators. All data is for the Cherokee Nation AI/AN population residing in the reservation service area, unless otherwise specified.

TOPIC	DATA SOURCE
CANCER INCIDENCE AND MORTALITY	
<ul style="list-style-type: none"> • Cancer mortality rate • Differences by sex 	Oklahoma Central Cancer Registry Cherokee Nation Cancer Registry Oklahoma State Department of Health, Center for Statistics via OK2SHARE
RISK FACTORS/PROTECTIVE FACTORS	
<ul style="list-style-type: none"> • Alcohol use • Commercial Tobacco use • Weight Status • Nutrition • Physical activity • Screenings 	Oklahoma Behavioral Risk Factor Surveillance System (BRFSS) Youth Risk Behavior Survey (YRBS)
TYPES OF CANCER	
Breast (Female) Cervical Colorectal	Cherokee Nation Cancer Registry Cherokee Nation Health Records

Data Limitations:

(a) This is Indian Health Service (IHS)-linked race data and not enhanced race data. Except for breast cancer, includes in

situ cancer diagnoses. Death certificates are often misclassified for AI/ANs.

(b) Small sample sizes for American Indians.

CHEROKEE NATION'S COMPREHENSIVE CANCER PREVENTION AND CONTROL PLAN SUMMARY

Cherokee Nation's Cancer Plan is a strategic action plan to reduce the cancer burden within the tribal reservation and among all citizens. The Cancer Plan addresses all aspects of Cherokee Nation's comprehensive approach to cancer. The Oklahoma Strategic Alliance for Health coalition is an important part of addressing these aspects. OSAH is a coalition open to all organizations, healthcare providers and organizations, other community coalitions, academic institutions, state, tribal and government agencies, researchers, cancer survivors and individuals that have a vested interest in reducing cancer burdens. The Plan is structured around goals, objectives, strategies, and targets. The goals reflect one or more focus areas (primary prevention, early detection and screening, treatment, and quality of life).

Priorities outline the major content areas to be addressed with each goal. Objectives describe what we aim to accomplish. The strategies and activities define the key approaches individuals and organization can take to make an impact on cancer, and the targets show how we will measure progress and expected outcomes if we successfully implement the strategies and activities. The overall goal is to reduce the burden of cancer on the Cherokee Nation Reservation thus saving lives and reducing health disparities that may be impacting our communities. The first step on this is prevention ensuring that the public makes healthier choices, while being more informed on the importance of these choices. We also intend to provide education on screening and other strategies to reduce cancer risk. Through these efforts we hope that we can reach our desired outcome of reducing the burden of cancer on the Cherokee Nation.



ACKNOWLEDGMENTS

We would like to take the time to thank those who have taken the time to get screened for cancer, support a friend through treatment or celebrate remission, and survivorship with loved ones. Special thanks are extended to volunteers and experts who generously gave their time, ideas, and passion in developing this plan. Much appreciation is due to the OSTA members who are so dedicated to cancer prevention and control within the Cherokee Nation. to the members of the Cancer Plan Leadership Committee, who led development of the Cancer Plan's content and laid the groundwork for its goals, objectives, and strategies.

LEADERSHIP TEAM

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Mary Owl.....CCCP Coordinator

Jordan Hare MPH.....CCCP Coordinator and OSTA Chairperson

To request copy of this plan or to become an OSTA member:

Cherokee Nation Cancer Prevention Team 918-453-5000

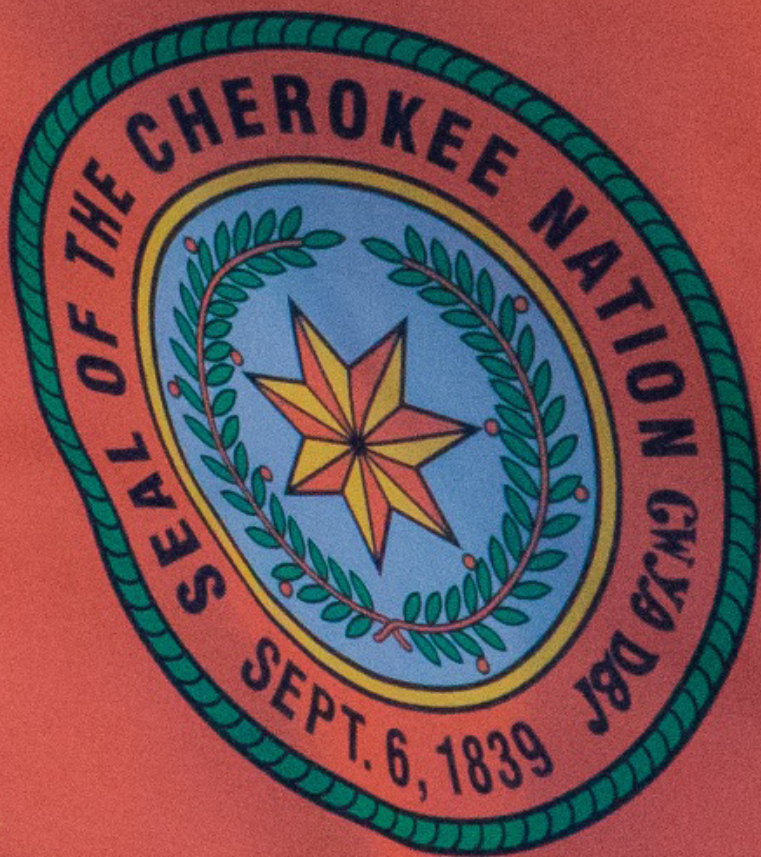
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NOTES

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